

## How do you create a web site?

This is a common question I get from clients. My usual answer is, by committee. This is not the answer most people are looking for when they interview a web-master or programmer. They are usually inquiring what development tools or programming style the person is comfortable with. There are many tools available to code the page but that comes much later in the overall creation process. Terms like .Net and ASP.net or Java all sound impressive to the novice but creating a web site is like many other projects that need proper planning before any implementation. Many programmers are ready to jump in and hit the keyboard running but the less fun part of design is done on paper to ensure success.

By committee I mean a group of individuals that represent every department in the organization so that the full potential of the web site can be utilized by its owner. A committee will bring new ideas to the table and ensure every department is represented. We begin by selecting individuals to work as a team sharing best practices investigating current web interface trends. The first step in creating a web site is to draft a purpose statement and document the goals of the site. The purpose statement is a single sentence that clearly defines what the web site does and will influence the style, technology and costs.

Example:

- Straub Publishing will provide a web-site to present contact information, available service details and programming examples to the public.
- The purpose of the Straub Publishing website is to provide the public with information and give examples of services we provide.

A web site is a collection of related pages accessible from the internet. These pages will be static (Unchanging) or dynamic (queried from a database) and contain pointers to other pages. Every page has a predetermined course of action and leads the user to related linkages. The site itself must pay its own way and add to the company bottom line. Therefore the committee must also create a list of measurable goals to (improve, reduce, increase, implement, provide, educate, support.) With these goals in mind the team can determine how many pages are needed and how to measure the success of each action.

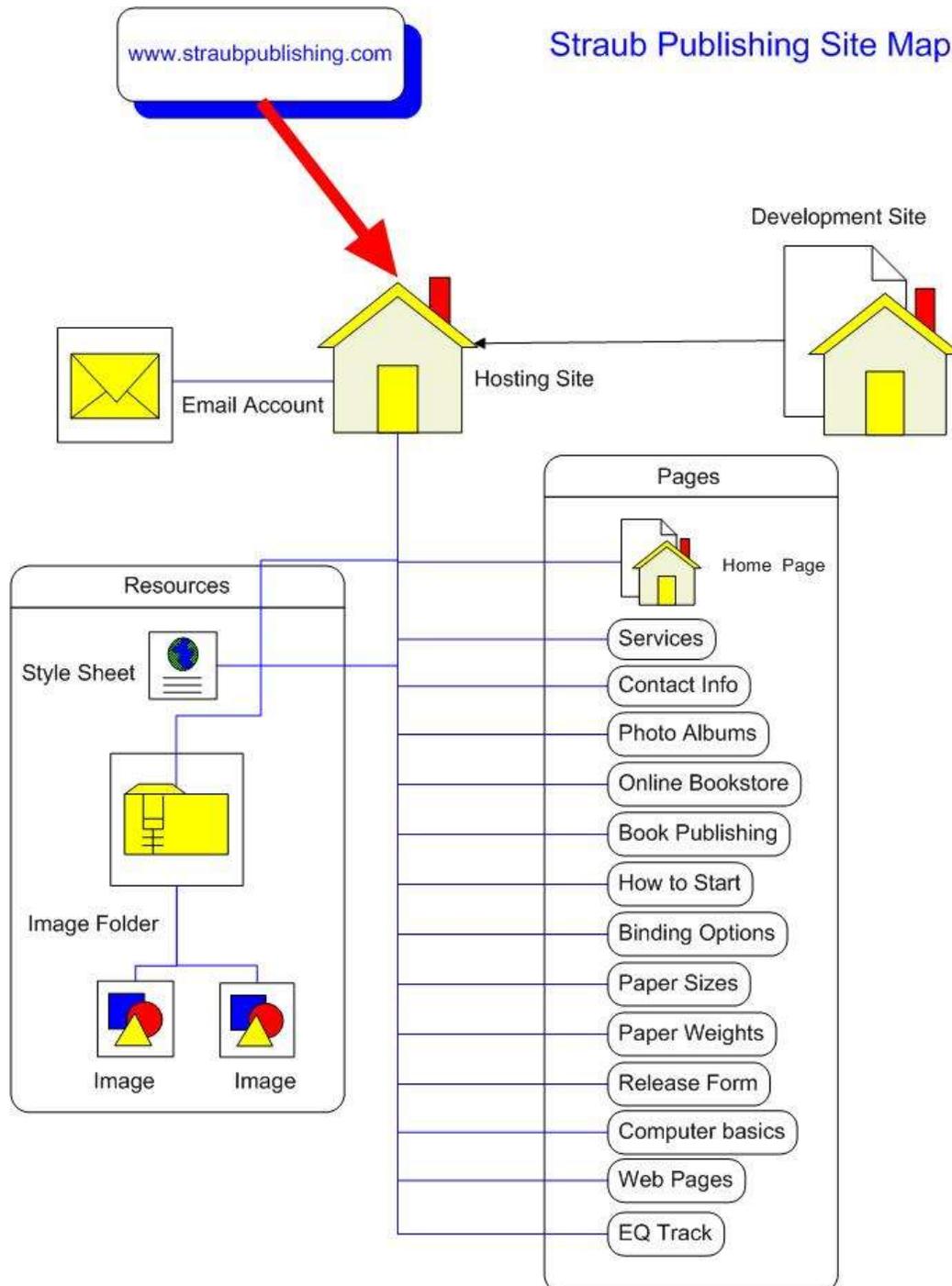
Straub Publishing Goals:

- Provide a way for authors to promote their titles and consumers a way to purchase them
- Promote the Straub Publishing brand
- Link to partner sites
- Educate the public about publishing
- Customer communications
- Utilize programming features through clearly documented examples

Now that we have a purpose and goals the committee can look at the design. A web site design includes structure, naming conventions, information, layout, and features presented. It's similar to publishing a book in that you must consider the audience, chapter make up and the overall presentation. Internet users are impatient and will not tolerate sites that are not easy to navigate. The 8 second loading rule means if I have to wait for the content to load on a fast internet, you have lost me forever if all I have is dialup. In a world of hand held devices and mobile systems the consumers have gone high tech, or have they? 8 out of 10 people I meet are not high tech and just now learning to navigate the web browser or even use a computer. Consider compatibility with older technology and the page flow.

## Design

Unless we are talking about a startup company, a web site may already exist. The first thing I always suggest is to document the current site so we can determine what is working and what should be removed or enhanced. This should also give us a road map the customers may already be used to. With that in mind I use Visio or a similar drawing application to create my map or navigation path. I could use a simple bullet list which would work fine except I like to add some graphics.



A **roadmap** is a strategic outline for developing the web site. To create a roadmap the committee must consider several questions.

- What problems will the site solve?  
A web presence is a great modern marketing tool that reaches customers world wide. When you reach those customers you will need to keep them coming back. Typically contact information or product descriptions and ways to purchase are spelled out. You might want to allow account access or newsletter signup. In the case of Straub Publishing we list information about publishing to educate and this article is part of that.
- Is the current site solving any of these problems?  
After you have established the list of problems to solve, compare it to the current site map to see if any of them are listed and working. It may be they are in the wrong path and not easy to find or not easy to use.
- Who will be expected to update the content and what skills will be needed?  
There are many tools available to code a web page depending on its usage. Consider if the content owner will be several people or just one key individual. If the site has fancy graphics or enhanced features it will take technical knowledge to make them work. The plus side to technology is the features like connecting to databases and client updates, while the downside is the expense. With tools like "Word Press" the average user can update content through a user interface. The plus side to a simple interface is low cost, while the down side is limited feature unless you are using a standard template of a generic feature well established.
- Who will use this site and what kind of technology does the average user have?  
This is a critical piece that often gets ignored because the novice can use new technology and tools to create fancy sites yet the users cannot see the output as expected because of the technology they own. New computers come with enhancements and improvements over the old units but the average person will keep there computer for five years or longer if it is performing without issues. Older web browsers do not always show the new style programming content as the developer expected. The speed at which the internet is accessed is also a critical piece because believe it or not everyone in the world does not have DSL. A digital subscriber link (DSL) is a pretty fast connection but it also required a phone line and costs more than dial up service. Cable modem and satellite are pretty fast as well however, keeping in mind those who cannot afford those connections or they are not available in everyone's area s.

My point here is that if your perspective customer is using five year old computer on a dial up network, and you are displaying lots of graphics on your site it could take a long time to load or be slow to update. This slowness could cause you to loose customers. The average person on a fast network with the latest technology will only give you 8 seconds on average before they move on. Your site has to be easy to use and fulfill the needs to its users.

Audience Characteristics, Information Preferences, computer specifications and web experience are among the things the committee must consider because the ultimate goal is to keep them coming back.

## Naming Conventions

When creating files, folders or images it's easier to identify some structure before hand so that names represent the content. This also saves time during the building process. Use short names, no spaces, and limit the capitalization. By documenting some sort of common practice for your organizations into a process you will save time and make future changes easier to perform by anyone who follows the process. Proper planning is worth its weight in gold even though it's considered a bit boring. It is often neglected but here are some common practices I use in every day programming

- Short names are obviously easier to type so try to limit them to 8 to 12 characters.
- Spaces may make the name easier to read for humans but they break up the name and require quotation marks or brackets to keep the letters together for programmatic manipulation. Consider an under bar or some other character but NEVER a space.
- Programming etiquette going back many years is a code of expected behavior of written or unwritten rules. One such rule that is overlooked is the use of Capital letters to grab attention. The use of all capitals is acknowledged as yelling or loudly making a point. This also makes things harder to read when everything is capitalized. More importantly some program languages and different operating systems look at upper and lower case characters as two separate characters. This means you must get the spelling correct as well as capitalization or an error will occur when trying to locate the file. Always use lower case.
- Use capital letters to separate multiple word names (Ex; ContactPage, SiteContact, LeftNav)
- Use folders to separate images, document types and content pages. Just as the common icons used today represent file folders and the reference to your desktop the computer geeks are trying to relate computer lingo to you physical desk so you can use the same techniques to get organized. Folder in your drawer separate subject matter and putting everything in one place (like your desk top) would be messy and unproductive.

## Technology

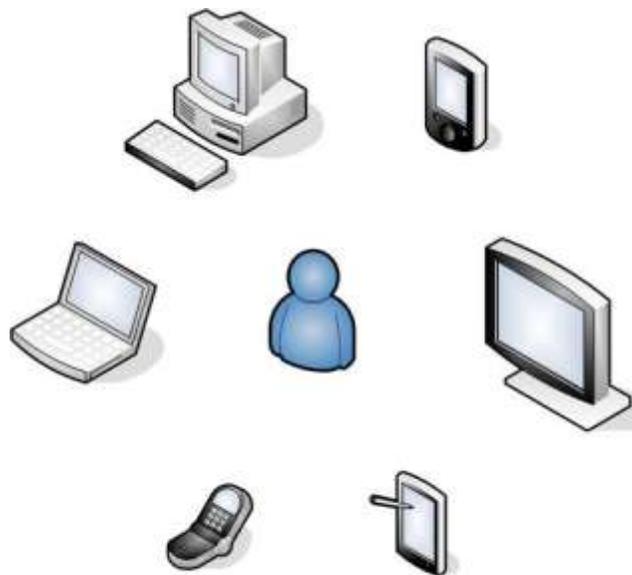
Web sites can be complex or simple. Leading edge technology can bring new enhancements and features but brings with it a higher cost in maintenance, development and qualified administration. I suggest avoiding the "Bleeding Edge" technology or latest greatest and keep your goals in mind. Every page on your site amounts to a file containing the content and image files. The more pages you have the more work it will be maintaining and updating, not to mention keeping track of. A simple web page can be created by anyone and there are many web hosting companies that offer templates for the do-it-yourselfer at a low cost.

There are several scripting languages available for programming such as PHP or .Net. In addition there are several programming languages for creating web apps such as Java, C#, or VB. Each may work well together or have a specific environment to work properly. In addition there are development tools to help implement database, customer interaction and user interface techniques such as Microsoft's Visual Studio or Dreamweaver by Adobe. Now that I have completely confused you lets go back to our purpose statement and make a list of tools or gadgets needed to accomplish our goals. Only then can we consider the technology needed. The average person should not consider tackling complex web design. Work on your requirements first and then find someone or some development tool that can handle the job.

**Cascading Style Sheets** or (CSS) are a way of standardizing the layout or overriding the default characteristics of, say the horizontal line (HR). When the CSS file is included in the web design you can change the color or thickness of the line so that every time the standard command is used it displays the custom settings. The same can be done for headings and menus as the most popular uses. This is a fairly simple method of keeping format consistency that can be employed easily. Many examples are available on the internet because the specifications are maintained by the World Wide Web Consortium (W3C).

One of the most overlooked aspects of the web design is the display area or monitor resolution. When designing a web site we need to make sure that the audience we are trying to capture can see everything we are presenting in the fashion we intended. Monitors are measured in inches from left to right; however the viewing area is about 86% less (a 20 inch monitor may of have a 17 inch display area.) The resolution is made up of picture elements (pixels) denoted by a width-by-height number (640 x 480) and usually a 4:3 ratio. Modern PC's and monitors have the ability to adjust the resolution but we cannot always assume the user has the latest computer technology. We must also consider that older systems with low resolution exist and that our audience is low tech. What makes the viewable area more of a problem is the hand held devices with a very small screen. A growing number of people want to purchase items online using their smart phone and this could be a problem if the display is intended for a PC user with a monster high resolution monitor. Here again is another question for the committee. Who is the audience and do we want online purchases. If we want online purchases, how will that work on different devices.

**Above the Fold** is a great term that goes hand-in-hand with the display area. It comes from the newspaper stand where everything is stacked in a pile. A newspaper is folded in half so what you see is above the fold is the top half. In our web design this amounts to what we want to show up on the initial load screen. We want the viewer to have important information on that screen for the same reason the newspaper does, to grab the reader. Keep this in mind for all of the pages. Too much content causes the reader to scroll down and may get lost in the volume. Use sub menu's and linked pages that have shorter and more specific content.



What is your user looking at?

## **Development Software**

HTML (Hypertext Markup Language) is the coding used by computer browsers to display the content of a web page. This can be simple or complex depending on the site. Many sites these days show off allot of fancy graphics with running, jumping, and bouncing things. To do this, special programming languages such as Java, ASP, .NET or PHP are used to generate the html code. This is ok if that is the goal of your site but remember fancy costs more. The question to ask yourself is will it help promote your material?

There are plenty of web hosting sites that offer templates and other services designed to get you up and running fast. The key is to understand what it is you want from your site and the costs associated with it. It's not always as easy as just creating html pages but it can be. When in doubt ask for help. Too many times I hear that people pay lots of money for a web page and fails to make it work. Keep things simple and you can't go wrong.

Dreamweaver, Trellian and Web Page Maker are just a few of the software packages available. You have several choices to create a professional looking site.

1. Learn to program HTML yourself
2. Purchase development software and use built in help
3. Subscribe to a service like build-a-site and use their tools and templates
4. Pay for a web designer to create and manage for you.