The background of the cover is a textured, dark green surface with various colored circles and spots. The circles are in shades of purple, red, orange, and green, some with a stippled or textured appearance. The overall effect is reminiscent of a microscopic view or a digital data visualization.

THE SMALL BUSINESS WEBMASTER

AN INTRODUCTION TO THE BASICS
OF CREATING, MARKETING, AND
MAINTAINING A SUCCESSFUL WEB SITE

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*The Small Business Webmaster: An Introduction to the Basics of
Creating, Marketing, and Maintaining A Successful Web Site*

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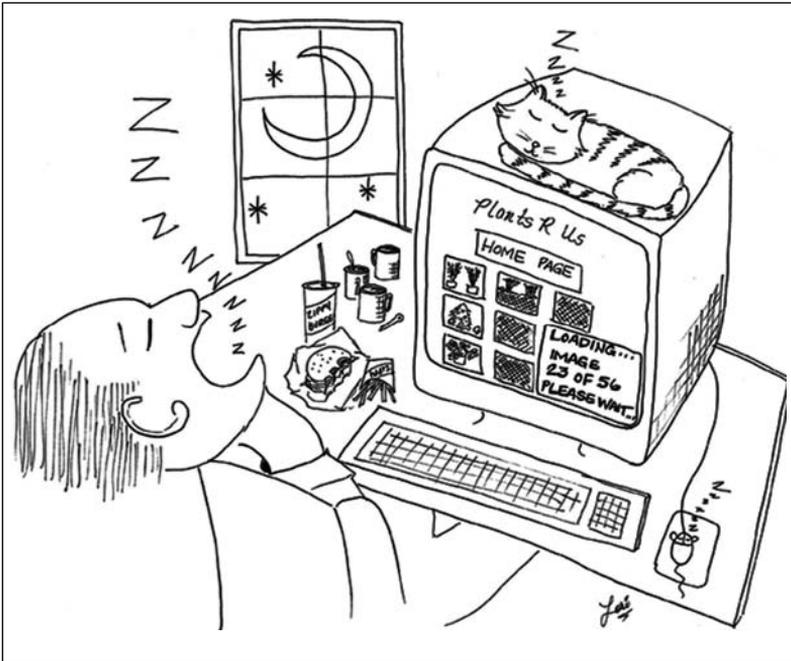
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INTRODUCTION

Anyone who is in business these days should have a Web site. Whether you sell products or services, or provide information only, you will, at the very least, benefit from a Web presence, a small Web site of two to five pages that allows people to find your company when they are looking for one that provides the products and services you do. For maximum exposure, you will also want to provide an online catalog of your products, a list of your services, a portfolio of your projects, and some informative articles.

If you want a Web site, you can do it all yourself. Or, you can hire someone to create it for you. Or, you can hire a designer to do the initial page designs in a program you want to use, and you can take it from there. Or, you may want to do the design and have someone else write it for you based on your page drafts. Or, perhaps you'll buy a template and customize it for your own use. As you can see, how you ultimately achieve your Web site is up to your own personal and business time commitments, your computer skills, your ability to write well, and your budget.

If you are not particularly computer-savvy and do not enjoy spending many hours learning how to do something new on the computer, you may be better

off working with a Web designer at first and learning how to maintain the site yourself. Just be sure that you take a very active role in working with any Web designer you hire. You are the only one who really knows your business inside and out, and only you can adequately describe and explain what you want to achieve with your Web site. Also, no two Web designers are alike, and they each have their own strengths, such as technical, graphics or, most importantly, writing – the Web is entirely driven by words.

I have been a Webmaster since 1994, and I currently teach small businesses the ins and outs of creating and maintaining their own Web sites. In my classes, I get a variety of people who are starting a business and want a Web site as either the basis for their business itself, or as a marketing vehicle for their venture. About half of my students already have a Web site. Some of them have paid a fortune to have a Webmaster create theirs and others invested countless hours creating it themselves. In both of these cases, they are taking my class because their existing Web sites don't work. Their Web sites aren't coming up in searches, they aren't getting enough visitors, the pages load slowly, etc. All of these problems, and more, occur because most people who start a Web site think that once they buy their Web design software, create and then launch their site, that they have done everything they were supposed to do – and correctly – and that they are now finished. But they're not. And that's why I teach these classes and why I wrote this book.

When I first started writing about Web sites, it was 2004 and I had already spent ten years managing my own Web sites and creating Web sites for others. In the early days, it was often quite difficult to get accurate information about the Web and Web sites, especially all in one place – even on the Web itself. It still is. You have to know what you're looking for, and if you don't even know something exists or what it's called, you can't look it up, and it's unlikely that you'll just happen upon it by chance. While teaching my Web site classes, I found that most of my students had only a vague idea of what HTML code was and they didn't know anything about search engines or even how to search effectively themselves. I began making lists of all the things my students didn't know and, with all that in mind, I recreated and redeveloped my Web site class until I felt it was the best overview of the Web site process that it could be for the average small business owner wanting to have a Web site or wanting to troubleshoot an existing one.

I spent years amassing Web site tips, tricks, and techniques that Webmasters use to make a Web site successful, and I tried out everything I learned on my own Web sites. That's how this book came into existence. You can use it to educate yourself about Web sites so that you can communicate with a Webmaster, or you can use it to become your own Webmaster – the latter being the best option for most small business Web site owners. In addition, if you already

have a Web site that isn't performing the way you expected it to, this book can help you find solutions that will make it a more successful venture. And lastly, since I have found that the bulk of my students are often only minimally aware of the basics of computing, I have also included an introductory overview of such things as file storage, searching, virus protection, backing up, and general organization – all essential to any business.

While a lot of my technical knowledge came from books and hands-on experience, most of it was the result of expert instruction from my most helpful and long-time favorite computer and Web gurus: Star Reiersen, Jan Sender-Reitman, Phil Madruga, Erik Faraldo, James Spillman, Robert C. Henderson, and Katherine Woods. My editors for this book were Gretchen Wilding, Lille Gardner, and Robert C. Henderson, and my cartoonist was Lori Woodhall. My sincere thanks to all these highly skilled, intelligent, and talented people for making this book possible.

This book, combined with the manuals that come with your software programs, can help you avoid the most common mistakes made by do-it-yourself Webmasters as well as design-for-hire Web designers who should know better but sometimes don't. In addition, it can show you how to do things that are very important and necessary, but which are rarely included in the average software manual. And, as an added bonus, I have not included a lot of dead links to Web sites like in so many computer books. Instead, I provide you with enough information so that you will know what to search for online that is current if you need additional instruction – which you surely will once you start working on your site.

It's never too late to embrace technology, and there's always room for one more on the 21st century Web site bandwagon. So hop on board today and have a great ride!

Joelle Steele
January 1, 2013

that I keep on the computer and print out every Monday, always leaving room to make notes and revisions on it during the week that I later type up before I print it out on the following Monday. At the top of my list are my primary or long-term business goals. Under each of these is a list of my secondary or short-term goals that must be completed in order to achieve the long-term ones. But every goal is quite complex when you pick it apart and break it down into its smallest components, so under the short-term goals are lists of all the little individual tasks that I need to complete. They are arranged in the order in which they must be completed, some with actual deadline dates. This is a very dynamic yet easy-to-manage way of keeping me focused on my greater goals and making them happen gradually. And, I always know that I am making progress because I can see the results of my daily efforts.

Now, a plan won't just spring from your brain fully-formed. It is always going to be a work in progress. So don't try to create it all at once. Just start with the primary and secondary goals, and get them right. Make them as specific as possible. For example, don't make a goal such as "to make a million dollars." That is waaaaay too vague. Make a million dollars doing what? Over what period of time? A better goal would be "start a business selling my widgets from my Web site" – widgets, in this case, being an old generic term for whatever product it is that you want to sell. Secondary goals under that primary goal would include such things as getting a business license, opening an office, starting your Web site, manufacturing the widgets, etc. And each of those secondary goals would have a list of things you need to do to make everything happen.

Hand-in-hand with any plan is a calendar. This is a good way to organize your time and complete some of the items on your plan or "to do" list. I have used a lot of different calendaring systems over the years. It doesn't really matter how you keep a calendar. It's just important that you keep one and do it consistently. I personally prefer a spiral bound desk calendar that shows a week at a time with lots of lines to write on each day. At the beginning of each year, I copy all the various reminders I will need throughout the year, including things I need to do to keep my Web site current. Then, on Mondays, when I'm reviewing my "to do" list, I pick those things that I know I can do or need to do on that particular week, and I write them down on my calendar. As I complete them, I check them off on my calendar and on the "to do" list. I then add any new items to the "to do" list and I put more items on my calendar for the current week. Doing things gradually like this and not setting unrealistic deadlines for doing more than you really can will prevent you from burning out, a common problem with small business owners, particularly those who are owner-operators with no employees.

Forms are also helpful. For example, I use a form for doing my Web sites. It helps me remember all the little details of what has to be done in order to com-

plete a Web site. Your Web site may be different than mine and require other items to complete, but here's my checklist form as a sample:

WEB SITE CHECKLIST	
SET-UP	IMAGES
get Web host	create banners & nav buttons
register domain name	create/select images
point domain nameservers	insert RSS feed button
create add-on domain	
set-up domain E-mail addresses	SCRIPTS
create work folders	insert Google AdSense code
define Web site in Dreamweaver	insert JavaScript-PayPal buttons
set-up template pages	insert Google Analytics code
AUXILIARY FILES	NAVIGATION & LINKS
create robots.txt file	create nav menu links
create Google sitemap	create links to other Webs
verify site w/Google	
submit Google sitemap	META TAGS
create RSS feed file	create title for each page
submit RSS feed to aggregators	create description for each page
create custom error page	create keywords for each page
WRITING	CSS/DESIGN
write page content	select color palette
- Home	select typeface
- About	make other CSS formats
- Contact	insert banner
- Products	insert content onto pages
- Services	insert images onto pages
- Articles	
- Advice column	LAUNCH
	publish pages to server
insert shopping cart code	check pages live
customize cart buttons	test shopping cart buttons

A Place to Work

Start with the place where you work. Since most small businesses are begun in the home, find a place that you can use exclusively for your business, an area that is always completely off-limits to everyone else, and a place that has a door

you can close for privacy and quiet. You may not be aware of it, but your productivity will always suffer when there are constant interruptions as you work. Spaces that are often used for home offices include spare bedrooms, formal dining areas, sun porches, attics, and basements. Some people even build offices in a corner of their garage or use a walk-in closet in a guest room. Think creatively about the options you have in your living space. And if you decide to rent office space, think creatively about that as well, since some companies have unused offices that they will lease out to a fledgling business. Some will include the use of copy machines, a shared receptionist, etc.

Electronics

Wherever you decide to work, you will need to have plenty of electrical outlets, probably on a dedicated circuit breaker, as modern offices have a lot of electronic gear. Another must-have is Internet access, which is covered in the next chapter. You will also require good lighting, so a nice desk lamp that is hooded to keep glare out of your eyes is essential. Overhead lighting alone will ultimately result in eye strain.

Get the biggest, baddest surge protection devices you can find for your computer and peripherals. Replace your surge protectors every year if you live somewhere that has frequent lightning, power outages, old wiring at the street, or old wiring in the house or office building. Otherwise, replace these devices every three years.

Furniture

The next step is furnishing your office. You will want to start with a desk, perhaps an L-shaped one with a large work surface and a wide pull-out drawer for a keyboard and mouse pad – typing and mousing at the right sitting position ensures you will not become fatigued after hours on the computer and that you will not suffer from carpal tunnel syndrome. If your desk also has a raised area for your monitor, that is also a big plus, as viewing your screen at eye level is easier on the neck. Get yourself a nice chair that offers good lumbar support. No one enjoys their work if they are tired and cranky from being uncomfortable all day.

Even a paperless office – which everyone should attempt to have – requires storage space for certain kinds of files and supplies. I personally went from ten large file drawers to a single file drawer when I went paperless several years ago. If your desk has a file drawer, you can try to maintain your files in it and scan everything else for computer storage. But, you'll still probably need a cabinet with plenty of drawers for pens, paper, CDs, and other supplies. And if you

have books – and no office should be without a good reference library – you'll probably need a small bookcase or bookshelf. And, so that your guests or clients have a place to sit when you talk to them, you should have at least two comfortable chairs. There are many second-hand stores that specialize in office furniture that is in excellent condition, and checking those stores first can help keep your start-up costs to a minimum.

Communications

When it comes to communications, you'll need a separate phone for business, one with a reliable voice mail system that allows you to create a personalized business greeting. Using the same phone for business and personal use may be okay to start out, but you really need to keep two separate lines, and at the moment, most cell phones don't provide this service. Also, on a business line in particular, turn off the call-waiting feature. Nothing is more rude and inconsiderate than forcing someone to listen to your incoming call beeping away or to be put on hold so that you can answer that other call.

As for personalized greetings, write a nice script that says the name of your business, your business hours, and any other pertinent information that a prospective client or customer might need to know. Greetings such as, "Hi, it's Jake, I'm not in right now, please leave me a message" is fine for home use, but it lacks credibility and sounds unprofessional for a business. Practice reciting your message with a friendly voice, and record it again and again until it sounds great.

Manuals

Another organizational device that you will benefit from is a manual that outlines how you do what you do. I have two and I keep them on the computer in Word files. I also print out the individual pages as I create or update them, and I put them into small binders – the ones that hold 5.5" x 8.5" 3-holed paper. I keep those binders on my desk for quick reference. You can also use a full-size binder or just rely on the computer file. It really doesn't matter. The point is, that you need to keep track of how you do what you do.

My desk manual holds my address book; my price lists; formulas for calculating my prices; sizes and measurements of items; shipping information; instructions for how to operate my phones, my scanner, and other equipment; perpetual calendars and old calendars from the past ten years; and a host of other assorted information that I have typed up, scanned, photocopied, etc., because I actually do use all of it.

But, what is most important, and what I use the most often, is my other manual, my computer manual. If my house caught fire, I'd grab my two cats

and that binder. It represents almost three decades of computing experience and I'd be hard-pressed to get much done without it. In this valuable manual, is a complete record of everything I've ever had to create, repair, install, uninstall, reconfigure, register, etc., for my computer in general. Then, more specifically, I have everything that pertains to my Web sites – and I have about 10 sites of my own at any given time, plus the Web sites I manage for others. I include the codes I frequently use, style sheets, lists of what's on each page of each site, E-mail addresses, shopping cart info, dates of previous sales I ran, font conversion sizes, hosting info, domain registration expiration dates, instructions for how I made certain things work and who told me how to do it, all of my online advertising campaigns and which ones worked (or didn't), and where all this stuff is on my Web sites or on my computer.

Computers

Since this is a book about Web sites, it pretty much goes without saying that you will need a computer. But if you're planning to do all your work on a laptop, think again. Experts in the field of ergonomics (the applied science of equipment design for the workplace that reduces fatigue and discomfort while simultaneously increasing productivity) have been telling us for years that people use their laptops in awkward or contorted positions. They can't help it. Laptops simply do not meet any of the ergonomic requirements for computer systems. Since the keyboard and the screen are a single unit, no matter where you place the laptop, it will always be at the wrong height, either for typing or viewing. This makes laptop users more prone to a wide variety of conditions, including tendinitis, eye strain, carpal tunnel syndrome, and muscle and joint pain in the back, neck, shoulders, and hands. The end result: bodily stress, overall fatigue, and reduced productivity and efficiency.

Laptops are portable and therefore very convenient, but unless you plan to use an auxiliary keyboard and monitor, your laptop will be inefficient for daily office use. A desktop computer, on the other hand, will provide you with the much-needed keyboard agility that you get from a slanted or stepped keyboard that you can't get on a laptop's flat keyboard. In addition, a desktop computer has far more ports – USB and others – that will keep you connected to all the peripherals you need, including a laser printer, a scanner, an external/back-up drive, flash drives, speakers, digital camera, broadband/cable modem, router, etc. You can always let your laptop share with your desktop computer so that they are in sync with each other when you leave the office and bring the laptop to a client's office or to your home for the night.

As for computer specifications, almost anything you buy these days will be fast enough and have plenty of storage space. You should, however, use the

professional or premium version of the operating system and also try not to fall more than one version behind the most current one. It gets harder to keep up with software upgrades and new programs if your operating system doesn't support them. With computers and their peripherals that are used in an office, it pays to buy the best you can afford. You want a machine that you can upgrade and that can be repaired if one of its components fails.

Computer Organization

Using a computer for your business is not the same as using it at home. At home, your computer is a helpful appliance used by you and your family for E-mail, playing games, paying bills, doing homework, and shopping online. A computer used for business is something else entirely. You will need different software that is specific to what you do, including software programs for creating and managing your Web site.

You'll be surprised at how many more files and folders you create in the course of running a business. And you need to be able to find things quickly on your computer. Don't be fooled into thinking that it is acceptable to spend hours looking for something or having to recreate it because you can't find it. Time is money in any business. Don't waste it.

Begin organizing your computer by creating a master folder in which to hold all your business folders and files. Make it in the root directory (C:/) of the computer and call it something specific such as C:/JVGINC or C:/MARY or C:/Buttercup, or anything that does not have the words "files" or "documents" in it. Don't store anything in the "My Documents" or "Documents" files. Those folders are created by Microsoft's Windows programs and can be vulnerable to viruses, malware, spyware, and hacking because the people who wreak havoc on other people's computers know exactly what the Microsoft files and folders are named on your PC. Mac users, I didn't forget about you. You're just far less likely to have this type of problem.

Create folders under your master folder and give them names in the same way that you would label paper folders that go in a file drawer. Start with folders for broad subjects and then create folders under those to hold more specific files. On the next page is a sample of how this might look.

Computer Maintenance

Maintain your computer like the business tool it is. Unlike your home computer, your business computer cannot be easily replaced. The files are critical to running your business, to maintaining your livelihood. Here are just a few guidelines to keeping your computer safe and in good operation.

```
C:/MYNAME
  /Accounting
    /Receivables
    /Payables
    /Taxes
  /Clients
    /GCB, Inc.
    /Harrison
    /Martin
    /Winslow
  /Correspondence
  /Data
    /Addresses
    /E-mail
    /Quickbooks
    /Inventory
  /Forms
  /Software
    /Zipped downloads
  /Web Site
    /Backups
    /Code
      /CSS
      /Google
      /HTML
      /JavaScript
      /Shopping cart
    /Images
    /Myweb.com
    /Old pages
    /Old images
```

Kids. Keep your kids off your business computer. Children, teenagers in particular, visit sites that are built to harvest personal information and download viruses, browser hijacks, malware, spam, and file and program corruptions. Let them work on your home computer or on their own laptops, not your business computer.

Security. If you use a laptop in addition to your desktop computer, be sure that any personal/private information about yourself, your business, or your clients/customers is password protected. It isn't enough to password protect the laptop itself (or any computer, for that matter), as that level of protection can easily be bypassed by someone who has worked with computers for awhile and knows how to do it. What you want to do is get yourself a separate program that will allow you to password protect the computer and that will also allow you to encrypt the personal folders and files on it. Better yet, if you can use your laptop without the need for any personal/private information, don't sync those particular folders or files with your desktop computer at all.

Back up. Get an external drive and back up your entire hard drive at least once a week, more frequently if you have just

spent all day working on something that you would prefer not to have to recreate anytime soon because your hard drive failed or your surge protector was old and didn't block a spike. It takes awhile to do the first back-up of your hard drive, but subsequent back-ups are much faster because the back-up process addresses only the new, modified, and deleted files. Don't back up online, even to services that promise everything will be encrypted for your safety – do you really want to put your privacy and security at risk in someone else's hands?

Archive. Keep old versions of things such as databases and accounting records. Also keep copies of old Web pages or code you no longer use but might possibly use again in the future. Don't assume you'll never use something again,

because Web sites evolve over time and how they evolve is sometimes very unpredictable. If you keep things you used previously, you won't have to reinvent them should you ever want to use them again.

Protection. Viruses and malware are catch-all terms for a variety of programs that can invade your computer and create all kinds of problems, not only with your software, but also with your hardware. Here's just a sampling of these malicious programs, collectively called "malware."

- ◆ **Adware.** Tracks your browsing habits to display what it considers to be relevant third-party ads which it displays or downloads. Examples of adware include those that come with AOL's Instant Messenger and Windows Live Messenger, among others.

- ◆ **DoS/DDoS.** These are acronyms for a "denial-of-service" and "distributed denial-of-service" attacks. Not really malware, per se, they involve one or more people working together to interrupt or stop the services of a high-profile website, such as a bank or government agency, or even a business network that is connected to the Internet. In its most common form, this is done by systematically overwhelming the website or network with more requests that it can possibly respond to, meaning it is suspended from its usual operations, making the website or network unavailable to legitimate users.

- ◆ **Hijackers.** These modify your browser to redirect you to places you don't want to go, or they transmit your browsing data to unidentified servers.

- ◆ **Keyloggers.** These record your keystrokes for retrieval at a later date, usually to allow a third party to access your confidential data, such as passwords, for purposes of identity theft or banking fraud. Not all keyloggers are malware, as they can also be used in legitimate ways in order to prevent fraud (usually employee fraud).

- ◆ **Rogueware.** Also known as "scareware," this software claims that your computer is infected so that it can steal identities and install viruses on your computer, or so that it can force you to pay for phony anti-virus software to remove a virus that it installed or that doesn't even exist.

- ◆ **Rootkit.** This is used to hide the malware files that are on your computer in order to prevent their removal.

- ◆ **Phishing.** Also called a "spoof attack," phishing involves a person using a program or website to display false data or information and masquerade as a trusted system to which you would normally reveal your personal information, such as passwords or user names.

- ♦ **Spyware.** This software monitors what you do, collects the information, and transmits it to a third party. It can also alter the settings on your computer.
- ♦ **Trojan.** This program seems harmless on the surface because it is not a self-replicating software like a virus or worm. But it has hidden code that can open a "back door" that allows a third party to access your computer (remotely) without your knowledge and then take actions on your computer, such as installing software, viewing your screen, spamming, etc. Malware is mostly trojans.
- ♦ **Viruses.** Like a biological virus that invades the cells of a person, computer viruses are programs that spread by self-replicating, meaning they make copies of themselves into documents or executable files. They can infect both your software and hardware.
- ♦ **Worms.** Like viruses, worms also spread by self-replicating, and they can slow down your computer. They can also spread through a computer network.
- ♦ **Zombies.** A zombie is a computer under the control of a hacker or malware. Zombies use botnets or bots (programs) to send spam E-mail and/or viruses, or launch DDoS attacks on a computer, usually without your knowledge. Zombies are responsible for most of the spam E-mail generated.

As you can see, it pays to get the very best firewall, virus protection, and malware cleaner you possibly can. Don't rely on the ones that come free with your broadband/cable modem service. Every time I have ever gotten a virus, it came right through them. Use the heavy duty programs that computer techs use to eliminate viruses. Be sure your virus protection is always running and make sure you do a deep scan of your entire hard drive at least once a week. Do it while you're watching TV at night or while you're out to lunch. You should also get malware or spyware detection programs to protect yourself from the annoying virus-like programs such as "browser hijacks" that can get downloaded while you're surfing the Net. Run those programs once a week, more often if you've had a particularly long browsing session.

Clean up. Delete cookies, temporary Internet files, and your browsing history every time you finish a browsing session or close down your computer for the day. The number of cookies alone – those small programs that run in the background – can slow your computer down to a crawl.

Optimize. Run defrag (the Disk Defragmenter, found under System Tools in the Accessories file in Windows) at least once a year to make sure your hard drive is running fully-optimized. With hard drives as large as they are these days this process can take hours, so run it overnight or do it on a day when you don't need the computer and can let it run for however long it takes to complete this process.



CHAPTER 2 - INTERNET SERVICES & WEBSITE SOFTWARE

Internet Access

You can't run a business without Internet access, and you sure can't create and manage a Web site without it. Access methods vary in many ways, speed being one of the most important. The two speed rates you are most likely to encounter are measured in kilobits per second (kbts/s) or megabits per second (Mbits/s). In the future, we may see even higher speeds measured in gigabits per second (Gbits/s) available to everyday users. One kilobit represents a rate of 1,000 bits per second; a megabit is 1,000,000 bits per second; and a gigabit is 1,000,000,000 bits per second. If your access speed is 56 kbts/s, that would be 56,000 bits per second. If your access speed is 5 Mbits/s, it would be 5,000,000 bits per second.

Internet connections go in two directions, downloading (e.g., browsing or downloading software) and uploading (e.g., filling out an online form or publishing your Web pages to the server). Most Internet service providers (ISPs) provide symmetric service, meaning that the download and upload speeds are the same. However, some services can only offer asymmetric service, which means that your download speed will be higher than your upload speed. Here is some information to help you understand the many kinds of Internet connections available, what they do, and how they work.

Dial-Up. This is a very slow symmetric connection, usually a maximum of 56 kbit/s, and while it is possible to maintain a Web site at this speed, it is not recommended. Dial-up requires a telephone line, and phone lines do not typically handle data as well as ISDN or DSL lines do (see below). Also, unless you have a phone line just for your computer, you will be unable to use your telephone for voice calls while you're online. Dial-up Internet access is on the wane as access to satellite and cable modem spread into more rural areas, so many companies do not maintain their dial-up service very well, resulting in dropped connections becoming more common. This can be problematic if you are uploading Web pages and keep getting disconnected in the process. However, if you're living in a rural area that doesn't yet have cable access, you may need to rely on phone lines or a satellite dish.

ISDN. This is an acronym for Integrated Services Digital Network, one of the oldest methods of symmetric Internet access. It is offered by some phone companies and is faster than dial-up. Voice and data share the same line, but access to an ISDN Internet service is necessary, and that can cause dropped calls, depending on the service. ISDN runs at a rate of about 64 kbit/s on two channels, and the bonding of more ISDN lines allows for speeds of 256 kbits/s or higher. The primary rate of a 23-DS0-channel line is a bandwidth of 1,544 kbits/s, standard in the U.S., and the European standard is a 30-DS0-channel line for a bandwidth of 2,048 kbit/s. ISDN lines were originally used for voice communications at corporations with large PBX systems. Where still available, an ISDN line offers a viable means of Internet access similar to SDSL (see below).

DSL, ADSL, and SDSL. These are acronyms for Digital Subscriber Line (or Loop), Asymmetric Digital Subscriber Line, and Symmetric Digital Subscriber Line. This form of Internet access is offered by some phone companies. It is generally faster than ISDN and it is delivered simultaneously with regular phone service on the same telephone line because the DSL uses a higher frequency that is separated from voice use by filtering. The asymmetric speed (ADSL) is generally around 256 kbits/s when downloading, but uploading can be considerably slower.

Broadband. Also called cable modem service, this is currently the most common form of symmetric Internet access. In general, basic broadband is considered to be access at a rate of 4 Mbit/s downloading and 1 Mbit/s uploading. Many broadband Internet access speeds are already in excess of 700 kbit/s, which is plenty fast for anyone's use. But, you need to be very careful when you subscribe to any broadband service, because the word "broadband" can be misleading. It is a word that is often used as a marketing lure and does not always signify or guarantee a high speed connection or even a symmetric transmission method. Also, broadband service, unlike ISDN or DSL, is not directly supplied to a single user, but rather to a network of subscribers in a particular neighbor-

hood or area, so at some times of the day, the network can be busier and the bandwidth speed can drop as the subscribers all log on at the same time. Most broadband services routinely do things to adjust for the types of Internet traffic when this happens – called "traffic shaping" – but this is not always effective for everyone, depending on what your use is and when you are using the Internet.

Satellite. This asymmetric type of Internet access requires a clear, unobstructed view of the southern sky, a dish (and place to mount it), and a circuit board. It is a viable option for wireless connections and for users in rural areas where broadband service is not yet available. There is a signal delay which makes it a poor choice for some forms of Internet interactivity, such as online chat, and it can be unreliable due to "drop-outs" during travel (e.g., if your dish is on the top of your RV), bad weather, or sunspot activity. Also, some satellite service providers only offer one-way connections that require you to use broadband or dial-up for uploading. When two-way connections are provided, the download speed averages about 500 kbit/s, and uploading is only about 50 kbit/s (dial-up speed).

Wireless (Wi-Fi). This is not very fast and not very reliable (yet). There are security issues and, like satellite access, there are connectivity problems, particularly in hilly or heavily forested areas and during certain kinds of weather. There are also problems with interference from other wireless networks and devices. The average speed of wireless connections is only about 5.5 Mbps – which is very fast – although speeds of 20 Mbps and 54 Mbps are theoretically possible. But the problems with interference account for most of the reduction in speed.

Cellular Broadband. There are more cell phone towers than ever before, and so cellular networks now provide asymmetric broadband Internet access via cell phones using various kinds of cellular modems and cellular broadband routers. It is not always meant to be asymmetric, but users will tell you that downloading speeds are much faster than uploading. Like satellite access, cellular broadband access can be very touch-and-go as far as connectivity is concerned.

Web Hosting

Before you create your Web site, you need to find a Web host, a company that makes your website available 24/7. There are two kinds of hosting.

Virtual or Domain hosting. When you register your own domain name and have that name hosted, it is called virtual or domain hosting. There are many domain Web hosting services to choose from. To decide which one is best for your Web site, ask around and see who your fellow business owners recommend. You can also go online and search for comparisons of the top Web hosts and visit their Web sites to see what they have to offer. In general, Web hosting runs an average of about \$10 per month for a small business. Sometimes you

can get a much lower monthly rate for paying a year or so in advance. Also, if you set up your hosting package first, you can often get your domain name registered free by your Web host.

Make sure that your Web host provides free and unlimited tech support by phone, by E-mail, and by online chat. Your Web host should also provide you with plenty of free "tools," programs that help you create, manage, monitor, and market your Web site. It is unlikely that you will need very much storage on your Web host's server (a specialized computer where your Web site files will be stored), as Web pages and Web images are very tiny files that don't take up much space. But if you anticipate having a very busy Web site with a lot of dynamic content (e.g., animation, interactivity with visitors, etc.), you may need to use a hosting plan that offers a greater "data transfer allotment," the memory and computer resources to respond to a visitor's request to view a page. If you're not sure you need all that memory, you can start with a basic hosting plan and later upgrade to one that offers greater resources, if necessary.

Non-Virtual or Subdomain Hosting. With non-virtual or subdomain hosting, you get a free Web site courtesy of an entity such as www.yahoo.com or www.aol.com. Such a Web address usually reads something like www.garyharrison.yahoo.com or www.baskets.aol.com. The providers of these sites often require you to structure your page in a certain way or to feature ads of their choice on your site. These Web sites are not suitable for a business. If you already have a non-virtual Web site, you may need to find a free online "forwarder" so that when you register your own domain name, any traffic from your non-virtual site will be forwarded to your new Web site name and address.

Domain Names

A domain name is an Internet address that is part of a URL (Uniform Resource Locator). Your domain name, e.g., hollyfarms.com, will correspond to a numerical address that is a series of four numbers divided by periods, such as 122.47.8.183. You could type that number into a browser to bring up an address, but it is easier to remember names, so we use them instead of the numbers. On the next page is a chart showing the basic components of a URL. As you can see, a URL can become quite lengthy. If you want to direct someone to your Web site, you can give them an address such as:

```
http://www.hereismywebsite.com
```

But, if you want to direct them to a particular page on your Web site, you may need a more complete address, such as:

```
http://www.hereismywebsite.com/products/mywidgets.html
```

http://www.ozark.bookpublishing.com/books.html						
http://	www.	ozark.	bookpublishing	.com	/	books.html
protocol - a set of rules browsers and servers use to talk to each other	server using the http protocol	third level domain name or subdomain name	second level domain name (SLD) - name relevant to your business	top level domain name (TLD) - .com, .org, etc.	path to a folder or file	a Web page, Web folder, or Web doc such as a PDF

Domain extensions. A domain name is designated according to the type of Web site entity it is and the country in which it is located. This is done by attaching an extension to the domain name of the Web site. This extension is called the Top Level Domain name or simply a TLD. The .com TLD is for commercial enterprises, and is therefore the most highly sought after extension for any business. There are also two-letter country codes, such as .au or .com.au for businesses in Australia, and .uk or .com.uk for businesses in the United Kingdom. There are also many lesser-used suffixes or extensions such as .biz, .tv, and .us. If you are a non-profit organization, your suffix will be .org. The following is a list of just a few of the available extensions for small businesses.

SELECT THE CORRECT TLD FOR YOUR WEB SITE		
.com	commercial	businesses or individuals
.biz	commercial	businesses
.info	information	individuals or entities
.name	individual	individuals or entities
.pro	professionals	licensed professionals
.org	non-profit	organizations/associations
.edu	education	higher learning institutions
.net	communications	all forms of communications
.mil	military	U.S. military
.us	generic	any use

While there are many kinds of extensions, a small business Web site will always benefit from a .com extension, because when someone remembers your company name, e.g., Richmond Printing, they will automatically think dot-com and type www.richmondprinting.com into the browser first. However, if you didn't pick a dot-com extension and instead went with www.richmondprinting.biz, you are more likely to lose business to whoever has www.richmondprinting.com, even if they are half-way across the world from you.

Selecting Domain Names. Finding a domain name is a real challenge. Many names are simply unavailable even if they are not being used. Some of those are being held for ransom for ridiculous amounts of money. I looked for one a year ago and found that it was only available if I paid \$4,200 for it. Yeah, like that is ever going to happen. I found something that was equally as good for \$9.99 per year, and I got it registered for only \$7.99 per year by paying three years in advance.

When you are thinking of names, remember that a domain name is searchable and indexable. Search engines such as Google and Yahoo can find words within a domain name and they will use those words to index your Web site, so try not to use any abbreviations in your domain name. I made that mistake when I selected a domain name several years ago for my horticultural publishing business: www.greenindustrypubs.com. I had seen many other publishing businesses use the same "pubs" abbreviation for "publications," so I figured this would be fine. I was quickly indexed with the likes of www.goldenboardpub.com and www.kinghenrypub.com, to name just a few ale houses throughout the world. I eventually dumped that domain name as soon as one of my publishing business names, Hortica Publications, became available a few years later.

Because of the searchability of domain names, keep yours simple and easy to spell, avoid overly-long names, avoid hyphenated names (they get easily confused with their unhyphenated versions), and remember to select the TLD that relates to your type of business. Pick a name that is either your business name or that has a keyword in it that describes what you sell or do.

You might have to coin a name since almost everything cute and clever is already taken. I coined words using Latin roots for some of my Web site domain names and have done quite well with them so far. I use www.photorestorics.com for my digital photo restoration service and it is always well-indexed. If you decide to coin a name, just be careful that it doesn't sound like something it isn't. Do a search on the coined word to make sure it doesn't already exist with some negative connotation or that it isn't associated with some other type of business or subject matter. And, if you haven't already selected your business name, you might want to first consider what is available in domain names and see if you can make the two match – the ideal solution.

Domain registration. The Internet Corporation for Assigned Names and Numbers (ICANN) is the regulating authority for all domain names. No matter where you register your domain name, the same selection of names will be available. In most cases, registration is for a period of one year or more, often with discounts for prepaying for three or five years or so in advance. Many Web hosts will provide registration of one domain name free. Otherwise, the average domain registration fee is around \$20 per year.

You might want to register more than one domain name to ensure that no one has the variations on it. For example, if your domain name is `www.rubysred-shoes.com`, you might also want to register `www.rubys-red-shoes.com`. When you launch your Web site, you can use the domain parking tool on your Web host's Control Panel page to tell it to park all those alternate domain names at your main address. This means that if your visitors type in any of those alternate addresses they will all lead directly to your main address.

DNS Servers. If you register your domain name with an organization other than your Web host, you will need to set the DNS servers (domain name servers) at the registrar to point to your Web host. You get the DNS information from your Web host, and there is usually a tool on your registrar's Web site for you to fill in to make the registrar point the DNS servers to your Web host. You'll probably find the tool under headings such as "nameservers" or "manage DNS." Most of the time there will be at least two nameserver addresses and they are usually numbered `ns1`, `ns2`, `ns3`, `ns4`, etc. They should look something like this:

`ns1.pipedns.com 67.212.166.234`

`ns2.pipedns.com 99.198.106.66`

`ns3.pipedns.com 99.198.106.74`

E-Mail

E-mail or email is electronic mail. It is fast and efficient, and when you have a Web site, it becomes the preferred method of contact for your visitors, although you will still make and receive phone calls, text messages, and perhaps faxes. Always answer your E-mail promptly, within 24 hours at the very least. Everything on the Net moves quickly. When someone doesn't hear back from you right away, it sends them a message that you don't really want to do business with them, and they will look elsewhere to find a business that cares enough to respond in a timely manner.

Domain E-mail. You can use any E-mail address, but you will achieve better credibility if you use a Domain E-mail address. These are the E-mail addresses that are hosted, along with your Web site, by your Web hosting service, and you can create names or departments at your Web site address, such as `office@renfrographics.com` or `sales@truckersonline.com`. This is called "aliasing." Most Web hosting plans come with an allowance for about 50 Domain E-mail addresses, but you will probably only need one, at least when you first start out.

Selecting addresses. If you are the owner, you can use your own name for an E-mail address: `johnsmith@smithrcompany.com` or `maryjones@marysstore.com`. But, if you have employees, you should avoid setting up E-mail addresses that

use their names. Doing so can create a lot of confusion when an employee leaves and is replaced by someone else, who is then replaced by someone else, etc. You could visit your Web host's Control Panel and use an E-mail forwarder to keep redirecting E-mail to a new address each time an employee leaves, but it is far more efficient to make generic addresses from the start, such as:

sales@kreganelectronics.com

info@kreganelectronics.com

service@kreganelectronics.com

And, if you have more than one person in a particular department, you can number those addresses:

sales1@kreganelectronics.com

sales2@kreganelectronics.com

sales3@kreganelectronics.com

You can then assign your generic E-mail addresses to whoever is in those positions at any given time. It's important to do this because you don't want to delete an E-mail address every time someone leaves the company. If you do, you'll lose touch with all the customers, clients, vendors, etc., with whom that person was communicating.

Autoresponders. These are pre-written automatic responses to the E-mail you receive. You can visit your Web host's Control Panel page and write a customized response and set it to respond to everyone who E-mails you. Autoresponders are good for people who are out in the field most of the time but want to acknowledge their E-mails and possibly provide an alternative means of contact, such as a cell phone number or pager. You can also use an autoresponder if you are on vacation or your office is closed for the holidays and you want people who E-mail you to contact you or someone else by phone if they require immediate or emergency assistance.

E-mail Managers. Now that you have your Domain E-mail address, you can start using it, even if your Web site has not been created yet. You will need to decide how you are going to send and receive E-mail. There are essentially two ways to do it: 1) log on to your Web host's "squirrel mail" page for each of your E-mail addresses and manage all of them individually from there; or 2) get an E-mail manager or E-mail handler program such as Windows Mail or Windows Live Mail. There are a lot of these, many of which are free or at least inexpensive. Using an E-mail manager is the best way to manage all your E-mail accounts in one place, including any non-domain E-mail addresses you might have, such as ones at gmail, hotmail, yahoo, etc. All your E-mail can be easily managed with one program and with no need to log on to a remote Web site to do it.

With an E-mail manager, all of your E-mail, incoming and outgoing, will be stored on your own computer, along with your address book. In many cases, you can import any existing E-mails or address books from wherever you currently store them online. Since a business address book can grow significantly in size, and since a business can have hundreds, if not thousands, of E-mails stored in numerous folders, it pays to use an E-mail manager so that you don't have to worry about being able to keep them if you change E-mail addresses or get a new Web host or a completely new domain name, etc.

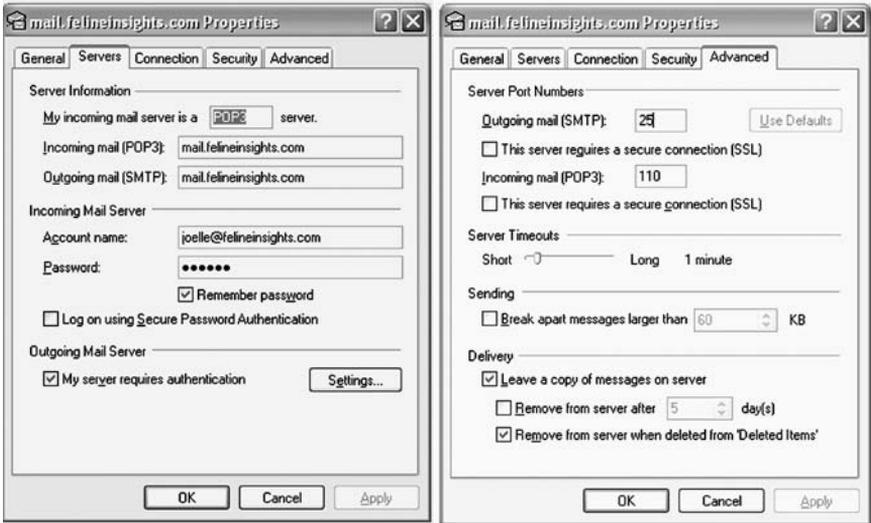
To use an E-mail handler, you need to set up each E-mail address so that the E-mail will be downloaded from your Web host (and from Hotmail, Yahoo, etc.) into the E-mail management software of your choice. Most people use whatever E-mail handler comes with Windows, and the information you need to set up your E-mail addresses is the same regardless of what E-mail manager you use. The screen shots on the following page show what you need to fill in to set up each E-mail address. Your Web host will likely have a set of instructions somewhere in their Help or Knowledge base that shows you what to type into all the set-up boxes. Once you know your Web host's specifications, you can use that information to set up your E-mail accounts in the E-mail manager of your choice.

Bulk E-mail. If you intend to send bulk E-mails (mass mailings) to promote your business, you do not want to send spam, be blacklisted on the Internet as a spammer, and/or get reported to the Federal Trade Commission for violating the United States Federal Trade Commission's CAN-SPAM Act (Controlling the Assault of Non-Solicited Pornography and Marketing). The CAN-SPAM Act was signed into law on December 16, 2003, and was enacted in 2004 to help reduce the amount of pornographic E-mail and unsolicited commercial E-mail, including E-mail that promotes the sale of products or services or the content of Web sites. It sets out rules for E-mail and carries tough penalties for violations, which are enforced by the Federal Trade Commission. To be compliant with the CAN-SPAM Act law, you should adhere to all of the following rules.

- ◆ **Routing info.** The "to" and "from" addresses, as well as any "reply to" address, and including the originating E-mail address, must identify the real person or business.

- ◆ **Subject line.** This must accurately state the content of the message. Don't be deceptive with some cutesy come-on. If your E-mail is an ad, you must state that it is an advertisement or promotion.

- ◆ **Sender ID.** You must tell recipients where you are located using a valid street, post office box, or private mail box at a commercial mail receiving agency.



◆ **Opt-Out.** You must provide an opt-out mechanism so that a recipient can unsubscribe to your mailing. This can be in the form of a reply E-mail or visiting a single page on a Web site where they do not have to divulge any information other than the E-mail address they want removed from your list. You must honor the opt-out request within ten (10) business days.

◆ **Third Party E-mailer.** If you hire someone else to do your E-mailings, you must monitor them to ensure that they comply with the CAN-SPAM law, as you are both responsible for compliance.

Other Restrictions. Before you start sending bulk E-mails, check with your Internet Service Provider (ISP) and your Web hosting service to see if either has restrictions as to how many E-mails you can send at a time or per hour or per day. Some do not put restrictions on the quantity, but others do. For example, as of this writing, my ISP restricts me to 200 E-mails sent per day, and my Web host restricts me to 200 E-mails sent per hour. So, my ISP wins on this one and I'm limited to 200 E-mails per day. I mail three times a year to my list of 10,000+ addresses, but since I always spread out my mailings over several weeks (to avoid sales slumps), these restrictions have not been a problem for me at all.

As a rule, avoid bombarding people with unsolicited E-mail, and remember that even a monthly E-mail can seem like too much contact for many people. Mail only when you have something important or relevant to convey that will benefit the people to whom you E-mail. Give them an option to subscribe to your E-mail list somewhere on your Web site. You can actually do both the subscribe and the unsubscribe process on a single Web page using a form that you create.

Browsers & Devices

Most people use Microsoft's Internet Explorer as their default browser since it comes installed on their new computers. But not everyone likes Internet Explorer, so they may be using Safari or Mozilla's Firefox, for their browser. Even though most Web software is now created in accordance with the World Wide Web Consortium's cross-browser compatibility standards in mind, every browser still displays Web sites just a little bit differently, so if you are going to build a Web site and you want to make sure it appears and works correctly in other browsers, you will need to download those browsers to your computer so that you can test your Web pages in them in advance and see how they look and function. In addition, you will need to either own or have access to a variety of hand-held devices so that you can see how they display your Web site.

Web Edit/Design Software

Every Web site is written and designed using the exact same scripting language called HTML or XHTML, also referred to as simply "code" or "source." This means that any Web site, regardless of what software program was used to create it, can be opened and worked on in pretty much any other Web program. The only difference between the various Web software programs is their interfaces, the screen presentations that you see and use when you make your Web site. These interfaces are created to allow you to bypass, for the most part, the HTML/XHTML code and instead work in a more user-friendly environment. While this is initially helpful for many people, you are still going to have to learn some HTML/XHTML code, so when you select your Web software, be sure that it provides you with a good code view as well as good design view.

There are tons of Web programs available in all price ranges, so don't be conned into thinking that paying a higher price will get you better Web software and a better Web site as a result. Also, a higher price doesn't make a piece of software any easier to use. As of this writing, the most well-known Web program is Dreamweaver, and it is the favorite with Web designers. But, if you'll do an online search on best Web design programs, you'll find that Dreamweaver doesn't even make the list. Does that mean you shouldn't buy it? Not necessarily. But, before you buy anything, do your homework and make sure that whatever you buy will be the best for your needs.

You may find such a program on your Web host's Web site. Many provide software you can use online to create your Web site. It's usually free, and you need a super-fast and reliable Internet connection to take advantage of it, but there can be some issues with it. Sometimes these programs limit you to using the templates the Web host provides and do not let you modify the templates in any way. This may not matter to you at all if you have a very small and simple

Web site. But, Web sites have a way of growing over time, as they reflect the growth and evolution of your business. So, this could be a starting place for you. Again, do your homework before you invest your time or money in something that may not work for you in the long run, or that you can't take with you if you change Web hosting services.

On the following pages are sample views of a few popular Web design programs. They look different but do the same things. In general, Dreamweaver, Expression Web, and Xara Web Designer are for intermediate to advanced users; and WebEasy, WebPlus, and Web Studio are for beginner to intermediate users.

Image Management Software

Every Web site needs good graphics. You may be able to make your own banner and navigation buttons, edit your photographs, etc. Or, if you're artistically-challenged, you might hire someone else to do that part for you. But, if you decide to do it yourself, you'll find that, like Web programs, there are many image management programs available and they come in all price ranges.

My personal favorite image management software is Photoshop, or Photoshop Elements. I've been using it since 1992, and I use it mainly for restoring antique photos and for managing all the images on my art Web site. But, I also use it for making just about everything in the way of banners and buttons and other Web-related graphics, including advertisements, for myself and my clients. I have also used my typesetting program for more precision when it comes to aligning things in banners. The downside to using the typesetting program is that I have to create a PDF of the banner, then convert the PDF into a JPG file. Just a few steps too many, and sometimes things get a little lost in the conversion and I end up having to drag the JPG into Photoshop anyway in order to adjust the size or color – or both!

If all you have are a lot of photos (possibly of the products you sell, or a portfolio of projects you've done), you will probably just want to invest in a good photo editing program that will allow you to crop a photo and adjust the color, contrast, dimensions, size, and resolution. If you're a Windows 7 user, you can download Microsoft's free package, Windows Live Essentials, which includes Windows Live Photo Gallery. If you buy a Web design template that is built in Photoshop, you will want to invest in and learn how to use Photoshop.

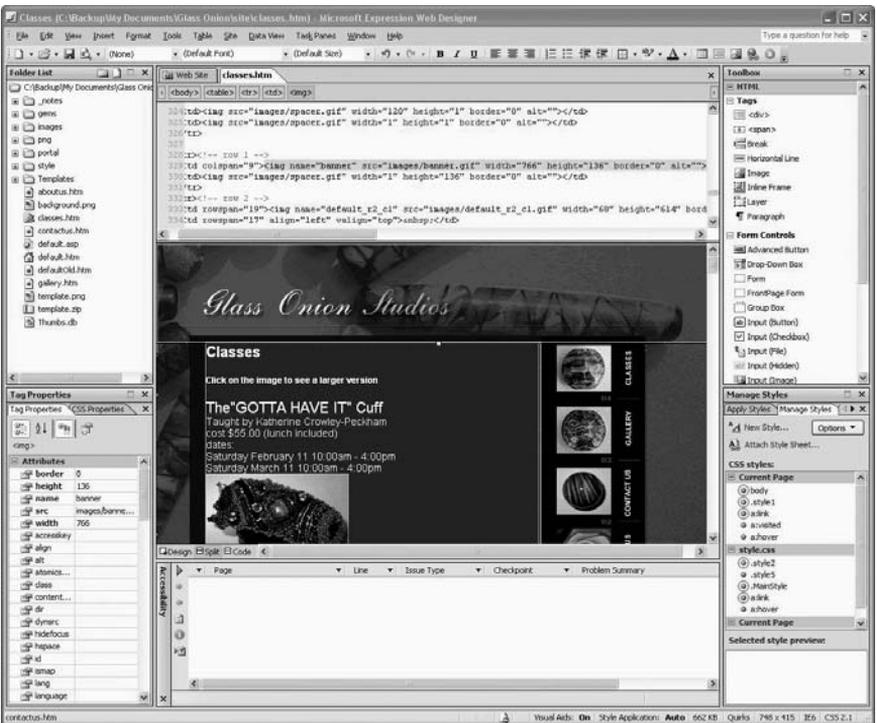
PDF Software

If you intend to provide PDFs (Portable Document Files) of newsletters, brochures, etc., to your visitors, you will need a program to create them, such as Adobe Acrobat (not Acrobat Reader) or one of the many other programs that create PDFs from whatever software you used to create the original file.

The Small Business Webmaster



Dreamweaver (above); Expression Web (below)



The Small Business Webmaster



Web Easy (above); WebPlus (below)

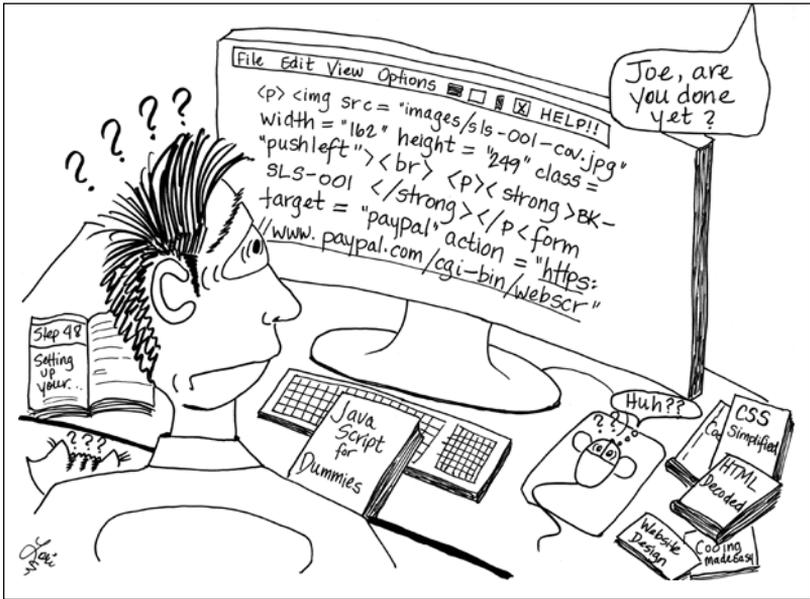


The Small Business Webmaster



Web Studio (above); Xara Web Designer (below)





CHAPTER 3 - CODE

HTML & XHTML

Behind every Web site is a lot of code, specifically a scripting language called HTML/XHTML. HTML and XHTML are acronyms for HyperText Markup Language and eXtensible HyperText Markup Language (an enhanced version of HTML). HTML is also referred to as "code," "source code," "markup," or "tags." Most of the time, you won't be looking at code because your Web software will create it automatically for you or you will be making selections from its drop-down menus that correspond to HTML code. Every piece of Web software is different in the ways that it presents you with the choices that will ultimately determine what code is used and what that code will produce on the Web pages you create.

Don't be fooled into thinking that this means you don't need to know anything about HTML. You definitely do. You don't have to be an expert in it, but you must have at the very least a working familiarity with HTML, because it is used to create and manage many basic Web site features, including shopping carts, forms, embedded video files, and assorted dynamic or "interactive" effects. Having a working knowledge of code will also help you troubleshoot most Web site problems when something doesn't look or work the way it should.

And – lucky you! – HTML is actually pretty easy to learn. You can buy a book on it and/or you can go online and simply search for "HTML codes" and get long lists that show you what all the codes look like and how they will appear when used on your Web pages. You won't use all of them – probably just a small fraction of them – so you only need to learn the ones that you use most and that will apply to your specific needs. HTML makes a Web site work. It is responsible for almost everything appearing and working the way it does. The code comes in three components:

Elements. These identify parts of a page or content. The following are some of the basic elements, not including most of the ones that dictate style, as those are now included in style sheets, which are discussed later in this chapter.

Sample Elements And Attributes

<code><html></html></code>	Creates an HTML document or Web page
<code><head></head></code>	Contains items that are not displayed on the Web page
<code><body></body></code>	Contains the main content of a Web page
<code><h1></h1></code>	Creates the largest headline (the smallest is <code><h6></h6></code>)
<code></code>	Creates a hyperlink
<code></code>	Creates an E-mail link
<code> </code>	Creates an image link
<code></code>	Creates a target location on a page (use with the next link below)
<code></code>	Links to a target location from somewhere on a page (use with link above)
<code><p></p></code>	Creates a paragraph
<code><p align="left"></code>	Aligns a word or paragraph to the left (or right or center)
<code>
</code>	Inserts a line break
<code><dl></dl></code>	Creates a definition list
<code></code>	Creates a numbered list
<code></code>	Creates a bulleted list
<code><div align="left"></code>	Formats blocks of HTML to align left (or right or center)
<code></code>	Inserts an image

Attributes. These describe content such as images and hyperlinks, and are usually placed between quotation marks, such as:

```

```

or

```
<meta name="description" content="Bascom snow tires now available at convenient locations throughout the Puget Sound.">
```

Entities. These are special characters, symbols, and diacritical marks, and almost every Web site will need one or two of them somewhere in its pages, such as accent marks and dollar signs. Entities are formed by placing an ampersand (&) in front of certain names or an ampersand and a pound sign (&#) in front of certain numbers, followed by a semicolon (;). For example, you can use either — or — to get a long dash or "em" dash. While the codes with words and letters in them are easier to remember, their numbered counterparts have far better support from most browsers. There is a table of some of the most frequently-used entity codes on pages 34 and 35. You can find more online.

Tags

For the most part, HTML is composed of everyday English words (and a few abbreviations) inserted between opening and closing pairs of angle brackets ("`<`" and "`>`") called tags. It looks like this:

```
<p>Welcome to The Village Garden Center! We're located at 2032 S. Main Street in the Old Town district of Elmview. We're open Monday through Friday from 9:00 a.m. to 6 p.m., and on Saturdays and Sundays from 10 a.m. to 5 p.m. Our outdoor nursery is closed from October 15 through March 15, but the store is always open.</p>
```

In the previous example, the "p" stands for "paragraph," and so the opening tag is creating a paragraph. The closing tag has a slash ("/") in front of the "p" to indicate that it is closing that paragraph. The slash appears in front of codes to indicate that it is a closing tag. There is a saying about tags, "close first what you opened last," which is a reminder to always use a closing tag that matches the opening tag. This means you'll have tags surrounding blocks of text that look like these:

```
<h1> ... </h1>
<li> ... </li>
<tr> ... </tr>
```

Sample Entities

Name	Char	Number	Name	Char	Number	Name	Char	Number
amp	&	38	frac34	¾	190	Agrave	À	192
iquest	ı	191	deg	°	176	agrave	à	224
iexcl	¡	161	plusmn	±	177	Aacute	Á	193
ndash	–	8211	prod	∏	8719	aacute	á	225
mdash	—	8212	sum	∑	8721	Acirc	Â	194
lsquo	‘	8216	minus	–	8722	acirc	â	226
rsquo	’	8217	radic	√	8730	Atilde	Ã	195
sbquo	‚	8218	oline	ˉ	8254	atilde	ã	227
ldquo	“	8220	frasl	/	8260	Auml	Ä	196
rdquo	”	8221	infin	∞	8734	auml	ä	228
bdquo	„	8222	cap	∩	8745	Aring	Å	197
prime	’	8242	int	∫	8747	aring	å	229
Prime	”	8243	asympt	≈	8776	AElig	Æ	198
dagger	†	8224	ne	≠	8800	aelig	æ	230
Dagger	‡	8225	equiv	≡	8801	Ccedil	Ç	199
brvbar	̄	166	le	≤	8804	ccedil	ç	231
sect	§	167	ge	≥	8805	Egrave	È	200
para	¶	182	sup1	¹	185	egrave	è	232
bull	•	8226	sup2	²	178	Eacute	É	201
middot	•	183	sup3	³	179	eacute	é	233
hellip	...	8230	lt	<	60	Ecirc	Ê	202
laquo	«	171	gt	>	62	ecirc	ê	234
raquo	»	187	cent	¢	162	Euml	Ë	203
lsaquo	‹	8249	pound	£	163	euml	ë	235
rsaquo	›	8250	curren	¤	164	Igrave	Ï	204
lang	⟨	9001	yen	¥	165	igrave	ì	236
rang	⟩	9002	euro	€	8364	Iacute	Í	205
divide	÷	247	copy	©	169	iacute	í	237
permil	‰	8240	reg	®	174	Icirc	Î	206
frac14	¼	188	trade	™	153	icirc	î	238
frac12	½	189	szlig	ß	223	Iuml	Ï	207

HTML code is not case-sensitive, but it is advisable to use only lower case letters and no upper case at all in order to be W3C compliant and to go in the direction that coding is currently headed. So, if you are just starting to create your Web site, you might want to remember that and use lower case for all your coding. In other words, use <p> instead of <P>.

Sample Entities

Name	Char	Number	Name	Char	Number	Name	Char	Number
iuml	ï	239	yuml	ÿ	255	sigmaf	ς	962
ETH	Ð	208	Yuml	Ÿ	376	Sigma	Σ	931
eth	ð	240	OElig	Œ	338	sigma	σ	963
Ntilde	Ñ	209	oelig	œ	339	tau	τ	964
ntilde	ñ	241	Scaron	Š	352	upsilon	υ	965
Ograve	Ò	210	scaron	š	353	Phi	Φ	934
ograve	ò	242	fnof	ƒ	402	phi	φ	966
Oacute	Ó	211	alpha	α	945	chi	χ	967
oacute	ó	243	beta	β	946	Psi	Ψ	936
Ocirc	Ô	212	Gamma	Γ	915	psi	ψ	968
ocirc	ô	244	gamma	γ	947	Omega	Ω	937
Otilde	Õ	213	Delta	Δ	916	omega	ω	969
otilde	õ	245	delta	δ	948	part	∂	8706
Ouml	Ö	214	epsilon	ε	949	loz	◇	9674
ouml	ö	246	zeta	ζ	950	spades	♠	9824
Oslash	Ø	216	eta	η	951	clubs	♣	9827
oslash	ø	248	Theta	Θ	920	hearts	♥	9829
Ugrave	Ù	217	theta	θ	952	diams	♦	9830
ugrave	ù	249	iota	ι	953	larr	←	8592
Uacute	Ú	218	kappa	κ	954	uarr	↑	8593
uacute	ú	250	Lambda	Λ	923	rarr	→	8594
Ucirc	Û	219	lambda	λ	955	darr	↓	8595
ucirc	û	251	mu	μ	956	harr	↔	8596
Uuml	Ü	220	nu	ν	957			
uuml	ü	252	Xi	Ξ	926			
Yacute	Ý	221	xi	ξ	958			
yacute	ý	253	omicron	ο	959			
THORN	Þ	222	pi	π	960			
thorn	þ	254	rho	ρ	961			

For years, HTML was used to format the appearance of a page. It still is to some degree, but nowadays, most of the formatting is dictated by the CSS (Cascading Style Sheets, covered later in this chapter) that you create when you first set up your Web site. Because CSS has taken over most of the formatting, you should not use HTML to do things such as centering text, changing the color of the text, etc. Let your CSS handle that and you will have a very uniform design throughout your entire site.

Head Tags. Search engines read HTML/XHTML and use it to index your site properly, especially the tags at the top of each Web page, also known as the "head" tags because they are placed between <head> and </head> at the beginning of each Web page. It is the head tags that are responsible for what you see in the SERPs – the Search Engine Result Pages – when you are doing an Internet search on keywords. Here's an example of how this could work if you did the following search:

garden center Portland Oregon

You might find the following entry in the SERPs:

Rose Garden

... for a rose or cut flower garden ... was the hybrid winner in Oregon ... center at Portland Rose Competition ...
www.TualatinGardenCenter.com/roses.htm - 28k - Cached - Similar pages

As you can see, this isn't really very helpful. The search engine tried to find Web sites with all the words you typed into the search engine, but the description just ended up being very vague. Now, if that Web site had used well-written <title> and <description> tags, you might instead have gotten this result:

Tualatin Garden Center

Just a few miles south of Portland is where you'll find the best selection of roses, flowers, trees, and shrubs, and all the supplies and equipment for ... www.TualatinGardenCenter.com/index.htm - 28k - Cached - Similar pages

That's much better, isn't it? Here's what was in the HTML code of the head tags that resulted in a better description ("snippet") appearing in the SERPs:

```
<head>
<title>Tualatin Garden Center</title>
<meta name="description" content="Just a few miles south of Portland is where you'll find the best selection of roses, flowers, trees, and shrubs, and all the supplies and equipment for your landscaping needs.">
<meta name="keywords" content="garden center, garden supplies, roses, trees, shrubs, fertilizers, landscape supplies">
</head>
```

If you want to see how this works, you can look at how a business has coded the head tags on their Web site. Just go to that Web site, right click on your mouse,

and select "view source." That will give you a view of the entire Web page the way it is written in HTML code. At the top of the code view you'll see the information between the head tags, which includes the title, description, and keywords.

Remember when you write your head tags that you must not leave out a quotation mark or any of the angle brackets. Proof your work. Be very careful about this sort of thing because search engines, no matter how well they are designed to be "intuitive," cannot catch your errors and correct them. They will just ignore them entirely and you may not get indexed properly or at all. Here's a little more detail on the individual head tags. Place these between the <head> and </head> tags on each page.

♦ **Title Tag.** This tag lets visitors and search engines know what a Web page is about. The title tag is different on every page according to what the content is on each page. Because the title tag is indexable, it should contain your most important keywords for that page, and it should say what the topic of the page is. This is not a place for a title that is cute and clever. Think about what the title will look like when it pops up in the SERPs. Visitors are more likely to click on a title if it says exactly what they are looking for. The length of a title tag should be between about 60 and 80 characters. If you make it too long, the search engines will only be able to show a part of it. Here are a few sample title tags:

```
<title>How to Care for Orphaned Kittens</title>  
<title>Catering Services by Bartoli's Ristorante</title>  
<title>Estate Planning Services by Goff & Kelly Legal  
Offices</title>
```

♦ **Description Tag.** This tag is not used regularly by all search engines, but always include it anyway for the ones that do – and that includes Google, the biggest. Like the title tag, the description is indexable, so use your most important keywords. Make sure the description accurately defines whatever you put in the title tag. If the description tag is used and appears in the SERPs as a "snippet," it will help a visitor decide if they want to visit your Web site. The length of a description tag should be between about 150 to 250 characters. This does not guarantee that the entire tag will be printed, even if it is only 80 characters. Some search engines only print as much of a description as they want to appear in their SERPs. Put your description into as few words as possible, or make your most important points in the first 50 characters. A few sample description tags:

```
<meta name="description" content="A brief history of Ire-  
land covering the Celts, Normans, Cromwell, Battle of the  
Boyne, 1798 Rebellion, Catholic Emancipation, Great Famine,  
Fenian Movement, Home Rule, Ulster Will Fight, Easter Ris-  
ing, Sinn Fein and Independence.">
```

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```
<meta name="description" content="Our best selection of 19th century antique gold and fine gem jewelry to be auctioned on September 24, 2010.">
```

```
<meta name="description" content="We specializes in personal injury and disability, Workers Compensation claims, and class actions suits.">
```

♦ **Content Tag.** Also known as the keyword tag, it is composed of nothing but keywords and keyphrases relevant to the page content. For the best indexing, most if not all of your keywords should already be contained within the text of each Web page. That's what SEO (Search Engine Optimization, covered in Chapter 4) is all about, and it makes for excellent indexing and page ranking (coming up high in the SERPs). Again, not every search engine will use this tag, but you should create it for those that do. The length of your content tag should be between about 200 to 400 characters. Here are a few sample content tags:

```
<meta name="keywords" content="personal injury, wrongful death, disability, Workers Compensation, class action, claims, settlements">
```

```
<meta name="keywords" content="electronic leak detection, video drain inspection, shower pan test, water filtration systems, tankless water heaters, septic tank inspections, plumbing repairs">
```

```
<meta name="keywords" content="knitting supplies, knitting classes, knitting needles, crochet hooks, knitting looms, latch hooks, tatting supplies, felting supplies, cotton yarn, acrylic yarn, wool yarn">
```

♦ **Ignore Page Tag.** There will be times when you have a page that you do not want to be indexed by a search engine. This can occur when you have a personal Web page that you only want your family and friends to view because it contains pictures of your vacation to Florida last year. Also, you will inevitably have pages that simply do not need to be in the SERPs because they do not include information that someone would be searching for; for example, a page of reference contacts that you only want a prospective client to have but that contains information you don't want or should not be sharing with the general public. You can tell a search engine to ignore that page by using the ignore page tag. Instead of using the title, description, and content tags, use this tag instead:

```
<meta name="robots" content="noindex, nofollow">
```

To make this tag work, you must also add it to the robots.txt file (explained in Chapter 6).

Tables, Forms, and Shopping Carts. HTML is also used for creating tables, forms, and other things such as shopping carts.

♦ **Shopping Carts.** These are blocks of code that create a "Buy Now" or "Add to Cart" button that allows a visitor to make an online purchase. You modify or customize the shopping cart code for each item you sell. The following is a sample of a PayPal Add to Cart button for a book. As you can see, the bold-faced items are the ones that you would modify each time that you use the code for different items:

```
<form target="paypal" action="https://www.paypal.com/cgi-bin/webscr" method="post">
<input type="hidden" name="add" value="1">
<input type="hidden" name="lc" value="US">
<input type="hidden" name="currency_code" value="USD">
<input type="hidden" name="no_note" value="1">
<input type="hidden" name="return"
    value="http://www.myweb.com/paypal.html">
<input type="hidden" name="amount" value="15.95">
<input type="hidden" name="shipping" value="4.50">
<input type="hidden" name="item_number" value="HG-3108">
<input type="hidden" name="item_name" value="Hiker's Guide
to Whistler Hill">
<input type="hidden" name="business" value="robin@hiker
gal.com">
<input type="hidden" name="cmd" value="_cart">
<p><font face="Verdana"><input type="image"
src="https://www.paypal.com/images/x-click-but22.gif" border="0" name="I8" alt="Make payments with PayPal - it's fast, free and secure!" width="87" height="23"></font></p>
</form>
```

Forms. For years, I relied on forms on my Web site for just about everything. I loved those little boxes that you fill in and submit. I used them for everything: ordering, updating my mailing list, subscriptions, you name it. They were great, a real convenience – for me. Not so great for my visitors, as indicated by an exit survey I did on two occasions. An exit survey is one of those pop-up boxes that asks a visitor about their experience on a Web site. These surveys are irritating to a lot of visitors, but they can really be valuable to both a visitor and to the Web site owner because they help Web designers, in general, get a better handle on what people want when they visit a Web site. My visitors wanted less forms – 78 out of 85 survey respondents to be exact. I complied. I don't use many forms anymore except for a handful that are absolutely necessary.

But you may need a form or two. Unfortunately, many Web software programs do not include options for creating forms. However, you can make them in HTML, as long as you have a Web host that can support forms and process them for you. Some Web hosts have a tool to help you both create the forms and get them processed. In other cases, your Web host may simply provide you

with some processing code to use after you have created the form in HTML. Here's the basic process for creating forms and getting them processed. Begin by doing a search on the Web for the codes that are used to create forms and follow the instructions. Here are a few of the basic tags used in form design:

Sample Tags Used In Forms Design

<code><form></form></code>	Creates the form
<code><select name="name"></select></code>	Creates a pull-down menu
<code><textarea name="name" cols=40 rows=8></textarea name></code>	Creates a text box area with measurements for same
<code><input type="checkbox" name="name"></code>	Creates a checkbox with text
<code><input type="radio" name="name" value="x"></code>	Creates a radio button with a name
<code><input type="text" name="name" size=20></code>	Creates a one-line text area 20 characters long
<code><button type="submit">Submit</button></code>	Creates a button that is clicked
<code><input type="submit" value="name"></code>	Creates a Submit button
<code><input type="image" border=0 name="name" src="name.gif"></code>	Creates a Submit button using an image you created
<code><input type="reset"></code>	Creates a Reset button
<code><select> <option value ="dogs">Dogs</option> <option value ="cats">Cats</option> <option value ="birds">Birds</option> <option value ="fish">Fish</option> </select></code>	Creates a drop-down list with options to select from

Next, create an action or submission page that is separate from the page with the form on it. This action page will not be indexed and will not be visible to your visitors. On the action page, place the code provided by your Web host that will allow them to process your form content and either E-mail it to you (the preferred method) or make it available on the server for you to retrieve/download at your convenience.

On your form page, insert code that directs or sends the form data to the action page. This is done using the "form action" attribute tag and the list of fields on the form. On the following page is a sample of how that code might look. It will result in you receiving data from the contact entry fields you have in your form.

For example, if "Mary Williams" is the person who filled in all the contact fields in your form, the data you receive will look something like this:

Name: Mary Williams

Address: 124 Jaybird Court

City: Columbus

State: OH

Zip: 43212

Phone: 614-555-1659

E-mail: mwilliams@bobblemail.net

Sample Tags Used In A Form Action Page

<code><form action="/html/tags/html_form_tag_ action.cfm" method="get"></code>	Creates the form
<code><input type="text" name="name" value="" maxlength="100" /></code>	Creates a field called "name"
<code><input type="text" name="address" value="" maxlength="100" /></code>	Creates a field called "address"
<code><input type="text" name="city" value="" maxlength="100" /></code>	Creates a field called "city"
<code><input type="text" name="state" value="" maxlength="100" /></code>	Creates a field called "state"
<code><input type="text" name="zip" value="" maxlength="100" /></code>	Creates a field called "zip"
<code><input type="text" name="phone" value="" maxlength="100" /></code>	Creates a field called "phone"
<code><input type="text" name="email" value="" maxlength="100" /></code>	Creates a field called "email"
<code><input type="submit" value="Sub- mit" /></code>	Creates a field called "submit"
<code></form></code>	Ends the form

Never use a form as your only method of contact. To any marketing person this should be a no-brainer, but it is amazing how many people still do it. If you really want to do business, you can't rely on a form as your sole means of contact. Give your visitors the option of contacting you by E-mail, by phone, by fax, and by snail mail.

CSS – Cascading Style Sheets

CSS (Cascading Style Sheets, style sheets) is what directs the HTML code as far as the appearance of your text and images is concerned. CSS also has its own little tools to format your Web pages. When written correctly, your CSS should override a browser's defaults. This means you can be sure your Web site is displayed the way it is supposed to look, the way you created it. Using a style sheet also allows you to maintain a uniformity of the design throughout your entire Web site. And, having a style sheet makes it easy for you to make global changes that affect all the Web pages in your site should you decide, for example, that you don't want your pages to use the Arial typeface but to use Verdana instead, or that you want to change all the image borders from blue to red.

There are three kinds of style sheets:

External. This is a separate text document that can be referenced from any of your Web pages and template(s). This is the preferred type of style sheet to use, as it allows you to make global changes effortlessly and it eliminates the need to keep track of any other style sheets that can be used on individual pages, such as internal or inline styles. If you use a Web page template to create all your pages, you must let that template know where your external style sheet is located. How this is achieved is determined by the software you use. If you can't figure out how to do it in your software, you can add a line of code between the head tags of your template to allow that template to reference your external style sheet, usually called "styles.css." Here is how such a reference might read:

```
<link rel="stylesheet" type="text/css" href="styles.css" />
```

On the following page is an example of a portion of an external style sheet (in two columns to save room) on the next page. Notice that the parts of a Web site, such as the headers and links and containers are all grouped together. This kind of organization is important in an external style sheet and is something you should definitely strive to accomplish because it will make it a lot easier for you to find things if and when you want to change them.

Internal. This is a style sheet that is composed of a set of style rules on an individual Web page that apply only to the Web page they are on. They are written the same way that style rules are written on the external style sheet, but are instead inserted between style tags that are placed within the HTML <head> tags of a Web page. The advantage to an internal style sheet is that you can customize it whenever necessary for a particular page(s), because the style rules are right there on the page in the code view. But, if you use internal style sheets, you have to keep track of them and make sure you change everything individually if you want to maintain a nice design appearance to your entire Web site. On page 44 is an example of what an internal style sheet might look like.

Sample Portion Of An External Style Sheet

```
@charset "utf-8";                                /*----> Containers <---*/
/* CSS Document */
/*-> Code by <-                                .container {width: 925px;
GreatWebs.com --*/                             margin: 0;
                                                padding: 0;}

/*----> HTML <---*/

body {margin: 10px 0 25px                       .sideLeftBox {margin: 0;
10px;                                           padding: 20px;
padding: 0;                                     background: #808080;
font-family: Verdana;                          color: #FFFFFF;}

font-size: 13px;                               .footerBox {margin: 0;
color: #000000;                                padding: 5px 20px 0 20px;
background: #FFFFFF; }                       background: #800000;
                                                text-align: left;
p {line-height: 1.5;                           color: #FFFFFF;}
margin: 10px 0 20px 0;}

/*----> Links <---*/

a:link {color: #CC0000;                        .sideLeft {margin: 0;
font-weight: bold;                             padding: 0;
text-decoration: underline;}                 font-size: 11px;
                                                font-weight: bold;}

a:visited {color: #999999;                    .sideLeftIndent {margin: 0;
text-decoration: underline;}                 padding: 0;}

/*----> Headers <---*/

h1 {margin: 0 0 5px 0;                        .sideLeftContent {margin: 0;
font-size: 16px;                              padding: 0;
color: #CC0000;                               line-height: 1.25;
font-weight: bold;                            font-height: 11px;
text-align: center;}                       font-weight: bold;}

h2 {margin: 0 0 5px 0;                        /*----> Footer <---*/
font-size: 15px;}

h3 {margin: 0 0 10px 0;                       .footer {margin: 0;
font-size: 12px;                              padding: 0;
color: #CC0000;}                             font-size: 11px;
                                                font-weight: bold;
                                                text-align: left;
                                                color: #FFFFFF;}

```

Sample Internal Style Sheet

```
<head>
<style type="text/css">

body {background: white;
color: black;
font-size: 15px;
font-family: Verdana
line-height: 150%;
margin-left: 72px;
margin-right: 72px;
margin-top: 72px;}

h1 {color: #CC0000;
font-family: Arial
font-size: 36px;
text-align: center;
text-transform: uppercase;}

a:link
{color: #CC0000;
font-weight: bold;
text-decoration: underline;}

</style>
</head>
```

Inline. This is similar to an internal style sheet in that it applies to only one particular page. But, its style rules only apply to individual elements, such as color or italics, and it can be hard to find them if you want to change them because they are sprinkled throughout the HTML code for that page. It may be fine for one or two things here and there, but for the most part, this kind of style sheet should really be used judiciously or avoided altogether if possible. Here's what it looks like when used to apply a style to a single paragraph:

```
<p style="color:#CC0000; margin-left: 26px">This is my
paragraph.</p>
```

If you use more than one style sheet, they will all reference the external style sheet first, but any specific styles used in the inline style sheet will override those same specifics in the internal style sheet, and those styles in the internal style sheet will override those styles in the external one. So, for example, if you have an external style sheet that defines all the `<h1>` tags as:

```
h1 {color: CC0000;  
text-align: center;  
font-size: 18pt;  
font-weight: bold;}
```

and you also have an internal style sheet on a particular page that further defines the h1 tag as:

```
h1 {color:#669966;  
text-align: center;  
font-size: 20pt;}
```

and on that same page you also have an inline style that even further defines only one of the h1 tags on that page as:

```
<h1 style="text-transform: uppercase;">This is my special  
header.</h1>
```

then you will end up with that one header on that page being the color #669966, centered, boldfaced, 20pt, and all uppercase.

Style Rules

Structure and syntax are important components of CSS. The style rules must be written and punctuated correctly to ensure that they give you the desired results. Here is some CSS written to format the paragraph tag or <p> tag to generate paragraphs that are 1.5 line spacing, aligned to the left, in a typeface called Verdana, a font size that is 13px (roughly 10pt), with black text on a white background.

```
p {line-height: 1.5;  
text-align: left;  
font-family: Verdana;  
font-size: 13px;  
color: #000000;  
background: #FFFFFF;}
```

CSS consists of two style rules called a "selector" and a "declaration." Each declaration is broken down into two sub-rules: "properties" and "values." In the example above, the selector is the "p" (the paragraph). Each of the lines below the "p" are declarations (between the curly brackets), with the property referring to the HTML element that a style is being applied to, and the value being the specification for how that property should look.

In other words, "line-height" is a property and "1.5" is its value, and combined together they form the declaration for the selector ("p"). The selector is

always followed by an opening curly bracket, and at the end of the list of declarations for that selector is a closing curly bracket. The property always has a colon after it and the value always has a semi-colon after it. Leave any of that punctuation out, and your style will not be applied. Also, when it comes to things like font sizes, be sure you type the font-size as 13px; and not font-size: 13 px. That space between the 13 and the px is not recognized by all browsers.

SELECTOR	DECLARATION	
paragraph	line height	
p	PROPERTY line-height	VALUE 1.5

JavaScript

In addition to HTML and CSS, there's also a scripting language called JavaScript (not to be confused with a programming language called Java). It also works hand-in-hand with HTML/XHTML. With JavaScript, you can create mini-programs that run on a page or pages of your Web site. These programs make your pages more dynamic and interactive for the visitor. You don't need to learn how to write JavaScript as you can copy and paste most scripts into your templates from many Web sites that offer them, usually free of charge. You can look for JavaScript code that creates pop-up windows, builds slide shows, makes navigation bars, verifies or validates when someone fills out a form completely, gives a visitor instructions, or changes the color of a button when you hover over it, like the following "image swapping" JavaScript:

```
<script language="JavaScript" type="text/JavaScript">
<!--
function MM_preloadImages() { //v3.0
    var d=document; if(d.images){ if(!d.MM_p) d.MM_p=new
Array();
    var i,j=d.MM_p.length,a=MM_preloadImages.arguments;
for(i=0; i<a.length; i++)
    if (a[i].indexOf("#")!=0){ d.MM_p[j]=new Image;
d.MM_p[j++].src=a[i];}}
}
function MM_swapImgRestore() { //v3.0
    var i,x,a=document.MM_sr;
for(i=0;a&&i<a.length&&(x=a[i])&&x.oSrc;i++) x.src=x.oSrc;
}
}
```

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```
function MM_findObj(n, d) { //v4.01
  var p,i,x;  if(!d) d=document;
  if((p=n.indexOf("?"))>0&&parent.frames.length) {
    d=parent.frames[n.substring(p+1)].document; n=n.sub-
string(0,p);}
  if(!(x=d[n])&&d.all) x=d.all[n]; for
  (i=0;!x&&i<d.forms.length;i++) x=d.forms[i][n];
  for(i=0;!x&&d.layers&&i<d.layers.length;i++) x=MM_find-
Obj(n,d.layers[i].document);
  if(!x && d.getElementById) x=d.getElementById(n); return
x;
}
function MM_swapImage() { //v3.0
  var i,j=0,x,a=MM_swapImage.arguments; document.MM_sr=new
Array; for(i=0;i<(a.length-2);i+=3)
  if ((x=MM_findObj(a[i]))!=null){document.MM_sr[j++]=x;
if(!x.oSrc) x.oSrc=x.src; x.src=a[i+2];}
}
//-->
</script>
```

Another use for JavaScript is the tracking code used by Google Analytics. Google provides you with the code and your Google Analytics account number. You fill in your account number in the code (it starts with "UA" and is followed by a string of eight numbers), and then you paste that code into the pages where Google tells you to.

```
<script type="text/javascript">
var gaJsHost = (("https:" == document.location.protocol) ?
"https://ssl." : "http://www.");
document.write(unescape("%3Cscript src='" + gaJsHost +
"google-analytics.com/ga.js'
type='text/javascript'%3E%3C/script%3E"));
</script>
<script type="text/javascript">
try {
var pageTracker = _gat._getTracker("UA-xxxxxxx-x");
pageTracker._trackPageview();
} catch(err) {}</script>
```

As you can see, the JavaScript is always contained between an opening and closing script tag. That script is all contained within either the head tags <head></head> or the body tags <body></body>. When placed between the head tags, the script loads before the page does, and body script is generally executed to generate HTML content.

If you have more than one page that relies on a particular block of JavaScript code, you can place the code in a page created in a Notepad file with the extension .js, and then reference that page on whatever Web page uses the

script. This is a good idea if you ever have to modify that script, because you only have to make the changes in the .js file. The reference would appear on the pages that use the script and would look similar to this, with "mycode.js" being the file that contains the code being referenced:

```
<script src="mycode.js">  
</script>
```

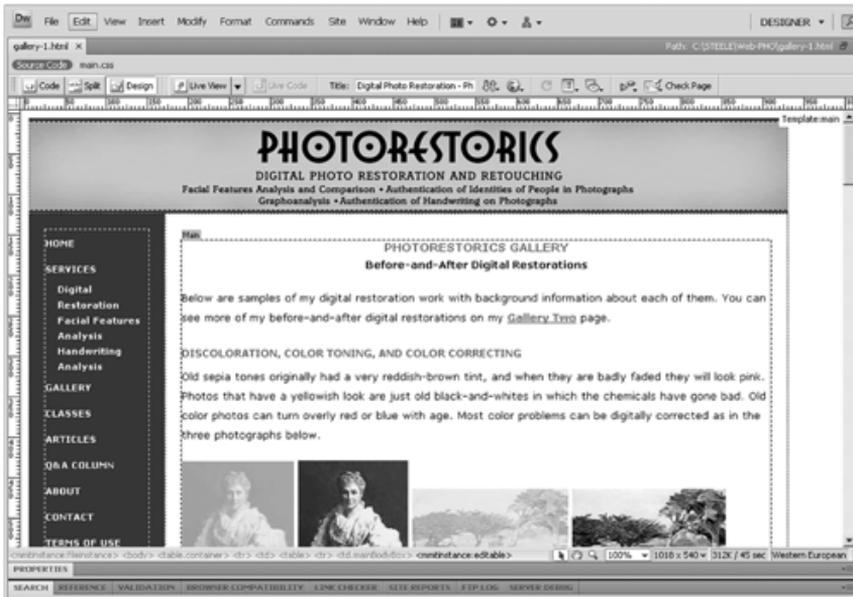
If you rely on JavaScript to create your navigation and links, please be aware that search engines, which are text-based, may have difficulty crawling and indexing your site as a result. If you use JavaScript and want to see whether your site can be crawled and indexed properly, view your Web page in a text browser such as Lynx. If you can see all of your site in a text browser, then a search engine will probably see it too. If you can't see all of your site in the text browser, you should reconsider your use of JavaScript. Remember, if a search engine can't index you, no one will find your site.

Page Views

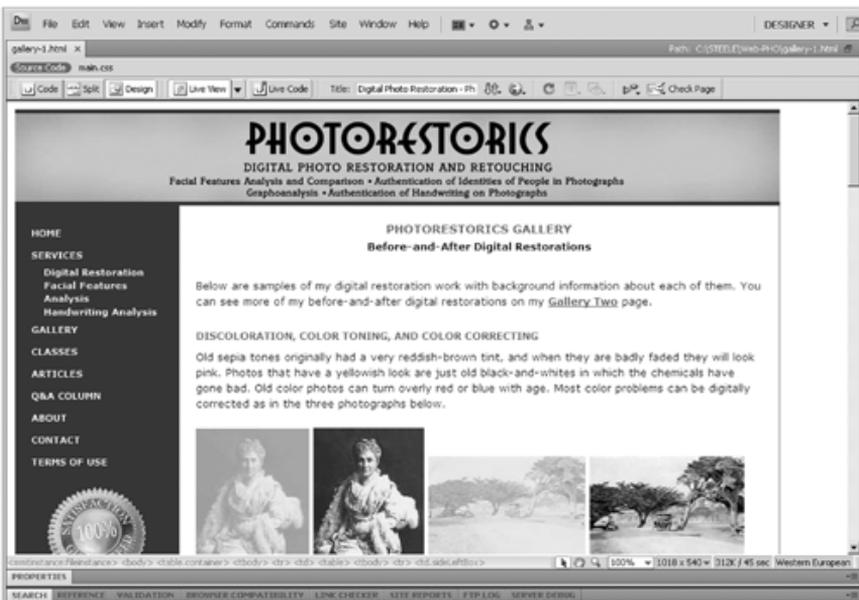
In most Web software you will have the option of looking at your CSS file and of seeing at least two views of your pages: the code view (also called HTML or source view) and the page view (also called the design view). You may also get to see approximately what your page will look like by going to a preview mode before you preview it in a browser. And, in most cases you will be able to split the screen and see the design view and code next to each other or the design and CSS view next to each other, or some other combination of views.

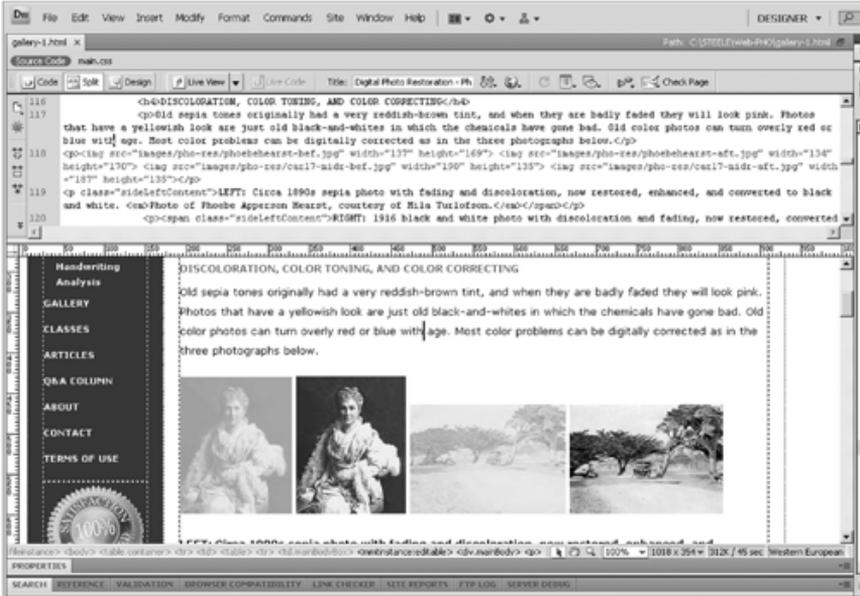
Having these multiple view options are very helpful when you are making design changes and want to see the CSS and the Design views at the same time. It's also helpful when you're creating forms or tables and need to see the HTML code and the Design views as you work.

There are also other ways that you can customize the screen view in your software. I work directly with HTML most of the time, so I usually have the screen split with a small amount of code showing on top and the majority of the design view on the bottom. Since I don't work much with the Dreamweaver interface, I adjust the entire page to show my list of file pages on the right and to hide most of the Dreamweaver tools. The following are sample page views from Dreamweaver and Expression Web.

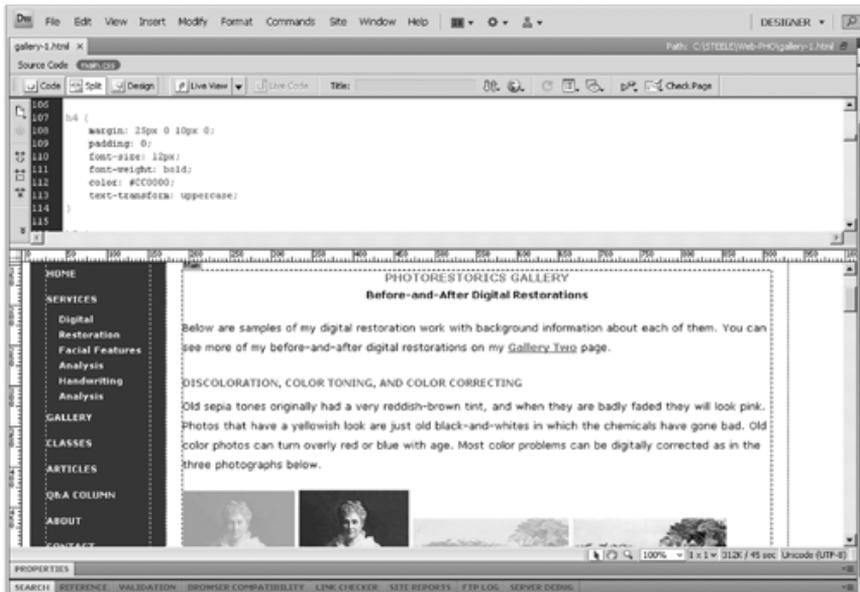


Design View (above); Preview View (below)





Split Views: Code/Design (above); CSS/Design (below)



information, including a shopping cart, but it's all neatly arranged. In addition, because this page relies on an external style sheet, it isn't filled with unnecessary or outdated code.

```

<span class="BookTitles">PLANTSCAPER'S GUIDE</span><br>
<span class="BookTitles">to Interior Landscape Maintenance</span><br>
<strong>2009, 4th ed.</strong><br>
by Joelle Steele</strong><br>

<span class="BookTitles">Guia para Plantscapers:
El Mantenimiento de Plantas Interiores</span><br>
<strong>2008, 1st ed.</strong><br>
<strong>by Joelle Steele</strong></p>

<strong>It's a fact: At least 90% of all plant losses occur directly and/or indirectly as a r
techniques. Learn how to water correctly and stop plant losses now!</strong></p>

<h1>MORE THAN 4,000 COPIES SOLD!</h1>

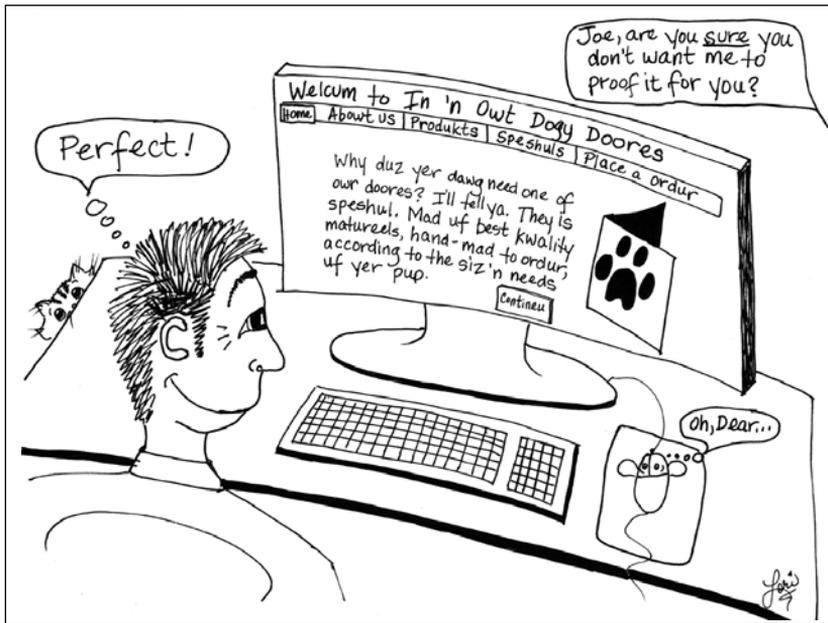
<strong><em>Plantscaper's Guide</em></strong> covers all the interiorscape basics. Most import
watering techniques. You'll learn to water correctly and reduce your plant losses starting today. You'll l
apply water; how much water to apply; and how the pH, temperature, and content of water affect the ability
and the fertilizers you apply. You'll also learn about soil, pests, light, temperature, plant nutrition, w
plant, and how to read and interpret a fertilizer label.</p>

<p><strong>Contains 85 illustrated plant profiles and four pages of Q and A material covering some frequ
questions from interiorscape technicians. The book is available in English or Spanish. The English version
Spanish-English/English-Spanish glossary, and the Spanish Edition has a Spanish-English glossary. Also avai
with the author's English narration of all but the plant profile section. 97 pgs, 5.5 x 8.5, B&W photos/dw
for easy use. <strong>FREE SHIPPING.</strong></p>

<p><strong>BK-001-EN - 2009, 4th ed., English - $19.95 ea.</strong></p>
<form target="paypal" action="https://www.paypal.com/cgi-bin/webscr" method="post">
<input type="hidden" name="lc2" value="US">
<input type="hidden" name="currency_code" value="USD">
<input type="hidden" name="no_note" value="1">
<input type="hidden" name="return" value="http://www.joellesteele.com/paypal.html">
<input type="hidden" name="shipping" value=".00">
<input type="hidden" name="amount" value="19.95">
<input type="hidden" name="item_number" value="BK-001-EN">
<input type="hidden" name="item_name" value="Plantscaper's Guide">
<input type="hidden" name="business" value="joellesteele@horizonpublications.com">
```

Neat or “Pretty” Code (above)

For more detailed information about HTML/XHTML, CSS, and JavaScript, you can search online for the kinds of programs you want or the functions you want performed on your Web site, or you can visit the library or bookstore and get a book (or two) on the subject of coding Web sites.



CHAPTER 4 - WRITING

Writing means content for your Web site, and on the Internet there is an old saying that "Content is King." And it's still very true. The Internet and the World Wide Web are entirely word-driven. Content, particularly "relevant content," is what search engines like Google are looking for and it's what visitors are seeking. By comparison, the rest is mere window dressing. Pretty – as in attractive design – is fine, but it won't draw visitors to your site and it won't make them buy once they get there. Words will. In fact, it's the written content that dictates the design. How well you write and code your Web site determines much of its success.

Determining Content

Your first step in creating your Web site is to decide what to write about, what kind of content to include that will help or inform your visitors, and what pages to make to hold that content. Always remember that you are creating a Web site for visitors above all else. You're not writing for search engines alone, and you are definitely not writing for yourself. Keep the needs and expectations of your visitors uppermost in your mind as you decide what to include on each page and how to write about it.

Create content that is unique, current, and appropriate for your visitors. Give them something that fulfills a need, provides a solution. You can write a blog, have a forum, or a collection of well-thought-out articles. Don't just repeat something that everyone else is already saying or doing, and don't merely duplicate your own content throughout your Web site in various incarnations.

Start with an introduction, expand on the subject matter, and then summarize or recap when you're done. As you write, try to include the applicable keywords and keyphrases that your visitors might use to find the information you are writing about. Don't go crazy with them, and don't duplicate them on a page, unless it is necessary. If you're writing something that is regional, be sure to say so. For example, if you own a shoe store in Dallas, write your pages using keywords and keyphrases such as: Dallas, Texas, shoes, women's shoes, men's shoes, boots, athletic shoes, etc. If you're writing a "how to" article about pruning shrubs, make it clear what part of the country you're in and what kinds of shrubs you're pruning.

There are a few basic pages that almost every Web site should include:

Home. This is the single most important page in your Web site because it is the first page that gets crawled by search engines. This page should always include the who, where, when, what, how, and why of your business, all written with your most important keywords and keyword phrases. It should also include navigation links to all the other pages in your Web site for search engines to follow. Your Home page file will usually be named index.html.

Contact. This is the second most important page and yet it is frequently the most poorly created page, is often hidden, and is sometimes excluded altogether. Please try to remember that you are creating a Web site for your business. If you want to do business, you absolutely must make yourself accessible to visitors, and in as many ways as you possibly can. Not everyone will want to send you an E-mail, although that is the most common form of communication on the Web. And according to Web site focus groups, more than 80% of all people confronted with only a form to fill out as a means of communication will opt to leave your site and go elsewhere. That's a lot of potential business being thrown away. Forms can also malfunction from time to time. So give your visitors – your potential customers – an option of E-mail too if you insist on using a form as a means of communication.

Some people will want to talk to you, and a handful might want your mailing address. Some may just want to see the mailing address to know where you are. Others might want to fax you. List every form of communication that you can. And then be sure that you respond in a timely manner, within an hour is best, but at least daily. You might also want to put your hours of operation on the Contact page. Here's a sample of a thorough and well-written Contact page:

The Small Business Webmaster

Jonathan McMillan, President/CEO
McMillan Copy and Printing Services, Inc.
23009 Industrial Boulevard, Suite #110
Commercial City, WA 94605-3408
United States of America
(206) 777-2400 Phone
(206) 777-2411 Fax
(206) 963-2165 Cell
mac@mcmillanprinting.com
Store Hours: 9am-7pm, Mon-Fri;
10am-5pm Sat; Closed Sundays.

About. This is another page that is often missing or poorly written. It is an important page because it helps establish your credibility. It is the place where you can cite your knowledge, training, education, experience, and expertise. It's where you tell people when your company was started, by whom, for what reason, where, and how it has grown. In addition, if you have employees, you can showcase the background and talents of your key staff members. Here's an example of a well-written About page:

Nicholas Church is the owner of Ephemera Authentications, an online service that analyzes and authenticates autographs and other handwritten or printed matter. Church is a certified document examiner who launched www.ephemera.com in 1998 as the online counterpart to his collectibles store, Ephemera Memorabilia, in St. Louis, Missouri. Church's list of prestigious clients includes the Londheim Museum, Boston Treasure Auctions, and the Arthur Crumm Military Library. He is the author of "Church's Guide to Autograph Collecting," as well as numerous articles about collectibles on paper.

Services. Your Services page may not have such a generic name. It might instead say the name of the service itself, e.g., interior design, pet sitting, automotive repairs, public storage, etc. List all your services and explain them in as much detail as possible. If you have a lot of services, you might want individual pages for each, in which case you should have links to those individual pages in your main navigation. Here's an example of part of a Services page:

The Marshall Dentistry Group is a full-service family dental practice. We provide the following services and use the latest state-of-the art equipment and techniques practiced by our staff of highly-skilled and well-trained professionals.

Exams	Digital X-Rays	Intraoral Scanning	Cleaning	Whitening
Fillings	Extractions	Implants	Root Canals	Crowns
Dentures	Partials	Bridges	Nightguards	Braces

Products. As with services, you will probably have a more specific name for your products. For example, if you are a publisher, your page may instead be called "books." Presumably, if this were the case, you would probably sell many kinds of books, and so you would probably need to have separate pages for different types of books or for individual books. Products pages are usually selling pages because they offer a shopping cart so that a visitor can make an online purchase. Here's a sample of part of a Products page, similar to the Services page:

At Lush Lighting, we offer an impressive selection of the finest lighting fixtures and accessories from hundreds of manufacturers worldwide.

Chandeliers	Ceiling Lights	Ceiling Fans	Table Lamps
Desk Lamps	Pendants	Mini-Pendants	Drum Pendants
Floor Lamps	Wall Lamps	Sconces	Swing Arm Lamps
Marine/Nautical	Landscape	Recessed Lights	Bathroom Vanity
Track/Rail	Under Cabinet	Tiffany Style	Lamp Shades
Bulbs	Doorbell Buttons	Bath Hardware	Glass Shades
Dimmers	Controls	Transformers	

If you want it and we don't have it, we can get it for you -- fast!

Testimonials. It can take awhile to accumulate a lot of testimonials, and you'll probably have to solicit many of them yourself, but once you have a bunch of them, they can be on a separate page that has a link to the service or product selling page that the testimonial is about, or they can be right on the selling page itself, if you can squeeze them in. If you can't, you can show some of them and then put a link to "more" as follows:

Your new Watson drillmaster is great. Works like a dream.

– Phil Landy, Union, NJ
[more ...](#)

Resources. Sometimes this generic name is replaced with something more specific, such as "articles," "glossary," or "calendar." If you are resource-heavy on your Web site, you may have several Resource pages. Resource pages are great for attracting visitors who might not otherwise find your site and who might become customers or clients based on the information and expertise you convey in your articles or other resources. Examples of some of the many possible resources you could provide include: articles, advice columns, blogs, calendars, demos, forums, glossaries, links, videos, and sitemaps.

Portfolio. Not every business has a need for a portfolio, but if you do projects of any kind, this page is a must, as it will showcase your work, in particular your best projects, the most unique ones, and the ones that are most representative of your skills and talents. Here's a sample portion of a portfolio page:

Banfield and McCoy specializes in residential landscape design and installation. The following are just a few before and after shots of some of our latest projects.



BEFORE



AFTER



Employment. This is an optional page on which you can describe career opportunities with your business. Even if you don't have openings, this can still be a very helpful page if you have the kind of business that people want to work for. This page can be used to describe the kinds of jobs your company has and invite potential employees to submit their resumes, even if you don't have an opening. And when you do have an opening, you can post the information about the job and invite resumes and applications. In any case, it is a good page on which to state the basic philosophy of your business, its hiring practices, and the benefits of working for your company. As always, a means of contact should be placed on the page. Here's an example of a very simple employment page:

At Coronado Construction we're always growing and looking to expand our workforce with the most qualified employees. We offer competitive salaries; health insurance; a retirement plan; a tax-sheltered annuity program; supplemental savings programs; sick, vacation, and unpaid leave; and domestic partner benefits.

We have no openings right now as we do most of our hiring in the early spring. In the mean time, please feel free to submit a cover letter and resume to us at: jobs@coronado.com.

FAQs. In general, if you wrote the rest of your Web site correctly, Frequently Asked Questions should not be necessary at all. They should be answered on the appropriate pages. But, there are instances where FAQs come in handy, particularly if you sell a product or service that tends to generate a lot of questions that are hard to answer on the individual selling pages. In those cases, you might want to have a link to an FAQs page instead. Just don't rely on an FAQs page to do the job that should be done on your selling pages.

How Visitors Read

When you start to write your pages, it is helpful to understand a little about how people read Web pages, because they don't read them the way they do books, magazines, or newspapers. Almost 80% of all Web visitors scan Web pages, relying on subheadings, links, underlined words, etc., to guide them to the information they are seeking. This means that the way you arrange the page, organize it, and break it down into sections with headings will help your visitors find things. Occasional use of bulleted or numbered lists can also help in some cases, as long as you don't overdo it. Once a visitor finds what they are looking for, they tend to read 25% more slowly online.

There has been much said about the attention span of the average Web site visitor. For the most part, it is believed that visitors have very short attention spans and will give only a minimal amount of time to any given page. While this is true when it comes to assessing a page to see if the information on it is what the visitor is seeking, once they find what they want they are likely to do some serious reading. For that reason, it is advisable to keep your word count down on your primary navigation pages by being very succinct and sticking only to the most important details, such as those on your selling pages. This also helps keep that important information “above the fold” (the top area of a Web page that appears on screen without the need to scroll down). With articles and resource pages you can write to any length because visitors expect to spend more time reading the details on those pages.

Establishing Credibility

Establishing your credibility on the Web is extremely important. In many cases, your visitors will never have an opportunity to meet you person-to-person, face-to-face, and the About page can only do so much. The rest of your credibility is going to be directly reflected in the content of your writing, the style in which you write, and the way that you present your writing.

Let's start with content. Think about what you want to say and what your visitors need to know in order to make a buying decision or a decision to contact you about becoming a client/customer. They will want details, so give them

details. If you are a lighting store, list the types of fixtures you sell by style and by brand, types of repairs you make, whether you install lighting systems, whether you specialize in residential or commercial, etc. If you are an online retailer who sells shoes, list the styles and brands of shoes, note any issues with fit, provide shopping cart buttons for purchases, explain your shipping policies, state your return policy, etc. If a visitor doesn't see this information, they are going to have doubts about whether they should do business with you, and they will not bother to contact you. They will simply go elsewhere to find what they want.

Provide your visitors with some resource articles, if applicable. For instance, if you sell a product that often generates questions about where it comes from, whether it is safe or eco-friendly, how it is made, or how to store it or use it, those questions can be answered briefly on the selling pages, with links to more detailed articles that you write. If you don't have enough background information about the products you sell, do your research until you do know enough, and then write the articles.

Writing Process

Writing style is always important in marketing. And, as is always the case with marketing, the needs of your potential customers/clients must always come ahead of everything else. Whatever you write in your marketing text, be sure it stresses the benefits that the potential buyer wants. If you can't achieve that, they won't buy.

Creating Rapport. Be friendly and add a little sense of humor if it fits your business. But don't get carried away with trying to be too funny, as it often backfires and makes you look unprofessional. Be sure to maintain a conversational tone using "we" and "you." Write like you're talking directly to your visitors, because you are, even if it is across the vast reaches of cyberspace. Your friendly personality, as well as your professionalism, must come through in your writing.

Write Tight. Write in short sentences and be very clear and concise. While it can be hard to do this and still be friendly and conversational, it is a necessity on the Web where visitors are looking for detailed information and want it f-a-s-t. Use about 35% to 50% fewer words than you would normally use to write about the same subject if it were an article in a magazine or a chapter in a book. Remember to answer the who, where, when, what, why, and how of everything you write about, and always write your pages and/or paragraphs in a format that has a beginning (introduction), middle (details), and end (recap, summary, or call-to-action).

State the Facts. Let facts and statistics sell your products and services. Don't rely on promotional puff/fluff wording that doesn't really say anything that will help the visitor become a customer/client. Avoid using words like "biggest," "highest

quality," "best," "fantastic," etc. These are all empty adjectives that don't really mean anything. If something is really the biggest, just state its dimensions and weight; if it is the highest quality, mention that it comes with a 30-year warranty. Be careful not to get repetitive or too wordy. Visitors will get tired of sifting through the verbiage on their way to getting the information they really want and will simply exit your Web site and go elsewhere.

Anticipate Problems. As you write, try to anticipate questions or potential problems that visitors might have and answer those questions and face the potential problems upfront. If a product requires special care to keep it in good working order, say so, and describe what that special care consists of. If you only provide your service or product to consumers/clients within a specific geographical area, state that fact and list in detail the cities or counties or states in which you do conduct your business. Remember that with products your customers are likely to come from anywhere in the world. The World Wide Web is a global marketplace for all businesses. Be prepared to respond to that demand.

Spelling & Grammar. Don't rely on spell checkers because they can't catch a lot of the most common spelling errors. For example, they can't tell the difference between your/you're, there/their/they're, it/its, minor/minor, scene/seen, cite/site, etc. If you can't spell, buy a good dictionary and learn to use it. When you do your own marketing it's a must. Don't rely on grammar checkers either. Like spell checkers, they can be helpful, but they can't do the job as well as someone who takes the time to learn how to write correctly.

◆ **Syntax.** Some things can't be fixed by the best of editors, such as syntax (the order in which words occur in a sentence), because the very fact that the syntax is poor makes it hard or impossible for someone to understand it. Here's an example of bad, unintelligible, syntax.

The widget is attached to it, and it should be inverted, and then it should be configured before use.

In the above example, can you tell what "it" is referring to in each case and exactly what is supposed to be done with "it"? Probably not. That's why the syntax was bad. And in writing, especially if you are providing a visitor with instructions, you must be very clear and specific about what to do. Here are some examples of how the above sentence might be rewritten to clear up the confusion. As you can see, that sentence could have been interpreted in more than one way.

1) *The widget is attached to the gadget, and the gadget should be inverted, and then the widget should be configured before use.*

- 2) *The widget is attached to the gadget, and the gadget should be inverted, and then the gadget should be configured before use.*
- 3) *The widget is attached to the gadget, and the widget should be inverted, and then the gadget should be configured before use.*
- 4) *The widget is attached to the gadget, and the widget should be inverted, and then the widget should be configured before use.*

You can probably catch a lot of grammar and syntax errors and see if your writing makes sense by simply reading your work aloud. This will also help you edit your writing to make its style more conversational.

◆ **Tense.** Write in active, not passive tense. In case you forgot the difference, here are two examples:

1) **Active:** *The marketing department is reviewing our new line of products.*

Passive: *Our new line of products is being reviewed by the marketing department.*

2) **Active:** *The FDA determined that the drug was not safe for use by children.*

Passive: *The drug was determined by the FDA to be unsafe for use by children.*

Hiring Help. If you decide to hire a writer for your Web site, think again and think smart: Hire an editor instead. Draft your own pages using all the guidelines above, and then let an editor make any corrections to your pages. Hiring an editor is expensive; hiring a writer is even more expensive. A writer has to spend a lot more time creating all your content, regardless of whether they fully understand what you sell or who your target audience is. On the other hand, if you write it yourself and hire an editor, the editor only has to know all the elements of good English to simultaneously fix your mistakes and enhance your writing. If the editor additionally knows how to write for the Web, that would be a definite plus.

Finalizing Content. Once you have finishing writing and editing your work, proof it carefully. Then, set it aside for at least three to five days. Come back to it after that period of time with a fresh set of eyes. Re-read it and do any additional rewriting or editing. Once you've done that, proof it again, and then have other people read it and ask them to honestly critique it. Don't just ask them if they like it. With such a general question, most people will simply say, "Oh, I thought it was just fine." So, give them a list of some specific questions to ponder as they read, such as:

What things were unclear?

What can I include to make my business sound more approachable?

What can I write that would make me sound more credible and trustworthy?

What else could I include that would help a visitor make a buying decision?

What do you recommend that I add to the section on _____?

When you get responses to your questions, rewrite and edit as necessary. When you're sure you've done your absolute best, proof it again very carefully.

Keep Text Clean. Write your Web pages in Word or whatever word processing software you have. Do not do any formatting such as indenting, boldfacing, etc. When you are finished writing your content, copy it into Notepad or whatever text editor you have. Notepad will automatically remove all of the invisible formatting codes that are in your word processing software. From Notepad, copy the content into your empty Web page, and then format it using your Web site software.

Avoid Code Contamination - Keep Text Clean

Write content in:		Remove formatting in:		Format text in:
WORD	>	NOTEPAD	>	WEB PROGRAM
Gwendolyn Publications		Gwendolyn Publications		Gwendolyn Publications
Articles & Resources		Articles & Resources		Articles & Resources
ARTICLES. Articles about how to get published.		ARTICLES. Articles about how to get published.		ARTICLES. Articles about how to get published.
RESOURCES. Links to glossaries, samples,		RESOURCES. Links to glossaries, samples, and		RESOURCES. Links to glossaries, samples, and more.

Search Engine Optimization (SEO)

Search engine optimization or SEO is the process of improving and enhancing your writing to increase the quantity and quality of the traffic to your Web site by relying on "natural," "algorithmic," or "organic" search results, as opposed to other forms of search engine marketing that may require some form of payment for inclusion in a search engine. You want your Web site to be ranked as high as possible in the SERPs because the higher it is, the more visitors will find it, and the greater your chances of turning a visitor into a customer.

But SEO-ing the content of a Web page is not enough. You must also SEO the HTML code to conform with the relevant content and keyword-rich text that search engines like to find when they are indexing a site. And through it all, you must still manage to write pages that are informative and promotional for your visitors, since their needs are of the utmost importance. By following the directions throughout this book, you will be well on your way to having a fully search-optimized and therefore "search-friendly" Web site.

Keywords. To SEO your pages, make sure that you include the applicable keywords and keyphrases within your content. Think about the words and phrases that your visitors might be searching on to find you, and think long and hard about it. They may use words you might not ever think of to describe your products and services, or they may use words that are no longer as popular to describe what you do. Make sure you use those words. For example, if you are a landscape contractor, use keywords that are variants of the word landscape, but also use words like yard, garden, gardening, horticulturist, lawn service, weed control, pruning, pest control, etc. Try to think like a visitor does and cover all the bases so that they will find you.

Stuffing. Don't duplicate or repeat your keywords and keyphrases unnecessarily, as that may result in your Web site being dropped from a search engine for "stuffing" or "cramming." Don't try to hide those excess keywords either, because even if you can't see them, those "hidden" words are still in the HTML code, and that's what a search engine reads. In addition, don't try to get more traffic or boost your rankings in the SERPs by including keywords that have nothing to do with anything on your site, such as names of celebrities or other products that normally outsell yours. Search engines don't always catch this, but visitors do, and it will irritate them and cause them to leave immediately. You will not have gained anything at all.

Headings & Subheadings. Use keywords and keyphrases in your headings and in subheadings, and keep those headings and subheads short and very specific. If your page title is too cutesy, use a subheading under it to explain what the page is about for your visitors and for search engines.

Titles, Page, and File Names. Almost everything is indexable by search engines, so think before you put a title on a page or name a file. Make sure that each uses a keyword or keyphrase. Your file name, title tag, and page title might be as follows:

FILE NAME

```
birdhouse.html
```

META TAG TITLE

```
<html>
<head>
<title>How to Build A Birdhouse</title>
<meta name="description" content="Complete step-by-step
instructions for building birdhouses.">
<meta NAME="KEYWORDS" CONTENT="bird house, birdhouse, build
a birdhouse, building birdhouses">
```

PAGE/ARTICLE TITLE

How to Build A Birdhouse

by Robin Crow

This article will explain how to build a birdhouse one step at a time.

Your HTML pages should have file names with the extension .html. The .htm extension is still in use but is becoming "deprecated" – outdated and used less. Some of your other file names may end in .xml, .php, .pdf, etc. Use all lower case words in your file names because this is the direction that the Web is going. Don't ever put spaces between words in your file names. It's okay to use hyphens or underlines, but only when absolutely necessary. Don't use non-letters or symbols like "&" or "\$" in your file names either. Keep your file names short and simple, and don't nest them too heavily. In other words:

DO: www.princessparties.com/menus/desserts/birthdaycakes.html

DON'T: [www.princessparties.com/Catering Services/Party Menus/Cakes & Pies/BirthdayCakes.html](http://www.princessparties.com/Catering%20Services/Party%20Menus/Cakes%20&%20Pies/BirthdayCakes.html)

If you have lots of pages, create a simple system of directories/folders in which to store them so that you don't have to nest those pages so deeply. For the benefit of search engines and visitors, keep your files no more than two clicks deep.

Don't number your files like I did way back when – article-1.html, article-2.html, article-3.html, etc. This meant I had to rely on a list to keep track of what was in each article. Big waste of time, and although those files did get indexed, they never were indexed as well as they could have been had I given those pages better descriptive file names that included some keywords.

Once you pick a name for your file and launch that file, don't ever change that name. You can revise or expand the content, but don't change the file name. Once it is in the search engines, it has a ranking that you don't want to lose by changing the file name and having to get it indexed all over again.

Content. If you've done everything mentioned so far in this chapter, search engine optimizing your content should be a snap. Make sure you're using your most important keywords throughout your text, but only when it is necessary and relevant. Your content must remain readable and not sound awkward to your visitors. Remember, you're writing for them first, search engines second. Below is an example of some content before and after it has been SEO'd.

***Before:** The first step to creating your landscape is a good design. A landscape designer or landscape architect can create a well-thought-out plan that will fit your budget, be maintainable at the level you require, be enjoyable for you and your family, and will grow to enhance the value of your home. It all starts with*

the plan. That's why good designers ask their clients so many questions before they put pen to paper. And the process takes time, so they want to get it right from the very beginning to avoid any unnecessary and expensive re-working of the plan down the line.

After: *Design is the first and most important step to creating your landscape. A landscape designer or landscape architect can create a well-thought-out design plan that guarantees a landscape that will fit your budget, be maintainable at the level you require, be enjoyable for you and your family, and will grow to enhance the value of your home. It all starts with the design. That's why good designers ask their clients so many questions before they start designing your landscape on paper. And a good design plan takes time, so they want to get it right from the very beginning to avoid any unnecessary and expensive re-designing down the line.*

The content above was rewritten to emphasize the keywords "landscape" and "design," because this paragraph is on a Web site belonging to a landscape architectural firm. While the basic structure of the "before" paragraph was okay, it needed to emphasize those keywords for better search engine indexing. As I did in the "after" paragraph, I often change the first sentence to lead with a keyword.

Creative Rights

There are many legal rights involved in writing, illustrating, and in other ways creating a Web site. It is extremely important that you understand those rights and that you follow the laws that surround them in order to protect your own rights and to avoid infringing on someone else's rights. In particular, you should have a thorough understanding of copyright law so that you do not become a plagiarist. The Internet is rife with plagiarism, and you do not want to deliberately or inadvertently participate in the violation of the rights of others.

Constitutional Rights. When most people think about their rights, one of the first that comes to mind is that of their "first amendment" rights, their constitutional right to free speech as guaranteed by the United States Constitution in the Bill of Rights:

Amendment I: *Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.*

Having the right to free speech does not mean that you should misuse this right by being careless with how you use it. Just because you have the right to say something does not mean it is the right thing to say. Think before you write.

Intellectual Property. Intellectual property is essentially the intangible creation of the mind made tangible in the form of a book, an illustration, a screenplay, a recording, or a website. How and to what degree your intellectual property is protected by law depends largely on where in the world you live.

Ownership and Possession. Before you can copyright anything, you need to establish ownership. For example, if you found your grandmother's diary in the house you inherited from her, do you then own the diary? Simply having possession of something does not automatically make you its owner. To establish ownership of something you possess, you must be able to prove that you obtained it legally. In other words, you either were given it by its legal owner, bought it, made it yourself, or inherited it. Since you inherited the house and its contents from your grandmother, you own the diary. But, according to the U.S. Copyright office, you might not own the copyright to it:

Mere ownership of a book, manuscript, painting, or any other copy or phonorecord does not give the possessor the copyright. The law provides that transfer of ownership of any material object that embodies a protected work does not of itself convey any rights in the copyright. Copyright is the right of the author of the work or the author's heirs or assignees, not of the one who only owns or possesses the physical work itself.

What about that beautiful photograph of your Aunt Evelyn? Do you own it? Can you copyright it? Probably not on both counts. Unless you took the photo yourself and still have the negatives, it would be pretty difficult to establish your ownership of something that could very well exist in duplicate somewhere else in the world.

Copyright. International laws are governed in part by the 1994 General Agreement on Tariffs and Trade (GATT), which makes commercial copyright piracy a criminal offense. In the United States, as well as in other countries, intellectual property may be copyrighted. In the United States, a work is copyrighted as soon as it is created in a fixed tangible form — painted, printed, burned on a CD, filmed, published on a website, etc. According to the U.S. Copyright Office:

Copyright does not protect ideas, concepts, systems, or methods of doing something. You may express your ideas in writing or drawings and claim copyright in your description, but be aware that copyright will not protect the idea itself as revealed in your written or artistic work.

Copyright protection subsists from the time the work is created in fixed form. The copyright in the work of authorship immediately becomes the property of the author who created the work. Only the author or those deriving their rights through the author can rightfully claim copyright.

Copyright Notices. The Copyright Office states that you can place a copyright notice on any work you create. While not required, this is advisable, since it indicates that a work is protected, that you are its rightful owner, and it shows the date of the first publication of that work. And, if someone tries to infringe on your copyright, it is not so easy for them to say they didn't know it was a copyrighted work they were stealing when the notice is right there in black and white.

Once you upload your files to the Internet, your work is "published." That's why some Web programs uses the word "publish" as a synonym for "launch" or "upload." On your Web site, you can use any of the following copyright notices on every Web page, or on your template so that a notice appears on every page. Since you may ultimately have pages that are copyrighted at different times, you can use a range of dates or use no dates at all. You can use the little copyright symbol or spell out the word "copyright," since either way is correct.

© Mary's Maids, 2010

© Mary's Maids

Copyright Mary's Maids

Copyright Mary Jones, Mary's Maids

Copyright Mary Jones. All Rights Reserved

Copyright 2010, Mary's Maids

Copyright 2010, Mary Jones

Copyright 2004-2011, Mary Jones/Mary's Maids

Term of Protection. How long a copyright lasts or endures varies according to when the work was created. If you created something on or after January 1, 1978, it is protected from the moment you created it, and that protection lasts for the length of your life plus 70 years after your death. If you created the work with another person, that 70 years begins after the death of the last surviving creator. If you created a work for hire (e.g., as an employee), the copyright lasts 95 years from its publication or 120 years from its creation, whichever is shortest.

If you created a work before January 1, 1978 and it was not published, it received protection under those same terms above. The term of the copyright for those works did not expire before December 31, 2002 and works published on or before December 31, 2002 will not expire before December 31, 2047.

And lastly, if you created a work and published it or registered it with the Copyright Office before January 1, 1978, the Copyright Act of 1976 extended its renewal to 47 years for copyright subsisting on January 1, 1978 or for pre-1978 copyrights that were restored by the Uruguay Round Agreements Act (URAA), an international copyright treaty. This makes them eligible for 75 years of copyright protection. These renewal terms were additionally extended in October 1998 to a total renewal term of 67 years, and a total protection of 95 years.

Copyright Registration. Under the United States Copyright Revision Act of 1976 (effective January 1, 1978), a statutory copyright exists for a work as soon as it is created in some tangible form, even if it has not been published (on the Web or elsewhere) and regardless of whether or not it is registered with the registrar of the United States Copyright Office. Your entire Web site - all the pages you created, all the graphics and photos you created, and the editorial content you wrote - are copyrighted, and the copyright is owned by you.

To make your copyright a matter of public record, it can be registered with the U.S. Copyright Office. It can be registered at any time during the life of the copyright. However, registration is not required for copyright protection. It is a requirement, however, if there is ever a legal action being taken to prove/disprove copyright infringement. In that regard, the timing of the registration is significant, since it determines, in part, any damages that may be awarded in such a lawsuit. Also, if a copyright is registered, it allows its owner to record that registration with the U.S. Customs Service, which strives to protect you from having illegal copies of your work distributed.

International Copyright. Unfortunately, there is no reliable system of international copyright laws to protect your work worldwide. And when you're on the Web, you're in a global marketplace. According to the U.S. Copyright Office:

Protection against unauthorized use in a particular country depends, basically, on the national laws of that country. However, most countries do offer protection to foreign works under certain conditions, and these conditions have been greatly simplified by international copyright treaties and conventions.

If you publish your work outside of the United States, you can still have your work copyrighted by the U.S. Copyright Office if:

The work is a foreign work that was in the public domain in the United States prior to 1996 and its copyright was restored under the Uruguay Round Agreements Act (URAA).

Public Domain. There have been many changes to copyright laws in the last 30+ years, so it is easier to just quote you the U.S. Copyright Office circulars regarding what works have expired copyrights and are in the public domain:

Certain works that were neither published nor registered for copyright as of Jan. 1, 1978, entered the public domain on Jan. 1, 2003, unless the works were published on or before Dec. 31, 2002.

Under the 1909 Copyright Act, works that were neither published nor registered did not enjoy statutory protection, although they were protected under common law in perpetuity as long as they remained unpublished and unregistered. But

under section 303 of the 1976 Copyright Act, works that were created but neither published nor registered in the Copyright Office before Jan. 1, 1978, lost their common law protection and acquired a statutory term of protection that was the life of the author plus 50 years, amended in 1998 to life plus 70 years.

As a result of the 1976 Copyright Act, any of the works in question whose author had died over 50 years prior to 1978 would have entered the public domain after Dec. 31, 1977. To provide a reasonable term of copyright protection for these works, and in light of the fact that these works had enjoyed perpetual protection under common law, Congress extended their term by at least 25 more years. Congress also encouraged publication by providing an additional 25 more years, extended in 1998 to 45 more years, of protection if the work was published on or before Dec. 31, 2002.

That first 25-year period expired on Dec. 31, 2002. Any work that was neither published nor registered as of Jan. 1, 1978, and whose author died before 1933 entered the public domain on Jan. 1, 2003, unless it was published on or before Dec. 31, 2002. If the author died in 1933 or later, the work will be protected for 70 years after the author's death, due to the passage of the Sonny Bono Copyright Term Extension Act in 1998.

Derivative Works and Plagiarism. Many people do not understand how copyright works and what types of plagiarism can result from not knowing what is copyright protected. As a result, the World Wide Web is filled with plagiarists. It is important that you not become one, and it is very easy for this to happen, especially if you routinely make a practice of lifting articles and images from other Web sites and using them in some way.

With any kind of intellectual property you must obtain permission from the creator and owner of a copyright in order to use their work. For example, if you digitally alter an image created by an artist, that altered art becomes a "derivative work." In other words, you either used someone else's work as a basis for your art or as an element incorporated into your art. If you do so without obtaining the permission of the artist, you are infringing on their copyright. The same applies to the written word, graphics, and photographs. The following are definitions of derivative works from the U.S. Copyright Office:

17 U.S.C. §101: *A 'derivative work' is a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions, annotations, elaborations, or other modifications which, as a whole, represent an original work of authorship, is a 'derivative work'.*

U.S. Copyright Office Circular 14: *A typical example of a derivative work received for registration in the Copyright Office is one that is primarily a new work but incorporates some previously published material. This previously published material makes the work a derivative work under the copyright law. To be copyrightable, a derivative work must be different enough from the original to be regarded as a "new work" or must contain a substantial amount of new material. Making minor changes or additions of little substance to a preexisting work will not qualify the work as a new version for copyright purposes. The new material must be original and copyrightable in itself. Titles, short phrases, and format, for example, are not copyrightable. Who may prepare a derivative work? Only the owner of copyright in a work has the right to prepare, or to authorize someone else to create, a new version of that work. The owner is generally the author or someone who has obtained rights from the author.*

Defamation: Libel and Slander. Defamation is broken down into slander (spoken aloud) and libel (written word). To defame someone means that an individual makes a false and/or malicious statement or accusation that maligns the character of another person and injures their reputation and standing in the community by humiliating or disgracing them publicly. It is usually adjudicated at the state level, where local laws determine whether the defamation was intentional and punishable.

Fair Use Doctrine. In accordance with the Fair Use Doctrine of the United States Copyright Law, Title 17, U.S. Code, Section 107, you may be able to exercise the right to use copyrighted material belonging to other parties for the purpose of commentary, criticism, and instruction in articles produced on your Web site.

Section 107: *The fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching, scholarship, or research, is not an infringement of copyright.*

As you can see, there are a lot of complexities surrounding your rights. To be sure that your rights are protected, you should regularly and frequently visit your state and federal Web sites, including the one for the United States Copyright Office, to find out about all the latest happenings with regard to copyright and other intellectual property laws.

But nowadays, most of your better-looking Web sites use external style sheets. You can usually look at their external style sheet. You just have to find it. There will be a reference to it in the HTML code, usually towards the very top of the page. Put your cursor on the page, right click your mouse, and select "view source." If you right click and don't see a "view source" option, try moving your cursor to the top of the page and try again. Once you click on "view source," you should get a window with all the HTML code on it, and it should include a file name that ends in .css. It will probably look similar to one of these:

```
<link href="styles.css" rel="stylesheet" type="text/css" />  
<link href="scripts/main.css" rel="stylesheet" type="text/css">  
<link rel="stylesheet" type="text/css" href="/lib/css_homepg.css" />
```

The boldfaced items above are the names and locations of the external style sheets. The first one is located in the same folder as the rest of the .html pages, so you can simply type the following into your browser:

www.nameofwebsite.com/styles.css

The second and third style sheets above are in subfolders, one called "scripts" and the other called "lib" (short for "library"). To get a look at their style sheets, you would type the following into your browser:

www.nameofwebsite.com/scripts/main.css

www.nameofwebsite.com/lib/css_homei.css

When you are trying to view a stylesheet, a box will probably pop up and ask if you want to open or save the file. You're just going to open it and take a look at it onscreen, so select "open."

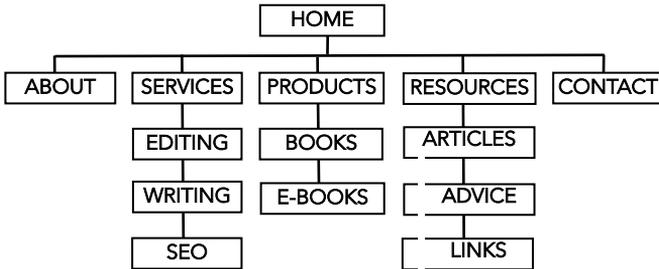
Ethics. Please try to be ethical about how you use someone else's style sheets. Use it as a reference only and do not copy it in its entirety or even in part. It's someone else's creation and it's copyright protected.

Pre-Designed Templates. These are sometimes available free from your Web host, but they are also available free all over the Web or available in prices ranging from \$10 to \$100. Usually, what you get when you download these templates is the template itself, the home page made from that template, the images used to create the template, and the external style sheet. You should try to find out in advance, if possible, if there is any restriction on the use and customization of the template you want. In some cases, especially where the Web host supplies the template free, you may be unable to customize the free version of the template, which means you must use it exactly as it is, no changes to the colors, sizes, typefaces, images, etc. To be able to customize it, you often have to pay a fee.

Planning

Set up a flow chart to help you organize your Web site and get a handle on your navigation. Poor navigation is the number one reason visitors leave a site prematurely. Don't worry about getting your chart plan perfect from the start. It will be subject to change as you develop your Web site, and it will always be evolving over time, but you have to start somewhere. Your flow chart could look something like this:

Sample Web Site Flow Chart



Design Elements

Good design is always easy to recognize. There is an elegance in its simplicity and its consistency. It fulfills its function, whatever that may be. On the Web, a design's sole function is to showcase what your Web site is about, what your business does, what you sell, what you have to say. Contrary to popular belief, having a pretty Web site does not guarantee that people will find it or that they will become a client or customer once they do. If your Web site is over-designed or poorly designed, it will only detract from your purpose. Unless you are a designer trying to sell your design services, your Web site should rely far less on its appearance and a lot more on its content, because the Web is word-driven, not design-driven. Only content can achieve the goal of turning a visitor into a customer, and it is a goal that many Web site owners struggle to achieve. Your site should be attractive, but don't neglect the written word.

Pixels & Resolution. As you begin working with your Web pages and with their images, you will find that two terms keep coming up again and again: pixels and resolution. The two go hand-in-hand, and it helps if you understand what they mean and how they are related.

Pixels are squares or dots of lights arranged on a grid. When some of those pixels are given color and are grouped together in some meaningful way, they form an image. These image pixels can then be adjusted in their attributes of color, brightness, and contrast. The displays on your monitor or hand-held device are built with a specific pixel count to them, and you should not change those settings, as

they ensure that what you see as you are creating your Web site is accurate and will translate correctly to the majority of devices used to view it on the Web.

Pixels are generally discussed in terms of their resolution in dots per inch or "dpi." This is derived from the use of dpi in relation to printing, and how detailed the resolution is in a printed piece. The higher the dpi, the clearer and sharper the image, the better the resolution. But when it comes to computerized displays, in particular the LCD displays, they do not all have the same number of dpi. They are referred to in terms of their dot pitch, pixel density, or pixels per inch (ppi). Because all displays are different, you cannot know for certain how your Web site will look on someone else's monitor. What looks one way on your display may look entirely out of proportion on someone else's monitor. For example, an image you place on your Web site that is 2" x 2" on your screen maybe appear to be only 1.5" x 1.5" or 2.75" x 2.75" on other displays. You can't really do anything about this except to know that this is a possibility when you're designing your site.

Consistency. Every Web page you create should have the exact same basic design format, with only a few minor variations. For example, your navigation, your banner, and your copyright information should always be in the same places on every single page of your Web site. You can make a master template and then make all your pages from that template to ensure this consistency throughout your site. Use style sheets to achieve the uniformity that will make your visitors feel at home as they navigate throughout all your pages.

Page Structure. Your Web pages will most likely be created with a combination of tables and "divs" (divisions). These give your pages structure in which to place content and images so that they all line up neatly. Most Web pages are a big table in which the banner sits in a cell of the table, the navigation bar on the side is a big cell, the middle of the page where the content goes is normally the biggest cell, etc. In the old days, tables were used exclusively to format a Web page, but there is a growing reliance on divs. In reality, most Web sites use both.

In the illustration on the following page, you can see the complex tables that form the structures of Web pages. That table structure is not always visible unless you put a color background or borders on one or more of the table cells to make them stand out.

Page Width. The overall page width of your Web site should always be taken into consideration. If you have a lot of graphics that need to be exactly aligned with your text or other design elements, you should probably set a fixed width for your pages. In general, the ideal fixed width is 960px, but anything between about 900px and 1000px is fine. If you do not have any design considerations that need to align exactly, you can opt for using relative width instead and

Page Structures In Tables and Divs



change the width in your style sheet to 100%. But, in most cases, you won't want your page to expand to a width that makes it hard to read. A line of text on the Web should ideally not exceed about 6" in length/width.

Colors. Selecting colors is an important part of Web design. The colors you choose must look good together, they must be appealing to your target visitors, and they must appear consistent on all the various devices that visitors use to view the Web. Entire books have been written on the psychology of color (a.k.a. chromatology or chromatography), although some of what is said in those books is subject to debate. While color does impact on your Web site visitors and can affect their buying decisions, there is no reliable and/or universal significance to any one color. Color preferences change over time and colors carry different connotations throughout the various cultures of the world – the global economy of the Web. Colors can be gender-specific or they can be specific to your industry or to the kind of product or service you sell. You need to know how color fits with your business and your target market. If you are having trouble deciding on a color, you are almost always safe with shades of blue, green, or red. But if you can, you should dig a little deeper and try to determine what works best for what you sell and for your Web site visitors. In general, the following are guidelines for the most generic colors, color groups, and color types.

- ♦ **Warm colors.** These are the earthy, autumn colors; the reds, oranges, golds, browns, and any colors that have the rich, dark gold and red undertones. These are great colors for restaurants and food stores, especially the reds and oranges which stimulate the appetite. Warm colors are generally used to encourage buying. This is certainly true of red, which is also an action color. But red would

not be a good color for something that is about relaxing, such as a spa. Reds are great for anything that signifies change, movement, and speed, so cars, movies, games, sports-related items, and anything on sale would do well with some red to encourage buying.

Yellow is a very happy and warm color associated with fire and sunshine, and it's often used with things related to health and vitality, vitamins, sports equipment, and recreation. But, on the Web, yellow can be overpowering or almost invisible depending on what shade of yellow you decide to use. Also, yellow is often perceived as over-stimulating, which may cause visitors to click out. So, if you opt for yellow, use it carefully or sparingly. Orange, like yellow and red, is an action color and is about energy and invigoration, so its uses are very similar to those of its counterparts. It is considered the best appetite stimulant, and so it is great for foods and food-related products or services. The down side to orange is that it is often associated with things that are perceived as "cheap," "tacky," or at best "low budget."

Brown, along with blue, is a favorite with men. It is associated with the earth, strength, dependability, things that last. An overabundance of brown will not draw every male to your Web site to buy, but if used with other colors, it can make for a more attractive presentation. Brown is good for selling sports-related items, gardening equipment, lawn furniture, and work clothing.

♦ **Cool Colors.** These are wintery, watery colors; the blues, greens, purples, and any colors with blue undertones. The cool colors are most conducive to reading, study, and relaxation. Blue is the most universally popular color by almost any standard. It's hard to go wrong with blue. Banks, lawyers, brokers, and large institutions do well with blues since that color is associated with trust, loyalty, clear-thinking, and well-being. It's a good color choice for complex gadgetry such as computers, cell phones, and things of a high-tech nature. Blue is also good for cleaning products such as soaps and detergents, and for cleaning services. It's popular with vacations, spas, and baby goods. On the down side, blue is an appetite suppressant, and so it isn't for any food-related business, and in some cases, it can be associated with overly traditional or conservative businesses.

Green is the easiest color on the eye and is a calming color. It is good for anything that is natural, ecologically green, fresh, organic, or healing, including health foods, vitamins, and alternative medicines, but also spas and yoga classes. Darker greens are the color of money, and like blues, they are good choices for selling financial products and services. Green is also popular for sending a message that says it's okay to "move ahead and do this now." Purple is also a cool color that has a long history of associations with things that are rare, valuable, prestigious, luxurious, and regal. It is also the most popular color named by women of all ages.

♦ **Gender.** Most women are usually very drawn to reds, purples, pinks, and pastels, while most men are drawn to oranges, browns, and greens. These are very general tendencies, since some women may love green or orange and some men may love purple and red. Pinks tend to be perceived as cheery, but they also have a calming effect, so they can be effective for selling comfort items including beds and bedding and even comfort food such as candy and desserts.

♦ **Black, white, and gray.** White is not a color, but on the Web, it is the hands-down preferred background for reading text, and the preferred color for text – headlines aside – is black. White indicates cleanliness and purity, while black is associated with power, authority, and expense. You can do an entire Web site that is black, white, and gray, but in reality, you should add a touch of color. Red is considered the optimal choice, but any bright color can be used to emphasize headlines, etc., when used against such a neutral backdrop.

Color Palettes. Most of the time, when you select colors for your Web site, you will be selecting more than one color. The color combination you select is called a palette. Your palette should match what you sell and should be pleasing to your target visitors. Keep it simple and subtle so that your design doesn't "outshine" what you are selling. The colors you select should showcase what you sell, not dominate it or draw attention away from it. Look for colors that complement each other. Here are several different kinds of palettes:

♦ **Achromatic.** Shades of gray ranging from almost white to almost black, but can also be used with white and black.

♦ **Black and white plus a color.** Black and white together with a bright color such as magenta, purple, red, gold, or orange as an accent.

♦ **Monochromatic/Neutral.** One color in different shades (darknesses) or tints (pastels) of that same color, e.g., dark green sage, medium green sage, and light green sage.

♦ **Complementary.** Two colors or shades of colors that are opposite each other on the color wheel, e.g., red/green, blue/orange, or purple/yellow.

♦ **Complementary plus variation.** Complementary plus a variation on one of the colors, such as a pastel tint, e.g., dark blue and pastel blue.

♦ **Analogous.** Three consecutive colors on a color wheel plus tints or shades of those colors, e.g., red, orange, yellow, along with light orange and gold,

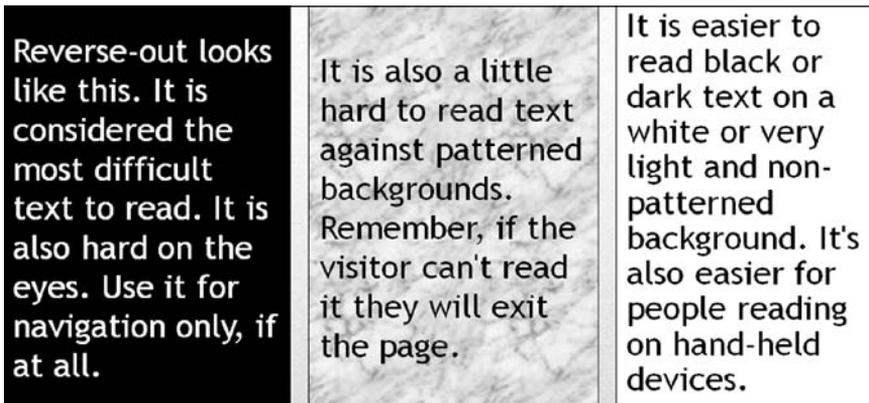
♦ **High contrast.** Two colors, one very dark (almost black) and one that is a much lighter color (almost white), e.g., navy blue and bluish-tinged white.

Most palettes should not contain more than three colors unless they are monochromatic. If you aren't skilled or confident in picking colors, just stick to the monochromatic, neutral, or complementary color palettes. You can't go wrong with those.

Color Tips. Avoid using large areas of highly saturated colors, those very vivid hues like the primary colors (red, blue, or yellow) or the brilliant hyacinths, chartreuses, or cerises. When used as other than an accent color they tend to look a little cartoonish and tacky. They are also very hard on the eyes. The same advice goes for trendy colors that you have to always be updating to keep them looking current. Use them sparingly.

Remember that colors look different when set against different backgrounds. Be sure that your logo looks good next to or against any colors you select. If it doesn't, if it looks like it has changed color, this is an illusion that can only be corrected by picking another background color and seeing if it works any better. If it still loses its impact, keep your logo away from any colors by placing it on or near a white background instead.

Text Color. If you are going to use one of your colors for all the titles, subheadings, and links, be sure that color matches the rest of your color palette and that it is dark enough or bright enough to be easily read against the background you choose. In general, the background for the rest of your text should be white and your text black. This is the most readable. Avoid using a dark background with light text (called a reverse-out) unless it is for a small part of the page, but not for the main body of your Web page. Reverse-out is extremely fatiguing to the eye.



Patterns. Do not use a patterned background unless it is extremely light in color and is only slightly textured. Patterns are distracting and often hard to read when text is set against them, even when the patterns are light pastels.

Web-safe/Browser-safe Colors. In the early days of Web sites, there were only 216 colors that could be relied on to appear the same on all monitors. And even then, some were a little "iffy." Those 216 colors were referred to as Web-safe or browser-safe. More browser-safe colors were added around 2005. Today, many Web designers insist that browser-safe colors are no longer important, but they are very much mistaken. While all the latest computers are capable of displaying 24-bit or 32-bit color – that's more than 10 million colors – not every visitor has the latest computer equipment. In addition, many hand-held devices are capable of 16-bit color (more than 65,000 colors), but a lot of people still have 8-bit devices that only reliably show the 216 browser-safe colors. There will come a time when more people have equipment that is capable of displaying a full range of colors, but we're not there quite yet. So, you should go online and search for "browser safe" or "web safe" colors and take a look at what you can use without having to worry about how your site looks on other computers and devices.

Color Coding. All colors have a code assigned to them called a hexadecimal code. The hexadecimal system is capable of generating more than 16 million colors. If you see a color you like on someone else's Web site and you don't know what it is, you can look for its hexadecimal code in their style sheets, or you can go online and search for "hexadecimal color codes" and see all the many shades available.

Hexadecimal color codes are composed of six digits and letters preceded by the pound sign (#), although the use of the pound key is being deprecated (less used). Some examples of these hexadecimal colors are #FFFFFF (white), #4B0082 (indigo), and #FF00FF (magenta). These codes are not assigned at random. They represent the actual values of the RGB color profile which indicate the amount of the colors red, green, and blue within any color. The code is in the format #RRGGBB. For example, in the case of #000000 (black), there is no red, green, or blue in the color. The lower the numbers, the less amount of that particular color. On the opposite end, #FFFFFF (white) contains the most amount of each color. Remember that when we're talking computers, we're not talking paint; we're talking light. All colors combine in light to make white. If you want a color that is pure red, it would be #FF0000 – no green or blue, just red. Pure green? #00FF00. Pure blue? #0000FF.

You will be designating hexadecimal color codes in your style sheets. CSS is really the best place for this design element. By designating your colors in your external style sheet, you make it easy to completely change your palette by changing the colors in the CSS and having the new colors automatically appear in all your templates and every page in your Web site. However, if you have, for example, a single instance in which you need a particular block of text to appear in a dark jade green that is not elsewhere specified in your style sheets, you can add that color on that one page by inserting an inline style around the text as follows:

```
<font color="336633">text to be in jade green</font>
```

Typesetting. While the words "font" and "typeface" are used interchangeably these days, there is actually a difference. The typeface is the design itself, such as Arial, Times Roman, Galleria, Helvetica, Imago, etc. The font is the collection of variations within each typeface design, such as bold, italic, and bold italic, to name a few.

A typeface is further defined by whether it is "serif," meaning it has small lines or strokes on the letters, or "sans-serif" ("sans" is French meaning "without") and does not have those lines or strokes. For example, Arial and Helvetica are sans-serif, while Times Roman and Garamond are serif typefaces.

SERIF: Times Roman/Garamond A B C D E

SANS-SERIF: Arial/Helvetica A B C D E

♦ **Points v. Pixels.** Typefaces are usually measured in "points," but points are not always consistent from one typeface to another. For example, a 12pt Times New Roman letter is about the same size as a 10pt Arial letter. In addition, point sizes are measured differently from one country to another. So, because the Web is a global marketplace, it is better to designate a typeface in pixels rather than points. Here is a simple chart for converting points to pixels and vice versa:

POINTS	8pt	9pt	10pt	12pt	14pt	16pt	18pt	20pt
PIXELS	11px	12px	13px	16px	19px	22px	24px	26px

Because point sizes also vary from one typeface to another, convert your typeface to pixels and see how it looks in terms of size, and then adjust the pixels as needed until you get the size you want. The little chart above is for the most common size typefaces used on the Web, but you may require something different, such as a 10.5pt/14px size, so you might need to experiment a little.

Try not to use anything less than 10pt/13px for your page content. The exception is photo captions, which can be as small as 8pt/11px. Studies show that visitors read small text (10pt/13px) more thoroughly, but larger text (12pt/16px) is good for paragraph headings that visitors scan as they try to determine if what you have is what they want to read about.

♦ **Re-Sizing.** Since many visitors are now browsing on a wide variety of different monitors and devices, you may want to set your fonts in the body of the page so that they can re-size automatically according to the visitor's display. To do this, you can adjust the body part of your style sheet to read similarly to the following:

```
body {font: 100%/1.5 "Helvetica Neue", Helvetica, Tahoma,
Arial, sans-serif;*/}
h1, h2, h3, h4, h5, h6 {line-height: 1.2;
font-family: "Helvetica Neue", Helvetica, Tahoma, Arial,
sans-serif;*/}
h1 {font-size: 200%;*/}
h2 {font-size: 180%;*/}
h3 {font-size: 130%;*/}
h4 {font-size: 110%;*/}
h5 {font-size: 110%;*/}
h6 {font-size: 90%;*/}
```

The asterisk and slash (*) combination above, also known as the "IE star hack," means these styles apply to all browsers, including pre-IE8 (Internet Explorer ver. 8) browsers. By using the above percentages in your body fonts, they will automatically re-size to be more readable for your visitors. The code above additionally allows you to specify a font family, if you wish. However, Internet Explorer does not always display the above styles correctly, and so you may want to adjust them using a combination of percentages and "em's," the latter being equivalent to the current font size. In that case, your style code might look more like this:

```
body{font-size: 100%;}
h1 {font-size: 2.5em;}
h2 {font-size: 2.25em;}
h3 {font-size: 1.5em;}
h4 {font-size: 1.0em;}
h5 {font-size: 1.0em;}
h6 {font-size: 0.75em;}
p {font-size:0.75em;}
```

Note that the use of the asterisk and slash are not necessary to make the above code work in all browsers.

- ◆ **Tags.** When you format your pages in your Web software, remember that the page titles and headings/sub-headings as dictated in your CSS will impact on how visitors view them and how search engines index them. Search engines are looking for heading tags (h1, h2, h3, etc.) in your page titles (your headings) and subheadings. These heading tags are used to prioritize your content. Search engines give the most attention to an <h1> tag and the least amount of attention to an <h6> tag, so when you set up your style sheets, make sure that your <h1> tag is the biggest and your <h6> the smallest.

In general, the smallest <h> tags should be about 8pt/11px, and the largest around 14pt/19px. If you start using headings that are bigger than this, your design will suffer and look junky. You can give your <h> tags different style attributes in your CSS. For example, you may have two tags that are both

14pt/19px, but one is centered and red and the other is aligned to the left and black. But remember, you can only have six of these <h> tags, so plan in advance how you want to use them and how you want them to look.

By using heading tags to create a prioritized structure, you are also helping your visitors see at a glance what is important on each page. Here's an example of how heading tags can be used to format a page:

```
<h1>The History of The O'Reilly Family</h1>
<h2>from County Clare to Shelby County</h2>
<h3>by Sharon Miller</h3>
<p>In 1889, when Miles O'Reilly was only 14 months old,
his parents, Sean Patrick O'Reilly and Colleen Morgan
O'Reilly, packed their bags, gathered up their five chil-
dren, and boarded a ship bound for America. This was to be
their first stop on a long journey that would ultimately
take them to Memphis, Tennessee.</p>
<h4>Arrival in New York</h4>
<p>The O'Reillys arrived at Ellis Island in New York City
on August 13, 1889. ... </p>
<h4>Miles Starts School in Harlem</h4>
<p>It was September 16, 1896 when Miles was enrolled in
first grade at ... </p>
```

The above code will result in a page with a good hierarchy of visual clues as to its content. It will look somewhat like this:

The History of The O'Reilly Family
from County Clare to Shelby County
by Sharon Miller

In 1889, when Miles Colin O'Reilly was only 14 months old, his parents, Sean Patrick O'Reilly and Colleen Morgan O'Reilly, packed their bags, gathered up their five children, and boarded a ship bound for America. This was to be their first stop on a long journey that would ultimately take them to Memphis, Tennessee.

Arrival in New York

The O'Reillys arrived at Ellis Island in New York City on August 13, 1889. ...

Miles Starts School in Harlem

It was September 16, 1896 when Miles was enrolled in first grade at ...

♦ **Selecting typefaces.** Many computers have lots of typefaces loaded on them, but some do not, and most hand-held devices have only a handful. In order for the typefaces you use to show up on your visitors' computers, they have to have

them loaded on their systems too. Since this might not always be possible, and since the results can be disastrous and completely unreadable if they don't, it is best to stick with some fonts that are on almost every computer and that are consistently readable, such as Times New Roman, Georgia, Arial, Helvetica, Verdana, Tahoma, Trebuchet MS. Here they are, all at 10pt, for comparison.

Times The quick brown fox jumps over the lazy dog.
0123456789 @#\$\$%^&*(

Georgia The quick brown fox jumps over the lazy dog.
0123456789 @#\$\$%^&*

Arial The quick brown fox jumps over the lazy dog.
0123456789 @#\$\$%^&*

Helvetica The quick brown fox jumps over the lazy dog.
0123456789 @#\$\$%^&*

Verdana The quick brown fox jumps over the lazy dog.
0123456789 @#\$\$%^&*

Tahoma The quick brown fox jumps over the lazy dog.
0123456789 @#\$\$%^&*

Trebuchet The quick brown fox jumps over the lazy dog.
0123456789 @#\$\$%^&*

Note that I have included the numbers and symbols in the above samples. It is important that they work for your purposes as well. If, for example, you use the ampersand (“&”) a lot, you will probably not like the one in the Trebuchet typeface, and your readers probably won't like it either. The dollar sign in that typeface is also not a standard dollar sign either, and if you're selling things, you want people to easily see that it is a price.

♦ **Readability.** Many studies have been done to determine how people read and what they read best. Some of these studies are quite old, but when revisited and performed again on the Web, the results are pretty much the same. For example, short paragraphs, ones that are not more than about three or four sentences, are read more easily and more thoroughly than are long ones. A "ragged" right margin (left justified) makes for more easily read text than do margins that are full-justified.

Left-Justified. This is a left-justified paragraph. As you can see, the text is aligned on the left and has a ragged right-hand margin. Most readability studies have found that readers find left-justified text a lot easier to read than full-justified.

Full-Justified. This is a full-justified paragraph. As you can see, the text is aligned on both the left and right margins. Most readability studies have found that readers find full-justified text a lot harder to read than left-justified.

With regard to typefaces, studies indicate that visitors carefully read smaller size type while they only scan the larger type sizes. So, if you want a visitor to really read what you have to say, you should probably stick with a smaller font, say 10pt or 13px, for articles. Any smaller and they are less likely to be read at all.

Headlines and Subheadings. To draw attention to something, to capture the attention of your visitors, consider some larger type for your headlines and subheadings. These help guide the visitor to the information they want. Once they find it, they will then read the smaller type. This means that visitors look at content in much the same way that a search engine does. They both prioritize what they see. The biggest type draws the most attention as it is believed to have the greatest significance overall on a page. The second largest type indicates it is a breakdown of what is under that largest type. The third largest type indicates it is a breakdown of what is under the second largest type, and so on.

There have also been studies regarding the kinds of typefaces used. Most of these studies have found that visitors read serif typefaces better than sans-serif ones. However, from a design standpoint, serif typefaces like Times New Roman or Book Antiqua are rather dark and blocky for most Web sites. On the other hand, sans-serif ones such as Arial and Helvetica can be overly sterile in appearance. Either way, they are a little hard to read on a computer screen, especially in a long article. Here's a little background on the most commonly used typefaces on Web sites.

Verdana. Verdana is probably the best and most widely-used typeface on Web sites. It is a "humanist" sans-serif typeface that was specifically designed to be readable at small sizes on a computer monitor. It has a very clean look and is very easy to read, even when italicized. Its characters are never in danger of being confused. Unlike Arial, Verdana's upper-case "I" does not resemble the lower-case "l" at all. Verdana also has great spacing between characters, so they are easily distinguishable when reading. Verdana is the largest of the above-mentioned typefaces, but this is not a problem since you can adjust a typeface to whatever size you like:

10pt/13px	The quick brown fox jumps over the lazy dog.
9pt/12px	The quick brown fox jumps over the lazy dog.
8pt/11px	The quick brown fox jumps over the lazy dog.
7pt/9px	The quick brown fox jumps over the lazy dog.
6pt/8px	The quick brown fox jumps over the lazy dog.

Tahoma. Tahoma is similar to Verdana, but it is slightly smaller than Verdana and the spacing between the letters is tighter than Verdana, making it only slightly less readable, mainly in smaller sizes.

Arial. Arial and its predecessor, Helvetica, are widely used in Web sites, and have only slight variations in appearance. Geneva is similar. Arial's letter spacing is even tighter than Tahoma's, so it is much less readable.

Trebuchet. Trebuchet is a very pretty typeface, but its minor embellishments combined with its tight letter spacing, can make for the least readability, especially in long articles. It also has a very unattractive, odd-looking, and hard-to-read ampersand – instead of "&" you get "&," which looks a little like the French word "et," meaning "and."

Times New Roman. Like Garamond and Georgia, Times New Roman is a serif typeface, and therefore is considered readable. But, from a design point, it is old-fashioned and not particularly attractive for most Web sites. Georgia is almost identical to Times New Roman except that its characters are a little wider, making it the easier to read of the two.

Whatever typeface you choose, try not to use more than one typeface throughout your Web site. You can get enough variation from that one typeface just in the sizes alone, and then you can also add boldfacing, italics, or color to them as required. In general, and whenever in doubt, keep everything as simple as possible to ensure that the typeface you use in your design will be easy to read, and that your Web site will look attractive in its consistency, rather than looking amateurish and distracting in a chaotic mix of typefaces.

Fancy Fonts. It may be tempting to want to use some beautiful, ornate, or unusual typefaces – "fancy fonts" – on your Web site, but if your visitor doesn't have the same typeface you selected installed on their computer, then their computer may default to a typeface that becomes unreadable. So, if you want to use a

This is a decorative typeface, more commonly called a "Fancy Font."

This is the same Fancy Font on your Web site as seen on someone else's computer who doesn't have that font

decorative typeface, use it in a banner or a logo, and make that banner or logo in a program such as Illustrator or Photoshop so that it is part of a graphic image. Save it in a .jpg or .gif format, and insert it as an image into your Web page template. Just remember that when you create a word – such as your business name – in a graphic file such as a .jpg, it is no longer indexable by a search engine because

it isn't text anymore; it's a graphic image. So, you should also put that word(s) in text somewhere else on your Web page too for a search engine to find.

The type of fancy typeface that you use for your banner is important. It must match the kind of business you're in and the type of products or services you sell. A lovely flowing script may be effective in selling antique clothing, but it would look completely out of place in a banner for an automotive parts dealer. Your fancy typeface must also look good in the color palette you've selected for your Web site. If the colors you select don't match your kind of business, then putting those colors on your fancy font banner will not improve the situation. In good design, everything has to fit together perfectly so that there is no confusion about what message the design is trying to convey.

Hyperlinks

One of the most important components of any Web site is its system of hyperlinks, also called links. Links are simple shortcuts that take the visitor from one place to another and allow them to fully explore everything your site has to offer. Links are indexed by search engines, so use good descriptive text to identify what each link is about. This is important for a search engine and for your visitors as well. Don't use overly generic text such as "click here," but don't use long sentences either. One or two relevant keywords are usually adequate.

Links can be applied to words or images. When an image is hyperlinked to a particular page, a block of text should also be linked to that page since some visitors turn off their graphics when they browse. Always format your links so that they are highly visible and so that a visitor can distinguish them from the rest of the text. Links are blue by default, and underlining and color text are always best for a link, but if you don't like underlining, at least boldface the link and put it in a color that really stands out from the rest of your text so that the reader can easily see it to click on it.

Anchor text. All links are composed of "anchor text," the content that a visitor sees and clicks on. That anchor text is placed between anchor tags. This can usually be done automatically by inserting a link using a menu selection in your Web software. Let's say you sell organically grown cinnamon and have an article all about cinnamon. You might want to link the word cinnamon on your product sales page to an article about the same subject elsewhere on your Web site. In the example below, the boldfaced word "cinnamon" is what the visitor sees and clicks on from the product page, and it takes the visitor to the article on a page with the file name `cinnamonarticle.html`.

```
<a href="cinnamonarticle.html">cinnamon</a>
```

Named anchors. You can create links from one section to another within the same Web page. These are "named anchors" or bookmarks. They consist of two simple pieces of HTML code: the hyperlink that the visitor clicks on, and the named anchor code that identifies where the link takes them. Named anchors are useful for letting a visitor jump ahead to another section of a long article or to jump back up to the beginning of a page. They also work well for long documents in which each chapter in the table of contents is linked to its corresponding chapter within the document. For example, an article on cats may have a brief reference to Persian cats (to be hyperlinked) in its introductory paragraph and have a section on Persian cats (to be the named anchor) later in the same article.

Here's the hyperlink code:

```
<a href="#persians">Persian cats</a>
```

Here's the named anchor code:

```
<a name="persians">Persian cats</a>
```

As of this writing, the World Wide Web Consortium is recommending that the syntax for the anchor code be changed instead to "id," which would change the above example of anchor code to instead read:

```
<a id="persians">Persian cats</a>
```

Internal links. An "internal" link is any link that helps a visitor move within your Web site from one page to another, or from one part of a page to another part of that same page. These links are invaluable in helping your visitors thoroughly explore your Web site.

Incoming links. These are links from other people's Web sites to yours. The more the better. Even Google's Webmaster guidelines recommend getting incoming links to improve your rankings in the SERPs. Usually these take the form of reciprocal links, which are discussed in Chapter 6.

Outgoing links. An external or outgoing link can take a visitor from a page in one Web site to a page in a different Web site. These offsite links take your visitor away from your Web site, so you better have a pretty compelling reason to drive that valuable traffic away. There are two ways that you can deal with this potential problem. First, if you want your visitor to have access to an informational article on another Web site, consider writing such an article yourself and placing it on your own Web site instead. Second, if you must use an outgoing link, create one that opens in a smaller pop-up window so that your Web page still remains visible underneath it. Here's sample code that makes that happen:

```
<a href="http://www.otherweb.com/" target=" blank">visit  
Other Web</a>
```

The boldfaced part of the above code is what creates the pop-up window. There are a few caveats when it comes to using pop-up windows. Not everyone realizes that it's not a new window opening and your back button will be automatically reset on the pop-up window, so your visitor can't back out of it but must instead "x" out of it. This can be confusing, especially to the visually impaired, and especially when the taskbar becomes overly cluttered with all these additional open windows.

E-Mail links. These are the links that execute an E-mail management program when a visitor clicks on them. The problem with E-mail links is that your visitor might not use a designated E-mail management program on their computer. They may instead go online to Google or Yahoo to send and receive their E-mail. For that reason it is not a good idea to use "decorative" E-mail links, those images or words that you click on rather than the address itself. By spelling out the full address, your visitor can click on the link or they can just copy and paste the address into a blank E-mail that they open up at their own E-mail service provider's Web site. In the samples below, the boldfaced portion of the E-mail link is what the visitor will see:

DO: **info@bocawines.com**

DON'T: **Boca Wines**

Navigation Links

Studies have shown that in Western culture, visitors read Web pages from top to bottom and left to right, just the way they read and write. You can have your navigation on top or on the left, or both. The most important thing is that wherever you put your navigation, it should be identical and in that exact same place on every Web page in your Web site. Visitors should be able to navigate from one page to another effortlessly, without any confusion about where they are, where they were last, and how to get to where they want to go next.

Put your navigation links in order according to how important the pages are to your visitors. Try not to nest your pages so deeply that it takes more than two clicks to get from the navigation link to the desired page. Search engines don't like deeply nested files and some won't index them beyond the two click level.

For best indexing results, use text links for your navigation instead of buttons. Make your navigation links big enough to display the text very clearly for your visitors. Avoid using only buttons, images, or drop-down menus unless you also have your navigation in text link form elsewhere on each page. Avoid using JavaScript-created navigation as not all search engines can index it. If you do

use Java-Script in your navigation, view your site in a text browser such as Lynx to be sure the navigation is visible and therefore indexable.

Jump pages. You may also need to have a "jump page" or two in addition to your main navigation menu. A jump page is a gateway or portal page that contains links to a group of pages that cover related topics. For example, if you have a collection of informational articles, you may want a navigation button or link called "articles" which is linked to a jump page called "articles" on which all your articles are listed, each listed article being linked to the individual page on which its corresponding article is located. This same tactic can be used for a list of your products or services. Here's a sample of how jump pages work.

Sample Jump Page Links

NAV LINKS	> JUMP PAGE LINKS	> ARTICLE PAGE
HOME	ARTICLES	Creating Your Unique Style
SHOES	Caring for Your Leather Products	by Mary Beth Peyton
BOOTS	Selecting the Best Boots for You	Ever wonder how some women seem to look great and have that special something that sets them apart from everyone else?
HANDBAGS	How to Hand-Launder Your Scarves	There's no secret to how they achieve that put-together look that spells fabulous. It's all about finding
SCARVES	<u>Creating Your Unique Style</u>	
BELTS	10 Great Ways to Tie Scarves	
HOSIERY		
<u>ARTICLES</u>		
ABOUT		
CONTACT		

Breadcrumbs. Breadcrumbs (or breadcrumb trails) are shortcuts that help visitors see where they are and allow them to easily navigate their way back to where they were by reducing the number of clicks the visitor needs to make to get back to that higher-level page. Breadcrumbs also help visitors who land on a page and want to go to a higher-level page to find more related topics. In these instances, breadcrumbs work well because big sites are organized in a logical hierarchy consisting of multiple levels. If you are a single-level Web site, as are most small and average-size Web sites, you will probably have no need for breadcrumbs as your visitors can simply click the back key in the browser or click on a link in the navigation menu to take them wherever they want to go.

If you have a very large Web site, particularly a store consisting of many items, some of which are related, you might consider using "breadcrumbs," a form of secondary navigation throughout your site. You probably recognize breadcrumbs as that row of internal hyperlinks that shows a visitor where they are and allows them to navigate back to the previous page or section. They are especially common on big shopping sites like JC Penney or Target.

While there are a few sites that have made their breadcrumbs in more sophisticated designs (some with pull-down and fly-out menus), simple links are still, by far, the most common style. They are usually created in a small and unobtrusive type size and style and are separated by angle brackets (> or >>), slashes (/, \), arrows (→), colons (:), or vertical lines or pipes (|), according to whatever style best suits the design of the Web site. The links are located at the top of each page below any navigation menu that might be there. They will generally look like one of these examples:

Home > Furniture > Bedroom
Clothing >> Women's >> Coats >> Wool
Books → Fiction → Mysteries → Christie
Resources → Articles → Car Repair → Bodywork
Sale Items / Electronics / MP3 Players / Sony
Plumbing & Electrical \ Electrical \ Heating
Downloads | Music | Blues | Benoit
Ponds : Fresh Water : Fish : Koi

You might want to note that if you decide to use angle brackets, as in the first line of breadcrumbs in the sample above, you need to use HTML entity codes for them so that they are not confused with the angle brackets used in other HTML code tags. The entity codes for angle brackets are `<` (<) and `>` (>).

There are three kinds of breadcrumbs: location-based, which show the visitor where they are in the Web site hierarchy; attribute-based, which show the attributes of the items on a particular page; and path-based, which shows the visitors the steps they took to arrive at a particular page. There are several ways to create breadcrumbs, and they all exceed the scope of the information in this book primarily because this is a book for small businesses, and most small businesses – not all – do not have hierarchical Web sites. But for those who do, here is a sample set of breadcrumbs:

Home > Art > Abstract Paintings

and here is the simple HTML code that created them:

```
<a href="index.html">Home</a> >  
<a href="artwork.html">Art</a> >  
<a href="paintings-3.html">Abstract Paintings</a>
```

Studies show that while some people ignore breadcrumbs altogether, no one seems to have problems interpreting them. But, that doesn't mean you should add them to your site for no good reason. They must be a benefit to the visitor or don't use them at all. And remember that breadcrumbs are never a substitute for a rock-solid navigation menu.

HTML Site Maps

These are very simple Web pages that you create to show the entire structure of your Web site in a meaningful system or hierarchy of URLs that make up the site. While search engines might visit the site map page to ensure good indexing of your Web site, an HTML site map is really for your visitors. It is made to help them discover what is on your Web site. It is, like breadcrumbs, not an excuse to avoid creating a top-notch navigation structure, but is just one additional way to help visitors find their way around your Web site using links to all your key pages.

You can format the site map with color and bullets to make it easier to read. The descriptive text is also indexable, so it not only helps your visitors but also helps search engines make use of your most important keywords. Keep in mind that you need to always be updating your site map page as you add, delete, or move Web pages so that it does not become out of date with lots of non-working and/or missing links. A site map can get very large depending on the size of your Web site, but here's an example of how a portion of an HTML site map might look:

www.goldenstatetravels.com > Site Map

[Wine Country Lodgings](#)

From small inns and B&Bs to luxury accommodations at fine hotels in the Napa Valley.

[Romantic Getaways](#)

Honeymoon suites, resort hotels, quaint cottages, and cabins.

[Bed & Breakfasts](#)

[Country Cottages](#)

[Spa Hotels](#)

[Quaint Inns](#)

[Family-Friendly Accommodations](#)

Pools, tennis courts, gyms, video arcades, camping, horseback riding, cable TV, free Wi-Fi, and more.

Design No-No's

It can be tempting to use all the cool things that design software is capable of producing, such as page transitions in which the page fades out, collapses into a hole, or gradually dissolves. But everyone has seen these things before and there should never be anything on a Web site that detracts from what the visitor is seeking. It is amazing how many people – even designers who should know better – do things on Web sites that are known to discourage visitors from sticking around. My mother always said, "Just because you can do something doesn't mean that you should." Words to live by. The results of many focus group studies indicate that people are very busy and they don't want any

time-wasters on the Web sites they visit. Here, specifically, are just a few of the main things they do NOT ever want to encounter on a Web site.

Splash pages. These are those introductory pages that have video and pretty images, sometimes a bar showing what percentage has loaded – as if a visitor cares. They might also have either an "enter here" to click on or no visible means of entry to the site at all – just click around and hope for the best. Search engines can't usually index these properly and that often results in your entire site not being indexed correctly or at all. They are time consuming and completely useless. Most visitors click out of them before they even finish loading – and some load v-e-r-y slowly. There is often a "skip intro" somewhere on the page, but you can click on it forever and the page usually just continues to load.

Slow loading. Nothing makes a visitor leave faster than having to wait while a page loads. Make sure your images, including your banner, are created in the exact dimensions in which they will be displayed, that they are in the correct format (.jpg, .gif, or .png), and that they are not more than 72 dpi resolution. The same applies to any ads you might be hosting on your pages.

Moving Things. These are things that blink, words that blink, things that flash, things that pop-up, things that move all over the page, videos that play whether or not the visitor wants to see them. A couple years ago when I was working on updating my landscape industry Web site, I looked at hundreds of Web sites for that industry to see what everyone was doing. I kept finding this little cartoon of a man pushing a lawn mower all over the page. You had to wait for him to stop mowing before you could read the page. What an annoying waste of a visitor's time!

Noisemakers. You may call it music, but unless you're a music Web site, most people will just consider it distracting, possibly irritating, especially if it runs in a loop and keeps repeating itself again and again. This is typical of wind chimes and ocean surf too. They sound fine for about ten seconds and then they are downright infuriating. The same is true for voices speaking to the visitor. If you want someone to hear your voice, your music, your wind chimes, etc., at least give your visitors the option of playing it, or not, and make it as easy to turn it off as it is to turn it on.

Clutter. Nothing is worse than a Web page that is just a mass of ads, boxes, images, graphics, and little blurbs scattered everywhere. Your visitors need to be able to find what they are looking for, and all this disorganized clutter will just distract them and cause them to leave.

Poor Navigation. Visitors are trying to find out about you and what you sell. If your navigation is off in the least, they will not find what they are looking for. Your navigation must be exactly the same on every page, and it must be in the same place on every page, and there must be no broken links to your pages.

Buttons and Links. Don't make your visitor have to "float" or "hover" over an unmarked and/or not-so-obvious navigation button or miniature graphic in order to find their way around. They should be able to easily land on a button or link, click on it, and immediately be taken to wherever they're going.

Special Software. If your Web site can't be viewed by everyone without the need for a special software download, don't build the Web site that way to begin with. This really is, or should be, a no-brainer. The majority of all visitors are never going to download that special software. They will simply go to another Web site. Period.

Hit Counters. These are really old-tech, and most people don't use them anymore, but just in case you're thinking about adding one, stop thinking about it now. Telling people how many visitors you've had doesn't mean anything. And it could backfire if you've only had 27 visitors as opposed to 897,246. If you want to know how many visitors you've had, you should instead use Google Analytics or your Web host's Webalizer reports, both covered in Chapter 7.

Pop-ups. You'd think most Web site owners would have gotten the message by now – their visitors certainly have. No one likes pop-ups while they're browsing. They don't want an ad or a survey box popping up right in the middle of the page they are trying to read. Focus group studies consistently indicate that when a visitor is faced with a pop-up, they don't even read it. They just look for an "x" or the word "close" to make it go away.

Frames. These are just more old-tech that's still floating around, often on European Web sites. Frames are a very antiquated way of creating a Web page. You can tell when a page is relying on frames by the fact that the page is divided into two sections. On the left is a section that has a list of all the contents, often in a rather disorganized manner. That section will have its own scroll bar. On the right will be the other section, and it displays the content for whatever you have clicked on in the left section. It also has its own scroll bar. These kinds of pages are so difficult to use and, what's worse, they aren't search engine friendly. It's unlikely that you will opt to make a Web page in this old-style format, but in case you're leaning in that direction, try to restrain yourself and instead create a Web site using 21st century technology.

In general, if something takes up a lot of space on your Web host's server or if it takes a long time to load on the average computer (and most people are not running the latest equipment or the latest version of their browser or anything else), don't do it. If something is distracting or annoying to visitors, don't do it. The purpose of your design and content is to keep the visitor on your page and on your Web site, not to drive them away. You can't go wrong if you keep your Web pages simple and easy to navigate.

Images

No Web site is complete without the photographs, drawings, illustrations, graphics, and logos that are collectively referred to as "images." You don't have to fill up your pages with images, but they should be used wherever and whenever necessary to identify your business, to demonstrate how something is done, to describe a product or service, or to show samples of your completed projects.

If you shoot with a digital camera, shoot at the highest compression and the largest file size that your camera will allow. Your images will be saved to the camera's disk as .jpg files, at only 72 dpi, but in very large dimensions which you can later reduce to the size you want using your photo editing program or the photo management routines in your Web design software. If you plan to scan photos you have taken with a film camera, scan them at 300dpi and save them as .tif files for archival purposes. Use the .tif files to make small .jpgs in the dimensions suitable for use on your Web site.

Taking Photos. Always use the best photographs you can take of your products and employees. If you anticipate taking a lot of photos of products, people, and projects, consider investing in an inexpensive tripod to ensure that there isn't any blurring from inadvertent camera movement.

Employee Photos. If you're going to use photos of your workers, let everyone know in advance that their photo is being taken so that they can try to look their best. Photos of employees are great for Web sites, especially if you are a service business, and even more so if they are wearing company uniforms. At the very least, they should be very neatly dressed and well-groomed.

If someone takes a bad photo – even if it's you – don't use it. Try again. If you can't get a pleasant and approachable image, don't use that person's photo at all. On the Internet, you have to establish a rapport with people who you've never met, so your visitors make their connection to you based on several factors, one of which can be how you and your staff appear. You don't have to be drop-dead gorgeous, but you should be neatly dressed and groomed, and you should always be sporting your very best smile. Some people are not particularly photogenic and so you may have to take a lot of photos until you get one that is suitable.

Product Photos. With photos of products, you should make sure that everything important about the product is highly visible. You may need to take more than one photo from different angles to fully demonstrate what a product looks like. Don't try to cram everything into one photo. Remember that on the Web your photos will be quite small and if you try to get too much detail into one tiny photo, the details will be too small to see. Instead, take photos of individual products or of a the part of a project that reflects your design abilities, etc.

Project Photos. Take photos on a day when it does not interfere with a client's daily business, and do not photograph the clients themselves or any identifying address or landmark that would indicate where or who they are, unless they specifically allow you to do so in writing.

Building Photos. If you photograph a building for any reason, be sure that the sidewalk, walkway, driveway, steps, etc., are swept and that trash cans are not visible. Move cars and other vehicles out of the way. Make sure the building windows are clean and hose off any dirt from the walls and doors. If there's a pond or pool in the picture, make sure there are no leaves sitting on its surface, and don't photograph it at mid-day. Unless you have a great-looking building as your own headquarters, resist the impulse to photograph it for your Web site.

Releases. If you are taking photos at a client's home or office, be sure that you have their written permission to do so, and that the release specifically allows you to use the photos on your Web site.

Sizing Images. Make sure your images are very clear. Don't try to enlarge them beyond their limits of clarity. For example, if your image is 2" x 3" and 72 dpi, don't try to enlarge it to 3" x 4," because at 72 dpi – the highest resolution you should use on the Web – it will only become blurry. In general, you should keep your images as small as possible, but in a size that is big enough that you can tell what is in the picture. The dimensions of the image should be the same as the size in which it will appear on your Web page. If you want the picture to appear on your page at 1.5" x 2.5", then make the image in those dimensions before you save it and insert it on the Web page. This helps ensure that your images will load quickly.

Enlargements. If you want your visitors to have the option of looking at an enlargement of a photo to view its details, you can store a larger version of the photo in the images folder and then hyperlink the small photo to that larger one. When they click on the small photo it will open up the large photo for them to view. This means that the small photo loads quickly when the visitor first opens the Web page, and they have a slight delay in loading only if they then click the link to the larger image.

Storing Images. You should store your images in a folder called "images." This file is uploaded at the same time that you publish the rest of your Web pages. If you have a lot of images you can make subfolders within the images folder to keep them all organized. But, once you have inserted an image on a Web page, don't move the image file to another folder. If you do, the image will no longer appear on your Web page, and in its place will be a tiny box with a red "x" in it. This is because when you insert an image on a page, it is really not embedded on that page. Instead, your Web page is pointing to the image file in the images

folder and making it appear. If it is no longer in that folder, the Web page can't display it, and it instead shows the little red "x" in a box.

Naming Image Files. Keep your image file names short and descriptive, using a keyword or two if possible or when necessary, such as when you are going to use an image as a link – something you should not rely on, as a rule of thumb.

Image Formats. All of your images should be saved in an appropriate format. Here is what the various image formats are used for.

- ◆ **.jpg or .jpeg** (Joint Photographic Experts Group). This is a compressed image file capable of reproducing millions of colors (24-bit color). It is the best format for photos. Some details are lost during the compression process, but because the images are displayed so small on a Web page they retain relatively good quality over time. A .jpg file can be compressed using various settings, and the higher the compression, the smaller the file, but the lower the quality of the image. If you are creating a .jpg file that will be large and you want it to load quickly, you will want the higher compression, but your image may not be as clear.

- ◆ **.gif** (Graphics Interchange Format). This is a bit-mapped compressed graphics file format that creates a much smaller file than a .jpg, but can only display, at most, 256 colors. It is usually best used for graphics, line drawings, charts, and transparent images – any image that has solid colors and very distinct borders between different colors. A .gif file can also be animated, and it's good for logos and navigation buttons.

- ◆ **.png** (Portable Network Graphics). This format was designed specifically for use on the World Wide Web, although not all servers, browsers, or devices display them correctly (yet). A .png is a small file like a .gif, but the compression does not reduce the clarity or quality of the image. It can support transparent images and can display all the colors of a .jpg. As it catches on, it will probably eventually phase out the .jpg and .gif file formats.

- ◆ **.bmp** (Bitmap). While these image types can be used on the Web, it is not recommended. They are not compressed files, are about four times bigger than .jpgs, and take way too much time to load, even in small sizes. Use them instead to archive your images on your hard drive or for print work if required.

- ◆ **.tif or .tiff** (Tagged Image File). These image files cannot be used on the Web. They are not compressed files and, like .bmp files, they are very large. This is, however, the very best archival file format for all your images. Because it is not a compressed file, it will not lose detail or become blurry over time. Always keep a .tif version of all your images. From a .tif file you can create a copy in any other file format you want or need.

Extras

There are many little gadgets and resources that you can use on your Web site to enhance a visitor's experience. Which ones you use, and how effective they are, depends on the purpose of your Web site and the kinds of visitors who are likely to use those gadgets. Here are just a few examples of extras you can install on your Web site.

Search Engines. If you have a lot of information on your site, you can install your own search engine. There are several different ones available, so if you decide to do this, just search for them on the Web until you find one that looks and functions the way you want it to.

Tell-A-Friend. This is a way for a visitor to refer or recommend your site to a friend. This extra comes in many forms, some easier to install than others, some easier for the visitor to use. Browse the Web until you find one you like.

Videos. Videos can be an important part of a Web site, as long as the videos are short (quick loading) and relevant to the rest of the content on your site. The easiest way to install a video on your Web site is to post it to YouTube and then embed it on your Web page. It's very easy. Go to the page on YouTube where the video is located. Click on the Share button first (it's right below the video) and then click on the Embed button (which appears after you click the Share button). A box filled with HTML code will appear. Don't worry about selecting a size for the video (choices for doing so are farther down the page), because the default size is what most people want and expect to find. Click on the embed code to highlight it. The code will look something like this:

```
<iframe width="420" height="315"  
src="http://www.youtube.com/embed/mOgzQyb9J88" frameborder="0" allowfullscreen></iframe>
```

Then right click your mouse and select Copy from the mouse Menu. Now, open your Web page in your Web design software (Dreamweaver, Expression Web, etc.) and select the spot on the page where you want to place the video. Place your cursor on that spot and then open the source code view so that you can see your cursor in the code. Mouse to the cursor in the code view, then right click your mouse and select Paste. Save your Web page, upload it (publish it, send it, put it) to your host's server, and then go online and look at the page and view your video. Pretty simple, wasn't it?

Sound Files. In most cases, the last thing you should be doing is playing a sound automatically on a Web page, especially if it is a long sound such as music, an annoying voice, a loud sound, or one that plays in a loop (repeats). These things are just plain irritating to the average visitor. In addition, sound files are rather

large, and because they load first, they can delay your entire page from loading quickly. But, if you need or want to use a sound effect, make sure it is a sound of very short duration so that you will be loading the smallest file possible. The embed tag supports your common sound file formats such as .wav, .mid, .mp3, and .au. The code goes at the top within the <body> tags:

```
<embed src="http://www.yourwebsite.com/youround.wav"  
loop="false" autoplay="true" hidden="true"  
volume="50"></embed>
```

The above code stops the sound from playing in a loop (loop="false"), makes the sound play automatically when the page loads (autoplay="true"), omits the volume control box image from appearing on the page (hidden="true"), and sets the volume to normal (volume="50"). Volume can be set anywhere from 1 to 100, but 50 is considered normal. You will need to experiment with your volume control because no two sound files are recorded at the same level. Some can be quite loud and abrasive and need to be toned down to 20 or 25 or so to avoid driving your visitors away.

Blogs. A blog is short for "Web log," and you can have one at a blog site or you can have one on your own Web site and use it to talk about what your company is all about, including your future plans for new products and services. You can also share helpful information in your blog. What you write about will be determined by the kind of business you have. Blogs are popular with search engines because they indicate new and unique content to be indexed on a regular basis. If you already have a Web site, you can use Wordpress for your blogging, as you can usually install it on your own domain name or on your own Web site page.

With blogs, like anything else, you need to blog regularly in order to always have fresh content available to your visitors. In addition, you need to make sure that what you blog about is something your visitors can't already find elsewhere. Search engines appreciate this too since they are always on the lookout for something new.

Forums. Forums are specially constructed pages where visitors can communicate with each other and hold discussions. Forums can also be good ways to drive traffic to your Web site. Many forums are free and relatively easy to install. Two common free forums are phpBB and vBulletin, and your Web host may support one or both and have an easy installation tool on their Control Panel page. The vBulletin forum is best for larger forums, so if you intend to draw thousands of people to your forum, this would be the one to choose. You will need to promote your forum, possibly in your blog or in your E-mailings. You can start a few discussions yourself to try to gain visitor interest and participation in your forums. Forums can be controlled from behind the scenes, and this allows you to delete spammers who try to post advertisements on yours.

There are many other extras available, but remember not to include anything that isn't essential or that does not help your visitors.

Publishing

Once you finish writing and designing your site you must publish it – copy or upload it – to the server destination that is provided by your Web host. With some Web programs, such as Dreamweaver, you will set up all of the information in the program about where your files are going to be sent before you even start creating your Web pages. When you publish your Web site or a new page for the very first time, it is called "launching." You will be launching all the individual Web pages you have made, as well as your CSS file, any auxiliary files (as explained in the next chapter), and any folder(s) that contains images.

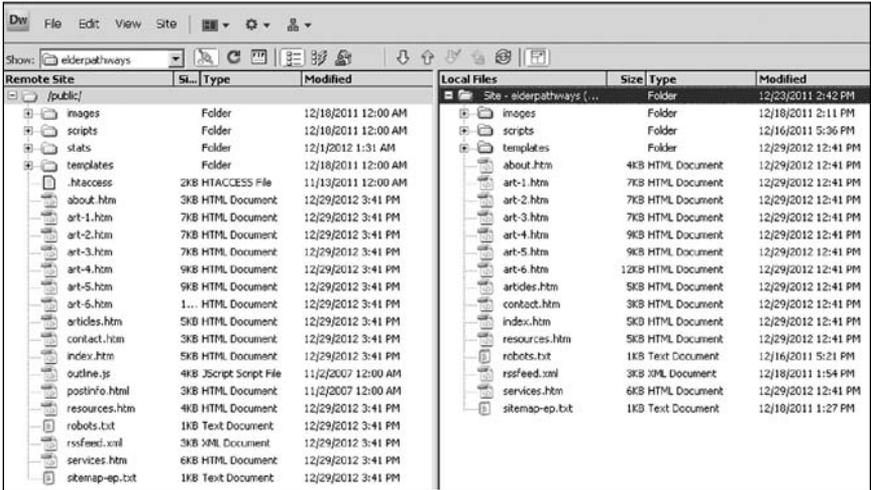
Before you launch your new Web site, do a thorough review of all your pages and check the writing and the images to make sure they are all correct. If your software provides you with tools to double-check your hyperlinks or to find any code errors (e.g., missing end tags), you should run those programs and make any and all necessary corrections.

Next, preview your Web pages in Internet Explorer, Mozilla Firefox, Safari, and any other browsers that you have downloaded to your computer. Preview your pages at screen resolutions of 800 x 600 and 1024 x 768. If you need to make adjustments or troubleshoot a page, now is the time to do it. Once the Web site is launched, you can additionally preview everything on your cell phone or tablet.

There are different ways to publish a Web site or individual Web page depending on the software you use to create your Web site. The method for publishing a Web site is called FTP, which stands for File Transfer Protocol. The FTP link is usually found somewhere on the File, Tools, Command, or Utility menu of your Web software program, and it will probably be called "FTP," "publish," "upload," "send," "put," or some variation on those words. In some cases, you might have icons that you click on to connect to the server, or up- and down-arrows indicating uploading and downloading functions.

Some programs provide different views for publishing files. In most cases, you will have the option of seeing a split screen similar to the one on the next page. It shows the files on your computer (the local files) on one half of the screen, and the destination folder on the server (the remote site) on the other half. You can highlight all the files when you launch the site the first time, and then select "publish" or "put," or whatever your software dictates. When you later want to update a single page or add a new page, you can highlight that one file and publish it instead of re-publishing all the pages again. But, if you change your template design, you will need to re-publish all the pages that use that template. If you make changes to your style sheet, you will need to re-publish only the style sheet.

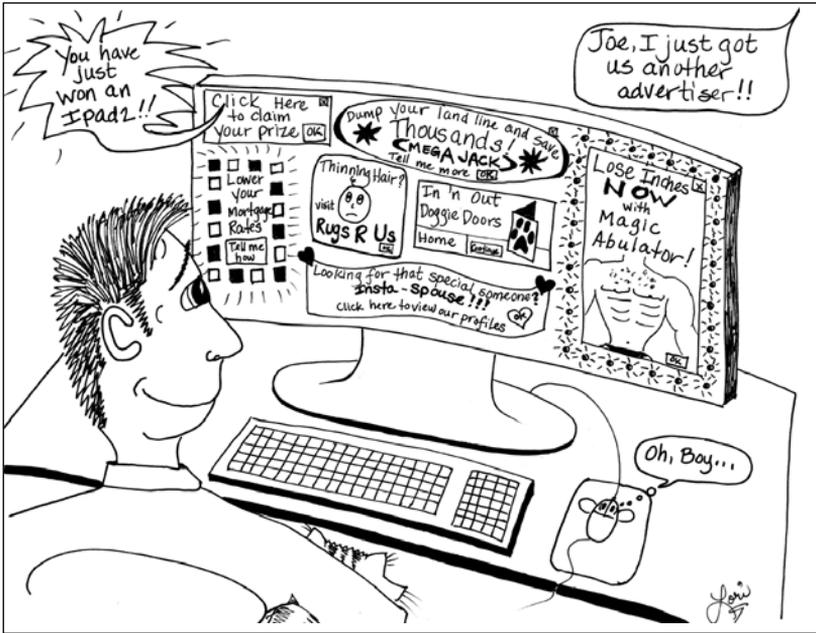
Sample Publishing Split Screen



As you send files up to the server, they will appear on the server side of the screen with the current day's date on them.

Check It Live. After your Web site has been successfully launched, go online and check every single page, image, and link by hand. Click on every navigation button or link and make sure it takes you where it should. Do not rely on software programs to check links. They can only ensure that a link works, not that it takes you where you intended it to go. Do this whenever you launch a new page too. If you have a shopping cart, test out every single "buy" or "add to cart" button, including any "view cart" or "check out" pages. The best time to find out if anything is wrong with your Web site is long before you are ever indexed by a search engine. You don't want to find out six months after you haven't received any orders that the "add to cart" buttons don't work.

Check It On Other Devices. View your Web site on other people's computers and on tablets, cell phones, and any other hand-held devices. When I first launch a Web site or make any major design changes to an existing one, I usually send an E-mail to all of my friends and family members with a link to my Web site, and I ask them to comment about anything they think looks bad or weird or seems somehow incorrect. Usually, because I'm pretty fussy about what I create, I don't have too many irregularities that I can't fix, but some are just beyond my control. I can either remove them entirely or just leave them as they are, depending on what the problem is and how prevalent it might be. If it is aesthetic only and is likely to appear incorrect on only a small percentage of very old computer monitors, I normally leave it the way it is, as long as it does not affect the functionality of the page.



CHAPTER 6 - MARKETING & ADVERTISING

Marketing and advertising are the means by which you attract potential clients or customers. It includes all the things you do to promote whatever product or service you sell. Most businesses will benefit from the use of traditional marketing methods, such as sending out press releases, creating in-house newsletters, having business cards printed, attending networking groups, and taking out ads in phone directories. But if you are a Web site business or you're using your Web site as your primary marketing vehicle, you must also focus your efforts into the Web site itself, search engines, and the various Internet marketing methods.

The Web is not like other media. It is unique and different in every way. Traditional standbys like print ads, marketing letters, brochures, commercials, and the like, rely on the chance that someone out there may be looking or listening to what you have to say at the moment that you say it in print or on the air. This means that you may spend thousands of dollars every year crafting your marketing materials as carefully as possible to ensure that if, on the off-chance, someone does happen to read your ad or hear your commercial that they will glean enough information from your efforts to want to buy what you sell.

With a Web site, these chance meetings between you and your potential customer are eliminated. You are clearly in control and, if you do it right, your

potential customers will come looking for you. In addition, the costs to produce and maintain a Web site are minimal in comparison to all other forms of advertising and marketing.

If you write and code your own Web site correctly, it will come up in a search on keywords you have indicated. However, if you want it to come up at the top of that list of Web sites, your Web site will require some additional files, a little tweaking, and a way to promote it.

Auxiliary Files

There are a few auxiliary files that are easy to create and that will make your Web site function better and be more marketable in the long run. While they don't seem like they are related to advertising or marketing, they are helpful to search engines, and that ultimately means making your Web site easier to find.

robots.txt File. A robots.txt file is what (most) search engines read first when they "crawl" (visit) your site to index it. The file contains a variety of instructions to search engines telling them how to index your site and what they should not index. The robots.txt file won't help you get indexed right away, but it will make your site more friendly to search engines because it will allow them to crawl your Web site more quickly and index it correctly. In this way, you will also be doing your part to keep the World Wide Web a little less clogged with pages that no one would ever be searching for anyway.

Create your robots.txt file in Notepad or whatever text editing program you use, and save it as robots.txt, not robots.html, not myrobots.html, myrobots.txt, or anything other than robots.txt. It should be stored with all your Web pages in the root directory of your Web site, published along with all your other pages, and updated and republished as necessary. If you decide to create a Web site that uses subdomains, you will have to create a robots.txt file for each subdomain.

◆ **Disallowed Pages.** A search engine robot follows links and indexes everything that it encounters as it follows those links. But you might have some Web pages or other files that you want to "disallow" (keep out of a search index). This can be done by disallowing them in the robots.txt file. Which files you disallow depends on the kind of business you have. But, in general, you will probably want to disallow any non-relevant content pages, such as ones that appear or pop up after a payment is processed; a shipping information page; a custom error page; any pop-up ads; a page that consists of only a form; and everything in your images folder.

In your robots.txt file, list the pages, individual files, and file folders that you want disallowed. The contents of your robots.txt file will be in a format that looks something like this:

```
User-agent: *
```

```
Disallow: about.html  
Disallow: bigad.php  
Disallow: errorpage.html  
Disallow: portfolio.html  
Disallow: shippinginfo.html  
Disallow: /images/
```

The "user-agent" is the search engine, and putting a wildcard – an asterisk (*) – after it indicates that your robots.txt file is directed at all search engines.

♦ **Meta Tags.** The following are some of the meta tags that you can use on your Web pages to instruct search engine robots. You place one or more of these between the <head> tags:

```
HTML Robots Meta Tag Codes  
Instruction to Search Engine  
<meta name="robots" content="noindex">
```

The above meta tag tells a search engine to not index the content on the page but to follow any links on the page. This is for pages that do not have content, per se, but contain lists of links that lead to content-rich pages elsewhere in your site.

```
<meta name="robots" content="nofollow">
```

The above meta tag tells a search engine to index the content but not follow any links on the page. This is for content-rich pages that have links to pages that may get quickly outdated or that lead to another site.

```
<meta name="robots" content="noindex, nofollow">
```

The above meta tag tells a search engine to not index the content on the page and to not follow the links on the page either. This is for pages that have content that should not be indexed because it is not content that is relevant to a search, and its links, if any, do not lead to relevant content on your site. The pages with this tag must be listed in the robots.txt file as disallowed. This is also a good direction to use on a page you intend to delete, as it will drop the page out of the SERPs quickly, and then you can delete it.

```
<meta name="robots" content="noodp">  
<meta name="robots" content="noydir">
```

The above meta tags tell search engines to display the title tag and description tags in the search engine results pages instead of the information from the "odp" (Open Directory Project) or "ydir" (Yahoo Directory), which may be outdated, incorrect, or misleading.

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```
<meta name="robots" content="noimageindex">
```

Do not index the images on the page.

```
<meta name="robots" content="notranslate">
```

Do not offer translation of this page in the search engine results pages.

```
<meta name="robots" content="nosnippet">
```

Do not show a snippet for this page in the search engine results pages. This is good for pages in which the content changes frequently and in which the snippet (the little information blurb that shows up in the search engine results page) would be quickly outdated. Using this direction also eliminates a cache link being shown. If you use this direction, it automatically does the "noarchive" function as well.

```
<meta name="robots" content="noarchive">
```

Do not archive the page, and do not show the cache link in the search engine results pages. This should not be used unless you have content-rich pages on which the content changes very frequently, such as time-sensitive news or events, because a cached page is helpful if your server is ever down for any reason.

```
<meta name="googlebot" content="unavailable_after: 12-april-2012 01:00:00 est">
```

Remove page from search engine results pages after 1 a.m. Eastern Standard Time on April 12, 2011. (Probably only used by Googlebots at this time.)

The above are by no means the only instructions you can give a search engine. Some search engines recognize the use of wildcards and other language inside the robots.txt file, such as the following:

```
Disallow:/*?
```

Blocks access to all URLs that have question marks in them.

```
Disallow:/*.php$
```

Blocks access to all files that end with the .php extension. Can be used with any other extensions you want to block, such as .asp or .doc.

```
Disallow:/dogfiles/  
Allow: /dogfiles/puppies.html
```

Two lines that block access to the entire dogfiles folder except for the file that is the puppies page.

```
Disallow:/wp-*.php
```

Blocks all WordPress files from being indexed (Googlebots only).

Security options. Most search engines honor the robots.txt file and its directions in the file as well as the meta tags you place on your pages. But some don't. So, you may want to take other precautions to ensure privacy and security for those pages that contain confidential information that you do not want to share with the rest of the world. To do this, you can create a Web page template that does not include your navigation structure or any links to the rest of your Web site. You launch the private or confidential pages you create from that template along with all your other pages, but all those private pages do is share space on the server; they are not linked to your Web site.

For example, from that template you can create a page that contains a list of your client references; a payment page for clients to make progress payments; or a page that contains photos of your recent summer vacation in Costa Rica. These unlinked pages cannot be indexed by a search engine and no one can access one of those pages unless you personally give them a direct link to it.

Google Sitemap. You don't have to register with most search engines to get into their indices. They will crawl your site eventually, some faster than others. It may take two days to three months or more, but if you are in an index and your Web site writing has been properly search engine optimized, and your site still isn't coming up in the first five pages of a search, you might benefit from having a Google sitemap. Google is the biggest search engine, and so it pays to do everything you can to get their attention.

A Google sitemap helps Google index your site and find any pages that it might not otherwise index. There are three ways to make a Google sitemap, but the easiest one to make that Google accepts is in a text file. Create the file in Notepad or whatever text editing program you use. In the file, list all of the URLs in your Web site that you want Google to index, and be sure they are all spelled correctly. You might want to alphabetize them as that will be helpful to you each time you update the sitemap when you add and delete Web pages. Here's a sample of a small Google sitemap in text file format:

```
http://www.myweb.com/article-collectibles.html
http://www.myweb.com/article-militaria.html
http://www.myweb.com/article-victoriana.html
http://www.myweb.com/auctions.html
http://www.myweb.com/calendar.html
http://www.myweb.com/index.html
http://www.myweb.com/insurance.html
http://www.myweb.com/paypal.html
http://www.myweb.com/products.html
http://www.myweb.com/robots.txt
http://www.myweb.com/rssfeed.xml
http://www.myweb.com/services.html
```

Your sitemap could be much larger or much smaller. Save your Google sitemap file. Select “save as” from the File Menu in Notepad. When the save window comes up, you’ll see two options for how to save the file:

- 1) “encoding” – select UTF-8
- 2) “save as type” – select Text Document (*.txt)

Store the Google sitemap with your Web pages and publish it along with them.

Submitting to Google. To let Google know you have a Google sitemap and to be able to submit it to Google, you must have your Web site verified with Google. You only have to do this once, but to do it, and to have access to the many other Google tools, you need to set up a Google account, which is free. After you set up a Google account, log on to your account and go to the Webmaster tools and verify your Web site. This consists of getting a line of code from Google, and then copying and pasting that code somewhere between the <head> tags of your home page. The boldfaced text below is a sample Google verification code placed between the <head> tags:

```
<HEAD>  
<meta name="google-site-verification" content="UhtNUozdQN6-  
lJd-hU-oSTBOAsdXwO81kpicGKkDbjs" />  
<TITLE>Landscape Services of Savannah</title>  
<META name="description" content="Landscape design,  
installation, and maintenance services throughout greater  
Savannah, Georgia.">  
<META name="keywords" content="landscape, maintenance,  
design">  
</HEAD>
```

Look very carefully at the HTML code after you have pasted it between the <head> tags to make sure you didn’t leave anything out, such as an angle bracket, and that you didn’t drag anything into it that doesn’t belong, such as an unwanted symbol of some kind. Google won’t verify you if something went wrong during the copy and pasting.

When you’re sure everything has been copied correctly, republish your home page. You should do this while the verification page at Google is open. When your site is verified – and it takes seconds – a green checkmark will appear on the Google verification page. You can then submit the sitemap to Google. In the future, each time that you add or delete pages to your Web site, you must add or delete them from the Google sitemap, republish the sitemap, and then re-submit the revised sitemap to Google.

Custom Error Page. If you spend a lot of time on the Web, you’ve probably encountered more than your share of 404 Page Not Found error pages. These

error pages are generated by a Web host when a visitor attempts to view a page that the server can't find because it has been renamed or deleted. In short, it no longer exists.

Most people don't bother to read what the 404 error page says and instead click out of it and go on to the next Web site or Web page that came up in the SERPs. But if you still have the missing page and have renamed it, you can avoid having a visitor leave by creating your own custom error page that allows them to navigate to the newly-named page.

A custom error page is a regular Web page, just like the others you created for your Web site. It has navigation and your banner on it. You can write your own error message on it, such as:

Sorry! The page you want has been moved.

Please use the navigation links above to locate it.

To make your custom error page work, you need to designate it to your Web host as the replacement for their standard 404 error page. This is usually done by modifying a file called `.htaccess` to include the following line:

```
ErrorDocument 404/www.yourwebname.com/myerrorpage.html
```

The boldfaced text above should include your domain name and the name of your custom error page. If you can't find the `.htaccess` file or can't figure out how to modify it, your Web host should be able to help you. They may even have a tool for doing this, and if they don't, contact them anyway and ask them if they can do it for you.

Marketing

There are many ways to promote your Web site, and most are the tried and true standards people have been using for years to promote their businesses.

Press Releases. These are always a great way to let everyone know what you're doing, and they're free publicity when they're published. Today, you can send most of them by E-mail – a real advantage over the cost of mailing them, as well as getting them published in a timely matter due to the delays in mailing. And many recipients are so overwhelmed with press releases that not every one they receive gets published. This is because they often are poorly written and are missing information. So, if you want your press release to be published, it has to be timely, informative, and well-written. It must also conform to the restrictions of the CAN-SPAM Act as explained in Chapter 2.

There are primarily three kinds of press releases: announcements, events, and products/services. Be sure that your press release goes only to the person who handles

your type of press release. At the very top of any kind of press release, type in your name, your phone number, and the date by which you want the release to be published (e.g., "For immediate release"; or "For release by August 4"). That date should correspond with the publishing schedule of the newspaper or magazine to which you are submitting the release. If you say nothing else, at least do not leave out the important details, and make sure they are prominently visible at the beginning of the release: names, titles, dates, times, places, costs, sizes, dimensions, weight, colors, guarantees, shipping, service area, and contact information (name, phone, fax, E-mail address, Web site address).

Write a very brief and concise paragraph that covers whatever it is that you most want a reader to know about. If you send a four page manifesto, your press release will not get published. Follow up the first paragraph with another one or two short paragraphs with a little more information. Those last two paragraphs may not get published, but if the editor thinks there's enough interest, they might publish it or may even write a story about you.

Use Times New Roman, Arial, or Verdana typefaces, and align everything to the left. Don't bother to boldface or italicize anything. Publishers like to cut and paste from the E-mail into their word processors and typesetters, and any extraneous information just mucks up the works for them and decreases the chances that your press release will be published accurately or at all.

Spell check your press release and look up any words you aren't sure about in a dictionary. Double check all the facts. Do not assume that publishers will automatically fix these things for you; most will not and/or cannot correct your mistakes.

Many publications like to have a photo to print along with the release. If you do not have a really good quality photo, don't send one at all. And if you do send photos with your press release, don't send more than two. Follow the publishers' directions for how they want photos submitted and follow their instructions to the letter.

Send your press releases no more frequently than monthly, if that often, and only if you really have something to say. Create a thorough list of newspapers, magazines, e-zines, trade associations, networking associations, clubs, educators, and any special interest organizations you can think of who would have use for whatever it is that you do or sell. And don't forget to send press releases to your existing clients and customers too.

Newsletters. A newsletter can be a great vehicle for sharing a lot of interesting information with your clients/customers. All of the same E-mailing restrictions apply to newsletters as to press releases. Your newsletter can be sent as a .pdf attachment to an E-mail; it can be embedded in an E-mail; or it can be downloaded at your Web site after you send an E-mail to your subscribers letting them know it's available.

It's important to have good content in a newsletter. It should be helpful and interesting content that provides a benefit to the reader. If you don't give value in a newsletter, only the first one your clients/customers receive will be read, and the others will likely be deleted without being read.

Social Networking. Social networking, also called social influence marketing or social media, is an important form of indirect marketing for many businesses. It is more than a social phenomena with more than 200 million users of Facebook alone as of 2010. And there are many other social networking sites as well, including LinkedIn, which is good for most businesses. These sites are not one-size-fits-all. Some products and services do better in certain communities and don't fit well in others. Be prepared to spend a significant amount of time thoroughly researching all the sites until you find ones that are the most likely candidates for your business.

Your participation on a social network site is key to successful marketing there. It is a virtual substitute for face-to-face conversations in which referrals are made. The users of these networks want to discuss possible purchases with their online "friends," to discuss products, services, and problems with experts, including you or your company representative. In this way, social marketing can be very time-consuming. You can't just log on when you feel like it. You have to be available almost 24/7 and you must be very informed, honest, and tactful as you interact with visitors to your company's page. If you screwed up, you have to admit it and fix the problem – all in front of everyone!

Put iconic links from your Web site to your social marketing page(s) and vice versa. Remember that social media is not an end unto itself. It should be used in conjunction with all your other marketing and advertising efforts.

Printed Materials. Many businesses can't survive without going around in person and handing out brochures and business cards to other business owners or to individuals in residential housing developments. Your brochures and business cards should be written and created with care and attention to detail, and they should mirror the design and content of your Web site in order to ensure continuity and consistency. Above all, be sure your Web site address is very conspicuously printed on all your printed materials. The same is true for signs. If you have a sign in front of your place of business or on your car or other company vehicle(s), be sure your phone number and Web site address are on them.

RSS Feed Files. This file is an easy way to disseminate or syndicate information about your business throughout the Internet. The RSS stands for "rich site summary," but is more commonly referred to as "really simple syndication." People can subscribe to these feeds to find out what's new in a particular category of subject matter that they choose.

RSS files are written in Notepad in XML (eXtensible Markup Language) which is a markup language that is very similar to HTML. The file is saved with an .xml extension, is stored with your Web pages, and is published with them.



You can submit your RSS feed file to "aggregators" who make the information available to others, or you can wait until the aggregators find it. Put a button on your Web site that is hyperlinked to your RSS feed file so that aggregators and people who are looking for RSS feeds will find them easily. An RSS feed button (above) can be made in any color you like to match your Web site's color palette, but a typical button is orange or blue.

The following is a sample RSS feed file. You can have as many <item>'s (bold-faced below) as you want as long as they are all related to the same subject.

```
<?xml version="1.0" ?>
<rss version="2.0">
<channel>

<title>Informational Resources for Cat Lovers</title>
<description>Cat care articles cat expert Joelle Steele.
The place to buy Joelle's booklet about homemade cat food,
"Cooking for Fluffy."</description>
<link>http://www.felineinsights.com</link>

<item>
<title>Articles About Cats and Cat Care</title>
<description>Learn about cats and cat care. Check out
these articles by cat care expert Joelle Steele. Read
articles about flea anemia, flea control, feline acne, and
more.</description>
<link>http://www.felineinsights.com/articles.html</link>
</item>

<item>
<title>Home Made Cat Food Booklet - Cooking for
Fluffy</title>
<description>Make nutritious and delicious meals for your
cat without artificial ingredients, such as preservatives
and food colorings found in commercial pet food. Cat care
expert Joelle Steele's 24-page booklet, "Cooking for
Fluffy," teaches you how.</description>
<link>http://www.felineinsights.com/books.html</link>
</item>

</channel>
</rss>
```

As you can see, there are a lot of angle brackets and codes surrounding various parts of the text in an RSS feed file. Like HTML, these XML codes are called “tags.” They define whatever is written between the angle brackets (the opening and closing tags). Be careful not to accidentally delete any of these tags, angle brackets, or quotations marks when you are customizing this file, or it may fail to work.

Advertising

Advertising is essential to every business. You have to advertise your products or services, and you have to advertise to promote your Web site business. But, there are several options for advertising online, and most are free or at least far less expensive than print advertising.

Reciprocal Links. Search engines, Google in particular, love links. They like it when a Web site is linked to and from related quality sites with relevant content. Links like this can help bring business to your Web site. But linking is not something to be done casually. It actually requires a significant amount of thought and effort to make a good link exchange with another site.

The main thing to understand about link exchanges is that when you receive a link (an incoming link), a visitor is coming to your Web site, but when you provide a link to another Web site (an outgoing link), a visitor is leaving your Web site. Obviously, an incoming link is preferred because it is driving business to your Web site. An outgoing link could mean that someone leaves your Web site and doesn't return.

How do you avoid sending someone away from your site like this? One way is to make an outgoing link open in a new window or tab. This keeps your Web page open at the same time that the linked Web page is opened in a new window. You can use JavaScript to do this because it will allow you to customize the target window or create a pop-up window, but it's a lot easier to do by just inserting a space followed by two additional words in the HTML code (bold-faced below) for the outgoing link:

```
<a href="http://www.otherweb.com/" target=" blank">visit  
Other Web</a>
```

See Chapter 5 for more about creating these pop-up windows.

Contact Webmasters at other Web sites and ask them for reciprocal links. It doesn't cost either of you anything, and who knows who might come to your Web site as a result. Whatever you do, do not be misled into linking with another Web site until you have visited that Web site and determined that it is a good match for you, meaning you're not in competition with each other and it is a good quality Web site with relevant information from which your visitors

would benefit. You should also find out exactly where your link is going to be located and where you are going to place links on your site. Web sites give the option of having a link appear on a certain page (sometimes as chosen by the person whose link will appear there) or else the links appear in the same place site-wide (on every page).

You should avoid linking when it is not necessary. For example, if you sell organically grown spices, your Web site should have plenty of informational articles about spices and how to use them. You should not be sending your visitors to another Web site for those kinds of articles.

You should also avoid "link schemes," in which you pay for links that are supposed to increase your site's ranking in the SERPs. They don't, and they can get you in trouble with search engines. Create the best Web site you can and follow the directions in this book to avoid getting caught up with these kinds of scammers.

Reciprocal Ads. Reciprocal graphic ads are exactly the same as reciprocal text links except that graphic ads are hyperlinked instead of text. The ads are usually fairly small and must fit within the dimensions that most Web sites accommodate. Small graphic ads must accomplish a lot for their size. They must be attractive and have clearly readable text with a compelling message in it. You might not have any room at all for a pretty picture, but good use of color can attract a visitor to click on the ad. As with reciprocal links, you should have the graphic ad link open in a new window.

Pay Per Click. Pay Per Click (PPC), sometimes called Cost Per Click (CPC) is a form of advertising that is unique to the World Wide Web. When done correctly, it can be very economical as well as very effective for most businesses. It comes in two types of campaigns: search engine and social marketing.

♦ **Engine Campaigns.** These consist of small four-line text ads (they used to be boxed) that contain specific keywords that are placed on the SERPs (search engine results pages) of whatever search engine the advertiser selects, such as the biggest search engines, Google (AdWords campaign) or Yahoo (Search Marketing campaign). The ads usually appear to the far right side of the SERPs. An ad may appear in many searches, but the advertiser only pays the agreed-upon (or bid-for) amount when a visitor clicks on their ad and goes to the advertiser's Web site – hence the term "pay per click."

Each search engine has its own policies that dictate how big these little ads can be and what they can include. In general, they consist of a heading (about 35 to 55 characters), a brief description (150-200 characters), and a link to the advertiser's Web site. Here are a few samples of what search engine PPC ads look like:

DROP-A-TON WEIGHT LOSS PILLS

www.dropaton.com/weightlosspills

Lose a pound a day guaranteed. Six month supply. Try it free for 30 days.

ACCOUNTING SOFTWARE

www.numbercruncher.com/accountwizard

Payroll, Sales, Inventory, and more. Download AccountWizard software today. \$99 U.S.

JINGO ART SUPPLIES

Discounts on supplies and equipment. Orders over \$50 ship free in the U.S.

www.jingoart.com/supplies

GARDENING BOOKS – ON SALE

Best buys on all the top gardening books.

Low shipping costs. Fast delivery.

www.gardenairebooks/saleitems

PPC is driven by the advertiser's budget. So, if you decide to try PPC, you have to decide what that budget will be and what search engine you want to use. The bigger search engines are the least risky because they have great coverage, but they are also more expensive when it comes to giving you the visibility you want in the SERPs. Once you determine your budget, you need to select your keywords, often done by using tools that the search engines provide, and that will sometimes show you what the current bids are for certain keywords or keyphrases. Next, you have to create the headline and description, and you don't have much space to do this, so think long and hard about what your visitor will want to click on. You should check with the search engine you select and find out if they will offer assistance in creating your campaign, often free.

For the most part, you must open an account with the search engine you plan to use, and there is not usually a fee for this. There may be a very small initial deposit, and it will most often be deducted from your checking account. The good news about this is that most of these deposits start at around \$25. Once you have established this account, you can start to work on the keyword selection or bidding process, in which you decide what the maximum amount is that you can pay for the keyword placement you want. It can be as little as a penny or it can be a few dollars. The more you pay, the higher in the SERPs your ad will appear. And, because few people search beyond the first three pages of the SERPs, the higher you appear the better.

No two businesses will have the same experience with the same search engine. It is different according to the type of business you have and the budget you establish. And, while PPC is easy to set up, it is an ongoing process that involves constantly refining your ads and your keywords as you adjust your budget to get the maximum results – the same way you do with print advertising. The downside to PPC advertising with search engines is that the price per click can go up according to how many other Web sites are indexed using your selected keywords and who may not even be paying for their high ranking – an example of how good writing and SEO can impact on page ranking.

♦ **Social Marketing Campaigns.** These are PPC ads that appear on social networking sites such as Facebook or LinkedIn. To take advantage of these campaigns, you must become a member of the social network on which you want to advertise. Your ad is demographically targeted based on whatever criteria is available at the social network you choose, and may include targeting by age, gender, marital status, interests, industry, job title, etc. Additionally, if you are a service business, you can target your ad to show only to people in your service area.

Like search engine campaigns, you set up a PPC budget and determine how often, how frequently, you want your ads to appear over a space of time you select, and how many clicks you want per day. The bigger your target market, the higher your bid per click must be. But with social networking sites, the minimum bid will be stated, and it can start at about \$2.

Critics of PPC on social networking sites claim that advertising on these sites is a waste of money for most businesses because users do not click on the ads. But this is also a criticism of PPC with search engines. Whichever form of PPC you decide to use, just remember that what works for some may not work for others, and there are many details about the process that you must comply with to get the best results, even if your company seems to be a perfect fit for Facebook or LinkedIn or some other social site. Don't give up prematurely. Advertising in every format takes time, and online PPC ad campaigns are no different.

Listings. Most online directory listings are free, and they can help get your name out onto the Web where visitors will find your information and additionally be directed or linked to your Web site. Start by getting your name listed in all the various free online "yellow page"-type sites. Then register or submit your Web site to special interest directories (indices of specific topics). Special interest directories are hand-processed by human beings who actually visit your Web site and verify that your site matches their directory's particular criteria.

Ad Hosting

While hosting ads is not going to bring you business, per se, it can still bring some extra income through your Web site. This is called "monetizing" your site. You can sell ads yourself if you know who might benefit from advertising on your site, but you can't usually do this immediately because you will need to have enough traffic on your Web site to attract advertisers. But, if your site is new, you can always sign up with Google's AdSense campaigns. Here are some ad hosting basics:

Clutter. Keep your hosted ads to a minimum, or at least organize any ads you are hosting so that they don't interfere with reading your page content. Studies consistently show that visitors perceive the clutter of ads and logos as distracting, and they do tend to make a Web site look junky.

Ad Selection. Whether you sell ad space or host PPC ads such as with Google's AdSense, you have to select the right kinds of ads to host on your site. You don't want to be hosting your competition's ads, so try to find products and services that might also interest your visitors but that do not directly overlap the ones you sell.

Ad Placement. This is critical to getting visitors to click on the ads, and that's how you get paid if you're hosting PPC ads. In general, ads that are placed towards the top of the page and right next to articles get viewed the most and are clicked on more often. Optimum placement for a banner ad is below your Web page banner and above your Web page content. Bigger ads are always going to be the most visible, but don't make them too big or they will compete with your page content. Studies have shown that ads placed on the right or left side of a Web page do not get viewed or clicked nearly as often as ads that are floated within the page content. But, like everything else, try it both ways and see which works best for you.

Pricing. If you are going to sell ads, you will need to research the prices of ads that are common to the kinds of companies that sell the products or services you want to have on your Web site. If you price your ads above what they normally pay for Web advertising, you will not be able to get their business. Ad pricing on Web sites is calculated in one of three different ways:

- ◆ **Flat Rate.** This is by far the easiest way to price an ad, but it is not always the easiest way to sell an ad. Unless your rate is very low, advertisers are more likely to want more results-oriented advertising options such as cost per impression or cost per click.
- ◆ **Cost Per Impression (CPM).** This ad rate is determined by the number of impressions, i.e., the times an ad is seen, meaning each time the Web page is

viewed. The usual rate is per 1,000 impressions, so this type of ad rate is pretty much for Web sites that get thousands of visitors per day. To use this method, you would have to determine how much to charge per 1,000 impressions. For example, if you charged \$7 cpm, and at the end of the month there were 2,250 impressions for the page where the ad appears, you would be billing your advertiser \$15.75. Normally, you would use special software to track the impressions for you.

♦ **Cost Per Click (CPC).** Like CPM, cost per click ads require special software to track. With CPM, you bill for advertising only when an ad is clicked on. For example, if you charged \$0.75 per click and an ad was clicked on 78 times in a month, you would be billing your advertiser \$58.50.

Ad Format. Most Web ads are measured in pixels and come in certain widths and heights that are roughly consistent throughout the Internet. These are dictated primarily by the Interactive Advertising Bureau (IAB) which creates standards and guidelines for Web advertising. In general, graphic ad dimensions are in pixels. A small ad is usually about 125 x 125 or 160 x 90; is in a .gif, .jpg, or .png format; and must be optimized so that the file size is not much bigger than about 16K. Larger graphic ads are about 160 x 400 or 160 x 600 and may weigh in at 50K to 70K, but you should optimize all ads and make their file sizes as small as possible so that they load quickly.

The most common ad sizes are shown below, but they are not the only sizes, and variations are found throughout the World Wide Web.

Common Sizes Of Online Ads

Pixels	Description	Inches (approx.)
300w x 250h	Medium Rectangle	3.5"w x 3"h
180w x 150h	Rectangle (Square, Marketplace)	2.25"w x 2"h
728w x 90h	Banner (Leaderboard)	8.5"w x 1.25"h
160w x 600h	Wide Skyscraper (Tall Vertical)	2"w x 7.25"h
300w x 600h	Half Page (TOO BIG - SLOW LOAD)	3.5"w x 7"h
120w x 60h	Button	1.5"w x 1"h
88w x 31h	Micro Bar (TOO SMALL - CAN'T SEE)	1.25"2 x .75"h

Two of these ad sizes are actually unrealistic sizes for advertising on the average Web site. The "half-page" – which is not really a half-page at all unless your Web pages are about 7" wide – is simply a fairly large ad that takes up far too much space on the average Web site, and may additionally be slow to load. On the other hand, the "micro bar" size is pretty much non-functional for most purposes because it is just too small to get a decent message on it that can be easily read. The following are samples of two 125px x 125px ads.



Whatever the ad sizes are that you host, they should be optimized to weigh as little as possible, less than 40K is ideal. This means they must be the exact dimensions in which they will appear and be no more than 72 dpi. Remember that if your pages are slow to load because the ad files are heavy, your visitor will leave the site before the ads finish loading.

Conversion Ratio

Every Web site owner's goal is to convert a visitor into a client, customer, or buyer. The measurement of this process is called the conversion ratio or conversion rate. It is calculated by the number of sales divided by the number of visitors. It's not always easy to measure and it's not easy to make the conversion. And it isn't getting any easier. As of 2010, there were an estimated 320+ million Internet users in the United States alone. The World Wide Web gets bigger every day and it's cluttered with "junk pages," those pages that lead to nowhere, are not being updated and maintained, or don't contain the information they say they do, if they contain any information at all. That's a good part of your competition for page ranking and for online advertising campaigns. This means you have to try even harder to make your marketing efforts work. And when someone does finally find your Web site and visits your selling pages, you have to find numerous way to make them want what you're selling badly enough that you can convert them from visitors to buyers.

Now, it may be tempting to think that just by getting more visitors you'll make more sales. That could be true, but that doesn't mean your conversion

rate went up. If your conversion rate is 2% and you get double the visitors, then you'll probably double your conversion rate to 4%. But there are Web sites whose conversion rates are more than 25%. So, wouldn't you prefer to have that higher conversion rate based on the number of visitors who already come to your site? What can you do to find out why they aren't buying and what can you do to turn them into buyers?

Fortunately, there are a lot of options for boosting your conversion ratio. Some work for certain Web site businesses better than for others. A lot of your initial marketing efforts will be strictly a matter of trial and error. You'll have to try different things until you find what works best, and then you'll have to experiment to make it more effective. And, over time, you'll have to continue to try new things and make the things that do work even better, because the Internet is an ever-changing environment, and you have to stay on top of what's happening or be left behind altogether. Sometimes there are things that tell a visitor not to buy, and all of those problems are easy to remedy and are covered throughout this book and, in particular, in the section on Design No-No's in Chapter 5. Here are some tried and tested things that improve conversion ratios.

Functionality. Many Web sites simply don't work, and this is probably the number one reason why your visitors aren't buying. There are a variety of reasons for a Web site's dysfunction, so be sure that you test everything in different browsers to make sure it all works quickly and correctly. If something isn't working up to par – a page doesn't load, an image doesn't load, a navigation button doesn't work, a form doesn't work – fix it immediately. This is particularly important when it comes to shopping carts. You don't want to lose your new customer just because they can't complete the purchase. Your shopping cart may come with reports that reveal such problems, called "cart abandonment rates." Your potential buyers could be exiting prematurely because they are having trouble entering a credit card number or a PIN number, or some other piece of information required at checkout. If necessary, test your shopping cart for every item you sell, making small purchases so that you can see how the cart functions from start to finish.

Privacy. Don't force your visitors to log in to access your Web site. Don't make them fill out any personal information in a form before they can get information or purchase a product or service. Putting restrictions like these on a visitor is wasting their time and you're essentially saying you don't want to do business with them. Don't play these games. You're just driving business away.

Visibility. Keep as much of your page content as possible "above the fold" – in other words, try to prevent people from having to scroll down to see what's important, such as your BUY NOW button. Also, make your navigations buttons or links big enough to read. Don't assume people can see some teeny-

weeny little navigation buttons or 6pt links. Make things big enough to be read easily, just don't go overly big or your site will look amateurish.

Banners and Tag Lines. Your Web banner should sum up the content of the entire site, either in the name of the site or in a descriptive tag line that describes the function or purpose of the Web site. This alone can improve your "bounce" rate. If you use Google Analytics or any other form of Web page analyzer to see how your site is doing, you will be able to see if there is a problem with your conversion rate by looking at your bounce rate. A visitor is said to bounce from a page when they land on it and immediately do not find what they want or what they expected to find there.

A high bounce rate goes hand-in-hand with low conversion rates. This is because the average visitor sums up a Web page very quickly – in 10 seconds or less (some experts say 5 seconds or less!). If they don't find exactly what they want, they will exit the page, possibly the entire site. This means that you have only those few seconds to show them that you have what they want, and it has to be at the very top of the page so that they don't have to scroll down to see it.

For example, your Web site address may be www.danziger.com, the site may be called "Danziger Enterprises" in the banner – which doesn't mean much in and of itself – and so you can add a tag line that says "Affordable Custom-Designed Kitchen Cabinetry" for clarification. Or, maybe your Web site address is www.jacksonplumbing.com and your Web site banner says "Jackson Plumbing & Heating," and that seems perfectly clear, but if you specialize in something other than repair work, perhaps your tag line should instead say something like "Eco-Friendly Plumbing and Heating Systems." Adding those descriptions helps inform the visitor about what exactly it is that you do.

In the body of each page, there should be a title that accurately describes the page's content. For example, if you are a lawn installation company, you might have a page describing your sod installation process and services, and another describing the hydroseeding process and services. If possible, a nice photograph of your employees laying sod, etc., would help to drive home the message of your Web site. The content on each page should also thoroughly explain what you do that is different or better than other lawn installation companies. In other words, why should a visitor hire your company? Make sure this is clearly explained in the first sentence or two of your content.

Information. Provide as many pages as you can that have as much information about your products and services as possible, and be sure there are links to all of those pages from your selling pages. Write all your content in a very friendly, straightforward, one-on-one conversational style that is assuring to your visitor. Emphasize the benefits of your product or service everywhere on your Web site

– you can't ever give a prospective buyer too many benefits. All this information should be designed to help the visitor become a buyer by making them knowledgeable enough about a product or service to make a buying decision. Visitors often return to buy at a Web site where they got the best and most up-to-date information. Consider using a video that demonstrates your product or service. The easiest way to do these is to upload your video to YouTube and then embed it on your site so that you will know everyone can view it.

Product Info. Don't leave anything out. Spell out the size, the dimensions, the weight, the color, the number of pages, what comes with it, where it was made, what condition it's in, how it works, what it does, what it doesn't do, what kind of guarantee comes with it, what else you need to have in order to use it, any computer specs, how it will be shipped, where you ship, and your return policy. And when you're done telling them about the product, tell them how it will benefit them once they buy it. If you sell something that you can't describe in two short paragraphs, make a link to a separate page(s) where the rest of the information is located. Don't give a visitor the excuse to leave because they aren't sure it's what they want. Give them everything they could possibly want to know in order to make a buying decision.

Service Info. Like product info, spell it out in detail and tell them what the benefits are to them if they purchase your service. Let them know exactly what the service includes, what the service area is, how soon you can provide the service, whether you give free estimates, whether you are insured, whether you take insurance, what credit cards you accept, how long you've been in business, whether you personally provide the service, and what your special training and qualifications are. People who hire services absolutely must know everything about you so that they will feel comfortable and confident enough to hire you.

Credibility. Everything about your Web site must spell TRUST and PROFESSIONALISM. It doesn't have to be a fancy site, but it needs to be easy to use and have all the information a visitor could want or need. If visitors can't trust you, if your Web site makes you look like some flash-in-the-pan, if there's no contact information, no sign that you'll guarantee what you sell, they are not going to buy. If a visitor has a problem or a question – even if it's one that is already answered somewhere on your Web site – they may want or need to contact you. If they do, be sure you're there – or have someone else be there – to answer the phone or respond to the E-mail. And when it comes to E-mail, answer it daily, several times throughout the day if possible. If you don't respond immediately to E-mail, your visitor will go to a business that does.

Establish Trust. Sometimes visitors need to be assured they are buying the best product or service from the best company. Use a reliable, predictable, tradition-

al Web page layout with navigation at the left or across the top of the page. Guarantee your products and back them up with service. Offer a 30-day free trial. Start collecting testimonials from your customers and publish them where your visitors can see them. If there are any known problems or concerns about your product or service, be sure that you address them fully and tactfully. Place your E-mail address and phone number in a prominent place and invite your visitors to call or write with their questions. Then be ready to respond to them.

Strengths. Know your strengths (and your weaknesses so that you can fix them!). Your strengths are the selling advantages you have, and every business has them. Yours may be your great customer service, your personal attention, your guarantees. It might just as easily be that you have the biggest selection of hand-knit Irish-made sweaters in North America. It could be that you sell your gently-used auto body parts for half the price normally charged elsewhere – and you even ship 'em free! Maybe your service area is the entire state of California or maybe you can deliver your service within two hours of any city in the state. Point out your strengths throughout your Web site and give your visitor the confidence to buy from you.

Pricing. Everyone struggles with pricing. It's hard to figure out how much to charge. Too much, some can't afford you and you lose those potential customers. Too little, your product or service looks inferior and some will think they aren't getting their money's worth. You can be the cheapest as long as you're emphasizing that you're the cheapest. You can be the most expensive if you emphasize your guarantees.

Price-adjusting often helps raise your conversion rate. How much you raise or lower the price is up to you, and you probably need to do some testing to see what happens. Raise your price to see if the perceived value goes up. Or, put your products on sale and see if that helps. Sometimes people are merely waiting for a sale to make a purchase. Think about using odd pricing that ends in 7's or 9's, such as \$19.99 or \$23.97, as that tactic has been proven to work.

Bundling. One very effective buying incentive is bundling items together that are often purchased together, or should be purchased together, or go well together, and then selling them at a deep discount. Not everyone is looking for a bundle of items, so you might not sell your bundles as often as you sell the individual items, but there are always a few visitors who'd like them all and will appreciate the discount, so make sure this option is available for them when they visit.

Discounts. Give everyone the same discount. When you don't, it looks like the ones who don't have the coupon code are getting a better deal, and that can make a visitor look for a better deal somewhere else. Better yet, don't mention a discount at all. Just put the item on sale for everyone.

Sales. Hold sales periodically. Knock off a decent percentage to make it a real sale, not just some tiny percentage that would-be buyers would find laughable. Offer "free shipping" or a small discount *and* free shipping. Most sales should last at least a week, but sometimes you can get a real glut of sales if you put things on sale for "one day only" or if you have a certain day of the week when there is always at least one item on sale or you're giving a free half-hour consultation.

Payment. On each of your selling pages, make sure there is a highly visible BUY NOW or ADD TO CART button or a line of text that says: "Call us today for a free estimate." Most online shoppers want – expect – to pay with credit or debit cards, and those are the preferred means of payment on the Web, so be sure you accept all of them. And, for those few people who don't want to purchase online or don't use credit cards, give them the option of sending you a check or money order by snail mail. Sometimes, that's all it takes to turn a visitor into a buyer.

Shipping. Let your visitors know when you ship. If you only ship on Fridays, make sure it says in big letters that that's the day their order will leave the warehouse. If you ship within 24 hours of receipt of an order, spell that out in big letters. And be sure you do ship exactly as it says you do on your Web site. And, nothing will make a visitor stop in their tracks and leave the buying process faster than finding out that shipping costs as much as the product does. Tell them this before they click on the BUY NOW button. If you sell something that is expensive to ship, especially to a different country, find the least expensive way to ship it. If possible, use one flat rate for all shipping of similar items, or include a flat rate in the pricing structure and then offer "free" shipping. Don't ever let shipping be the trigger that makes the visitor leave.

Don't Give Up

Marketing is not an exact science, so increasing your conversion ratio is likewise not an exact science. With conversion rates and marketing in general, you will have to track a lot of information and data about your Web site and your sales, but it won't always tell you exactly why your conversion rate is low or exactly what you can do to improve your marketing. Sometimes you won't even know what your conversion rate is, only that you are not making many sales.

All any Web site owner can ever do for sure is not give up. Try everything and give everything you try a chance. And then try something else if that doesn't work. And try something else if that doesn't work either. Ask other people what they think the problem might be. Hire a Web marketing consultant or someone who specializes in boosting conversion ratios. Just do something and never give up.



CHAPTER 7 - SITE MAINTENANCE

And you thought you were done once you created your Web site! Nah, you're not getting off that easily. You just saw what you have to do in the way of marketing. In comparison, maintenance of your Web site should be a virtual breeze! And it's important that you do it. Daily, weekly, monthly, and however often it takes. The following are some tasks you will need to perform regularly.

Backing Up

Almost nothing is more important than backing up – and often. You put a lot of work into your Web site, and the last thing you want to do is lose all that hard work because you were too lazy or forgetful to back it up. Mark it on your calendar at least once a week. Don't rely on your Web host to keep a back-up because their server could crash or get hacked. And don't think that because your Web site is stored on the server that you can just work on it there without making a copy on your own computer. Backing up is a very simple process, as discussed in Chapter 1. You just have to get in the habit of doing it.

Double Check Registration Data

When you first set up your Web site with your Web host and registered your domain name, you provided contact information that may have become

outdated. You may have since changed your E-mail address, your credit card may have expired, your company may have moved, etc. Keep everything up to date so that you will always receive notices from your Web host about billings and renewals. You can go to the WHOIS database online and make sure the information there is correct and then update it where necessary.

Check the Server

Always look at your Web site online a few times a week, preferably at different times, including off-hours and on the weekend to be sure that your Web host is doing their job and that the site is always up and fully operational. Never assume that because it is usually up and running that it is always up and running, or that it always will be up and running, or that everything is working on it. I once had a Web host that was great for two years and then suddenly all of my sites were down for four days, then back up with errors, then down again, then up again and correct and fine for about two months, then all down again for several days at which time I found a new host and the old host eventually went out of business. You can also browse online for automated services that check the server for you and notify you of downtimes. But you need to look to make sure it is working correctly when it is up and running.

Test Links

You should have tested all your links when you first launched your site, but links have a way of going bad over time. Some Web software programs allow you to check all the internal links while external ones may need to be checked manually. Do this about once a month. Check your internal links as well as your outbound external links (ones that link to other Web sites). Update any that have gone bad, or if the page they linked to no longer exists, delete the link. You can also check your incoming links from other Web sites. To find out who is linked to you, you can use Google's Webmaster Tools or one of the other free online programs that will deliver up a list of your incoming links.

The inbound links you see may be valid, but others may be outdated or deeply nested on a non-searchable Web site. You may not have elected to be linked to by some of these Web sites, and if you visit them, you may be unable to find the link to your Web site or there may be no form of contact with that Web site to notify them if their link is incorrect (e.g., if you moved the page, changed the page name, or deleted that page).

Track Data

You should check your Web site's progress monthly, at the very least. There is a lot of statistical information available to show you how your Web site is

performing. There are two free Web site data reports, and you should also do some manual tracking.

- ♦ **Webalizer Reports.** These usually come free with your Web hosting package. They provide a minimal amount of information, that includes but is not limited to: hits, visits, page views, and top search strings, referrers, countries, and entry/exit pages.
- ♦ **Google Analytics.** The data collected by Google is extensive and it takes a while to learn to interpret it all, but it is far more comprehensive than a Webalizer report. To use Google Analytics, you need to set up an account with Google (which is free) and then set up Google Analytics (also free). Google supplies you with several lines of JavaScript which you must insert on your pages or on your template(s) between the <head> tags. After you then relaunch your pages, it takes about a month or so before any significant amount of data first shows up. Analytics tells you how each page is doing, number of visitors, how long they stayed on the page, and much, much more. It can even be set to track conversion ratio data based on purchases made online.

Manual Monitoring. While computer-generated reports are great, there is some information they can't provide that you must obtain manually. Do searches on your own keywords and see what comes up in the SERPs (search engine results pages). This will tell you who your competition is – old and new. You can look at the Web sites that rank higher than yours and try to figure out what they're doing to get that higher placement. Then you can try it on your own site. It may be that they are paying for higher placement by running a Pay Per Click advertising campaign, but they could also have a better written site than yours, a better shopping cart, more resources, better guarantees, or more incoming links. Once you know what you're up against, you can take steps to improve your site. Because so many new Web sites are always being launched, you should search regularly, at least monthly.

Software Updates

If your Web site relies on third party software such as WordPress or Joomla, remember that this software is always being updated, and you have to update it on your end as soon as the updates become available.

Make Changes

You will always be adding, deleting, and modifying your Web pages. This is a fact of life when you have a Web site. Web sites are dynamic in nature, especially business sites. You will add new pages when you add new products, services, or information to your Web site. When you quit selling a product or serv-

ice, you'll delete that Web page – and remember to delete it from your Web host's server too. Most of the time, you'll be modifying your existing pages, updating them with new pricing, sales information, improved content, more images, etc. And some of those modifications may take the form of fixing a page that has something on it that isn't loading or doesn't work. Remember, if you modify a page to the extent that you replace the content with entirely new text, you may need to change the title meta tag to match your new content.

Facelifts

Even the best Web site designs need a facelift about once a year. It keeps things fresh. It also allows you to make subtle changes that keep your site looking current, like you're on top of what's new in the world. Fortunately, with style sheets, it is extremely easy to make immediate changes to colors and typefaces, with color being the biggest change. You might also want to create a new banner – the trend today is towards thinner ones that display better on small hand-held devices. And new, improved, more detailed images are always helpful. You can take new photographs that better showcase your products. Maybe you want to add a map for directions to your store or that shows your service area. Maybe you want bigger BUY NOW or ADD TO CART buttons. And don't forget to look for ways to do things that improve the visitor's experience, including reorganized/reprioritized navigation. Every little change that you make adds to freshening up your Web site.

GLOSSARY

404 error. See "page not found error."

Above the fold. The top area of a Web page that appears on screen without the need to scroll down to see it.

Active Server Page. See ASP.

ActiveX. A Microsoft program module that enables sharing between different software applications of such things as spellcheckers, media files, Flash files, etc.

Address. See URL; see E-mail.

Address book. A computerized or digital database of E-mail addresses and other personal contact data.

Adware. Software that serves banner or pop-up ads, sometimes installed in shareware or freeware as a download, and that tracks responses to ads in order to serve up more relevant ads for visitors. Also called spyware

Aliasing. An E-mail feature that allows you to automatically redirect mail to another of your E-mail addresses; the jagged appearance of the edges of a graphic. See also anti-aliasing.

Alt tag. A very short line of HTML code that creates a caption when the mouse hovers over an image.

Anchor. The starting or ending point of a hyperlink; a non-linear link between or among documents.

Anonymous FTP. A form of login that allows people to upload or download files.

Anti-aliasing. The softening of the jagged edges of a graphic image.

Anti-virus program. Software that scans for viruses and isolates or eliminates them from your computer.

Apache. A Web server application used by Web hosts to serve up their client's HTML pages.

API. Application Program Interface, an interface that allows Web browser and servers to communicate with other programs.

Applet. A program written in Java or JavaScript, usually embedded on an HTML page, that works on the end user's computer rather than on the server.

Application Program Interface. See API.

ASCII. An acronym for American Standard Code for Information Interchange. An international 8-bit standard for numbers, letters, symbols, punctuation, and control codes that have no style or font attributes. The standard for .txt (text) files.

ASP. Active Server Pages. A server-side scripting language or code used to create Web pages (.asp) that serve up dynamic content.

Atom. A form of syndication most commonly used for blogs and other sites with changing content.

Autoresponder. A program used to send a response to anyone from whom you receive E-mail, most commonly when you go on vacation.

Authentication. The verification of the identity of a computer, program, or user on the Web.

Auto bidding. When your bid on a keyword is automatically changed when a competitor changes their bid.

Back-end. A term referring to server-driven software that provides interactivity with a Web visitor.

Background. The blank space, with or without color or embedded imagery, that is behind the text on a Web page.

Bandwidth. A term that refers to Internet airtime. The wider the bandwidth, the faster the connection, with "broadband" meaning a fast Internet connection.

Banner. A graphic that spans the width of a Web page and is used to display company information and/or an advertisement.

BEdit. A Mac/Apple text editor used for HTML or other scripting languages.

Bin Hex. Binary Hexadecimal, a file format that converts binary files into ASCII files so that they can be transmitted over the Internet.

Bit. A single binary digit, the smallest and most basic unit used by a computer. Eight bits are equivalent to a byte.

Bitmap. A format in which the image is created with a map or grid of bits that form a picture when displayed on a computer monitor.

Blog. A Web log or updated Web journal. Writers of blogs are called bloggers; the activity of keeping a blog is called blogging; and the culture and society of those who write and read blogs is called the blogosphere or blogsphere.

Bookmark. See Favorites.

Boolean search. A search method that uses logical operators (OR, AND, and NOT) to limit or expand an Internet search, now mostly incorporated automatically into search engines.

Boot off. To be disconnected from the Internet.

Bots. See robots.

Bounce. The immediate return of an E-mail that was undeliverable; when a visitor immediately leaves a Web page without reading it.

Breadcrumbs. Web navigation that shows the visitor a trail of folders or directories that they used to reach the current page.

Broadband. See bandwidth.

Browse. A term used to describe a visitor's movements from page to page or Web site to Web site.

Browser. An interface program that allows you to view Web sites. Also called a Web browser.

Browser safe colors. See Web safe colors.

Bulletin board. See Forum.

Button. A graphic hyperlink.

Byte. A string of 8 binary digits, or 8 bits.

Cable, cable modem service. An Internet access service offered by Cable TV companies.

Cache, caching. Temporary files made by browsers on your hard drive to allow for quick viewing of previously visited Web sites over a short period of time.

Cascading Style Sheets. See CSS.

Case-sensitive. A term or word that can only be used if the upper or lower case letters are always typed the same way. For example, if the password Gh99aB7 is case-sensitive, then it will not work if it is typed gh99ab7 or gH99Ab7.

CGI. Common Gateway Interface, a type of communication between programs and Web servers. Also computer-generated imagery.

CGI Bin. A folder or directory on a server where CGI programs are stored.

CGI Program. A program that manages Web server input and output, such as forms and queries.

Channel. A Web site that broadcasts information dynamically to its visitors who want them.

Charset. Stands for character set, which is a set of characters used for different purposes or for certain letters in languages.

Click through rate. See CTR.

Click through ratio. See CTR.

Client. Any computer that accesses server-provided services over a computer network.

Client-side program. A program that is installed on a user's computer and runs on their Web site, such as Java or JavaScript.

Code. See HTML.

Codec. A nickname for the technology used to compress or decompress data.

Common Gateway Interface. See CGI.

Communication Protocol. A standard or set of rules that allows computers to interact, such as IP (Internet protocol), FTP (file transfer protocol), HTTP (hyper-text transfer protocol), or POP E-mail (post office protocol).

Compression. A method for making files transmit more quickly, display faster, or take up less storage space.

Computer-generated imagery. See CGI.

Content. The information on a Web page as opposed to its colors and layout. Content can be text (words), graphics, videos, or databases.

Content tag. HTML code that contains the keywords for a Web site.

Conversion ratio/rate. The percentage of visitors converted into buyers/customers, as calculated by the number of clicks divided by the number of buyers.

Cookie. A small monitoring file placed on your hard drive by a Web server.

Cost per click. See CPC.

CPC. Cost per click of a pay-per-click advertisement; ad sales based on how often someone clicks an ad.

Cracker. See Hacker.

Crawler. See spider.

Crawling. The process in which spiders and robots analyze Web sites and index them for use by search engines.

Cross-browser compatibility. When a Web site can look and function similarly and correctly on different browsers.

Cross-platform. Something that can be used or read on different computer platforms (operating systems).

CSS. Cascading style sheets; style sheets created in HTML and applied to one or more pages or to a template of a Web site to lay out text, headings, paragraphs, colors, etc.

CSS3 colors. Some of the more recent browser-safe/Web-safe colors approved by the World Wide Web Consortium.

CTR. Click-through ratio or rate; percentage of ad impressions clicked on.

Database. A collection of information consisting of organized Web pages or other files stored and made available for viewing and retrieval.

Data transfer allotment. The resources a Web host allots to respond to your Web site visitors as they view your pages.

Dedicated hosting. Using your domain name on a server used only by you.

Description tag. HTML code that allows a brief description of a Web page – a "snippet" – to show up in search results.

DHTML. Dynamic HyperText Markup Language. Refers to Web pages that use combinations of code or scripting language to allow a visitor to interact with the page in some way.

Dial up. A conventional type of phone line Internet access via a third-party provider, such as AOL or NetZero.

Digital camera. A camera that takes pictures and stores them in electronic format on a miniature disk, rather than on film.

Digital Subscriber Line/Loop. See DSL.

Directories. Lists of links to Web sites that fit certain categories or criteria, collected manually, and searchable by visitors.

Dither, dithering. Simulation of a color by combining pixels of different colors that are close to each other to give the appearance of the desired color. For example, combining Web-safe colors to simulate a color that would otherwise not be Web-safe.

DNS. See Domain Name Server.

Domain E-mail. E-mail addresses you create that use your Web site domain name, e.g., info@millertreeservice.com.

Domain forwarding. See URL forwarding.

Domain name. See URL.

Domain Name Server (DNS). A database of Internet names and addresses that operate under Internet protocol (a numbering system).

Domain Name System. Identifies a computer as a point on the Internet and uses a Domain Name Server to translate the domain name into IP numbers and vice versa.

Domain parking. A service provided by a Web host that allows you to have multiple URLs that all go to the same Web site.

Dot-com. A business that has a registered URL name/address with a .com domain.

Dots per inch. See DPI.

Download. Transferring or retrieving files, images, or E-mail from the Internet or from another computer to the one you are using. Transferring a file from a remote computer to a local computer, or a file from a Web server to a client.

DPI. Dots per inch, indicating the resolution of an image; the more dots or pixels per inch, the more detail in the image.

DSL. Digital Subscriber Line (or Loop), a fast Internet connection over telephone lines and provided by your local phone company.

Dynamic. A Web page or document created as it is being viewed to provide new information to visitors each time they visit.

Dynamic HyperText Markup Language. See DHTML.

E-mail. Electronic mail, in which you have an address from which you can send and receive mail. Also spelled e-mail and email.

E-mail handler. A program that manages E-mail and address books on the user's computer, automatically downloading E-mail at intervals and allowing the user to respond and archive E-mails on their own computer.

Electronic mail. See E-mail.

Encryption. The encoding of messages and passwords to ensure privacy.

Error message. Any page that pops up and tells the user or visitor that whatever they tried to do was done incorrectly or that the function they attempted failed.

Ethernet. One of several ways in which computers can be connected to one another or to the Internet.

eXtensible HyperText Markup Language. See XHTML.

Extension. A file suffix that indicates the type of file, e.g., .htm, .html, .jpg, .gif, or .doc.

Extranet. A part of an Intranet that allows access to people outside of it, usually by password.

FAQs. See Frequently Asked Questions.

Favorites. A way to save or bookmark a Web address for future use.

Feed Reader. See RSS Feed Reader.

File Transfer Protocol. See FTP.

Firewall. A piece of software, or a piece of hardware, that blocks access from unauthorized parties to protect a computer or network of computers.

Flame, flaming. Derogatory comments, including crude language, insults, and other personal attacks made in private E-mails or online in public forums.

Fonts. The attributes of a typeface, such as italic or boldface.

Forms. A set of fill-in boxes or buttons created in HTML that allow a visitor to transmit orders or information to the company that owns the Web site.

Forum. Places online where people can discuss subjects of a mutual interest that is specified by a particular forum. Also referred to as discussion forums, message boards, and bulletin boards.

Frames. A design element in which a Web page is divided into two separate sections, each with a scroll bar. While one section is being scrolled the other remains fixed. Not all browsers support frames and they are falling out of favor.

Freeware. Software that is downloaded free with no expectation of the user ever paying anything for its use.

Frequently Asked Questions. Also called FAQs. A page on a Web site that answers the basic questions most visitors ask.

Front end. The appearance and functionality of the Web site on the visitor or client-side.

FTP software. File Transfer Protocol software that is necessary for uploading (launching, publishing) a Web site to the Internet.

GIF. Graphics Interchange Format, a file format (.gif) most useful for B&W line art or simple color graphics.

Gigabyte. File size equal to 1,000 megabytes or 1 million kilobytes.

Google sitemap. A sitemap Google uses to index your site, and that can be created using Google's instructions or a tool provided by your Web host.

Graphic. Any Web image or picture, as opposed to the text.

Graphic interface. An attractive intermediary program that allows you to view documents or Web pages created in other software.

Graphical user interface (GUI). Any program that allows a user to create documents in a user-friendly environment without the need to work directly in a scripting code or programming language.

Graphics. Images composed of computer-generated drawings or logos, sometimes connected to or part of a photographic image.

Graphics Interchange Format. See GIF.

Graphics editing software. See image management software.

GUI. See graphical user interface.

Hacker. A criminal who breaks into networks or computer systems to steal money, identities, or other information, or to exploit weaknesses in security protocols just to show they can do it.

Head. The top portion of the HTML code behind Web pages, beginning with <head> and ending with </head>, and containing, among other things, the title, description, and keywords tags that identify the page to search engines.

Hex, Hexadecimal. A number in the Base 16 number system, represented by numbers 0 through 9 and the letters A through F; the numbers used to code RGB colors on Web pages.

Hit, hits. A statistic that indicates every time a Web page and/or a graphic image is viewed by a visitor. Most devices that calculate hits count a hit as everything on a Web page (images, tools, forms, etc.), plus the page itself.

Home page. The opening or top-most page of a Web site to which all other pages are linked; the first page that a search engine visits when it is indexing a Web site. Its file name is usually index.html.

Host, hosting, Web host. A business that has a server connected to the Internet and can broadcast your Web site over the Internet 24/7.

Hotlink. See Hyperlink.

HTML. Hypertext Markup Language, the programming language or code of the Web. The "hyper" refers to the linkages between text or an image and another file on the same Web site or elsewhere on the Internet.

HTML Editor. A program in which a Web page is created, such as Expression Web, Dreamweaver, WebEasy, etc.

HTML Form. See Forms.

HTML Mail. See Rich Text.

HTML Tags. Code that identifies parts of a Web page so that search engines and browsers can display it correctly.

HTTP, HTTPS. HyperText Transfer Protocol, HyperText Transfer Protocol Secure. The protocol that connects Web sites throughout the Internet, and that precedes the domain name or URL.

Hyperlink, link. A word or phrase that is linked, like a shortcut, to another page within a Web site or to another Web site.

Hypertext. Text that when clicked on takes the visitor to another Web page or Web site.

HyperText Markup Language. See HTML.

Hypertext Preprocessor. See PHP.

HyperText Transfer Protocol. See HTTP.

Ignore page tag. HTML code that tells search engines not to index the page with this code on it.

Image management software. A program used to manipulate photos and other graphics by changing their size, dimensions, colors, etc.

Image map. A graphic on a Web page used to navigate from one page to another.

Images. Any visual design element, such as a photo or a graphic, displayed on a Web page.

IMAP. Internet Message Access Protocol, allows E-mail message and address books, etc. to be stored and managed on a local computer or on a server. May eventually replace POP E-mail.

Impression. A single display or view of a Web advertisement.

Index. A list of all known Web sites created by a search engine spider or robot and accessible by using a search engine.

Inline images. See Images.

Integrated Services Digital Network. See ISDN.

Interface. See graphic interface.

Internet. A system of millions of computers connected together for the purpose of sharing information. Nicknamed the Information Superhighway. Not to be confused with the World Wide Web, which is a part (subset) of the Internet. The term "internet" (lower case "i") is a network of computers that are not part of the Internet.

Internet Message Access Protocol. See IMAP.

Internet Protocol. See IP address.

Internet Relay Chat. Also known as IRC. An Internet protocol that enables people to conference online and chat with each other by typing messages back and forth in real time.

Internet Service Provider. See ISP.

Interstitial. An advertisement that opens in a separate browser window while a visitor waits for the main page to open.

Intranet. A private network within a company or organization that works similarly to the Internet, allowing access to certain resources by its members or employees.

IP address. Internet protocol address, the numeric address system used by all computers/servers connected directly to the Internet.

IRC. See Internet relay chat.

ISDN. Integrated Services Digital Network, an Internet access service offered by your phone company, slower than DSL.

ISP. Internet Service Provider, a company that provides Internet access, E-mail, and other Internet services.

JPEG, JPG. Joint Photographic Experts Group, a file format most useful for photographs used on a Web site or transmitted via E-mail.

Java, Java applet. A programming language and its application programs (applets), used to create software with graphic interfaces and various Web gadgets. Not to be confused with JavaScript.

JavaScript. A scripting language used to write small programs that are embedded in the HTML code and used on Web pages to create dynamic and interactive effects for the visitor. Not to be confused with Java.

Joint Photographic Experts Group. See JPEG, JPG.

Jump page. A Web page that functions as a gateway or portal to other pages, that notifies a visitor that they are leaving one Web site for another, or that informs a visitor that a page no longer exists.

Keyword bid. The maximum amount of money to be paid each time a visitor clicks on a pay-per-click advertisement on a search engine results page.

Keyword density. The number of keywords used on a Web page. Also refers to the overuse of keywords that results in "stuffing" or "cramming," which can cause search engines to drop a page from their index.

Keyword tag. HTML code that helps a search engine index a Web page correctly to show up in search results.

Keyword, keyphrase. Words written or coded on a page so that visitors can type them into a search engine and find that page in a search.

Kilobyte. File size measurement equivalent to 8 bits.

LAN. Local Area Network. A computer network between computers located within the same building, or only on the same floor of a building, and often physically connected with local cables.

Launch, launching. The initial publishing of a Web site or a new Web page.

Link. See Hyperlink.

Local Area Network. See LAN.

Logical operators. See Boolean search.

Login. The name used to access a Web site or computer network; also the process of connecting to a Web site or computer system using a username and password.

Lynx. A text-only Web browser used by the visually impaired or people who can't or don't want to load graphics due to a limited or slow Internet connection.

Malware. Ads, banners, pop-ups, and other pages that carry malicious or unwanted programs such as viruses, worms, and browser hi-jacks.

Megabyte. File size measurement equivalent to 1,000 kilobytes.

Merchant account service. A business that makes it possible for your company to receive payments by credit card.

Message board. See Forum.

Metafile. A generic term for a file format that can store multiple types of data, including graphics.

Meta tag. A piece of HTML code that spiders and bots read when creating a search engine index but that is not displayed to visitors. Includes head tags, title tags, description tags, and keyword tags.

MIDI. Musical Instrument Digital Interface. A protocol for communication between computers and musical instruments.

MIME. Multipurpose Internet Mail Extensions, a messaging standard that allows E-mails to include graphics, video, and audio.

Modem. Short for Modulator Demodulator, a device that uses phone or cable line to convert computer signals to analog signals and vice versa, for communication with other computers and with the Internet and World Wide Web.

Motion Picture Experts Group. See MPEG.

MPEG. Motion Picture Experts Group video graphic format (.mpg) that compresses audio/video files so that they can be transmitted faster and take up less storage space.

MP3. The file extension for MPEG, layer 3, which compresses audio signals for fast transmission over the Internet and to take up less storage space.

Multimedia. A Web presentation consisting of text, images, video, and audio.

Multipurpose Internet Mail Extensions. See MIME.

Musical Instrument Digital Interface. See MIDI.

Navigation. The means of moving from one Web site to another or within a Web site using a system of hyperlinks or links.

Nesting. A folder inside of a folder inside of a folder, etc., or a page linked to a page linked to a page, etc., and the number of clicks it takes to get to the most deeply nested folder.

Net. See Internet.

Network. A system of two or more computers connected together that share and/or exchange information.

Network Interface Card. See NIC.

NIC. Network Interface Card, an ethernet card in a network that is plugged into the network cable.

Non-virtual hosting. A Web site provided, often free, by an ISP that includes the ISP's name as part of the Web site address.

Notepad. The Windows default text editing software.

nslookup. An Internet utility that will give you a DNS (Domain Name Server) address if you type in the IP address.

Offline. See online.

Online, offline. Being connected (online) or not (offline) to the Internet.

Operating system. See Platform.

Optimize, optimization. A means of compressing an image sufficiently that its download time is reduced.

Outlook Express. An E-mail handler/manager program compatible with Windows versions through Vista.

Page. See Web page.

Page, pages, page view. A statistic that indicates every time a page is viewed by a visitor.

Page not found error. Also known as a 404 error, this page tells a prospective visitor that a Web page no longer exists.

Palette. The set of colors that a designer selects when designing a Web site.

Page rank. See Rank.

Password. A secure or secret set of miscellaneous letters and numbers selected and used to login to a Web site or computer network.

Pay-per-click. See PPC.

PDF. Portable Document Format, a file created from documents made in various programs so that they can be read by everyone.

Photo editing software. See image management software.

PHP. Hypertext Preprocessor (formerly Personal Home Page), a programming language used to create Web software.

Ping. An Internet utility used to troubleshoot connections with remote computers.

Pixel. One of many points or dots of which electronic images are made.

Platform. The basic operating system of a computer, such as DOS, Windows, Mac, Linux, OS, Sun, etc.

PNG. Portable Network Graphics, a compressed graphics file format that was designed specifically for use on the World Wide Web because it compresses images without loss of quality and supports millions of colors.

Podcast, podcasting. A form of audio broadcasting over the Internet by making audio files available as enclosures in RSS feeds.

POP. Post Office Protocol, the way an E-mail software stores and retrieves mail from a mail server. It may eventually be replaced by a protocol called IMAP. With POP3 E-mail you can use your own domain name as part of your E-mail address.

Pop-up. See interstitial.

Portable Document Format. See PDF.

Portable Network Graphics. See PNG.

Portal, portal page. See Jump page.

Post Office Protocol. See POP.

PPC. Advertising method in which a Web site owner pays each time a visitor clicks on an ad in a search engine results page that takes them to the advertiser's Web site.

Primary navigation. The structural interlinking of the main pages of a Web site, such as Home, Contact, About, or FAQs pages.

Protocol. A set of conventions that establish communication between computers and computer systems.

Publish, publishing. Sending or transferring your Web site files from your computer to your Web host's server so that your Web site will then appear on the Internet.

Rank, ranking. Refers to how a Web page is ranked in a search result, the position it occupies in relation to all the other Web pages that come up in the same search. How the ranking is determined is based on how the search engine performs that task, and so it may vary from one search engine to another. Some are based more on popularity, others on content relevancy.

Real Simple Syndication. See RSS.

Reciprocal linking. When two Web sites link to each other because they offer complementary products or services, or because their sites are related in some way.

Redirect. An action that a Web page takes to automatically take the visitor to another Web page.

Referrer, referrers. Search engines that send visitors to your Web site.

Refresh. A meta tag that allows a page to be refreshed to the current page or to switch to another page entirely.

Register, registering. Domain names or URLs must be registered.

Relevancy. In Web sites this refers to the content of a Web page as viewed by a search engine, and whether the search engine finds that content to be unique, fresh, and pertinent to the overall content of the Web site.

Resolution. The sharpness and clarity of an image or computer monitor, based on the number of pixels in the image or screen.

Return on investment. See ROI.

RGB. Stands for red, green, and blue, and refers to the color presentation on monitors.

Rich Site Summary. See RSS.

Rich Text Format. A text file format that preserves some of the formatting of the original document, such as underlines, boldface, colored text, italics, and different typefaces. When used in E-mail it is called HTML mail.

Robots, bots, search bots. See spiders.

Robots.txt file. A file you create in Notepad that helps search engines index your site correctly.

ROI. Return on investment. The money you make versus the money you spent to make it, usually as applied to pay-per-click ad campaigns.

Router. A hardware device used to connect or transmit signals between or among computers in a network and/or to the Internet.

RSS. Rich Site Summary or Really Simple Syndication, a means of distributing information throughout the World Wide Web.

RSS Feed file. A file you create in Notepad to syndicate your Web pages throughout the Internet.

RSS Feed Reader. A software program that allows a user to read the XML code of RSS feeds.

RTF. See Rich Text Format.

Satellite connection. An Internet connection offered by providers of satellite TV service.

Scalable Vector Graphics. See SVG.

Scanner, scanning. A device used to convert a printed image, such as a photograph, into an electronic file.

Screen resolution. The number of dots per inch (DPIs) that a computer screen has, and the more DPIs and the larger the screen, the more detail possible in the clearest resolution.

Script, scripting language. A type of programming language used to create Web pages, such as HTML, XHTML, or JavaScript.

Scroll bar. A navigation device used to allow the user to move up and down or sideways across a computer screen.

Search bots. See spiders.

Search engine. A program that searches the Internet using robots or bots, small programs that search documents for specified terms or phrases which are then indexed for retrieval during Internet or Web searches on keywords. Popular search engines include Google and Yahoo, as well as thousands of others, including Alta Vista (Yahoo) and Hot Bot (Lycos).

Search Engine Optimization. See SEO.

Search Engine Results Pages. See SERPs.

Search string. A group of keywords or a keyphrase used to search the Internet.

Search, searching. Refers to searching the Web for a particular Web site or specific piece of information based on the use of keywords or keyphrases.

Secondary pages. The sub-pages of a Web site that contain articles, databases, or other miscellaneous information.

Secure Socket Layer. See SSL.

SEO. Search Engine Optimization, a means of writing and coding a Web site using appropriate keywords and keyphrases that result in higher rankings with search engine results pages (SERPs).

SERPs. Search Engine Results Pages. The list of Web sites that results from a search on certain keywords.

Server. A computer with enormous storage capacity that is constantly connected to the Internet by a host or Web host service.

Server-side program. A program installed on the server and accessed and run on the server to enable dynamic pages or animation on a Web page.

Shareware. Copyrighted software that is distributed free, although a user is usually expected to pay a small donation to the owner of the software if they decide to continue to use it. See also Freeware.

Shopping cart. A program used to process payments paid by credit card for online purchases.

Simple Mail Transfer Protocol. See SMTP.

Site. See Web site.

Site map. An HTML page that consists of the contents of a large Web site broken down into links to all of the pages in the Web site. It is very useful to search engines as well as visitors.

Snippet. A brief description of a Web site's content as found in the SERPs due to being encoded in the page's description head tag.

Source code. See HTML.

Spam. Unwanted and unsolicited E-mail sent to random (not market-targeted) E-mail addresses.

Spiders. Programs that analyze Web sites and index them for use by search engines. Also called crawlers, robots, or bots.

Splash page. A home page in which there is nothing but a big graphic or video and the words "enter here."

SMTP. Simple Mail Transfer Protocol, a standard server-side protocol for sending E-mail.

Spyware. See Adware.

SSL. Secure Socket Layer, a security protocol for making commercial transactions online, usually recognizable with the use of URLs that begin with https, rather than http.

Streaming, streaming video. A means of sending audio or video files over the Internet so that a visitor can view them on a Web page while they are still in transit.

Subdomain. A lower-level portion of a domain name, also called a child domain, which is identified by its name at the far left of the URL, e.g., paintings.artcenter.com, in which paintings is the subdomain.

Subdomain hosting. See non-virtual hosting.

SVG. Scalable Vector Graphics, a text-based graphics language that describes images in small files that provide high-quality graphics on the Web and on hand-held devices (where the graphics scale to different size screens). Supports scripting and animation.

Tables. A feature used in word processing and Web design programs to organize text and images more easily on a Web page.

Tag, tags. A piece of HTML code used to layout or format a Web page.

Tagged Image File. See TIF, TIFF.

Templates. A Web page document created with all the necessary formatting except for the text and images.

Text-Edit. The Mac/Apple default text editing software.

Themes. Generic designs that come with some Web design software or templates to enable you to easily create your Web site.

Thumbnail. A very small version of a bigger image, usually hyperlinked to the full-size image.

TIF, TIFF. Tagged Image File, a file format used to archive images.

Title tag. HTML code that lets search engines know what a Web page is about, and provides code to display the title in their indices.

TLD. Top-Level Domain, the suffix attached to a domain name, such as .com, .org, .biz, etc.

Tools. Programs offered on the Internet and through Web hosts to help Webmasters manage their Web sites.

Top-Level Domain. See TLD.

Typeface. A style of type such as Arial, Times New Roman, Garamond, etc., to which font attributes (italics, boldfacing, etc.) may be applied.

Unicode. A standard character set that uses 16 bits to code each character.

Uniform Resource Locator. See URL.

Uniform Resource Name. See URN.

Universal Resource Identifier. See URI.

Upload. Transferring a file from your computer to another computer or remote server, or from your computer to the Internet. See also publish, publishing.

URI. Universal Resource Identifier, a standardized method of identifying Internet resources, including URLs (Uniform Resource Locators) and URNs (Uniform Resource Names).

URL. Uniform Resource Locator, a Web address that includes the domain name.

URL forwarding. An online service that directs your domain address to any sub-domain host address your Web site has.

URN. Uniform Resource Name, a type of URI that an institution has made a long-term commitment to using at a specific location so that it can be reliably found at any time.

User interface. See Graphical User Interface.

Username. The name used to log in to a Web site or computer network, usually in conjunction with a secure password.

Vector graphics. Line-based graphics such as bitmap files and metafiles.

Video clip. A short video that is embedded and viewed on a Web page.

Visit, visitor. A visit to a Web site and the person visiting or viewing the site.

Visits. A statistic that indicates how many people have visited your Web site during a specific period of time.

Virus scanning. See anti-virus program.

Virtual hosting. A Web host service that hosts your own URL or domain name.

Visitor, visiting. People who come to view your Web site.

W3C. See World Wide Web consortium.

WAP. See Wireless Application Protocol.

Web-based E-mail. E-mail that is offered, accessed, and managed through a Web site that provides the service, such as Yahoo, Google, AOL, etc.

Web browser. See Browser.

Web crawler. See Spider.

Web design software. Any program that allows you to create your Web site and Web pages.

Web designer. See Webmaster.

Web host. See Host.

Web page. A Web site document consisting of text only, or text with images, audio, video, forms, etc.

Web Publishing Wizard. A Microsoft FTP program that allows you to publish your Web site if your Web design software does not have such a function.

Web safe colors. The 216 colors that appear "true" on most monitors and hand-held devices.

Web safe palette. See also Web safe colors.

Web server. A computer that stores and delivers (displays) Web sites on the World Wide Web. See also Host.

Web site. A collection of interlinked Web pages published to the World Wide Web.

Webalizer reports. Statistical reports offered by Web hosts that indicate how a Web site is doing.

Webmaster, Webmistress. The person who designs and/or maintains a Web site.

Wireless Application Protocol. A protocol used with hand-held devices such as cell phones.

World Wide Web. That part of the Internet composed of the servers that publish Web sites composed of specially formatted documents or HTML Web pages.

World Wide Web Consortium (W3C). An organization that develops and sets style standards that allow Web sites to be presented and viewed reliably on a variety of different monitors and hand-held devices.

WYSIWYG. Acronym for "what you see is what you get" and pronounced "wis-sywig." The display of a page onscreen exactly as it will appear when published and viewed on the Web.

XHTML. eXtensible HyperText Markup Language, a more standardized form of HTML using XML standards. It is a variant of HTML and may eventually replace it.

XML. eXtensible Markup Language, designed for Web documents, such as database Web pages and RSS feed files.

ZIP files. A compressing and decompressing program for use in reducing the size of a file for ease of transmission over the Internet.