

Website Design for Internet Marketers

SECRETS OF SUCCESSFUL WEBSITE DESIGN

By

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ABOUT THE AUTHOR

My name is Richard Igoe, and I come from a business background. I used to manage a mobile sawmilling company but in 1998, the internet bug got me. I became fascinated in all areas of website design, but in particular those that related to getting my company website found on the search engines.

I soon found out that without well designed web pages, your internet marketing efforts are wasted, and so dedicated a great amount of time and effort into understanding how web pages could be both usable but also visible in the search engines.

Since that time, I have built a lot of websites, had a lot of success but have also had a number of failures, so I know what works and what doesn't. I have put together the most important information about designing and promoting a website on <http://www.TheWebsEye.com>.

I have also done work in the areas of web design, web development, and online marketing, for some of the most successful eCommerce organisations in the world.

I hope you enjoy this book and use it to create your own website success.

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This book is dedicated to my wife for putting up with the long hours required to write this book.

Introduction

Who should read this book? If you are an internet marketer, this book will open your eyes to some critical elements of website design that will determine how successful your marketing campaigns are.

If you are a website owner, you should read this book, because even if you don't want to learn how to design a web page, it will show you what you need to know to get the most out of your investment.

If you are a web designer, beginner or advanced, it will teach you all the things you need to do and avoid to ensure you get maximum online visibility for your web pages.

Why should you take my advice? What I give away in this book has helped me to get my site on the first page of results in Yahoo. By following some of the guidelines here you should be able to achieve similar success with your site.

The screenshot shows a Yahoo! search results page for the query "website design software". The page includes a navigation bar with links for Web, Images, Video, Audio, Directory, Local, News, Shopping, and More. The search results are displayed in a list format, with the first three results highlighted in a light blue box. The results include:

- Do-It-Yourself Web Design Software** (www.interland.com) - Build from scratch, redesign, or enhance.
- Network Solutions - Web Site Packages** (www.networksolutions.com) - Signup with Network Solutions - a leader in Web site development services.
- Award Winning Web Site Design Software** (www.virtualmechanics.com) - Free trial. Create professional Web sites easily and affordably with SiteSpinner V2. No HTML needed.

Other results include:

- CoffeeCup Software** - Offers tools useful for site development including an HTML editor, GIF animator, and a Java applet assistant. Shareware versions available. Category: B2B > Internet and Web Development Software. www.coffeecup.com - 9k - Cached - More from this site - Save - Block
- Macromedia** - Macromedia Macromedia Attend a free seminar to see how the Macromedia Web Publishing System (WPS) can enable everyone in your organization to quickly and easily publish content to the web. ... Category: Authoring Tools > Macromedia. www.macromedia.com - More from this site - Save - Block
- Website design software Guide** - Website Design software - download from the web. ... Web site Design Software Guide. Website Design Software. Web Page Teacher (only 681 KB ... Dreamweaver is probably the top website design tool available and is widely used by website ... www.thewebsye.com/website-design-software.htm - 20k - Cached - More from this site - Save - Block
- TheWebsEye.com - website design** - Download free website design software, and learn about the latest internet marketing topics! ... Page Teacher" - website design software. "The Strategy of Web design" a fantastic e-book on website design strategy, exclusively for our ... www.thewebsye.com - 27k - Cached - More from this site - Save - Block

Sponsor results on the right include:

- Web Design, Promotion and E-Mail Program** (www.dynamicsoftware.com) - Submit your site to thousands of search engines, promote your...
- Web Site Design Software** (service.bfast.com) - Homestead gives you everything you need to build and maintain a...
- FlashToGo Web Site and CD Presentations** (www.flashtogo.com) - Update your site's content with ease. No programming. Over 25,000...
- Website Building Tool for ISPs, Webhosts** (www.sitegaloreplus.com) - Enables ISPs, Webhosts to offer Private Label Online Website...
- Web Design and Page Building Made Easy** (www.1and1.com) - 1&1 WebsiteBuilder makes building your web site simple. Free with...
- Turnkey Adult Web Site Design** - Everything supplied to start making money while you work from...

Of course web design alone is not going to get you such results. You will also have to promote your site. This book however shows you what you need to do on the web design side to ensure you don't waste your time and money on marketing something that will not get ranked on the search engines.

Even if you have no previous knowledge of web design, by the end of this book, you should be able to create your own highly usable and search-engine friendly website.

The book first focuses on the objectives of your website and then examines what you need to do to achieve these objectives.

I will show you throughout this book how the decisions you make regarding your layout, navigation and content, can mean the difference between success and failure!

Usability and **Visibility** are abstract topics that cannot easily be learned from web design software or design books. I will refer to these two key concepts throughout this book because these two things will make or break your website.

Usually you have to trade these off against each other. More usability often means less visibility on the web.

I wrote "Website Design for Internet Marketers" to bridge this gap and show you how to design a site that will not only be user-friendly but also highly visible for the search engines.

There is no point in having a fantastic web site if it is not "visible". Similarly, if your web site is poorly designed, it is unlikely to be a success however much you promote and market it. Your web site design and the marketing of your site are, whether you like it or not, very closely linked.

Every web page has one of two functions, either to **display** information or to **capture** information.

Most web site owners give up when they don't get traffic and this is almost always because of **poor visibility** or **poor usability**. This book shows you how to improve both AND make your website successful.

If you need a web page editor to learn about HTML and help understand the code behind your web pages then you can download Web Page Teacher free from <http://www.TheWebsEye.com/website-design-software.htm>

Web Page Teacher also "teaches" you what each HTML tag does as you design your web pages. Even if you don't intend to design web pages, a little knowledge of HTML is very useful.

If your primary goal is to learn how to design a webpage with the code, then this book IS A MUST READ.

If your primary goal is to focus on the content, then you should rather use an online web builder to build your web pages and focus your time on building the content, so you can skip any chapters you find go into the code.

Next [Defining your website strategy](#)

Chapter 1

Defining your web site strategy

F.R. David, (Strategic Management, Prentice-Hall, 1985) defined strategy as “the art and science of formulating, implementing, and evaluating cross functional decisions that enable an organisation to achieve its objective”.

Web Design strategy is **the process by which to optimize your website to take advantage of the opportunities in the external environment, whilst addressing the threats that are likely to impact on it.**

Formulating a web site strategy is very important to the success of your website. By laying out your strategy at the start, even before choosing a domain name, can save months, even years of redesign and wasted promotion efforts.

Even if your site is already established, there are a number of basics that need to be questioned to ensure you are heading in the right direction. The answers to these questions will form the basis for your web design strategy.

Firstly, what is the purpose of your site? Is it a marketing tool, a shopping cart to enable online sales, or both? What are your **objectives**?

Secondly, what are your **strengths** and **weaknesses**? if you were in your visitor's "shoes", would you buy from the site and what would make you return?

Thirdly, how is your income going to be generated? Will it be from advertising, from site membership fees, from affiliate programs, or from selling your own product? What are your **capabilities** and how will you use them to maintain a **competitive advantage** over your rivals?

The answers to the above will determine your content strategy and this in turn will have implications for all other aspects of your web site design.

The purpose of your site

Most sites will either be **informational** or **e-commerce** sites.

Informational sites usually make their income from membership fees, advertising, commissions, or selling at the back end.

E-commerce sites usually make their income by selling a product or service.

It is often difficult to combine both into the same website because an informational site needs to provide unbiased information about the topic of the website, while an e-commerce site needs to generate sales and use direct marketing tactics.

The main objective of informational sites therefore needs to be to maximize your site membership, or your subscriber list. Site usage could be regarded as the internet's equivalent of intangible assets.

The more information the site gathers about its subscribers, the more valuable the list is because it allows marketing to be targeted at specific groups of people, defined by where they live, how much they earn, whether they are male or female, etc... However it is also VERY important that any subscriber list is entirely opt-in because they want information from you.

Your objectives must be:

- Clear focused and specific
- Measurable
- Feasible and suitable for the industry you are focusing on.

In your visitor's shoes

Always put yourself in your web site visitor's "shoes". If you were the website visitor, what would keep you on the site. What makes your site sticky?

By doing this you can easily identify your strengths and weaknesses!

The more focused your site it, the more likely you are to satisfy your visitors requirements, and the more likely they are to return and use your site in future. This topic is considered more deeply in [Chapter 2](#).

The layout and navigation of your web pages are going to affect the **usability** of your site. It is very important to get this right and to know which web technologies to use. We look at these in great detail in the chapters about [Layout strategy](#) and [Navigation strategy](#) later.

Even more important is your [Content strategy](#) because you need to provide content that is likely to be targeted at your visitors. Are you providing the content your visitors are looking for?

How your website income is generated

Informational sites usually generate their revenue from membership fees, advertising, commissions from affiliate programs and making sales to their members or subscribers using off-the-web marketing, for example through a newsletter or direct mail. Selling is the secondary objective.

The main objective of an e-commerce site is to promote an effective marketing message and to make the buying process as easy as possible. Creating a marketing base is the secondary objective. They usually have two types of customers, transactional and relational.

The purchase decisions of **transactional customers** are influenced by short-term reasons such as price, convenience, and/or availability.

Relational customers have built up a relationship with the business usually through previous contact. Their purchase decisions are based more on the customer relationship that has been built up, quality of support, and knowledge of the product or service or brand.

You need to identify where your market is and what your capabilities are. You need to identify what gives you a competitive advantage over your rivals.

Whatever your niche, Your objectives should be to generate as much **qualified** traffic as possible, turn the traffic into qualified leads, and turn the leads into customers. We will therefore look at why [generating leads](#) should be an integral part of your strategy. Whatever type of website you have, your web design strategy should focus on **usability** and **visibility**.

Summary

“**The strategy of web design**” is about how to optimise your website to achieve your objectives. Optimising applies not only to the key words on your web pages but to every aspect of web design.

- know the main purpose of your website
- know **who** your target market is
- make your site **sticky** by providing relevant content
- improve the **usability** of your site - navigation and layout
- improve the **visibility** of your web pages
- develop a marketing base
- develop a **linking** strategy

Next [Visibility & Focus](#)

Chapter 2

Visibility and Focus

The visibility of a website is its market reach and in particular this is determined by how well your web pages are positioned on search engines and how other sites link to yours.

In the early days of the internet you could get top search engine rankings by simply optimizing your META tags, however it is not so straight forward any more, for 2 reasons.

1. Search engines have developed artificial intelligence!
2. Search engines have become commercialized.

1. Search Engines have advanced

A few years ago, the search engines could be tricked into giving pages higher rankings, with the use of techniques such as creating "doorway" pages and web page "cloaking", which resulted in non-relevant results being returned in the search engine results. This still works on some search engines but the major ones have improved their ranking technology to exclude such web pages from their indexing.

Also more and more sites have been established, so it is now much more difficult to achieve top search engine rankings.

A search engine is judged by how relevant its search results are, so search engine companies have continually tried to improve their technology to return the most relevant results. One major advance they made was to include "link popularity" as a factor to rank web pages.

Link popularity tries to estimate **how popular** a website is **compared** to other websites in the same category.

Chapter 6.2 [Link popularity](#)

When a search engine ranks your web page, it places relevance on a number of different web page attributes, such as meta-tags, keyword density, and link popularity. The more weight your web page has compared to other pages found in a search, the higher it will rank. The objective is to return the **most relevant results**.

Pages that have many **incoming** links are likely to be more relevant than sites with fewer incoming links - these pages have a higher link popularity.

However, the story doesn't end here. Some search engine promotion services started "link farms" which basically placed your link on hundreds of other sites in exchange for them placing a link on your page, so the relevance factor disappeared.

The search engines have a way round this. They first gather the results of a search based on meta-tags, keywords, and link popularity, and then rank these results using the link popularity **within this cluster** of results. This means that if your site is about "web design" and you have other "web design" sites linking to you, you will get a higher ranking than if you have "pet food" or "garden equipment" sites linking to you.

Although link popularity is now used by some of the major search engines as **the most important factor** in ranking a web page, it is still very important to remember that the building blocks of a website are the words on the page and without these, your site would not even be ranked.

Although the link popularity factor may get the most weighting, it is only important in relation to the content on your pages.

2. Search engines have become commercialised

As the number of websites online has increased, so has the difficulty of maintaining a good search engine ranking, and the search engines have capitalized on this. Most of the major search engines now list "sponsored", "featured" or "paid" results at the top of the search results.

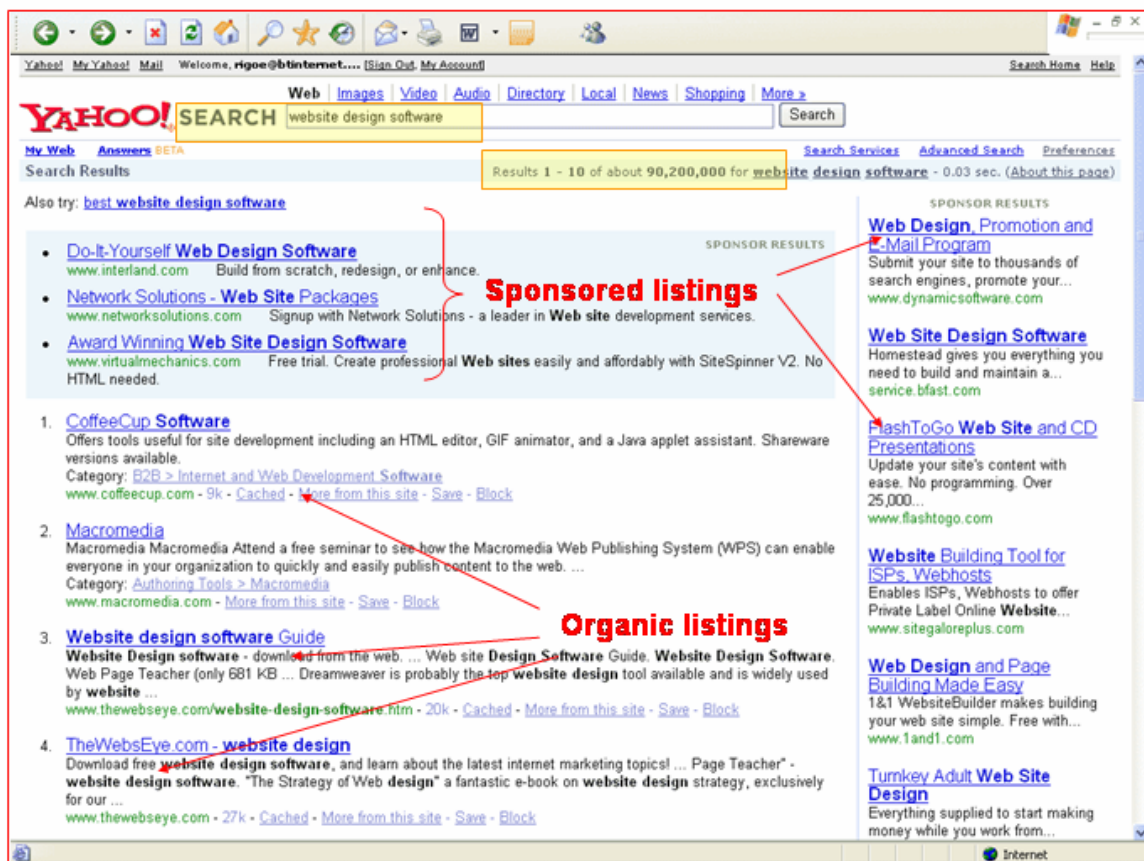
This pay-for-ranking model was originally implemented on a large scale by GoTo.com which then changed its name to Overture.com. Google's equivalent is AdWords, and most of the major search engines now have some kind of pay-per-click listings. If they don't have their own program they display sponsored listings from a partner like Google or Overture, at the top of their search results in return for some of the click-through revenue.

A website owner bids for "keywords" or "key phrases" at a pay-per-click search engine and if their bid is high enough to give them them top spot on the pay-per-click search engine (PPC), the website will be

displayed in the search results whenever someone searches for that keyword or key phrase on the PPCs partner sites (eg: MSN, Altavista).

Although search engines have become commercialized, on average 70% of the first page of search results on most search engines are “organic” results as opposed to being sponsored or featured listings, so it is still very important to optimize your website for search engine spiders.

The following image shows the difference between organic and sponsored listings. In this example, a search on Yahoo for “website design software” returned 90,200,000 results, and one of my sites “TheWebsEye.com” is ranked #3 and #4. The individuals paying for sponsored links are paying \$2 or \$3 for each click!



Note: Most PPC search engines currently rank the website according to how much you have bid for a placement compared to your competitors for a particular keyword. Some pay per click search engines have introduced a PPC model which charges a flat-rate per click and ranks the web pages based on their relevancy. In our opinion this model should be adopted elsewhere as search engines realize that their core

business is to provide **relevant** results and without that they will lose their user base.

Optimizing a site for search engine spiders leads us to the next topic, layout strategy.

Next [Layout Strategy](#)

Chapter 3

Layout Strategy

Overview

A web browser can read a number of types of file, Portable Document Format (.pdf), Text (.txt) etc... but the most commonly used file type is Hyper Text Markup Language (HTML).

As new browser versions have been released they have supported new technologies such as Flash in their default installation.

Flash is a very popular tool for web designers because it allows the creation of animated and interactive graphics with low file size. File size is important because the majority of internet users still access the internet with a modem and web pages with high file size take too long to load.

Designing your site completely in Flash however may not be in your best interest. This is because many **search engines cannot spider much of the content inside Flash files**, and even if they could, the Flash designer could use images that have a completely different relevance to any text in the file, making it nearly impossible to rank a Flash file according to content relevance.

Building a successful site means ensuring that all the important content can be read by the search engines.

That is not to say that Flash should not be used at all. On the contrary, using Flash files can greatly enhance a web page but if search engine visibility is one of your goals then using a Flash navigation menu or a Flash-only website may not be in your best interest.

Assuming that your strategy is to build a non-Flash site with HTML, there are basically 3 ways you can format it.

1. [Using Frames](#)
2. [Using Tables](#)
3. [Using CSS](#) (Cascading Style Sheets)

I will show you why CSS should be the choice if you want highly visible web pages that will get good search engine rankings.

The following pages describe in detail the advantages and disadvantages of each method. You don't need to understand HTML to read this book, however it would be a good idea to read the [HTML tutorial](#) so that you can understand some of the “web” terms that are used.

Even if you are not a technical person you should try and understand HTML, as it is very easy to learn and **it is the presentation layer that displays your web content to your prospective customers.**

Understanding HTML will allow you to bring your web design and internet marketing skills together.

HTML controls the presentation of your web pages. Even if your site uses XML, ASP, PHP, CFM or other dynamic code, it will almost certainly use HTML for presentation.

Chapter 12 - [HTML tutorial](#)

Next [Using Frames](#)

Chapter 3.1

Using Frames

Frames technology allows you to have more than one web page on your screen at the same time.

Typically a frames site will include a navigation menu down the side or across the top, with the main or contents page filling the rest of the screen, however the number of frames and what you use them for is only limited by your screen.

There is a time and a place for using frames, for example for example if you offer a members area or online email to your visitors, so I have included below a section on how to build a site with frames.

If your strategy includes maximum visibility, frames are not the best solution.

See [Using Tables](#)

See [Using CSS](#) (Cascading Style Sheets).

Advantages of frames

- 1) Frames are one way to make your site easier to navigate because you can have a constantly visible navigation menu - and easy navigation is one of the most important aspects of website design.
- 2) Frames can make your site faster because you can include the site theme (images, logo, etc..) and the navigation menu in frames that do not have to download each time a visitor looks at a new page. Only the contents page changes.
- 3) Using frames can make site maintenance easy, especially if you have a large site. If for example you want to add a new page that is linked from the other pages on your site, you simply add a link on your navigation menu; you do not have to add links on each and every page.

However **you don't need frames** for this. You can get similar results using templates. You create a template and then create the pages for your site based on this template. Then whenever you make a change on the template, the web pages based on this template can be automatically updated. Most online web builders use templates and if

you don't want to learn coding, you can easily use an online web builder.

Disadvantages of frames

1) The original argument was that not all browsers support frames, but this must be a very small percentage now. You could get around this by including a `<noframes></noframes>` area below your frameset. In this noframes area you can include information such as a simple navigation menu and a "Sorry your browser does not support frames" statement - OR if you want you can have a separate version of your website for non-frames browsers but be prepared to do twice as much work maintaining the site.

2) Search engines treat frames as hyperlinks to other pages, so if for example they manage to spider the frame containing your menu, they pages they index will be indexed but without the surrounding frames. If someone finds one of your pages on a search engine they will not be able to navigate around your site.

3) The most important disadvantage is that it is difficult to link to a particular page on your site other than the page containing the frames (usually the homepage) - this is a big disadvantage if you use email marketing and you want a link in the email to point to different parts of your web site.

You can use redirection however this is no use if you want the page to be spidered by the search engines. Search engines regard redirection as a form of spam because you could optimize a page for the search engines with all the right keywords and then redirect the visitor to a completely different page where the content is not 100% relevant to the search.

Redirection can have its uses however, for example if you change your URL and want to redirect any traffic from the old address to the new one. You can redirect visitors to another page simply by putting the following Javascript in the HEAD area of your page (learn about the HEAD section in the HTML tutorial).

```
<script language="JavaScript">  
  
<!-- if (top == self) self.location.href =  
"http://www.newaddress.com/index.html"; // -->  
  
</script>
```

To find out how to set up a frames page view the tutorial [here](#).

Next [Using Tables](#)

Chapter 3.2

Using Tables

You have 2 choices to format the **layout** of individual web pages. You can use Tables or CSS stylesheets.

Tables can be used to define the **layout of the content** inside your web pages. These tables do not necessarily have to be visible and on most web pages are not visible - the table border is set to "0".

There are however several things you need to know about tables which most web design books don't tell you.

Loading tables in sequence

Firstly, here is a secret most web designers don't even know - **a browser will not display a table until all the content in that table has loaded**. Therefore if you simply create one all-encompassing table for your page contents, the page will not be displayed until the whole table has loaded. If the file size of the page is large, the visitor will have a long wait before seeing any content, and may click away to another site.

Studies have shown that page loading times more than 7 or 8 seconds greatly increase the attrition rate (loss of visitors).

The solution is to **split your web page up into 2 or 3 separate tables**.

Example 1

Table 1 – header
Table 2 – contents
Table 3 – footer

Then when your tables load, the visitor has something to look at while the rest of the page is loading.

Loading horizontal tables

Secondly, another secret which most web designers don't know - you can **create tables to load in a browser across the web page horizontally**.

Example 2

Table1 – header	
Table2 - left menu	Table3 – contents
Table4 – footer	

In Example 2 above you can set the width of Table2 to 150 pixels for example and align it to the left. You can then set the width of Table3 so that the combined width of Table2 and Table3 is equal to the width of Table1. The HTML code for Table2 would look like:

```
<table width="150" align="left"></table>
```

Using Tables to add color

The third important feature of tables that is often overlooked is that they can be used to add color to a web page instead of using images. Although images add to the aesthetics of a web page, if you don't have professional quality images it is better not to include them at all.

First impressions are very important and visitors will quickly click away from a site that looks "homemade".

By giving your tables a background color or image you can add color and interest to your site without investing a large amount of time creating graphics.

You should also be careful when using color because different colors mean different things to certain groups of people. For example, in France purple is often associated with death. I have listed a few sites on <http://www.TheWebsEye.com/using-color.htm> which analyze the use of color on websites in more detail.

The code to add color to a table background is this:

```
<table bgcolor="#FFFF00"></table>
```

... where **#FFFF00** is the hexadecimal value for yellow for example. The hexadecimal value is made up of the primary colors, red, blue and green in that order. FF means Full, 00 means none. So white would be **#FFFFFF**, black would be **#000000** and red would be **#FF0000**.

To add a background image to a table the code would be:

```
<table background="URL of image"></table>
```

Internet Explorer and Netscape both support the placing of images in the <TABLE> element, also in the <TD> and <TH> elements. In the <TABLE> element the images will be tiled behind all of the table cells.

An alternative to using tables to define the layout of a page with <DIV> or <LAYER> tags and use CSS to position them on the page. Older browsers such as Internet Explorer v4.x and Netscape v4.x had different support for CSS, however all commonly used browsers today adhere much more strictly to the W3C standards for CSS and there is now much wider use of CSS to define the positioning of web page elements.

Next [Using CSS](#)

Chapter 3.3

Using CSS (Cascading Style Sheets)

If you are not already using CSS on your webpage, then you really need to read this chapter.

CSS can be used both to format as well as to position the content on your web pages.

Although CSS is widely used to format web page content (the type of font, background colors etc...) its use to position the elements on a web page is only used by experts. The reason for this is that earlier browser versions were very inconsistent and did not support positioning very well. Current versions of the major browsers however all fully support CSS positioning and so you should not be put off using CSS to position your content any more.

CSS is very easy to use and I will show you how in the following pages.

CSS will allow you to change the look and feel of your whole website by changing one file. But there are also a number of other advantages such as reducing the HTML code used.

Your website **design strategy** should include the following goals:

- **uniformity of presentation** - this is important from a usability point of view - you should ensure that similar sections of your site have the same layout and formatting.
- **ease of site maintenance** - you can use an external stylesheet to control the look and appearance of your whole website, such as the font size, style, and color, the background image, the background color, etc... by changing a single file. You don't need to edit every page.
- **separation of content from presentation** - CSS allows you to separate the formatting and layout from the content. You can use the CSS stylesheet to position elements on your web page as well as format them.

By using CSS to position elements on a web page you can achieve better keyword density which is important in some search engines. Some search engines give content at the top of a page more relevance than content further down so you can actually position

your important content at the top of the HTML file (which the search engine reads) even if it in a browser, it is presented further down the page.

- **ease of browser compatibility** - web pages are displayed differently on different browsers and platforms. For example a 10pt font looks fine on a PC but becomes a bit small on a Mac. You can create separate style sheets for each browser and use a browser-detection script in the header of your pages which will link to the correct stylesheet depending on which browser is being used.

You should be able to control your website with only one CSS stylesheet.

Because formatting your web pages is as simple as formatting a word document, the rest of this chapter looks into how you can do this yourself.

In Chapter 3.3.1 we will take a short look at how you can use JavaScript to detect the browser version and serve the visitor a different stylesheet depending on what browser is being used.

In Chapter 3.3.2 we will walk through the creation of a stylesheet both external and internal.

And in Chapter 3.3.3 I will show you how to use a stylesheet to position content on your web pages.

[Browser detection script](#)

[Creating a style sheet](#)

[Using CSS to position content](#)

[Browser Strategy](#)

Chapter 3.3.1

Browser Detection

Browser compatibility code for stylesheets

It is important to stress that if you have a simple website you may be able to get away with one stylesheet for all browsers (as long as you don't mind small differences such as font size). However due to the differences in the extent that browsers support CSS, you might need to include a script on your pages that detects the browser version and "serves" the visitor the correct stylesheet.

My advice is to first try and create your CSS stylesheet so that it is cross-browser compatible. If this does not work then you may need to have different versions for different browsers.

To see the principles of how this works, visit the tutorial in [Chapter 12.7](#). However I would advise you to search on the internet for the latest browser detection script since new browsers are introduced each year.

Next [Creating a style sheet](#)

Chapter 3.3.2

Creating a style sheet

In this chapter I am going to show how creating a style sheet is as simple as creating a word document, and just how powerful a style sheet is. You can use it to change the look and feel of your whole site with one small change.

If you don't yet have a web page yet to test your stylesheet on, then you can go to [Chapter 12](#), see how to create one, and return.

Now using stylesheets is actually very easy. You can either link your web pages to an **external stylesheet**, or you can include the style sheet inside the <HEAD></HEAD> area of individual web pages inside STYLE tags. The advantage of using an external stylesheet is that you can apply it to all pages by simply linking to it (see below).

Web design software does not always make this clear unless you read the HELP pages in detail. Forget your web design software for a moment, because it is easier to understand stylesheets if you take a look under the surface.

An external style sheet can be as simple and powerful as this:

```
BODY {  
Background-image: url(images/mybackground.gif);  
background-color: #FFFFFF;  
}  
  
P {  
FONT-FAMILY: Verdana, Helvetica, sans-serif;  
FONT-SIZE:12pt;  
COLOR: navy;  
}
```

(Note: there is a semi-colon ";" after each line - without this the stylesheet will not work properly)

You copy the above in Notepad, Wordpad or other text or HTML editor, and save it as "mystyle.css". Put this stylesheet in the same directory as your web page "HTML" files. Note the ".css" extension is important.

Then you link your web pages to this stylesheet by putting the following code in the HEAD area of your pages.

```
<link rel="STYLESHEET" type="text/css" href="mystyle.css">
```

It is now easy to change the background image or color of your site by simply changing the variables in the stylesheet. You can also change how the text in your website looks. Anything in "P" tags on your web pages takes on the "P" attributes specified in the stylesheet. The above will make your pages display 12 pt navy Verdana text (and you give the option of Helvetica and sans-serif in case your visitor's computer does not support the first choice of font).

The next concept is also simple and very powerful - the use of the **class** attribute. It is best explained by adding another style to our stylesheet explained above.

```
.redtext {  
    FONT-FAMILY: Verdana, Helvetica, sans-serif;  
    FONT-SIZE: 12pt;  
    COLOR: red  
}
```

Now what this allows you to do is make certain blocks of text red. In your web pages, instead of a simple "P" tag around your text, you would add class="redtext" to the "P" tag and the text inside the tags would be red.

```
<p class="redtext">Your text</p>
```

You can have any number of classes and assign classes not only to P tags, but to any tag in your web page BODY. And by simply changing the stylesheet you can change the look of your whole site.

There third way of adding style to a HTML element is to assign it an "id". For example, assigning it to a <div> tag....

```
<div id="main ">
```

then in your stylesheet the # shows that the style is an id, e.g:

```
#main {  
    font-size:10px;  
    color: #FF6600;  
    font-weight: none;  
    text-align:left;  
}
```

You can however only use that "id" once on a web page. If you try assigning the same "id" further down in a page it will be ignored. You use the "class" attribute instead if you want to give the same style to a number of similar elements.

Are you beginning to see the power of using style?

It is however important to realize that different browsers deal with stylesheets differently so you should always test by viewing your website with different browsers. This is covered in [Browser Strategy](#).

Next [Using CSS to position content](#)

Chapter 3.3.3

Using CSS to position content

You can use a stylesheet to position the content instead of tables.

You do this by dividing your page up into divisions which can be defined by the `<div></div>` tag. You then give each `<div>` an ID tag to identify it in the stylesheet. For example if we want to position the `<div>` which we have assigned an "id" of "main" we would specify the width and

```
<div id="main">
```

then in your stylesheet you would add the positioning styles for "main". This could be where you want to position the main content of your web page., e.g:

```
#main {  
    font-size:10px;  
    color: #FF6600;  
    font-weight: none;  
    position:absolute;  
    width:600px;  
    z-index:1;  
    left: 25px;  
    top: 160px;  
}
```

Analysing each of these elements separately. . .

`position:absolute;`

- position can be absolute, relative, or static - this property is important in determining the effect of the other positioning styles on the element.

`width:600px;`

- this applies to block elements with a position value of "absolute"

`z-index:1;`

- this can be used to position layers above or below each other. Elements with higher z-index values will be positioned above elements with lower values.

`left: 25px;`

`top: 160px;`

- these define the position of the element with respect to the parent element. In the above example, if the `<div id="main"></div>` element is inside the `<body></body>` element the top left corner of the `<div>`

element will be positioned 25 pixels from the left of the page and 160 pixels down.

If now we create another `<div id="left"></div>` tag inside this `<div>` element, and set the style of "left" in the stylesheet to be:

```
#left {  
    float:left;  
    position:relative;  
    width:200px;  
    left: 10px;  
    top:10px;  
}
```

- it will be positioned relative to the `<div id="main"></div>` with a width of 200 and positioned 10 pixels to the left and 10 pixels down from the top left corner of the `<div id="main">` element, because this "main" element is the "parent" element.

Notice the use of `float:left;` - this is to allow other content to be positioned to the right of the current element. It is similar to aligning an image to the left, so that text can be placed on the right of the image. If we omit the "float" style, then other content appears below.

We have now covered the basics of CSS. Hopefully you can now see that using CSS to position and format your web pages, allows you to achieve 4 important goals of web design that should be part of your website strategy:

- **uniformity of presentation**
- **ease of site maintenance**
- **separation of content from presentation**
- **ease of browser compatibility**

When the formatting and positioning of your content is controlled by stylesheets, updating your content becomes much easier.

If you want to start creating more complex stylesheets I have listed a number of resources here.

<http://www.TheWebsEye.com/stylesheets.htm>

Next [Browser Strategy](#)

Chapter 4

Browser Strategy

The other 5% of browsers

Even if only 5% of your visitors use a certain browser, those 5% are still potential customers.

Making sure your website is compatible with the major browsers is important especially if you are someone that continually tries to improve your website with new functionality.

This is particularly the case if you use DHTML and/or CSS stylesheets to format or position content on your web pages, however it is also worth checking your site in the major browsers even if you don't, the most common cause of differences being the way that browsers treat CSS.

The best way to know which browsers to design your pages for is to look at your website logs and find out which are the most commonly used browser versions. If you don't have access to your website logs, as a general rule, you need to test your website for the following.

- Internet Explorer
- Firefox
- Mozilla
- Netscape
- Opera

How do browsers treat CSS and Dynamic HTML (DHTML)?

This chapter is not designed to give you in depth detail of how the different browsers treat different elements, but to give you a better understanding of which web technologies are supported. If you need to find out more specific details, just search for "**browser compatibility charts**" on the internet.

The use of DHTML and CSS make it easier to format your content to appear the same in different browsers, but to do this you need to know how the different browsers treat your stylesheets. The various versions of Internet Explorer, Netscape, Mozilla, and Opera offer different support for DHTML and CSS.

Since new browser versions are constantly being released it is best to do a search on the internet for browser compatibility if you find your web pages are looking wrong.

What about XML?

Mozilla, Firefox, Netscape 6+, Internet Explorer 5.5+ and Opera v5+ all support XML.

XML is definitely the web language of the future. Many websites already use XML and use stylesheets to transform the pages into HTML that is viewable in your browser. By using different stylesheets, a web page can be displayed in HTML if requested by a web browser or in WML for example if requested by a WAP (wireless - usually on mobile phones) browser, or indeed in any format that there is a requirement for.

Most current browsers can view XML pages directly (i.e.: pages with a .xml extension) but it is going to be another few years before webmasters decide to give up HTML in favor of XML to display the content.

However this gradual move towards XML is going to mean increased use of stylesheets, to separate the content of a site from the layout and format.

Testing

How to test your site in the different browsers?

The best way to do this is to install these browsers on the computer you use to create your websites. You can download older versions of Internet Explorer 5 from

<http://www.microsoft.com/windows/ie/downloads/archive/default.asp>

(IE 4.x is no longer available for download and is not supported by Microsoft) and older versions of Netscape from

<http://home.netscape.com/download/archive/index.html>.

There is also a site called Anybrowser.com - which will allow you to preview your live website in different browsers if you cannot view them on your own PC. Although this option is not as good as downloading the browsers yourself, it is still very useful tool if you cannot download browsers to your PC, or you want to make a quick check on a web page's compliance with various HTML standards.

One more piece of browser advice. If you are a web designer you should definitely have a look at Firefox because it has a number of excellent free extensions which help designing a web page, such as a colour picker, a pixel measuring tool, and too many others to mention.

[Firefox](#) extensions also allows you to view your pages as they would look in different screen resolutions, such as 800x600, 1024x728, etc... just download the software and then install the free add-ons which you can download from the Mozilla site.

Next [Navigation Strategy](#)

Chapter 5

Navigation Strategy

Navigation links could be considered the most important part of your website for 2 reasons:

1. **search engines** use them to spider your site
2. **visitors** use them to find content

Most usability books focus on the second reason but both are equally important to your web design strategy.

Now, to understand why the type of link is important you have to understand how search engines work. A search engine is basically a "bot" or "spider" that visits a web page that is submitted to it, and spiders the site. A link looks like this:

```
<a href="http://www.thewebseye.com">TheWebsEye Website</a>
```

All search engines have their own rules on how they spider and rank sites, but most will visit a page, spider the site by looking for any HREF tags on a page and follow the links to other pages, indexing them as it goes. If it does not find a "href" tag on that page, it is usually blocked from indexing deeper. Some types of navigation are more **search engine friendly** than others. Since **visibility** should be a major factor of your **web design strategy** you need to understand what implications the following types of navigation have for your website. Lets have a look!

- Plain text links or image links
- DHTML menus
- Image Maps
- Flash navigation menus
- Java applets
- JavaScript menus

There is always going to be some trade-off between accessibility and usability. Accessibility is about making the web pages usable by all users including those with impaired vision that use browsers with voice

technology. However you should never compromise the **visibility** of your pages.

Traditionally the navigation menu has been placed on the top in the header area of each web page or along the left side of the web page because usability studies have shown that this is where users instinctively look, however as long as your menu is in the same place on each page, i.e.: consistent, and it is easily identifiable as the navigation menu, it should not matter too much where you place it.

Next [Plain text links or image links](#)

Chapter 5.1

Plain text links or image links

Usability studies have shown that a menu should contain no more than 7 or 8 links. The more choices you give a visitor, the more difficult it is to make a decision, and you don't want to give your visitors the impression that your site is difficult to navigate.

The main advantage of plain text and single image links is that they can be **spidered** by search engines.

If you use **images as links**, there are 2 things you need to do.

- Make sure that the image file size is very small or they take too long to load on a web page. (You can find out the file size of an image by right clicking and selecting "properties".)
- You should use the ALT tags to describe the links, because some people browse with images disabled, and ALSO, many search engines use these tags if there is no link text.

When you have relatively few links **mouse rollovers** can enhance the visual appeal of the site. Basically this method requires you to put some JavaScript in your pages which pre-loads the rollover images, and then add "onMouseover" events in your image links. When a user's mouse rolls over an image, the image is replaced by the rollover image. When the mouse rolls out ("onMouseout") of the image area, the 2nd image is replaced by the first again.

Again web page usability can suffer if image size is too large, since the images and the JavaScript need to be pre-loaded, which results in longer page-loading times.

Text rollovers are a good substitute for image rollovers, and are much easier to make and implement. The following would create a rollover effect for a single link (does not work in some old browsers).

```
<a href="http://www.thewebseye.com/">  
<FONT COLOR="#000000"  
  onMouseOver="this.style.color = 'orange'"  
  onMouseOut="this.style.color = '#0000ff'">TheWebsEye</FONT></A>
```

However you don't need Javascript for this! Welcome back our friend CSS!

Instead of the above, you can use a CSS stylesheet. Inside the <head></head> tags of your web page, insert the following:

```
<style>a:hover{color:orange;}</style>
```

This would make all links (<a> tags in your web page) change color when you roll over them, in this case to orange. If you wanted to confine the rollover effect to your menu links only, or one link in particular, you would use a class or id attribute for the link, and this is explained in the chapter on CSS.

You can go one step further and specify the font-size, font-weight (bold or standard), text-decoration (underlined or not) as well as color if you want. You can also put this in an external stylesheet so that you can use these as a standard scheme site-wide instead of only on one page. See the section on [CSS stylesheets](#) to learn how to do this.

If you have a large number of pages you need to find a way of providing easy access to all areas of your site (usability) but also maintain a high level of visibility.

Many sites lose visitors and potential customers through poor navigation. A visitor should be able to find what they are searching for with no more than 2 or 3 clicks. If you have a large number of links you should break them down into blocks of related links. You should also consider splitting your site into mini-sites if the topics are different enough.

The problem with large menus is that they now present a choice of more than 7 or 8 links, which would move us away from our ideal usability.

One way to get around this is to create dynamic menus which change according to the web page being displayed, or which can expand and contract when the mouse clicks on them.

There are a number of ways to achieve this but some are better than others for your web site **visibility**.

Next [Dynamic menus](#)

Chapter 5.2

Dynamic Menus

Using code allows you to create menus that change depending on which page is being displayed, or which can expand and contract when the mouse clicks on them.

One of the main objectives of your design strategy should be to **create a site that can be spidered** by search engines, as well as being usable and you need to bear this in mind when choosing your type of navigation.

Sites with a small number of links do not need to bother as they can simply use plain text or image links, however once you have a requirement to link to a large number of pages from your menu, you need a way to group them.

DHTML menus

I am going to let you into a **little known secret** and maybe the most valuable thing you will learn from this whole book. Not many web designers know this because internet marketers do not usually have an in depth knowledge of web design and most web designers are more concerned with the visual aspect of the website.

DHTML menus allow you to create highly usable menus that can also be spidered.

The reason you can do this is that DHTML can also be used to position a menu on a page and to set its visibility property ([using CSS](#)). Even if visibility is set to none, the links will still be spidered by the search engines because they are part of the content on the web page. Older browsers which do not support DHTML will display all the hidden links as well.

DHTML is basically the use of scripts to manipulate web page elements using CSS.

As browsers support DHTML but differently, getting a menu to work well in all browsers can sometimes be difficult.

I have listed a number of sites where you can download free DHTML menu navigation scripts at:

<http://www.thewebseye.com/DHTML.htm>

Image Maps

Image maps are images with "hot-spots" that contain links. However they are often associated with large images which take a long time to download giving poor usability, and they are not search engine friendly. Many search engines cannot spider the links in the image map.

Flash navigation menus

Flash is an excellent visual tool and allows you to create stunning interactive menus, however once again, Flash (.swf) files cannot be spidered by search engines, so it is not a good idea to use Flash for menus until Search engine technology advances enough to be able to spider them. Remember that Flash files are **binary objects** which are in effect files made up of machine code that is not readable by search engines.

Java applets

Java applets can also be used for creating useful and dynamic menus, but usually the applet does not appear until the whole applet has loaded and large applets can take a long time to load. Some Java applets use HREF links on the web page being spidered (where the menu appears) and these will probably be spidered, however other applets are included and whether they are spidered or not depends on whether the search bot is programmed to spider further (probably not!).

Javascript menus

As with Java applets, unless the search engine spiders can pick up HREFs in the links in the JavaScript, they will not be able to spider the JavaScript.

The conclusion of this analysis is that using plain text or image links is best for visibility. If the site is large and there is a need for expandability you should seriously consider DHTML menus as you can keep a site both usable and visible to search engines.

Flash menus, Java applets and JavaScript are all excellent technologies, and although may enhance usability, they might may seriously damage your search engine visibility.

Next [Content Strategy](#)

Chapter 6

Content Strategy

Overview

To stay ahead in business you have to be one step ahead of your competition, and this is nowhere more true than on the world wide web. To keep ahead of your competitors your web design strategy needs to take into account **what content** to display and how often to **update** it.

Despite the monopolization of top search engine results by pay-per-click engines, over 70% of the first page results on the common major search engines are still based on the indexed results, and your web page content is the key to achieving high ranking search positions.

There are also the directories where your submissions are reviewed by a real person before being indexed. Obviously good and relevant content is vital to obtaining a listing on a major directory like Yahoo, but with the enormous growth of the internet, **it is impossible to "directorise" the whole web** using experts, and to keep reviewing them! Good Search engines constantly crawl the web thus ensuring results are relatively current.

Also when a directory does not have a listing for a particular search, it defaults to the search results provided by a spider search engine.

Spider-driven search engines will continue to play a major role in the way people find information.

The more reliable a search engine's results, the more popular it will become and the more traffic it will get, so once again, search engine visibility should feature very high in your web design strategy.

The content on your website is the major factor influencing how your web site is ranked for 2 very good reasons.

- Websites focused on a particular theme are likely to rank higher on the search engines than sites which have a lot of unrelated content. The robot-spiders are increasingly looking at **how relevant a keyword is over a number of pages** on a website, not just one page. This means that theme based content rich websites are going to achieve better results.

- **Other websites will want to link to it**, and this adds weight to the relevancy on the search engines. The **major** search engines are using link popularity as the major factor in ranking web pages.

"Keywords" here refer to the word or phrase that you want your page to be found with when someone types the keyword or phrase into the search engine.

The placement and density of **keywords** and **key phrases** on each individual page is still very important because **words are the building blocks** of a page and it is words that the search engines must use to rank your pages by.

The most important factors search engines use to rank your site by are the following.

1. The number of sites linking to yours
2. The relevance of those sites!
3. The words in the links on the pages of those sites
4. The words before and after the links in the pages of those sites
5. The Title of your web page TITLE
6. Your website url
7. The date your website was first indexed by the search engine
8. The Keywords META tag
9. The description META tag
10. The text content of your web page
11. The theme of your site

How important each of these factors is and the algorithms (set of rules) the search engines use to rank web pages, differ for each search engine, and even from month to month within the same search engine.

I am therefore not stating for example that "link popularity is the most important factor that Google uses to rank websites" because even though it may be true today, the set of rules may have changed next month. However Danny Sullivan's [Search Engine Watch](#) site has more details on just how each search engine indexes your website. Danny Sullivan is probably regarded as the web's "guru" on search engines and this site is well worth a visit.

Optimizing your content

The old approach to optimizing content for visibility was to design doorway pages, each optimized for a different search engine and keyword and then wait, sometimes months to see your results because some search engines would take ages to index your pages!

This has all changed. What works now may not work in 6 months time. Most attention was paid to including the keyword in the title tag, the keyword and description META tags, and the keyword density in the main content of the page.

This is all still very important, and we will look at [META tags](#) in more detail in a separate chapter. However for now, it is good enough to remember that a web page is made up of a <head></head> area and a <body></body> area. In the HEAD area you should always include 3 tags, the TITLE, KEYWORDS and DESCRIPTION tags.

The **content** of your web pages is now considered the most important factor for website optimization.

It is essential that the content of your page is relevant to the words in the title, description and keywords. The more relevant the content is, the more **focused** the web page is.

Highly focused content pages are what the search engines want because they are relevant to search results - they are search engine "friendly".

Content-optimized pages are also pages that give a "best-fit" for all the major search engines. The pages that rank high on one search engine this month might rank further down next crawl, but the same pages might have a higher ranking on a different search engine that uses different search criteria. Instead of trying to create "doorway" pages, each optimized for a different search engine, your time would be much better spent creating new content that is relevant to the site.

Search engines will continually refine their search results process to provide what their users are searching for, so ultimately a good content page can't be wrong.

Optimizing your content involves making a web page be focused on its own, but focused also:

- in relation to the other pages on the website - Theme Based Focus
- in relation to other web pages that link in to it (incoming links) - Link Popularity

Let's now have a closer look at these topics.

1) [Theme Based Focus](#)

2) [Link Popularity](#)

Chapter 6.1

Theme based focus

Creating your site around a particular **theme** should be part of your web design strategy.

The content on all or most of the pages is related to a particular topic or **theme**.

Having **focus in relation to the other pages** on the website means the web page will get a higher ranking than a web page where the rest of the content on the site is unrelated - because it is likely to be more relevant.

If your website has a number of different topic areas you could take the theme concept a step further by registering sub-domains, or even new domains, one for each topic of the website. By doing this you would be creating a number of more highly focused "mini-sites". However this move should be considered very carefully if your web site is already established and other sites are linking to you.

One situation where it could work well however is where you offer two different services which may be complementary products, for example "web hosting" and "web design".

You may find that other web-hosting companies would promote you if you did not offer hosting services. In this case it would definitely be a good idea to split up your site into two different domains.

By separating the content you are simply creating smaller but more focused sites. If you have a newsletter or ezine on each site you can market your complementary service to subscribers at the other site. You could market your web-hosting services to your web-design customers by referring them to your web-hosting site and vice-versa.

Next [Link Popularity](#)

Chapter 6.2

Link popularity

Link popularity is a measure of **how popular** a web page is.

Why is it important?

When a search engine ranks web pages, it will place a certain "weighting" on each factor that it uses to rank a page. The weighting for "link popularity" is calculated by checking the incoming links - i.e: other sites that are linking to the web page.

It is likely that pages that have many **incoming** links will be more relevant than sites with fewer incoming links - these pages have a higher link popularity.

However, the story doesn't end here. Some search engine promotion services started "link farms" which basically placed your link on hundreds of other sites in exchange for them placing a link on your page, so the relevance factor disappeared.

The search engines get around this by first returning the results of a search based on meta-tags, content, and link popularity, etc... and then ranking these results using the link popularity **within this cluster** of results.

Not all search engines currently use these criteria to rank pages, however some major ones do and it is likely that others will follow suit.

How to increase your link Popularity

There are 4 proven methods for increasing your link popularity.

1. Write articles for other high-profile sites.
2. Joint ventures with other websites.
3. RSS syndication
4. Start your own affiliate program.

Increasing your link popularity requires other relevant sites to link to your web page. If your site is an "information" site and you are offering excellent content that is genuinely useful, you may find other websites linking to you without even asking them.

However if your site is commercial, it will be more difficult to get sites to link to you without offering them an incentive. In this case, online press releases or articles about your product or service, or starting your own affiliate program would help to improve your link popularity.

Starting your own Affiliate Program

Another good way for a site to get a high link popularity is to have its own affiliate program because this gives it lots of **incoming links** that are also very often **related to the topic** of the website.

There are a number of things you have to consider if you start your own affiliate program, and these are considered in depth in the bonus chapter at the end about [Starting an Affiliate Program](#).

Chapter 7

Privacy Policies

All websites should have a privacy policy and if you give you collect any information about your visitors either using [cookies](#), or in a form, you need to state this on the privacy policy.

P3P is an Internet protocol that has been designed to let users select general privacy settings that will then be enforced by software.

Under IE5, users could group Web sites into trusted, restricted, and Internet (unknown status), and set the refusal or acceptance of cookies based on these zones.

IE6 and above have the same basic options, but the security level you select applies only to the Internet Security Zone. A user uses a sliding scale to select from 4 different cookie settings which range from "Accept All" to "Reject All". Most IE users will rely on P3P because it's the default. With IE, P3P is supposed to evaluate a site by reading a special tag that includes a summary of the site's privacy policy.

The XML code in the website's P3P policy decides which cookies to allow. The user's browser compares the browser settings and matches this against the P3P in your privacy policy.

If your P3P file does not specify what cookies you are using, then there is a risk that the cookies set by your site may ignored by the user's browser if the user is using the default settings, so it is important to create a P3P file and place it on your website.

You can find out more about P3P and how to create a P3P policy at the W3C site - <http://www.w3.org/P3P/> including a tutorial on creating a P3P policy in 6 easy steps.

Next [Lead Generation](#)

Chapter 8

Lead Generation

The marketing function of most web sites is to either create a direct response resulting in a sale, or to generate a qualified lead.

A qualified lead is someone that has shown an interest in your product or service. A qualified lead is therefore more likely to buy your product than someone from a random list of email addresses.

Therefore how to include a mechanism to capture the opt-in email addresses of your visitors should be an **essential** part of your web site design strategy.

You need to offer an incentive to your visitors to leave their email address by filling out a form. Some common incentives are:

- a free newsletter
- a competition
- a free download - e.g.: game, program, or e-book
- a members area
- an free web-mail service

Many autoresponder services offer mailing list and email broadcast functionality. This allows you to collect your subscriber list in a secure database without having to worry about setting this up on your own website. You can then broadcast messages to the list that has subscribed.

I have listed some of the free and advanced autoresponder services at: <http://www.thewebseye.com/autoresponders.htm>

If however you do want to set it up yourself, read on about how to set up a form.

Web forms

A form sends information to a form handler (which is a piece of code or script) in one of the directories on your web server (your web host).

It is likely that your website will be hosted on a server running either Linux or Windows. If it is a Linux hosted site, you will probably use a

perl or cgi program to process the form details. If Windows, you will probably use ASP (active server pages) components, usually **CDONTS** (which comes installed with IIS 5 and above) or **Sendmail**.

Most Linux web hosts will provide you with a cgi-bin with a default form that you can modify. Most Windows hosts will give you access to the Sendmail program. If not you should consider a different web hosting provider.

One of the best cgi form handlers is **Formmail**. You can get this free at [Matt's Script Archive](#) and follow instructions on how to upload the form to your cgi-bin.

However you will also need a piece of HTML code to go on your web pages to communicate with the form handler. You can use the HTML code in the textbox below for this and change the details to make it work with your form. It should be obvious what you have to change when you look a bit closer.

```
<FORM method="post" action="http://www.thewebseye.com/cgi-bin/formmail.pl">
  <input TYPE="hidden" name="recipient" value="info@thewebseye.com">
  <input TYPE="hidden" name="subject" value="wsc">
  Name?<br>
  <input type="text" name="realname" size="20"><br>
  Email<br>
  <input TYPE="text" name="email" size="20"><br>
  <input type="checkbox" name="wsc" value="yes" checked>Website Design
and Promotion Course
  <INPUT TYPE="hidden" name="required" value="realname,email">
  <input type="SUBMIT" value="Send">
  <input type="reset" value="Clear">
  <input TYPE="hidden" name="redirect"
value="http://www.thewebseye.com/thankyou1001.htm">
  <input TYPE="hidden" name="env_report"
value="REMOTE_HOST,HTTP_USER_AGENT">
</FORM>
```

and the results will look like:



The screenshot shows a browser window with a close button (X) in the top-left corner. The form content is as follows:

- Label: Name? (with an empty text input field below it)
- Label: Email (with an empty text input field below it)
- Label: Website Design and Promotion Course
- Button: Send

Notice the action= in the above form posts the form details once filled in, to formmail.cgi in the cgi-bin of thewebseye.com. Form handlers are usually kept in a cgi-bin which is a directory on the web server where scripts are allowed to be run (executed). If scripts were allowed to run anywhere, hackers could more easily hack into your web server and modify files or do worse damage.

If we were using Sendmail on a Windows server, the action= would specify the address of the ASP form handler. You would also probably have to change a couple of form names. Formmail uses "recipient" by default as the address the details are sent to. The field names may vary depending on which web host you use.

Notice that the value of the "recipient" field is an email address in this case. This is the address where the contents of the form will be sent - in this case - info@thewebseye.com. This value could be your email address and you could collect the form information and keep it in a database.

But why not make use of technology and automate everything? You could replace your email address with an **autoresponder** that will send your customer information immediately AND collect the address for later use.

You can even use an **autoresponder that will send follow up emails**.

Next: [Autoresponders](#)

Chapter 8.1

Autoresponders

An autoresponder is an email address that is used to automatically send an email back to the sender or individual that requested it.

A simple autoresponder sends back a single message, but more advanced autoresponders can be set up to send back multiple messages, at intervals of a few hours, days or months depending on how the responder has been set up.

Advanced autoresponders can even use the sender's name (embedded in the email address) to personalize the reply.

A free autoresponder service can be very useful to get you started with your online web marketing. There are a number of free services available, however you usually have to display advertising at the beginning or end of your message.

You can also buy autoresponder scripts or programs that you can install on your website.

Some good free and advanced autoresponder services are listed at:
<http://www.thewebseye.com/autoresponders.htm>

Chapter 9

Database Strategy

Whether you need your own database depends on how large your data requirements are. It is often more cost-effective to outsource your requirements.

For example, use an autoresponder service for your newsletter. Use your hosting provider to provide the analysis of your web log files.

Creating the database yourself only makes sense if you are either very technical and can do it yourself, you have very special requirements, or you have a huge organisation that can afford to maintain all the various applications you will need.

Whether you use outsourced services or do it yourself, your website will need:

1. the database itself (on your site or outsourced)
2. a means of writing information to and reading information from the database (the dynamic programming language)

The type of database you use depends on:

- The operating system your database is hosted on.
- The programming language use to read and write to the database.
- The requirements of your business.

Large websites will have a separate dedicated server hosting the database and will choose the database to suit their application.

The major commercial databases include Microsoft® SQL, Oracle®, and DB2™ (IBM®) but the open source databases such as MySQL™ have become increasingly powerful and are adequate for most database applications.

Usually Microsoft Access™ or SQL Server™ is used on Windows® hosting platforms and Oracle®, MySQL, or PostgreSQL™ on Linux or Unix.

Which database you choose to use will depend on:

- your budget
- the size of the user base
- the level of support you need
- the amount of data you require to store
- scalability
- the level of availability - how essential it is that the database is online 100% of the time.

Budget

At the bottom of the scale is MySQL which is virtually free with many Linux web hosting services. Microsoft Access comes with many versions of Microsoft Office™. Certain versions of MySQL are free, and PostgreSQL is also very low priced. Microsoft SQL Server, and Oracle, can cost tens of thousands of dollars depending on the number of servers or processors they will be run on. Database software is usually licensed according to the processing power of the servers it is hosted on.

Size of user base and data storage requirement

Microsoft Access is great for development because it has an excellent visual API (application interface) and for databases where the volume of data is not going to grow to more than 2 GB, however when the number of concurrent users increases, it can cause problems because the Access database driver uses a single-threaded apartment (STA) object instead of multiple threads.

A STA object needs to be serialized which means that a connection to the database has to be opened and closed before the next user can access the database. The default connection allows for 3 concurrent users. If you had 1000 users hitting your database at the same time, your database would stop functioning.

However in reality, for simple data requests, a connection only takes a couple of seconds, and the chances of 1000 people hitting the database at exactly the same hour, minute and second are not that high.

Microsoft Access™ is limited to 2GB of data however most of the larger databases can store virtually unlimited amounts of data.

Level of support

Most large businesses require a certain standard of support for products they use as they have to guarantee a certain level of performance. Open source databases usually do not offer support, however the leading ones, MySQL and PostgreSQL do now offer support contracts. This is why in the past, companies like Oracle and Microsoft have been used by larger companies.

Level of availability

This is where the open-source databases differ from giants like Oracle and Microsoft. Clustering is where a database can be hosted on two or more distributed servers. This is usually done where the size of database is very large, and where the database requires 100% availability. In other words it is required to be online 100% of the time.

Large corporations like Microsoft and Oracle spend millions ensuring their software is trouble-free for large organisations to use and have 100% uptime. A company like Dell would lose millions of dollars per hour if its online databases went down.

Your requirements

The chances are your requirements can be met with outsourced services.

A mailing-list and autoresponder service can handle your customer communication requirements.

Your web host can handle your web analytics.

If you want to run a forum or similar database driven application, your web host is likely to provide these for free. Most web hosts provide you with the ability to set up a number of databases using free applications that they provide.

Chapter 10

Going Dynamic

Most HTML pages are static. Whenever a page is requested the content does not change, although DHTML and Javascript can be used to introduce dynamic elements on the page.

Dynamic web pages however can allow you to display information that changes dynamically, for example your bank balance, the number of subscribers in a newsletter, or the number of items of a certain product available for purchase in an online store.

However there is one very important consideration - **many search engines have difficulty indexing dynamic web pages**. You have a greater chance of search engines indexing – and keeping in their index – your .htm or .html pages, than your dynamic pages. This could change in the future.

My advice is to keep html pages for the marketing specific pages on your website, the ones that you want the search engines to find, and use dynamic pages for collecting information and customer interaction.

The ability to provide real-time information does however add a new dimension to your web design strategy and what you can do with your site.

You need to take into account whether or not the website can benefit from the advantages and extra functionality dynamic sites can provide and also the programming language used to provide this functionality.

Common programming languages for web applications are PHP, ModPerl, ASP, JAVA and ColdFusion (CFM). Learning any of these languages extends way beyond the scope of this book, however there are many excellent books that will teach you how to set up a dynamic site.

Here is an overview of some of these dynamic technologies

ASP

ASP (Active Server Pages) is a Microsoft developed language which runs on Windows servers. It is included in Internet Information Server (IIS)

which runs on Windows. Chilisoft has developed software that allows ASP also to be run on Unix or Linux servers.

It is actually quite easy to learn the basics of ASP, how to write to a database, retrieve information from a database, and use ASP to create dynamic content.

PHP

PHP is an open source programming language.

PHP can do anything any other CGI program can do, such as collect form data, generate dynamic page content, or send and receive cookies, but more importantly it supports a wide range of databases.

PHP is the natural choice for Linux machines running Apache web server software, but it also runs equally well on any UNIX or Windows platform.

CGI stands for Common Gateway Interface but most often it is used to refer to **perl scripts** that allow you to make your website more **interactive**.

PHP is an alternative dynamic scripting language and is Open source and preferred by people hosting their database and/or website on Linux powered servers. PHP is most often used to read and write to a MySQL database.

There is a free version of MySQL available and this is why PHP with MySQL is a very popular option.

Either way the principles of reading from and writing to a database are the same.

Next chapter [Using Cookies](#)

Chapter 11

Cookies

Cookies are small pieces of data used mainly by Web sites to **track** users. They are downloaded to a user's hard disk by the browser and are used to recognize and/or authenticate users when they return to a Web site.

There are many **misconceptions** about what cookies are and what they can do, many people thinking that they can extract information from your hard drive and send personal details such as passwords or credit card numbers to external companies such as marketing or advertising agencies. This is actually totally incorrect.

A cookie is a **piece of data**, which is sent from a web server to a web browser when the browser visits the server's site. The cookie is stored on the user's computer but is not a program or executable file and can not therefore do anything to it.

Also **a domain can only set and access its own cookies** so the cookies set by one domain cannot be read by another. A site can however set the domain attribute in setting a cookie, then any websites that are sub-domains of the site can also read the cookie. This is to enable large websites that have their domains hosted on multiple servers to coordinate their cookies across all servers.

The **ONLY** way that any private information could be in your cookie file would be if you personally gave that information to a web server in the first place and it decided to put that information into your cookie file for some reason, but even then, only that site would be able to read the cookie it had written.

Third-party cookies

The reason for the misconceptions about cookies is that some advertising agencies advertise through placing banner-ads on hundreds of different websites.

The websites displaying the banner ads are given code which includes single pixel images (which are transparent) to put on their websites. This image allows the agency to set and read its own cookies. These

third-party cookies are set so that the advertising agency can track the number of visits generated by a particular banner-ad.

However they could also use this information to build up rich **profiles** of the visitors. Although they don't have any personal information about the visitor, they can correlate the cookie ID with the type of sites that are being visited.

If then the advertising agency manages to get hold of the visitors email address it would be able to collect information about the user's browsing habits and if it could acquire a database with names and addresses there is a chance that it could match the email address up to a name and physical address.

However most sites now have (or should have) **privacy policies** stating what they actually do with information collected from their visitors.

This is important because with the introduction of Internet Explorer v6.0, Microsoft introduced default browser settings which are designed to check a website's P3P privacy policy before allowing use of cookies by that site. It is therefore important that you create a P3P privacy policy for your website if you are collecting any information from your visitors or if using cookies is important to you. Read more about P3P privacy policies [here](#).

Also as you can see, only a company that sets a cookie can read it, and this company can only get your email address if you give it to them.

Advantages

The main advantage of using cookies is that web designers can remember whether or not the user of a particular computer has visited the site before. Here are some examples of the usefulness of cookies.

- you can check if a user has already visited your site during a certain time period. This is useful where you use pop-ups and you don't want the popup to show every time a visitor clicks on a new page on your site.
- you can use them to count the number of times a visitor has been to your site
- you could display content related to information they have previously shown interest in.

- you can use them to check who referred them to your site - this is used in most affiliate tracking systems.

To get the code required to set a cookie on a web page, you can have a look at the following tutorial.

[Setting a cookie with JavaScript](#)

Chapter 12

HTML tutorial

Even if you are using website design software it is a good idea to look at the **source** of the web pages you are designing to see what the different HTML tags do.

If you can understand HTML, it will go a long way towards understanding what you need to do to create an effective web design strategy. This tutorial will give you an understanding of HTML however you can download a program called Web Page Teacher from <http://www.TheWebsEye.com/website-design-software.htm> which will teach you step by step how to design an HTML web page. This program has a free 7 day trial and can also be used as an HTML editor and as an FTP agent to upload or download web pages to your website.

HTML is written using "tags" where are normally found in pairs, an opening tag and a closing tag - which surround text or references to other web pages or graphics.

For example:

```
<p>Welcome to my home page</p>
```

will tell the browser to display:

Welcome to my homepage

You don't see the tags.

The `<p>` here stands for new paragraph. The closing tag is different from the opening tag by the addition of a forward slash `/`.

Other tags can tell the browser to display the text as bold or as a different font or size.

```
<p><b>Welcome to my home page</b></p>
```

will show the text in bold.

Every HTML web page needs to start with an opening `<HTML>` tag and end with a closing `</HTML>` tag. The content is made up of a `<HEAD>` `</HEAD>` section and a `<BODY>` `</BODY>` section.

The `<HEAD>` `</HEAD>` section is not seen by the browser. It contains important information that the search engines pick up when someone is searching on the internet for a particular word or phrase. The BODY section contains the contents that are visible.

It contains the "title" and "description" of the page which is what shows up on many major search engines - shown like this:

```
<TITLE>My web page</TITLE>
```

The "description" is found in **<META>** tags. The most common meta tags are the description and the keywords and they are shown like this (these tags are not in pairs):

```
<meta name="description" content="description of website">  
<meta name="keywords" content="keyword1, keyword2, etc">
```

It can also contain code such as JavaScript which can for example:

- pre-load graphics to be used on button rollovers.
- tell the browser to load a different page.
- identify which browser and platform is being used to view the page.

See also [META tags](#)

The BODY section is what is seen by people looking at your website. This is also where you can specify the default background color or background image for the page. The following for example will display a white background and black text.

```
<BODY bgcolor="#FFFFFF" text="#000000" >
```

If you do not display a background color it will default to gray. #FFFFFF is the red green blue code for white (full, full, full). Black would be #000000, red would be #FF0000. You can experiment with different colors by changing the red green and blue values.

The following would show the background a picture called "backpic.jpg" as the background of the page and tile it to cover the whole page.

```
<BODY background="backpic.jpg">
```

IMPORTANT - See note about referencing images.

The BODY contains the visible part of your web page.

If you simply place text in the body without any tags, it will be visible but will not be formatted. You can format your text into paragraphs by using **<p></p>** tags surrounding each paragraph.

```
<P>This is the first paragraph...</P>  
<P>This is the second paragraph...</P>
```

Putting all this together we get the following simple web page. To create this yourself, open any text or web page editor, copy the text

below into a blank page, and save it as index.htm. (Make sure you save it as an HTML format file).

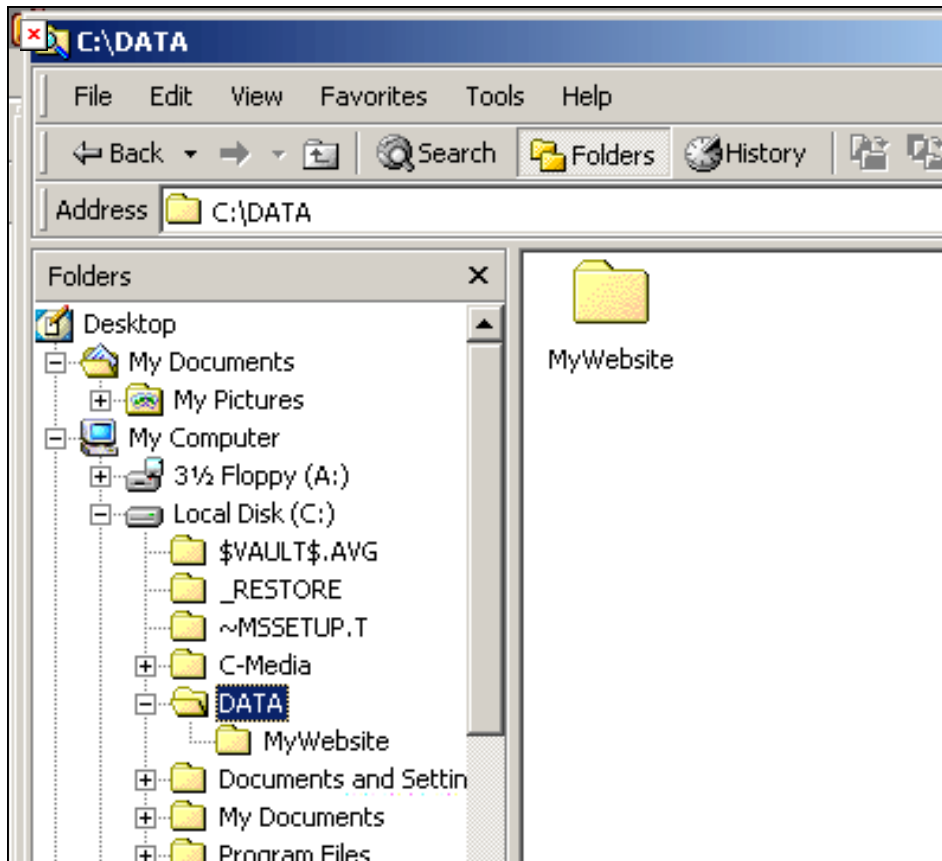
If you don't have a webpage editor, you can use Notepad which is installed on all Windows systems. You can find it by going to ... Start > Programs > Accessories > Notepad.

```
<HTML>
<HEAD>
  <TITLE>My web page</TITLE>
  <meta name="description" content ="description of website">
  <meta name="keywords" content="keyword1, keyword2, etc">
</HEAD>

<BODY bgcolor="#FFFFFF">
<P>This is the first paragraph...</P>
<P>This is the second paragraph...</P>
</BODY>
</HTML>
```

If you open your website without specifying a web page, for example <http://www.mywebsite.com> the web server will "serve" the visitor the page that is set up as the default home page. Most web servers are set up to display index.htm, or index.html or default.htm by default.

(**Diversion** - many people don't know how to store files in an organized way on their computer. The best method is to separate the programs and operating system files from your data. You should create a new folder called DATA or you could use the **My Documents** folder. Inside the DATA folder create a new folder for your website. Save your web pages in this folder.) The reason for doing this is that you can store all YOUR data in a central place and can always find it easily.



Once you have saved the file in this new directory as index.htm (or any name you like as long as it has a .htm or .html extension) you can open it in your browser by double clicking on it.

Next [META tags](#)

See also [Formatting your content](#)

Chapter 12.1

META tags

The `<title></title>` and meta tags go inside the `<HEAD></HEAD>` area of your web page.

Most search engines place a certain importance on Title and meta tags when ranking your page.

It is important that these tags contain words that are related to the rest of the content on your web page.

If you are selling "flower seeds" your title and meta tags should contain the word "flower seeds".

When a surfer searches the internet with a search engine, they specify the "keyword/s" or phrase that they are searching for. The search engine checks its database of submitted websites and throws back a list of websites ranked according to its set of rules.

The TITLE tag

In the results, the words in the `<TITLE>` tag are nearly always the title of the search result.

```
<TITLE>Flower Seeds</TITLE>
```

Therefore you have to be very careful in your website design to give the page a good eye-catching TITLE because that is what is going to make a surfer click on your site. It must be relevant to what they are looking for and it must look interesting.

META description tag

The description in the search results is sometimes the meta description tag and sometimes a collection of keywords which the search engine has indexed (for example snippets of text on the page that contain the search keyword)

The META description also need attention. If you use a long description then the keyword relevance of the search keyword is going to be reduced.

For example if your description is:

```
<meta name="description" content ="This site sells flower seeds to gardeners and supplies many areas of America with special varieties of asters and statice">
```

the keyword density of "flower seeds" is 2/20 or 10%.

If you used:

```
<meta name="description" content ="Flower seeds - many varieties of asters and statice">
```

the keyword density of "flower seeds" is 2/8 or 25% and "Flower Seeds" would be more relevant.

META keywords tag

The same principles apply to the keywords tag. You need to specify keywords separated by a comma. Some search engines recognize a space as a new keyword.

```
<meta name="keywords" content="flower seeds, asters, statice">
```

It is important not to simply repeat the same keyword over and over as this is a spam technique and could signal a flag in the search engine to not index that page.

The fewer the keywords, the more focused the keyword tag is and the higher weight each keyword will be given.

When choosing your keywords it is important to put yourself in the visitor's shoes or ask someone else what they would type in to find your particular product or service. Then make sure you include these keywords in your TITLE, DESCRIPTION, and KEYWORDS tags.

Next [Formatting your content](#)

Chapter 12.2

Formatting your content

Now that you have created a simple web page you can do more interesting things to the content such as formatting the text as a different color, size or font, adding images, adding background colors and adding links.

You can also format the layout into frames, or tables or use cascading style sheets to position your web page elements. This is discussed in detail in the chapter on [Layout Strategy](#).

Heading tags

You can format your text as a heading. There are 6 levels of heading tags, H1 to H6, with H1 being the largest and H6 being the smallest.

```
<h1>My web page title</h1>
```

Font tags

You can specify the size, color and font type of any text by enclosing it in tags.

```
<font size="2" color="brown" face="verdana">My web page title</font>
```

I would advise you not to use font tags however as there is a much better way of formatting - by using CSS (cascading style sheets) which is discussed in detail in the CSS chapter.

Bold, italic and underline

The bold tag will display the text enclosed as bold.

```
<b>this text will be bold</b>
```

The italic tag will display the text enclosed in *italics*.

```
<i>this text will be in italics</i>
```

The underline tag will display the text enclosed as underlined.

```
<u>this text will be underlined</u>
```

The break tag

The break tag is used for a line break.

this text will break here</br>

and continue here</br>

and here.

Two break tags next to each other will give the same effect as a new paragraph.

White space

HTML does not take into account "white space" so if you need to force a space in your text you need to use ASCII code. The code for a space is ** **.

If you need to create a large space, one method is to insert an "invisible gif". This is a transparent image that has been saved in the GIF format. What you do is create a new image with a transparent background using a graphics program and set the image dimensions to be the space you want to create. However I don't advise this method as it sometimes creates display problems in some browsers.

A much better way is to use CSS or tables to position your text.

Tables

A table is defined by a pair of **<table></table>** tags and each table row by **<tr></tr>**. Inside each table row there can be any number of cells separated by table data tags **<td></td>**. You can use **<th></th>** tags to make the table cell contents bold - useful for the first row or column of a table.

You can also set the border, border color, cellspacing, cellpadding and background color or image of a table.

```
<table border="1" bordercolor="red" bgcolor="yellow" cellspacing="2"
cellpadding="5" border="1">
  <tr>
    <th>Product ID</th>
    <th>Product Name</th>
    <th>Color</th>
    <th>Product Price</th>
  </tr>
  <tr>
    <td align="center">102</td>
    <td align="center">aster</td>
    <td align="center">white</td>
    <td align="center">$1.25</td>
  </tr>
  <tr>
    <td align="center">103</td>
    <td align="center">aster</td>
    <td align="center">red</td>
    <td align="center">$1.55</td>
  </tr>
</table>
```

Next [Creating links](#)

Chapter 12.3

Creating links

If you want to link to another page you use a "hyperlink" which is defined inside a pair of `` tags. Inside the hyperlink you type the address of the web page you want to link to such as:

```
<a HREF="http://www.domainname.com/pagename.htm"> my page </a>
```

What is seen by the viewer is [my page](#).

This is in blue and underlined by default indicating that it is a hyperlink. The color can be different but the default color is blue for hyperlinks unless specified otherwise by the designer.

There are two types of links, **absolute** and **relative**.

When referencing another page, the code assumes that it is in the same folder as the page you are working on unless you specify the directory "path".

For example if your website is located at <http://www.domain.com> then [domain.com](#) is the root folder and all pages in that folder will be able to reference each other directly without the domain path "<http://www.domain.com>" in the hyperlinks.

For example:

```
<a HREF="index.htm">HOME PAGE</a>
```

would create a link the home page in the same directory (folder) that your page is in.

If your page is in a sub-directory called articles your link would show the path:

```
<a HREF="articles/article56.htm">How to...</a>
```

If you are referencing a page in the root (main directory) of your website you would have to precede a hyperlink by /, for example:

```
<a HREF="/index.htm">HOME PAGE</a>
```

would reference the home page from a page anywhere on the site.

However if you are referencing a page on another site you will have to include the full web address i.e.:

```
<a HREF="http://www.anothersite.com/page.htm">Anothersite.com</a>
```

If you want the link to be an email address you would use a mailto: link.

```
<a HREF="mailto:name@isp.com">Email us</a>
```

What is seen by the viewer is [Email us](#).

If you find you are not able to link pages it is almost certainly because you are not referencing the right folder.

Next [Inserting an image](#)

Chapter 12.4

Displaying an image

If you want to display a graphic or image you need to specify the location with the `` tag, where the filename of the graphic or image goes inside the `""`.

If you create an image called `mypic.jpg` and save it in the same directory as your HTML files, you would include the image in your web page by placing the following code where you want the image to appear.

```
<IMG SRC="mypic.jpg">
```

If you have a large number of images you might want to have sub-folders. The images could be kept in an images folder, for example:

<http://www.domain.com/images>

and `mypic.jpg` in this folder would be located at:

<http://www.domain.com/images/mypic.jpg>

The source of the `mypic.jpg` image would be:

```
<IMG SRC="/images/mypic.jpg">
```

and since we are specifying the location relative to the root we could use this anywhere on the site.

It is good practice to also include the width and height of an image as well as an **alt** attribute, which is alternative text that is displayed when the image cannot be rendered. You can also align your images in relation to the text by giving them an `align` attribute. If you align to the left, then any text next to the image will wrap around the image to the right of it.

```
<IMG SRC="/images/mypic.jpg" align="left" width="100" height="50" alt="picture of author">This text will be wrapped around the image on the right of the image.....
```

Next [Optimizing graphics](#) for your web page

Chapter 12.5

Optimizing Graphics

When designing a website you should only use .jpeg (.jpg) and .gif graphics for your images. These are the two file formats universally used on the web - basically because they take up less space without much loss of quality. The .PNG format is also now supported by most browsers.

To capture images to use on your website, you need a scanner or a digital camera - OR you can get free graphics from a number of websites by searching for "free graphics" in a search engine - however be prepared to spend a long time online looking for the right images. You have to wade through a lot of junk in the process.

Make your own graphics

If you have a good graphics program such as Paint Shop Pro™ - download the free trial from <http://www.jasc.com> - or Fireworks™ from Macromedia® - <http://www.macromedia.com> - or Photoshop™ - <http://www.adobe.com>, you can design your own graphics.

Microsoft® Photo Editor however is good for basic operations such as saving a photo in a JPEG or GIF format.

Optimizing the graphics for the web

Most "raw" images and photos are saved with very high resolution which produces the best image quality but very large file sizes. When you save your images for the web you need to optimize them.

This is where an image is reduced to its smallest file size while retaining its best quality.

You need to do this because smaller files load much faster in a browser than large files and images with a large file size take too long to load for people with low bandwidth connections (many people in less developed economies still connect from home with a 56k modem).

Use the following guidelines to decide whether to use JPEG or GIF.

Rules for creating graphics

1) **USE JPEG's FOR PHOTOS AND GIF's FOR LOGOS etc..**

A basic rule of thumb is save the images in .jpeg format for photos and use the .gif format for your logos, and other graphics. Understanding the difference in how these file formats compress an image is important in designing good web pages.

2) **DO NOT USE LARGE FILE SIZES**

The second thing to remember is that the larger an image is the more KB it will take up, so don't fill your page with photos that are 600 x 480 pixels that take up the whole screen - most visitors will not wait for such large graphics to download.

Although the dimensions of your image do not necessarily correspond to the file size, usually the larger the image, the larger the file size - anything over 30 KB takes too long.

In considering which type to use there are also other considerations.

For example GIFs can be transparent, interlaced, or used for animations. JPEGs can be progressively rendered and use a compression method that does not reduce the number of colors in an image - which is why they are better suited for photos. GIFs only support a 256 color palette and so are generally better when there are only a few colors in an image.

Use JPEG for photos, and GIFs for images with only a few colors - and if you have an image with a lot of colors, but not a photo, then save it as both a GIF and a JPEG and see which gives better results.

OPTIMIZING A JPEG

If you are optimizing a JPEG image you need a program that can save your scanned image or digital photo as a JPEG file - Microsoft Photo Editor can do this as well as the more advanced programs such as Photoshop™. What you do to compress the photo is click "Save as" and make sure "jpeg" or "jpg" is selected in the file type box. Then you have an option as to how much you want to compress your file. 25 - 35% is usually enough - any more might result in loss of too much quality - however you need to experiment to find which is the best compression for each photo.

OPTIMIZING A GIF

If you are optimizing a GIF you need to open it up in a program such as Paint Shop Pro and clear up the image so that it uses fewer solid colors while retaining its quality. The fewer the colors, the smaller the file size. Working on your own GIFs can be time consuming and you have to be prepared to spend some time learning how to use your graphics program.

Whatever you do, make sure you optimize your images to take up less space - and don't include any unnecessary images. You can achieve quite good color effects by using tables with different background colors.

VECTOR GRAPHICS vs BITMAP FORMAT

Vector Graphics are images that combine mathematically rendered lines, and curves containing position and color information. This makes these images resolution-independent - i.e: they can be displayed on screens of varying resolution without losing any information and therefore without a loss of quality.

This means that the graphics can be resized or re-positioned with speed. Using vector graphics, a layout will remain viable on multiple display settings and can be automatically resized to fit the screen.

Vector graphics are also good for animation because the same graphic can be used multiple times with one set of information about the graphic and another about the positioning etc... so there is no need for the same information to be contained inside each frame. Macromedia Flash™ is based on vector graphics.

Animated GIFs on the other hand will take up more space because each frame is a separate image and the GIF needs to redisplay any changed information in each frame..

Chapter 12.6

Using frames

Learning how to use frames is easy once you have mastered the concept that a hyperlink can lead to a page in its own frame (TARGET="self") the default option, or in another frame in the frameset e.g.: (TARGET="main"). The best way to learn is to copy the sample code below into a text editor and save it as a .htm or .html file - for example index.htm.

Sample code

```
<frameset rows="150,550" cols="150,590">
  <frame name="corner" src="page1.htm" scrolling="no"
frameborder="0" noresize>
  <frame name="header" src="page2.htm" marginwidth="0"
marginheight="0" scrolling="no" frameborder="0" noresize>
  <frame name="menu" src="page3.htm" marginwidth="0" marginheight="0"
"scrolling="auto" frameborder="0" noresize>
  <frame name="main" src="page4.htm" marginwidth="0"
marginheight="0" scrolling="auto" frameborder="0" noresize>
</frameset>
```

What I have shown above is a frames page that contains 4 other web pages which you would have to create.

1. page1.htm - where you could place your logo.
2. page2.htm - where you could place your header
3. page3.htm - where you could place a menu
4. page4.htm - where you could place the contents of your first page.

To learn how to create these pages see the [HTML tutorial](#).

The most difficult part of using frames is to get the links right on the menu page. As well as specifying which page you want to link to you also have to give the link the target frame you want the page to load in. In the above example we have 4 frames, corner, header, menu and main.(you can name these whatever you want).

If you want to load a new page in the main frame your HTML link in the menu page should look like this:

```
<a href="page5.htm" target="main">Click here</a>
```

If you do not specify a target for your link, it will load in the current frame by default, so if you did not specify target="main" in the above example the new page would simply replace the menu page. If you

therefore have links in the main content of your frames (page4.htm in the above example) you would not need to specify any target.

Chapter 12.7

Browser Detection Script

Here is a sample script you can use to detect a visitor's browser and serve them the correct style sheet. I suggest you search on google for a more up to date script, however the following will give you an idea of what to do. You need to copy the following line into the HEAD section of your web pages:

```
<script language="JavaScript" src="detect.js"></script>
```

...and then save the following as a file called detect.js and place it in the same directory as your web pages.

```
var browser_used=navigator.userAgent.toLowerCase();

var is_major = parseInt(navigator.appVersion);
var is_minor = parseFloat(navigator.appVersion);

var is_ie    = (browser_used.indexOf("msie") != -1);
var is_mac   = (browser_used.indexOf("mac") != -1);

var is_ie5   = (is_ie && (is_major == 4) && (browser_used.indexOf("msie 5.0") != -1) );

var is_nav   = ((browser_used.indexOf('mozilla') != -1) &&
(browser_used.indexOf('spoofer') == -1)
    && (browser_used.indexOf('compatible') == -1) &&
(browser_used.indexOf('opera') == -1)
    && (browser_used.indexOf('webtv') == -1));

if (is_mac)
    {
        // detect if ie5

        if(is_ie5)
            {
                document.write("<LINK REL=stylesheet
HREF='ie5mac.css' TYPE='text/css'>");
            }
        else
            {
                // if not load mac
                document.write("<LINK REL=stylesheet
HREF='macdefault.css' TYPE='text/css'>");
            }
    }
else
    {
        // if not mac then

        if(is_ie)
            {
                // if ie5
                document.write("<LINK REL=stylesheet HREF='ie.css'
TYPE='text/css'>");
            }
    }
}
```

```
    }  
    else  
    {  
        // else if netscape or opera  
        document.write("<LINK REL=stylesheet HREF='ns.css'  
TYPE='text/css'>");  
    }  
}
```

The above code detects what browser version is being used and creates a line that will include the correct stylesheet. Of course you also have to create the stylesheets that are being "called" in the blue text above for this script to work. Next let us create a stylesheet for Internet Explorer.

Chapter 12.8

Setting a cookie with JavaScript

You can set and read cookies using JavaScript in ordinary .htm web pages, so long as the user's browser supports JavaScript and Cookies have not been disabled. Most people these days do not disable JavaScript or Cookies because they are used on most larger websites, but bear this in mind in your web design strategy. Some studies have shown that less than 1% of users disable cookies. The average person does not know what a cookie is.

You can detect whether the user's browser is cookie enabled before trying to write or read a cookie.

The following JavaScript Cookie is an example of

- 1 – reading if there are any cookies on the visitor's browser
- 2 – writing a cookie called “subscribed” to the visitor's browser which will last for 28 days.

This example will pop up an alert box asking them to set up the cookie.

There are many other ways the code can be written to set a cookie, but this is just an introduction. To see how it works, copy the code line by line into a web page editor and save it as a web page. Then double click on the html file.

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<HTML>
<HEAD>
  <TITLE>My Cookie Page</TITLE>
<SCRIPT language="JavaScript">
function get_cookie(Name) {
  var search = Name + "="
  var returnvalue = "";
  if (document.cookie.length > 0) {
    offset = document.cookie.indexOf(search)
    if (offset != -1) { // if cookie exists
      offset += search.length
      // set index of beginning of value
      end = document.cookie.indexOf(";", offset);
      // set index of end of cookie value
      if (end == -1)
        end = document.cookie.length;
      returnvalue=unescape(document.cookie.substring(offset, end))
    }
  }
  return returnvalue;
}

function loadpopup(){
if (get_cookie('subscribed')=='){
if (confirm("Accept cookie to get access to members downloads page.))
{
var today = new Date();
var expiry = new Date(today.getTime() + 28 * 24 * 60 * 60 * 1000);
document.cookie="subscribed=yes; expires=" + expiry.toGMTString();
}
}
}
</SCRIPT>
</HEAD>
<BODY>
<p>Web page contents go here</p>

<script language="javascript"> loadpopup(); </script>
</BODY>
</HTML>
```

What we are doing here is first setting the JavaScript code to read the cookie if one has already been set, and if not, to write a cookie to the visitor's computer.

Using CGI to set a cookie

You can also use CGI to set a cookie. CGI stands for "Common Gateway Interface" but is most often used to refer to scripts written in PERL.

To use CGI's you will need to be able **to execute cgi scripts** on your website. Most web hosting providers allow you to do this and usually come with a directory called cgi or **cgi-bin** already set up by default.

For a web-based application (your web-pages) to use CGI cookies, the browser must be pointed to the CGI script or you must embed the CGI script in the HTML page using a Server Side Include or JavaScript.

Back to [Using Cookies](#)

Chapter 13

Hosting your website

"How do I get my site on the Internet?"

The simple answer to that question is that someone has to **host** your web site, be it your company, your Internet Service Provider, your online service or a Web hosting service.

(Note that ASP also stands for Application Service Provider)

Your choice of web host is important because it **must be able to serve up your web pages fast**. Some web hosting providers try and host too many sites with the result that all the websites on a server compete for the same bandwidth and the sites slow down. Of course there are other reasons for slow-loading pages such as images that have not been optimized.

If your site uses PHP or ASP (active server pages) you need to bear this in mind when choosing a web host.

There are basically 2 types of web hosting, **virtual** (shared) and **dedicated**. With a virtual hosting solution your site is hosted on the same directory as other web sites. With dedicated web site hosting you have your own physical web site server (machine) and so do not share the **bandwidth**, the **memory** (RAM) and the speed of the **processor** with other web sites. You don't actually own the server but you get the dedicated use of it and your own bandwidth allocation.

Virtual web hosting solutions are ideal for the individual or small business that does not want the expense of their own dedicated server but does want the **reliability**, **service** and **features** that a free web hosting service cannot provide.

Dedicated hosting solutions are ideal for larger businesses that want to run their **own software** or need control on your web server security.

There is also **colocated** hosting where you actually own the physical server but keep it in a data center which manages a number of other servers. This would only be important if you wanted to have control of the type of hardware your site or applications are hosted on and the hosting provider does not offer these.

Data centers are usually buildings dedicated to providing services to ISPs and hosting services. Their focus is on managing the hosting environment and providing the connectivity to the internet.

WINDOWS vs LINUX/UNIX vs FreeBSD

One very important factor to consider when choosing a website host is what platform you need. Web site hosting on a **UNIX** based (including Linux) platform is different from hosting a web site using a **Windows** platform. The major difference is the type of applications you can use on each platform.

For example, if you want to host a database on a Windows platform, you would probably be using ASP (Active Server Pages) - a scripting language designed for a Windows platform but if you were hosting the database on a Linux or FreeBSD server, Perl or PHP would probably be your choice.

The choice is important if you are transferring your web site from one hosting provider to another or if you want to run a web application that requires a specified operating system.

FREE vs VIRTUAL / SHARED

There are a number of hosting services that will host your site for free.

Most however have their limitations but are fine for fun sites or personal sites. For a business or marketing site we would recommend that you host on a full service web hosting service.

The 3 **major reasons** for this are:

- You can host your own domain name which sounds more professional.
- The speed your pages download is usually much faster on a paying host especially at peak times because your site is allocated a minimum bandwidth. However on free services the bandwidth is shared by so many other websites.
- Free sites do not guarantee you 99% uptime - most professional hosting services do.

Full-service web hosting solutions also offer a number of features not usually offered on free web hosts, such as multiple email aliases,

autoresponders, the ability to manage your website yourself without knowing how to design a webpage, shopping cart software, etc..

Wherever you host your site it is essential to have your own domain name.

Next [domain names](#)

Chapter 13.1

Domain names

If you are on the web to stay, it is essential to have your own domain name for a number of reasons.

- **Image perception** - visitors will take you **more seriously** if you have a URL such as `www.yourdomain.com` rather than `www.somefreehost.com/members/yourname/index.htm`.
- **Promotion** - Many search engines do not list sites from free hosting providers because they have traditionally been used to spam the engines with irrelevant keywords.
- **Changing hosting providers** - maybe you will become dissatisfied with one hosting service and want to change. If you don't have your own domain name you will have to start all your promotion efforts all over again.
- **Investment** - You will not be happy about pouring investment into a website (time is a big investment) until you know you have your own domain name that you are in control of.

Tips for choosing a domain name

- Try and find a **catchy name** that people will remember.
- Get a domain name with a **keyword** in it can improve your ranking on many search engines - for example `www.discountshoes.com` if you are selling shoes. However you should also register close matches to stop others benefitting from your promotion. Someone might remember the name "Discount Shoes" and type in `http://www.discount-shoes.com.!`
- Try and get a **.com** domain name because this is what first comes to mind when people type in a domain name from memory.

Next [Using FTP](#)

Chapter 13.2

Using FTP

FTP stands for File Transfer Protocol. It is a transfer method you can use to move files around the web. You can use FTP to upload and download web pages or files from your computer to a web server, usually your web hosting provider's server(s).

Every website is allocated an IP address. When you start hosting a web site your domain name is bound to an IP address and maybe also a host header if it is hosted on a virtual server that hosts other sites on the same server.

When you use an FTP program you will need to enter the IP address or the domain name in the "Host address" of the site you want to transfer your files to. You will also need to provide the FTP program with the username and password the website host has given you to manage your hosting account.

You can download FTP software from the following sites. Usually the download is free for 30 days and there are many freeware or shareware versions available.

[WSFTP](#)

[CuteFTP](#)

Fetch - for the Mac.

I have also put a tutorial on using FTP on this site...

<http://www.thewebseye.com/upload-a-web-page.htm>

Once you get an FTP program, you need to read the help files, but most programs are very intuitive and easy to use. Setting up FTP basically involves:

1. Setting up the details of your web host - usually you only need the FTP address of your site (eg: ftp.yourdomain.com), username, password (that your web host has given you).
2. Connecting to the site - usually by connecting to the internet first and selecting the "Connect" button.
3. Once connected you will usually see two windows, one window displaying the contents of your local computer (the local host) and the other displaying the contents of the "remote host" (your web server directory).

4. Click on the files you want to upload or download and then click on the "transfer" button.

All FTP programs operate slightly differently but after using the program a couple of times, everything will seem much easier.

You now have enough information to create a website, find a web host and upload your files.

Chapter 13.3

Starting an Affiliate Program

You should consider starting an affiliate program if you are selling a digital product where the marginal cost of each extra unit you sell is minimal. Of course when you are selling a tangible product, an affiliate program can also work, but the commission you give to affiliates will be a lot lower.

QUESTION: What benefits can I get from having my own affiliate program?

- **Higher positions** on search engines because of higher **link popularity**
- Automatic **sales force** working 24x7
- A **cost-effective** advertising & marketing campaign

Starting your own affiliate program could be the best strategic move you could make for your website. You will be building a system that will make sales for you 24 hours a day, 7 days a week, and you will be building a system that gives you RESIDUAL income - income which is generated indirectly by your referrals.

An affiliate program allows you to have hundreds, if not thousands, of Web sites and webmasters selling your product or service for you. You reward the affiliate Web sites and affiliate Webmasters by paying them on a per-click, per-lead or per-sale basis.

Most affiliate programs pay on a per-sale basis, meaning that you would pay a certain commission or percentage for each referred sale. In other words until a sale is made, you owe nothing so it is one of the most **cost effective** methods of promoting your site.

There are 2 options for running your own affiliate program:

1. Use hosted affiliate software.
2. Use an affiliate program or script on your own website or server.

Both however have their pros and cons.

Use hosted affiliate software

There are some advantages of outsourcing your affiliate program to a specialist provider instead of running it yourself. Application Providers often have more expertise in managing the software, they will ensure the software is regularly updated with new versions and may have better back up and fail-over procedures. They may also promote your affiliate program to their affiliate base (their list of subscribers).

What you need to consider however with a hosted affiliate service, is:

- How relevant is their affiliate base to your product or service? You need focused affiliates that are selling related products or services. At the end of the day, the provider "owns" these affiliates, not you!
- Is the affiliate service **going to be around** as long as your business?
- Are their affiliates going to promote your program above the **hundreds** of other affiliate programs they are offering?
- You need to include third-party code on your web pages - this code makes a "call" to your affiliate service provider every time the web page is viewed.

It may be better to have your own affiliate program. Building your own list of resellers ensures they will be more focused on selling **your** product and not those available from other affiliate programs.

Use your own affiliate software

Having your own affiliate software gives you a number of advantages. Setting it up may even be simpler than setting up third-party code from a hosted solution.

Advantages

- You do not have to pay a monthly fee for hosting the program.
- It allows you to build a slower but **long-term more solid affiliate base**.
- You have complete control of the code on your web pages.
- You get much better exposure on search engines because of the [link popularity](#) factor.

Where to get affiliate program software?

My personal recommendation is to set up affiliate tracking on your own website, because the referral links that your affiliates use on their pages point to your site, instead of a 3rd party affiliate software provider, thereby increasing your link popularity.

I have also listed a number of affiliate software providers at <http://www.thewebseye.com/affiliate.htm> both hosted and non-hosted.

Next [Affiliate program structure](#)

THE END

Thank you for reading 😊