Web Strategies: Making the Internet Part of Your Success

May 28, 1998

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Web Strategies

The World Wide Web is the biggest change in the way we communicate since the printing press. Make no mistake: The Web makes accurate, up-to-date information the rule, rather than the exception — your workforce, and your customers, rightfully expect to reap the benefits of instant access to information, right now.

But with web sites, like the Gutenberg printing press, simply having one isn't enough. Your web site must deliver the goods. What does that mean? A successful web presence must pay attention to four key points:

- Content and Flow
- Accessibility
- Speed
- Appearance

Most important, a successful web presence pays attention to these four issues *in that order*. A good web designer never sacrifices content for appearance, for example.

To understand *why* these issues are so important, one must first understand the conditions on the World Wide Web that make them a priority.

HOW THE WEB WORKS

The World Wide Web (WWW) is not actually a single entity. Rather, it is a network (or web — hence the name) of computers, called **web servers**, which are designed to deliver files written in the HyperText Markup Language (HTML) to your computer, which is the **client**. Each HTML file represents a single page in a web site.

So, if you start your web browser — Netscape or Internet Explorer — and type in the address *www.writtenword.com*, that sends a request to my web server, which replies by sending the first page of my company web site to your browser. Your browser then

translates the HTML, which is really just a collection of text that resembles simple programming language, into the web page you see on your screen.
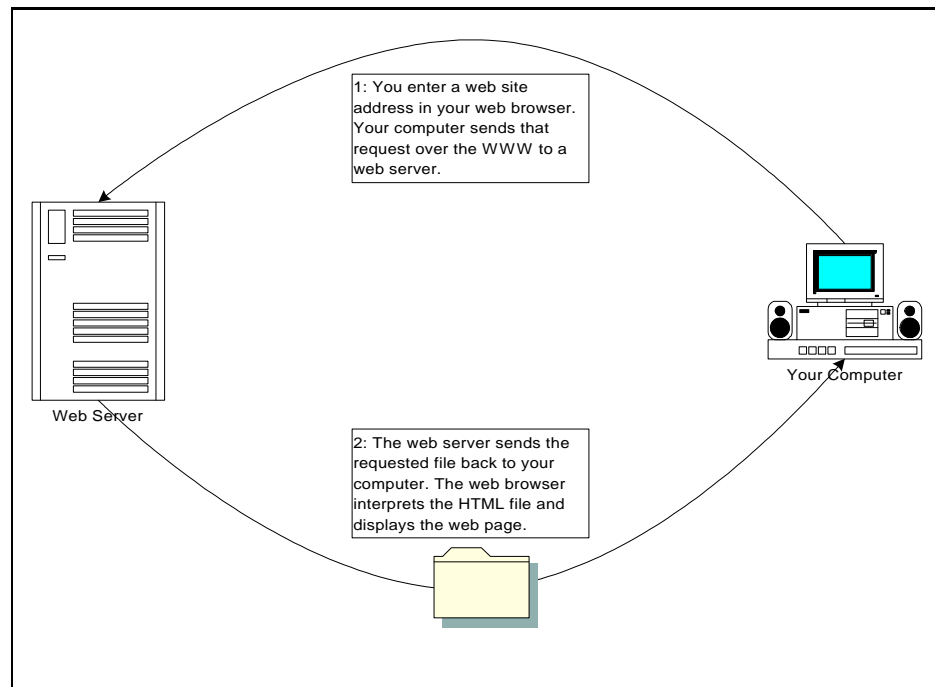
FIGURE 1. Typical web browser request and web server reply.

How We Connect to a Web Site

The information that forms that web page must somehow travel from the web server to your web browser. In between lies a complex collection of computers, phone lines and high-speed data lines that form the Internet. The Internet is a communications network linking computers worldwide. It forms the nervous system of the WWW. At the center of the Internet is a high speed 'backbone' which carries data around the world. Phone lines, ISDN lines, and other high-speed data connections link literally millions of homes and businesses to the backbone.

However, the average computer user cannot link directly to the backbone. Instead, we connect to the Internet using an Internet Service Provider, or ISP. When you click 'Connect to....' your computer calls another computer at the ISP, using whatever phone line you have set up. The computer at the ISP then connects you to the Internet, which gives you access to the WWW.
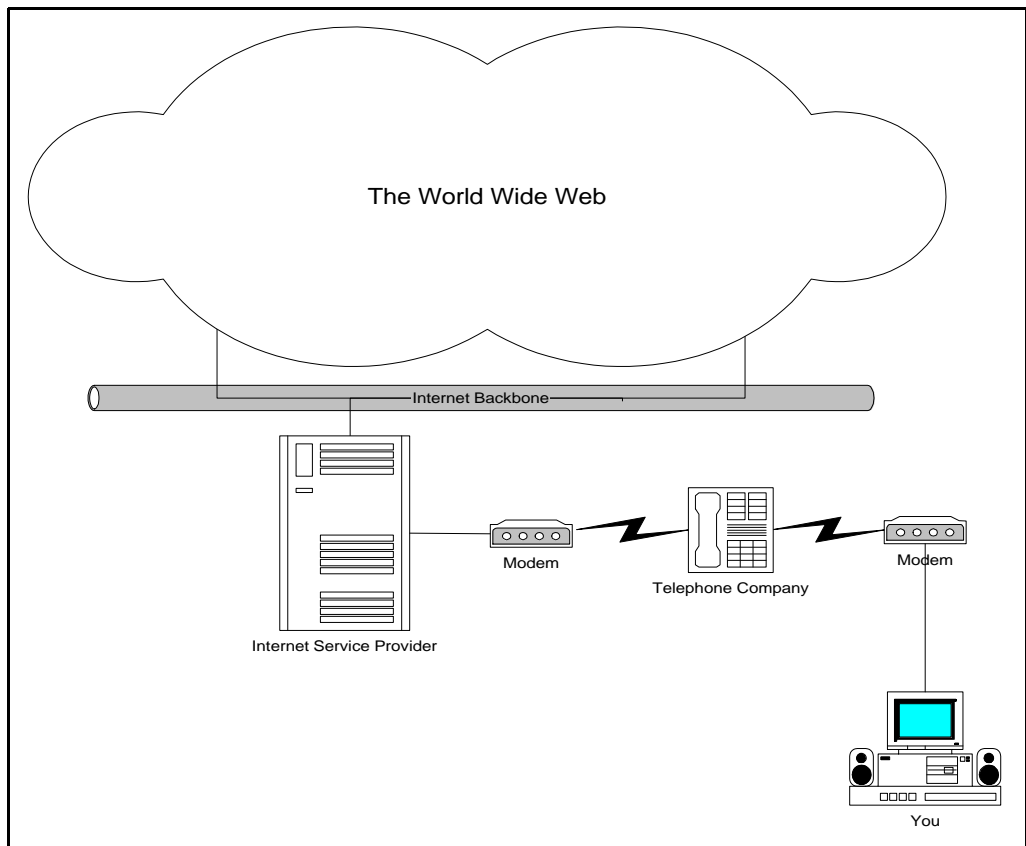
FIGURE 2. Typical Connection to the WWW

This connection makes everything on the Web possible. However, it also creates some problems, discussed later.

How We View a Web Site

Once the information arrives at your web browser, the web browser translates the HTML code into a web page. HTML is a common language that all web browsers translate in much the same way — what you see on your screen is almost the same as what someone on the other side of the world sees on their computer.

Notice I said 'in much the same way', rather than, 'exactly the same'. HTML is a language developed by consensus. All of the web browser companies (Netscape and Microsoft, at this point) more or less agree on what HTML should be. But, of course, they have their differences. That means that a web page may look slightly different from one web browser to another — like the issues of connection speed raised by phone lines (discussed later), this creates some problems.

What Web Sites Deliver

Technical jargon aside, the WWW has one purpose: To deliver information. That information may include text, pictures, movies, sound or even software. When the average user sits down at their computer and connects to the WWW, it is because they need to find something: Product information or instructions, product release schedules, a story, news about your company, etc.. Whatever the message, the job of a web site is to provide this information in an accurate, efficient, attractive manner. If a web site does not accomplish this — if it cannot deliver its message — then it is a failure, no matter how much or how little money was spent.

CONTENT AND FLOW

People browsing the web want instant, accurate, interesting, changing content.

Content Makes the WWW Go 'Round

First and foremost, a powerful web presence requires accurate, useful, up-to-date content. People use the WWW to gain access to the right information, *right now.* Otherwise, they can read the brochure, instructions or magazine advertisement they received last month.

That means that the single most important investment you can make in your web site is in information. The content you place there should be revised as often as it changes. Some examples of content are:

- **Calendars/Schedules:** Organizations can place event calendars or schedules on their web sites. Members can gain access to these calendars from their offices, and get immediate notice of meetings, conventions, or schedule changes, without making a long-distance phone call.
- **Product Information:** Companies in manufacturing, distribution and retail sales can present information about existing and soon-to-be-released products. This information can include features, instructions, warnings, and known issues.
- **Project Information:** Often ignored, this may be one of the best uses of the WWW. Organizations and companies can place information about ongoing projects in secure web sites, so that salespeople, committee members and other field staff can instantly access and update this information, anywhere they have a phone line and a computer.

In all of these cases, content must be kept current. If your calendar is three months out-of-date, your members will not use it. If your product information is wrong, you lose customers. And, if your project information is incorrect, you may wreak havoc on your own work.

A grim warning; however, Web content is simple to manage and inexpensive to update — there are no printing costs, and you can update the content as fast as you can type. So, while accuracy is essential, it is also easily accomplished.

Flow Delivers Content

Once the content is on the web site, it has to be organized in a manner that makes sense. Good web design provides visitors several different ways to access the same information. Some visitors may 'browse' through a collection of information, page-by-page; others may want to search for a specific item and go straight to the relevant document.

For the browsing visitor, the web site must be organized in such a way that they can browse the 'thread' or subject that is important to them. For example, if they are visiting your web site to learn about new products, there should be a browsing path that lets them click from one page discussing new products to the next.
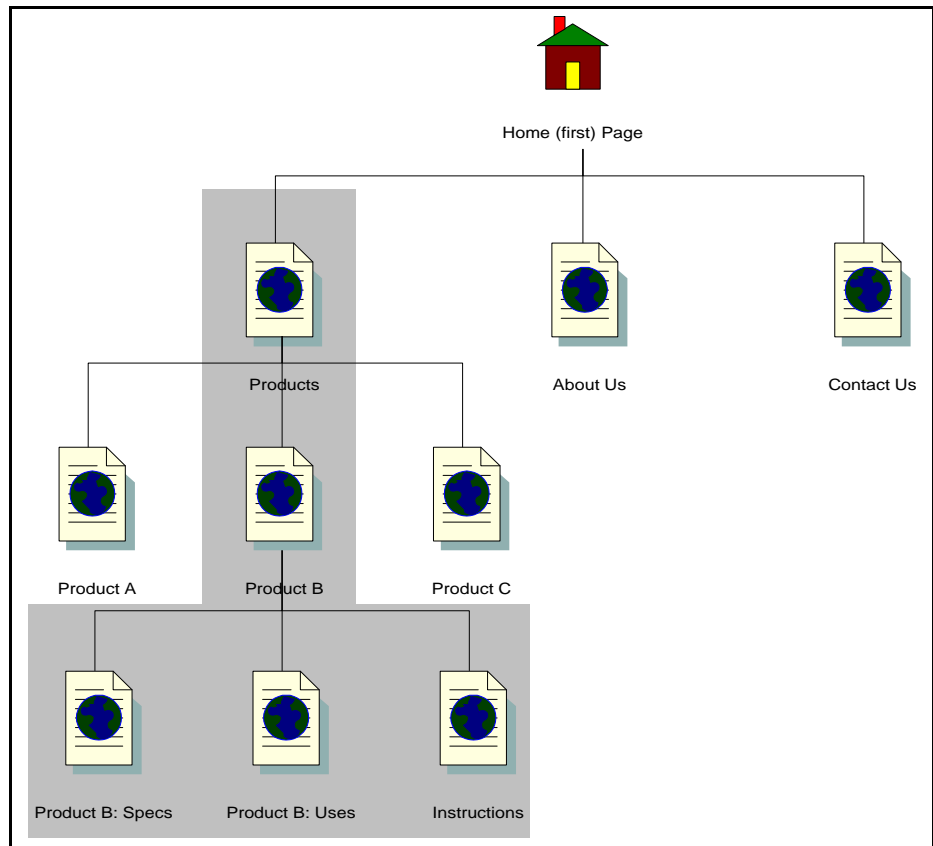
FIGURE 3. A typical content flow that allows a visitor to first zoom in on products, then on a specific product.

If visitors value the information you offer, they will use it, and tell others about it. Content lets you create a loyal community of repeat visitors to your web site, and building an online community central to the success of your web presence.

Almost as important, is that visitors can *find* your information when they need it, and that it looks the way you intended.

ACCESSIBILITY

Promote your web site online and in other media, such as print. Always make your content accessible to a wide range of web browsers.

Making Sure Visitors Find You

There are, at most recent count, at least 3.2 *million* web sites on the WWW, on every subject under the sun.

What does that mean? Imagine taking an entire library of books, and taking away the Dewey Decimal System. While you're at it, take away the subjects, titles, authors, and anything else that helps people find what they need. Now you have the WWW.

So how *do* people find your web site? You have two ways to make sure that your audience knows you are out there:

- **Search Engines and Directories**: There are a series of web sites on the WWW whose sole purpose is to maintain an index of as many existing web sites as possible. Yahoo and Alta Vista are good examples. But, given the large number of web sites out there, even these hi-tech engines are not perfect — simply filling out an online form to add your site to the index is not enough. There are many, many tricks to making sure that your web site shows up prominently when a potential customer runs a search. Those tricks could fill another paper, so I won't go into them here. Just keep this rule in mind:

  At least 5 hours of web site development time should be dedicated to preparing for and submitting the site to search engines.

- **Other Media**: At least as important is how you present your web site in other media. Something as simple as adding the address for your site to your stationery lets everyone know that yes, you have a web site. When a customer or member calls you with a question, you can say, "Here's the answer. Also, if you prefer, we have information about that on our web site." The next rule:

  Dedicate at least 10% of your total web development budget, in time and money, to promoting the web site 'off-web'.

Obviously, none of these rules are set in stone. You have to find the formula that works best in your budget and market. Just remember that 95% of web site projects take a 'If you build it, they will come' attitude. The other 5% have plans for promotion, and that 5% succeed.

Assuming that people find you on the WWW, your next job is to insure that what they see is what you wanted them to see.

Web Browser Compatibility Issues

Earlier in this paper, I mentioned that different web browsers interpret the WWW in slightly different ways. A commentary on the differences/complications created by Netscape, Microsoft, and the other web browser manufacturers could take up volumes. Suffice it to say, if you create a web site using fancy gadgets such as scrolling marquees,

the JavaScript or Java programming languages, or Active X plug-ins, you may be automatically excluding up to 50% of your potential audience. At this time, Netscape's and Microsoft's web browsers hold about 50% of the market, each, give or take 10%. That means that, if you or your web developer uses a specialized web page feature, you lose visitors.

Putting a 'This site best viewed with...' notice does *not* help. Remember the rule from the 'Content' portion of this paper: People browsing the web want **instant**, accurate, changing content. Instant means that they can see what they need to see right away, without downloading a new web browser. There are several ways to make sure that everyone can see what you are trying to deliver — consult your web designer or web design handbook for advice in this area.

There are exceptions: There are many programs or 'plug-ins' such as Adobe Acrobat, MacroMedia Shockwave and Progressive Networks' RealPlayer that allow web browsers to download specialized content. The rule here is:

*Only make your visitors download a different web browser or a special plug in if there is **no other way** give them access to that content.*

SPEED

No one wants to wait more than 20 seconds for a web page to appear on their screen.

As I mentioned in "How We Connect to a Web Site" on page 1, someone can only get to your web site as quickly as the Internet, and the phone company, will let them. There are two bottlenecks for web browsers:

- **Phone Lines**: Most local phone infrastructure was put in place long before the WWW existed, and most people surfing the web use that infrastructure. Even if their phone modem lets them connect to the WWW at 56000 baud (the maximum speed of most new modems), *the average phone line will not allow a connection speed higher than 31000 baud*. There are more options now for high-speed WWW access, such as cable modems and ISDN lines. However, 90% of web surfers still use Ma Bell.
- **Your Web Server**: Your web server may receive hundreds, thousands, or even millions of requests from web browsers each day. Can it handle the load? Make sure you keep this question in mind when you decide where and how to store your web site. There are many 'web hosting' services now that charge a monthly fee to place your web site on their server. Choose carefully — contact existing clients, and browse sites hosted by that company.
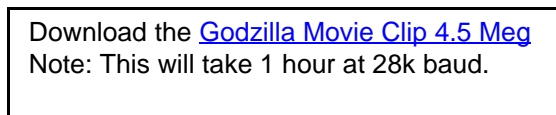
Luckily, you do have control over both bottlenecks. You can select a fast web hosting service to make sure that there is no bottleneck at the web site itself.

As for the phone line bottleneck, you must make sure that no page in the central flow of your web site takes more than 20 seconds to appear, in its entirety, in a web browser using a standard phone connection and a 28000 baud modem. I literally sit at my computer with a stopwatch and check new web sites, page-by-page, to ensure fast downloads.

The biggest, most common speed hogs are graphics. A good web site typically requires an attractive layout, and some photographs, buttons and other images to enhance navigation and the site's 'look'. However, there are ways to make sure that most images are small and download quickly. Even web sites with large, color photographs can be made to download in 20 seconds or less. Any good web designer knows these tricks, and will use them to ensure that graphics files are no larger than they need to be.

If you do have content stored in large files, such as graphics, sound, large documents or video, provide your visitors with a link to those files and a warning including file size:

> Download the <u>Godzilla Movie Clip 4.5 Meg</u>
> Note: This will take 1 hour at 28k baud.

FIGURE 4. A typical link and warning to a large download.

That gives visitors a chance to decide whether they want to wait for the file to download, or move on.

These speed limitations mean that some sacrifices have to be made. However, your site can still look good.

APPEARANCE

Within the limits created by the three previous rules, the web site should look good and present a simple interface to the web surfer.

Your web site should follow three rules of good design:

- **Branding**: Your web site should carry the same logo and general theme of your other advertising materials. Your corporate or organizational identity should be clear.
- **Character**: The layout and design of your web site should be attractive and should follow the character and personality of your company. If you sell cement, do not make your web site red and pink with animated flashing stars. If you are an organization promoting skateboarding, use lively graphics and colors that tell visitors you are there to help people enjoy the sport.
- **Interface**: Graphics and layout do not just make your site look nice. They should help visitors get around. Incorporate buttons and menus into the look of the site in such a way that they are useful, and are part of the design.
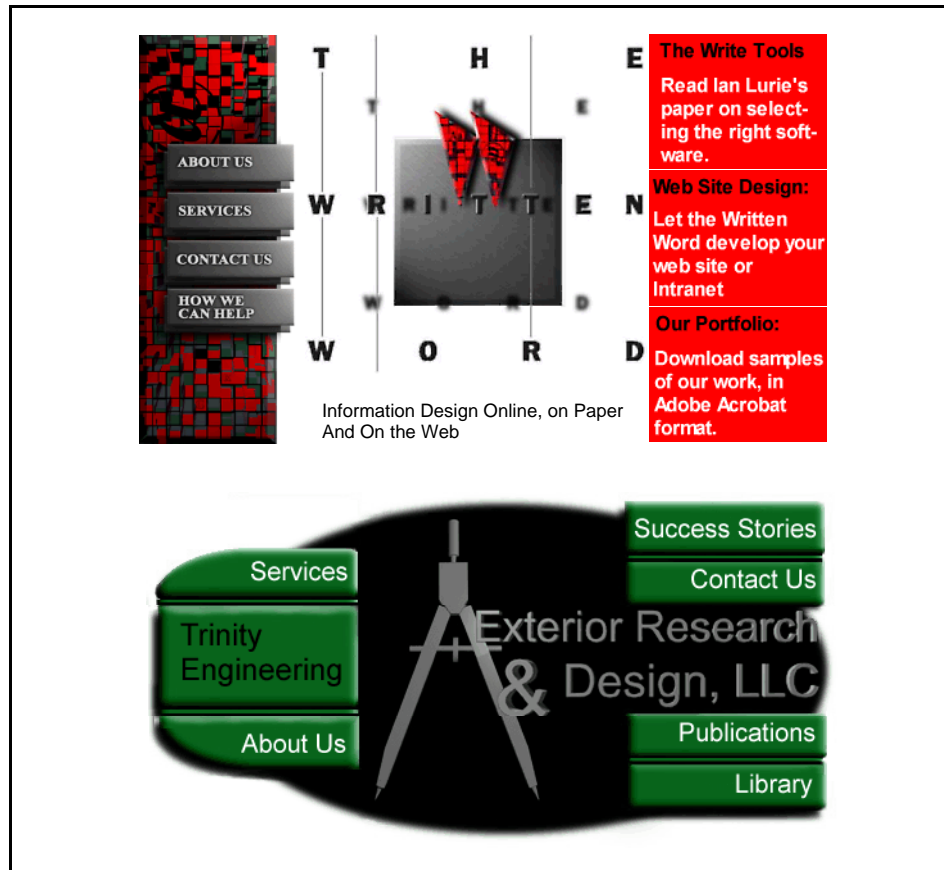
FIGURE 5. Graphics used on web sites. Note how navigation and 'look' are created using a single set of images.

The appearance of your web site can make sure that your first impression is a lasting one. Make it count.

CONCLUSION

Web site design is a complex process. The WWW has unique limitations for companies and organizations who seek to use it as a promotional and informational resource.

However, the WWW offers a unique opportunity to deliver information to an enormous audience, at a very low cost. To do that, the organization must keep four issues in mind:

- Content and Flow: *People browsing the web want instant, accurate, interesting, changing content.*
- Accessibility: *Promote your web site online and in other media, such as print. Always make your content accessible to a wide range of web browsers.*

- Speed: *No one wants to wait more than 20 seconds for a web page to appear on their screen.*
- Appearance: *Within the limits created by the three previous rules, the web site should look good and present a simple interface to the web surfer.*

By keeping these rules in mind, you can ensure that your web site, regardless of who designs it, accomplishes your goals.