

## **WEB SITE DESIGN**

### **What is a web site?**

A website is an address (location) on the World Wide Web that contains your web pages. Basically, a website is your personal online communications connection to the rest of the world. A website is totally different from any other type of publishing, advertising or communications media.

### **The Design Process**

Designing for the web requires the relevant content of a brochure or magazine, the colorful look of high-quality print, and the attention-grabbing impact of television advertising. Plus it should offer a valuable product and/or information, be updated frequently and stay current with changing technology. A Web Site is never done.

**Once you have decided to establish a web site there are three steps to getting it online.**

- 1 - Get a domain name** - This is your personal/private address on the Web.
- 2 - Find a web hosting service**- Here is where your website will reside. You can choose between **Free vs Private Web Hosting**.
- 3 - Design, build and upload your website** - The process of website creation.

## **FIVE STEP PROCESS FOR EFFECTIVE WEBSITE DESIGN**

### **1. Analyse**

- Info / content
- Target Audience
- Top 10 Checklist

### **2. Organise**

- Navigation
- Content
- Page layout
- Page design

### **3. Develop**

- Web page layout
- Site layout
- Web page construction
- Graphics techniques

### **4. Implement**

- User Interaction
- Final Checklist
- FTP
- Fine Tune

### **5. Maintain**

- Marketing
- Optimisation
- Traffic analysis

## 1. ANALYSE

**The first question to ask yourself is do you really need a web site?** To help you decide, ask yourself the following questions:

### **Why do I want to create this web site?**

- promote your ideas, hobbies, or beliefs
- To advertise your company or product
- Make loads of money really fast
- Provide customer services and support
- To keep your customer base informed
- Give or sell information
- Create an 'Extended Business Card' for your company
- Provide internal information and services for your company

### **a) Web Site Content**

Before you can start deciding what content the site is going to contain you need to determine

- Who your target audience is.
- What age group are your users?
- What is their skill level with the Internet?
- How can I communicate effectively?
- You also need to determine the purpose of your site. What is the site for?

Once you have determined these factors you can start to plan the content your site will have.

Remember who your target will be when deciding on content:

#### **1 - Who is my target audience?**

What type of visitors do I want my site to attract? What will be their age, sex and education? Will they search for my site because we share a hobby, like the same television shows or are they looking for specific information?

#### **2 - How can I communicate effectively?**

Now that I know who the audience will be, what is the best way to communicate with them?

#### **3 - What information do I need?**

If you are designing a **site for a client**, you will need to know the answers to the preceding questions as well as what their vision is for this site. Do they have a logo they want you to use, do they have specific colors in mind, do they want to include phone and fax numbers on their pages? If this is your own business site, these are questions you should answer also.

### **Research WebSites**

This is a very important part in the creation of a web site, and usually very useful.

- Spend time looking at other internet sites, particularly your competitors
- See if you can get any ideas you can use and improve on
- Don't be mistaken that the flashiest coolest looking web site is the best.
- Sites with lots of animation are not always the best.
- You must also keep in mind that not everyone has a fast Internet connection.

#### **4 - What content (data, graphics, photos, etc.) will be included?**

This is the "big" job...gathering all the content that you want to include on your web site. Are you going to use photos? What kind of graphics do you want? And what information or data are you putting online?

Make a list of the items you think you will want to have on your website.

### ***b) Audience analysis***

Audience analysis is the starting point for any project. You need to figure out your audience's demographics:

- how old they are
- where they work
- what they earn
- where they live, anything that's appropriate

### **Your content has to have a goal**

The key thing to remember about **audience analysis** is the goal: *to have a well-defined audience at the end of the process*. The only good audience definition is a specific target definition. The better you can pigeon-hole or niche your audience, the more likely your site will succeed.

A checklist for type of Content you may wish to include on your website

- Frequently updated information
- Product and Company articles
- Question and answers
- Online purchasing of products
- Guest book that your guests to your site can sign and add their own comments
- Web site forum or chat room to generate conversation between your web site users
- Web site search → very useful for larger sites
- Weekly poll, to poll your visitors on a particular question
- Quizzes and sweep stakes, with prizes to promote your products
- Free offers
- News
- Unique information
- Location maps
- Contact and Booking forms

### ***c) Top 10 website design tips - checklist***

- **Know your audience**
- **Keep web pages short**
- **Limit the amount of text**
- **Avoid large images**
- **Use web safe colours**
- **Clearly identify all links**
- **Check spelling**
- **Use a site map or directory page**
- **Update and check all links**
- **Include contact information**

### **Website Journal**

It is a good idea that you maintain some sort of journal for your website. Don't confuse a site journal with a site outline. **Your journal is a collection of your ideas, your thoughts and whatever you want to remember, jot down ideas when they pop into your head.**

For starters pick out a website that impresses you and examine it;

- What is the color scheme and layout?

- How is navigation accomplished?
- What is the content?
- How is the content presented?

Write down anything that you believe makes this website good and any ideas that you might want to use yourself.

## 2. ORGANISATION

Next to Analyse, organisation is one of the key tools to website design.

We've discussed who you feel your audience will be and what kind of information they will be looking for and what questions they will be asking. Now we need to help them find the information and the answers hopefully, by the shortest route possible.

There are three main elements in the organization of a web site. They are:

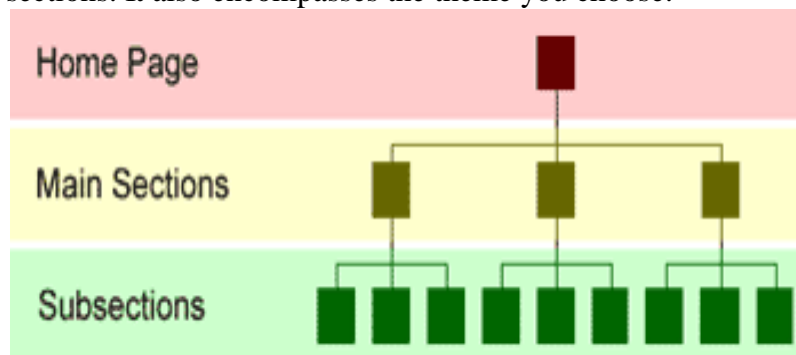
- 1 - **Structure:** The form of your web site and its navigation
- 2 - **Content:** The substance of your web site
- 3 - **Layout:** The theme or method of presenting your web site

### a) Structure

Now we're going to look at the overall design of a web site and "how to structure a website".

This is different from the individual pages within the site (i.e. content).

Site design includes the structure of your site, the different sections and navigation within those sections. It also encompasses the theme you choose.



As the diagram shows a web site is composed of three main areas:

- i). The Home Page
- ii). The Main Sections
- iii). The Subsections

#### i) *HomePage Do's*

- Visitors first impressions
- Should tell the visitors what your site is about
- Answer questions on the 5 Ws
- Should provide index or table of contents
- Keep the home page short and to the point

#### ii) *Homepage don'ts*

- Should not contain a lot of text

- Don't present your users with a huge list of links to every single page

### iii) Main Sections

Determining and naming the main sections of your site is very important. Sections should contain material grouped according to visitor needs - in other words, these are sizeable chunks of related information. For example, if you are creating a site for a tourist visiting Dublin, you would want to make it easy for the visitor to find the right information.

**The main sections might include:**



The main section is your site index on your homepage, it is the foundation to your navigation of the website.

Once you have divided your content into main sections, decide their order of importance

### iv) Subsections

Not all main sections necessarily need to have subsections, but most will require a further breakdown of information. It really depends on the amount of content on your site. When designing a new web site, keep in mind that the content will increase as you update and add information to the site. Build in room to expand as you determine your main and sub sections.

Once you have established the home page, main sections and subsections of the web site, organise them into order of importance and note it. This is the basic layout of your web site.

## b) Navigation

Now we need to help the user find the information and the answers to their questions and we hope we can do this by the shortest route possible

There are three different navigation methods.

- **Linear navigation** - Moving in a straight line.
- **Database navigation** - Many branches from your main page.
- **Hierarchical navigation** - A completely connected website.

### i) Linear Navigation

Linear navigation is used for a web site where you want the visitor to go from one step to another in a particular order. This is usually used within a web site but seldom as a stand alone design.

The idea here is that the visitor follows the pages in a predefined order or sequence that you determine. This is particularly useful for tutorials.

### Straight line or sequential links



### Linear "straight line" Navigation Diagram

Arrange your links so that they only permit movement in a straight line from one page to another. This is straight line navigation. You set up your links in such a way as to compel the visitor to start at one end and continue to a conclusion.

### Linear reciprocal links

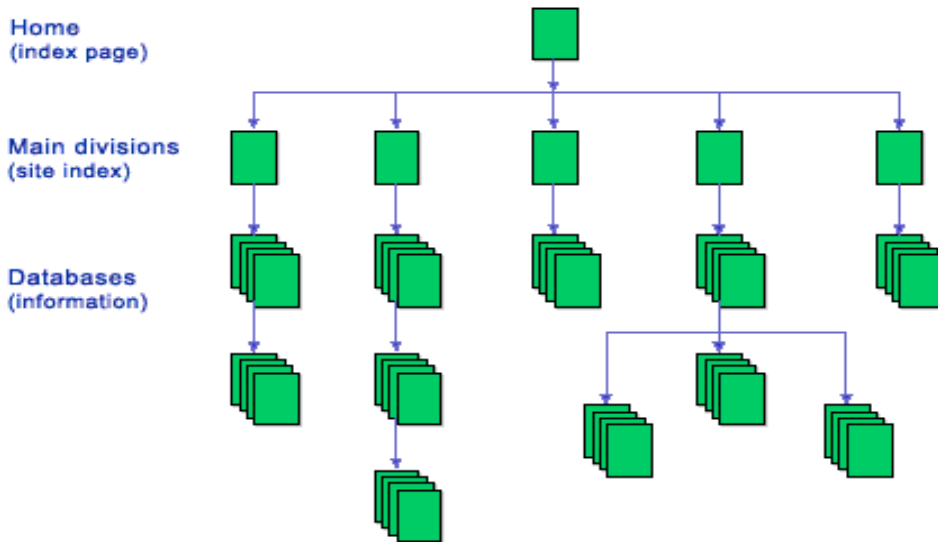


**Linear "reciprocal" Navigation Diagram**

Reciprocal navigation allows the visitor to move back and forth between a series of pages. Set-up your links with a start page an end page and links tying the pages together that lie between them.

### ii) Database Navigation

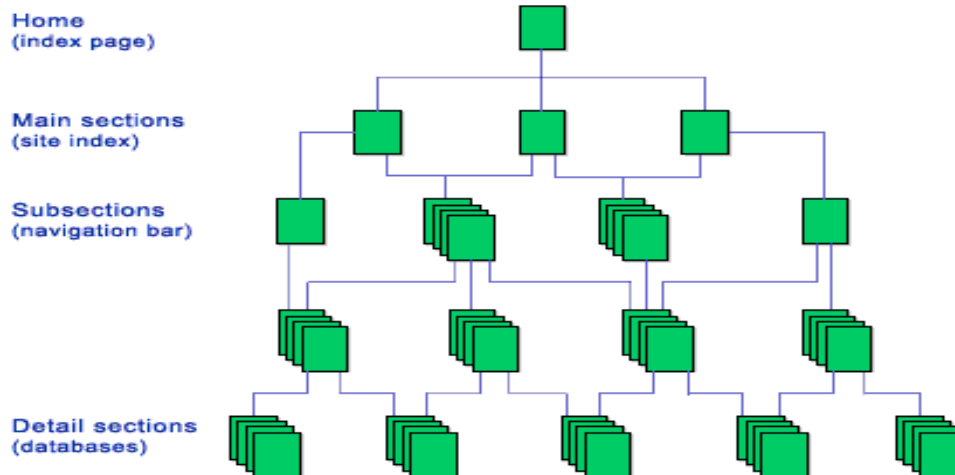
The database or grid design is made up of multiple divisions and each division has its own structure. This type of navigation can be used effectively when large amounts of data are required in the web site design.



**Database Navigation Diagram**

### iii) Hierarchical Navigation

The hierarchical design goes from the general to the specific; from a home page to divisions to subdivisions. A visitor could easily go from the home page to other areas of the web site and back again.



**Hierarchical Navigation Diagram**

### c) Content

#### *Web Page Design*

To create the individual pages of a web site you are going to need: to be familiar with a web authoring program, or be knowledgeable in HTML coding.

#### *Page Theme*

A theme can be as simple as colour choice or a logo design.

#### *Web Graphics*

You will need a source for graphics or be able to create your own. Again, the flexibility of knowing how to design your own graphics is preferable. PaintShopPro or PhotoShop are great programs for creating graphics, retouching photographs, designing text and building animated gifs.

#### *Titles and Meta Tags*

In your HTML coding, you should always provide a descriptive title for your web pages and they should reflect what's on that particular page.

#### *META tags*

Meta tags are very important. The keywords and description provide another way for search engines to find your web site.

#### *Links within your website*

The links you provide on your pages should be more than just a list of names.

- tell visitors something about the linked site -why you like it and what they will find there.
- You should let the site owner/web master know you are providing a link to their site. This is considered good netiquette and often results in them providing a link back to your web pages.
- The more people you have linking to your site, the better - it helps increase your traffic.

### d) Page Layout

#### *Web Page Layout*

When creating a web page

1. Keep in mind that web users rarely scroll past the first screen
2. Web visitors also "skim" web pages looking at the headings and focal points rather than reading paragraphs

Page layout can suffer from the following problems.

- Unbalance page layout
- No Focal Point in Page Layout

What you should be striving for is a  
*Balanced and Focused Page Layout*

e) **Web Page Design**

*The Homepage*

So what do you want on this most important first screen?

- The title of your web site
- Let visitors know what the content is as briefly as possible.
- To provide links to the main sections of your site (making sure to include text links).
- Set the tone/theme of your site with this first page -what will visitors expect to see carried out on every page within the site. This is also true of the navigation system you use.
- Use contrast to guide the eye around your pages. Any design must have a focal point.
- Group items and information that belong together using *white space* so that the eye "knows" they are together.
- The alignment of elements on the page is also very important.

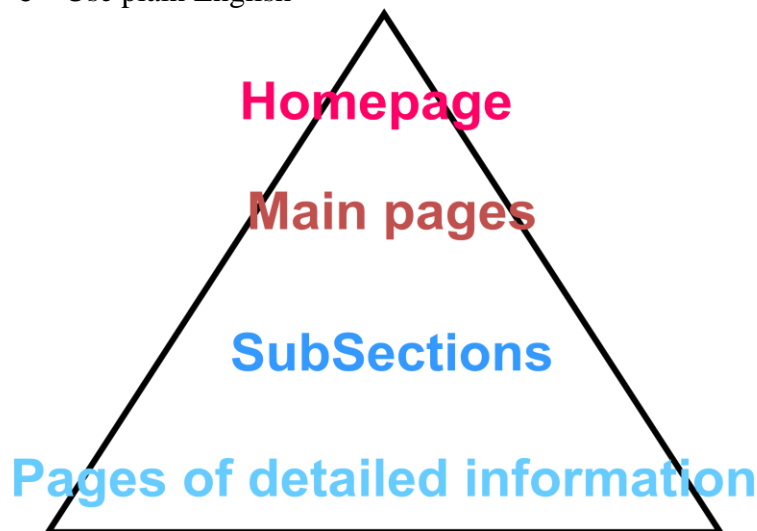
Make good use of the hot spots on the page for your title and links.

*Special Considerations*

A web page should not overwhelm the visitor with unnecessary animations, flash novelties or music

In order for visitors to understand your site you need to follow a few more rules of thumb:

- Explain everything clearly and briefly
- Make sure you present information in a logical order
- Use plain English



- A web site is like a pyramid as you move down the documents increase with content.



### 3. WEB SITE DEVELOPMENT

- The development of a web site should be a complete and deliberate process. You will need to organise the many files and graphics that support your site. This way whenever a change or update is necessary you can control the process much better. One of the best ways to do this is by the construction and maintenance of a site outline. This is where you will keep track of the physical data that comprises the web site

#### i) *Site Outline*

- A site outline is a written outline of the content of your web site.
- Having a site outline helps provide a mental picture of the site, the sections, subsections and content pages.

My Homepage: Index.html

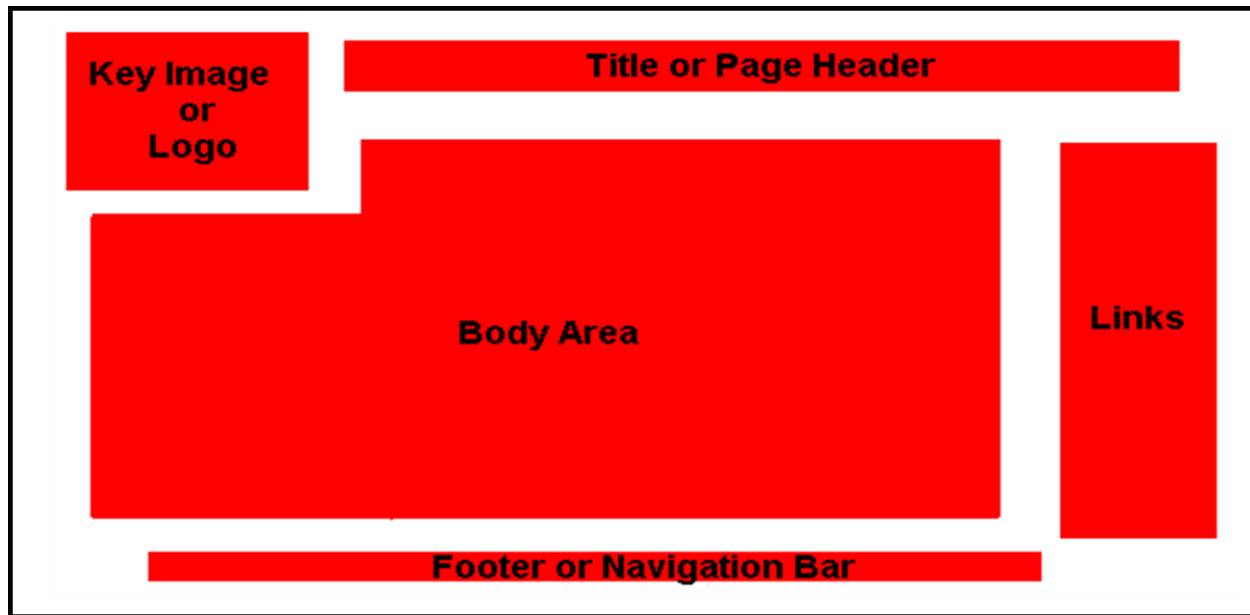
Main page #1	Subpage A Detail page Detail page Subpage B Subpage C
Main page #2	Subpage D Subpage E Detail page Subpage F
Main page #3	Subpage G Subpage H Detail page Detail page Subpage J Detail page

<b>Webpage Title:</b>	My website
<b>Filename:</b>	(i.e. index.html)
<b>Links on page:</b>	link 1 - sub page link 2 – sub page link 3 – sub page
<b>Graphics:</b>	image1.gif image2.gif image3.jpg

**Comments:**

#### ii) *Web Page Layout*

To produce continuity on your web site as well as enhance the ease of navigation, break what you see on the screen into regions such as **header, links, footer, body, and images**. Put the same information in the same regions on each page, as the following diagram shows



### **iii) Web Page Construction**

- Whether you use a web-authoring program or **do all the HTML coding by hand**, there are some basic steps to creating a well-designed web site. These steps begin with the individual pages.
  - Make your HTML coding easy to read by using indentations and comment tags.
  - Create a separate, descriptive title for each page.
  - META tags...make them descriptive, use important key words
  - The layout of your page should be planned, the graphics, and content determined. Know the order the pages will appear and how they will be linked
- Make special note of the following:
  - Header elements such as a Logo or title - these do not have to be the same size on all the pages, but should be the same design .
  - Common recognizable clues such as coloured bullets and the same colour and style of links .
  - Footer elements such as copyright and contact persons e-mail address .
  - A common graphics style - that is, don't use cartoon style images with photographic-quality graphics. Both are fine separately, but not together .

### **iv) Graphics Considerations**

- If you are using a background image, make sure that it remains a "background".
- For every image tag you have on your web pages, make sure to include the height and width attributes.
- Include the "alt" attribute in every image tag

### **v) Recap**

- *Putting it all together*
- Here is a recap of what a well-designed web site should include;The first (index) page fits on screen in an area 640 - 704 pixels wide by 460 - 520 pixels high. This ensures that nearly every visitor to your introductory page will see the important information.
  - Short text lines (40-60 characters).
  - Short paragraphs (4-8 lines).

- Alt labels on all graphics.
- Index or site map for large web site.
- Colour co-ordination - including text link colours.
- Corresponding text links for all graphic links
- Quick download time.
- Use of browser-safe colour palette.
- All other pages are designed for a width of 640 - 704 pixels; the length can be whatever is appropriate for the content.
- Clear, easy-to-follow navigation.
- Consistency from page to page - visitors will know they are still on the same web site regardless of which page they are viewing.
- Organisation - of the information and of the web site.
- White space.
- Contrast of text and background for easy reading.
- Good object/text alignment.

#### **4. IMPLEMENT**

##### ***How to Implement Web Site***

- This is dealing with the final checks and uploading the web site.
- Creating a index / cover page that loads quickly should be your main goal. Following are a few tips to help achieve this goal
  - Keep the page short
  - Don't make images larger than they need to be
  - Don't include background music
  - Don't include video's
  - Define width and height of all image tags
  - If image is large use thumbnail image
  - Use the same image for several of your pages, as once downloaded it will remain in the browsers cache and load instantly.

##### ***How to Implement Web Site -other considerations***

- *User Interaction*
- *FAQ Page* - This an important page on any web site. What questions do your visitors have...what information they would want?
- *Interaction* – how will users interact with your website
- *FTP*

In order to upload or download a file by FTP, you need to do four things:

- Login into a remote computer that has been configured as an FTP server.
- Submit a username and a password to gain access to the remote system.
- Change to the particular directory on the remote system which contains the file you wish to download or upload.
- Transfer the file to or from the system in question

##### ***f) Final Check list before FTP***

1. Make sure the main page is called index.html
2. Other HTML documents should have descriptive names.
3. View your web pages in both Internet Explorer and Mozilla.
4. It is imperative that you check and double check the spelling and grammar on all of your web pages.

5. Have a friend or colleague proof-read your web pages. Get their opinion on whether your site is easy to navigate and easy to read
6. When you are ready to put your site online, be sure and use directories to organise the different components of your web site. If you are going to design/create more than one web site, have a separate directory folder for each site. Within each site directory folder, create a directory for each section of your web site and within those folders, separate directories for graphics, photos etc.

**g) Fine Tuning the Web Site**

***You've organised your files, created the directories and uploaded your web pages. Once your site is online, the first thing you should do is go through each and every page as a visitor would, checking to make sure all the graphics are displaying and the links work.***

Take note of how long it takes your pages to load, if it takes more than 30-45 seconds, its taking to long and you may need to remove or reduce some of the graphic images

Look at the navigation system. Is it easy to find and to understand? Will it take visitors where they expect to go? Does every page have a Back, Next and Home link?

You should also Look at the overall design of the site. Will visitors know what type of web site this is? Are the pages consistent so that users will always know they are still on your site and where to find the navigation links?

Do your forms, survey and e-mail links all function properly?

**5. MAINTAIN**

***Maintaining the Web Site***

*Once you've launched your web site – now what?*

It is imperative that you maintain **a commitment to posting accurate, timely information online.**

If people who visit your site find that the information never changes, they will stop accessing it.

New information will always be waiting to be uploaded, old information will need to be updated, users will provide suggestions that need to be incorporated, etc.

*Never take your web site down when launching a site redesign*

Always keep in mind what your audience want out of the site.

Keep an eye on sites similar to yours to see how they are updating their sites.

Track responses that result from the web site, via email or form.

Always respond to email and forms.

**i) Marketing the Web Site**

- Your Web site should not be a passive thing; Web sites should generate activity, and usually do in the form of e-mail.
  - Respond to e-mail within 48 hours
  - Don't do an automated response
  - At the end of every e-mail should be a "signature"
- Search engine optimisation is almost an art. To effectively position your website on the major engines you will have to spend many hours tweaking and monitoring your site.
  1. Are your keywords in your title tags?
  2. Are your keywords in your content?
  3. Do your keywords accurately describe the theme or subject of your page?
  4. What words will users type into search engines to find your website?
- 5. Does the page contain JavaScript? If so, how much of it precedes content?
- 6. If your website is a business, have you made sure your business address and other information is easily available on each page?

7. Are there plenty of text links on your pages for robots to follow?

**ii) Traffic Analysis**

Every time someone visits your website information like their IP address, time and date of access, and error messages are recorded into log files that are saved on your server's computer. If your web host doesn't offer these log files, it is well worth it to switch to one that does!

The statistics generated by these log files are important tools for monitoring what your visitors do when they enter your website. Using the information gleaned from them you can tailor your pages for maximum effect.

**iii) Statistics**

*Page views* - A good measure of website activity, it is the number of HTML pages served. If your visitor goes to ten pages on your site, 10 page views will be generated.

*Visits* - A trip to your site by one person, no matter how long they stay there or how many pages they view. If they leave and come back, another visit will be generated.

*Most popular pages* - Tells you which pages your visitors request most. Helps you learn what works!

*Average number of pages per visit* - If this is low, you know your site sucks! You need to do some revisions. But don't give up! Just keep working at it until that number goes up!

*Referring pages* - This is an important one because it tells you where your visitors link FROM, who has links to your site, and what search engines you're listed with properly.

*Browsers used* - Tells you what browsers people are using and helps you know how to design your web pages so that people can use them!