CobWeb: Exploring the need for style guidelines to improve communication on the World Wide Web

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Appendix D - UNIVERSITY HONORS PROGRAM
SENIOR PROJECT - APPROVAL

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I have reviewed this completed senior honors thesis with this student and certify that it is a project commensurate with honors level undergraduate research in this field.

Signed: ________________________  Faculty Mentor
Date: 5/2/00

Comments (Optional):

Alison did a great job!
CobWeb: Exploring the need for style guidelines to improve
communication on the World Wide Web

Alison Joyner
Honors Thesis
Spring 2000
Abstract

This project explores the Web site as a unique document type in need of its own style and structure guidelines. By examining Web usability and document design literature, the report shows how development and implementation of such guidelines would increase usability. It defines usability and shows how it applies to the Web. The report then divides the Web site into three components: information architecture, page design, and content. It discusses each of these areas, paying special attention to how Web sites as documents differ from print documents. It demonstrates ways to optimize content, page design, and information architecture for the Web. Finally, it concludes that these the three components must be optimized for a Web site to be usable.
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Introduction

In the past five years, the World Wide Web has radically changed communication. During this period, the Web itself has also radically changed from an underground source of entertainment—a surfer’s paradise—to a tool used for disseminating information and attracting business. Now information of all types is available to anyone with Internet access, and businesses, universities, and the media have all scrambled to put up Web sites in order to remain competitive and to attract consumers, students, and readers.

Unfortunately, most of these Web sites fail at their very purpose—communication. The main problem is that there has been nothing like the Web before; nothing it can be modeled after. A Web site is not a book or other print publication and does not work properly when designed with a “slap-it-up-on-the-Web” mentality. Text and graphics need to be specially created for the Web. Also, designers need to acknowledge that a user is not going to navigate a site “the way it was intended.” A site’s navigation must be flexible but have an understandable structure so the user knows where he is in the site’s hierarchy at all times and can easily get from one place to another.

Usability can be seen as the savior of the Web. By testing users, Jakob Nielsen and other researchers have devised lists of dos and don’ts for Web design. All of these guidelines fall under at least one of three categories: content, information architecture, and page design. These categories exist in print publication too, but print publishing already has established sets of guidelines to govern the three. To complicate matters, the Web is anarchic. It would be ridiculous to assume that one could harness the wild creativity of the Web and turn it into homogenized little sites. But for those sites seeking mainstream consumers and readers, usability
guidelines offer a foundation for building a site which is user friendly and attractive but also takes advantage of the unique capabilities of hypertext.

Most how-to guide books for building a Web site discuss micro-issues, like frames or background patterns, without examining the bigger picture. This paper will explore the Web site as a document with unique problems and advantages. More specifically, the paper examines sites that are geared towards a mainstream audience—everything from college and university sites to e-commerce “store fronts” to news outlets. It does not deal with the “extremes,” like creative personal home pages on one side or highly technical documents meant for a specific, educated audience on the other side. The paper will examine content, information architecture, and page design as the Web’s building blocks, focusing on issues in each category unique to Web publishing. It will also explore usability research, examining the rhetoric behind the many dos and don’ts. The paper will show that usability is achieved only when good content, page design, and information architecture are all present.

**Web Usability Defined**

Usability is a difficult term to define. In the context of Web-usability literature, usability is used most often to designate that something is usable. Conversely, a Web site that is hard to use does not have bad usability; it is said to be unusable. Web usability is a goal instead of a measure. This principle governs the way the term Web usability is used in this document.

In order for a Web site to be usable, it needs to have good information architecture, page design, and content. If one area falls short, the site will suffer. These three areas govern the structure, appearance, and purpose of the site.
Information Architecture

A site’s information architecture has two components: structure and navigation. Structure is how the information is organized—how many levels exist in the site’s hierarchy, if the site will have a main menu and how many choices the menu will have, what information falls under what categories, and so on. Navigation deals with how the pages connect—more importantly, how the user gets from one page to another. Information architecture could also be called site design, which is not to be confused with page design.

Page Design

Contrary to popular belief, page design on the Web does not boil down to “cool” graphics. Graphics are involved in page design, to the extent that they are items needing placement on a page, but any graphics are (or should be) for navigation or content purposes. Page design is simply the way items are arranged on a page and how the elements work together as a unit.

Content

An axiom in Web-usability literature states that “content is king.” It truly is. Users come to a site for stock quotes, song lyrics, job listings, photographs, and so on. Putting content on the Web has advantages and disadvantages. For example, information on the Web is available to anyone with Internet access and can be linked to vast amounts of supplementary information. Unfortunately, most text information on the Web is scanned instead of being thoroughly read and photographs that do not load quickly enough have a good chance of not being seen. Content must be optimized for the Web.
Importance of Web Usability

Nielsen uses the much-maligned VCR clock to illustrate the importance of usability on the Internet: If you buy a VCR and cannot figure out how to set the clock, the manufacturer already has your money, and you are out of luck. On the Internet, customers experience the site and its usability before they buy a product (10). To take Nielsen one step further, one could speculate that if a customer finds the company’s Web site difficult to use, why should the customer think the company’s products are any easier to use?

Information Architecture

Information architecture is the way in which information is There are two sides to information architecture: structure, which is static, and navigation, which is dynamic. These two areas encompass the “feel” of a Web site—how easy it is to move around the site and find information.

Structure

A Web site’s structure, unlike its navigation, is a static element determined by the Web designer. In setting up a site’s structure the designer is able to choose where each page fits into the hierarchy and how each page will connect to other pages. Some site structures allow the designer more control over user navigation of the site, but usually there is no way to tell where the user was before he arrived on a certain page and predict where he will go when he leaves the page. A site needs to have a structure in order to be navigable and so there will be a specific place for existing and future pages to go, thus avoiding orphan pages.
Structure types

In *Web Style Guide* (27), Lynch and Horton list four types of Web site structures:

- Sequences
- Grids
- Hierarchies
- Webs

These four structures provide a vastly different user experience and should be selected based on an evaluation of user needs and goals.

**Sequences.** A sequence gives the designer the highest amount of control over navigation in that the pages are set up linearly. The user can only follow one path, backwards or forwards, in this structure. This type of structure should only be used in situations when a step-by-step guide is necessary or if the information presented would not make sense unless a specific path of links is followed. In general, a sequence structure violates the freedom of Web navigation by forcing the content to conform to standards of linear media.

**Grids.** Grids are not very common, but useful in certain situations; for example, university course listings would be best displayed in a grid-structured site (Lynch and Horton 28). As seen in Figure 1, the different colleges would each have a page, then departments would be listed on the next level, then the courses on the third level. Also, the college pages would link to another so one could compare the basic information given on the arts and sciences to information on business. The other levels would also connect across college pages, allowing for comparison.
Hierarchies. A hierarchy is probably the best mix of user freedom and designer control among the structure types. It breaks the information into several categories, all of which are listed on the home page. Then each category breaks down into sub-levels. Having these levels and sub-levels allows the designer to show relationships between items—what items belong to what categories, what items are in related categories, and so on. At the same time, the user is given enough freedom of moving back and forth among different categories and sub-levels, especially when useful navigation elements are present (which will be discussed later). This freedom contrasts with the linear page in which the only choices for navigation are back and forward.

One reason a hierarchical model is optimal is familiarity. Patrick Lynch and Sarah Horton state that hierarchical models “are very familiar in corporate and institutional life, so most users find (it) easy to understand” (29). While the structure may be easy to understand, sometimes it is misused. Because companies are already set up in a hierarchical manner, corporate Web sites often mirror the company’s structure. This type of site structure leaves the user guessing which corporate division governs the specific piece of information he is looking for. For example, if the user is looking for information on a product and is given a menu with choices like information
technology, sales & marketing, public relations, and customer service, he will probably not know which link leads to the information he needs. When the menu items are given names more indicative of what information lies ahead, like products, corporate information, press releases, and customer service, the user gets a better description of what information each link leads to.

**Webs.** The best example of a site set up with a weblike structure is the typical personal "home page." Most "home pages" are, in actuality, small Web sites rather than just one main page. Since the site is usually small, it is conducive to having every page link to every other page. For example, the index page may have lead visitors to pages about me, music, friends, and links. There would be no need for a search or site map feature. Each page could link to each other page, and the order in which the pages are visited would not matter. This structure may be a little chaotic for the professional site for a couple reasons: There are too many pages in the average professional site to link every one to every other, and it gives no clues to how each page would fit into the grand scheme of the site.

**Orphan Pages**

If a site does not have a structure, orphan pages can result. An orphan page is a page in a Web site that does not connect to the rest of the site or tell where the user is in the structure of the site. If a user winds up on an orphan page by following a link from another site, the only way he can get to other pages is by hacking off the URL. Orphan pages break the rhetoric of navigation—the user does not know where he is, what the page does, where to go next, and so on.
Navigation

While the designer has control over the Web’s structure, the designer controls navigation insofar as he determines what navigation elements will be used on the site and which pages connect to other pages. The user is the one who determines the actual course he will take when navigating a site. Because the user is a navigator, he needs some basic navigation tools—like a compass and a map—which will answer the basic navigation questions (Fleming 5 and Nielsen 188):

- Where am I?
- Where have I been?
- Where can I go?
- How will I get there?
- How can I get back to where I once was?

Primary and Supplemental navigation systems should help users answer these questions and thus have a meaningful experience on the site.

Primary Navigation Systems

Typically, a site’s primary navigation system is a main menu and its sub-menus. The menu/sub-menu system is effective as a main organization system because it allows for the categorization of information—it is “chunking-friendly.” Menus prevent the home page from being cluttered with a link to every piece of information on a site. Such a list would not be easily or attractively displayed on a home page, nor would it be appropriate for every subsequent page. Menus help make a site less overwhelming.
**Supplemental Navigation Systems**

Supplemental navigation systems are ways, other than the main menu, for navigating a site. They are useful because they suit different users and different purposes. Search functions, indexes, site maps, breadcrumb trails are all SNSs. Intuitive URLs are a non-linking form of navigation that can also serve as a SNS.

**Search.** Search features allow the user to indicate exactly what he is looking for on a particular site without having to figure out a site’s structure. Optimally, a search will return a list of results including the information the user was looking for, so the user is able to bypass using links. According to Nielsen, over half of Internet users are “search dominant,” meaning the first thing they look for on a site is the search feature (224).

**Indexes.** An index is an alphabetical list of pages, content, and images contained on a site. On the Web, an index links directly to each item instead of telling where it is in the site’s structure. According to Lou Rosenfeld’s column, “Organizing Your Site from A–Z,” indexes, like search features, facilitate those users who know what they are looking for because they can go directly to the desired information, bypassing the need to learn the site’s structure.

**Site Maps and Tables of Contents.** Unlike the index, site maps and tables of contents list the pages within a site in a way that reveals the site’s structure (See Figure 2). A site map shows the structure graphically, and could perhaps show the way pages link to each other. A table of contents textually represents the structure, often in an outline format. These SNSs are useful for those who are interested in seeing the whole site “at a glance.”
Figure 2: Site map and table of contents. The site map (above) graphically depicts a portion of the Daily Beacon Style and Policy Manual while the table of contents (below) shows the contents in outline form.
Breadcrumb trails. Unlike other SNSs, breadcrumb trails can only be used on a site with a hierarchic structure as its purpose is to diagram the path a user has followed to reach a page.

Each page on a site would have a different breadcrumb trail that shows exactly where the user is in the hierarchy of a site (see Figure 3). A breadcrumb trail also serves as a "back" button, allowing the user to go back in the hierarchy any number of levels at one time. Breadcrumb trails are also useful for users who come to the site from another site and wind up deep in the hierarchy. The trail allows the user to know where he is and where he can go.

![DAILY BEACON | style and policy manual online](image)

Figure 3: Breadcrumb trail. This trail shows what path the user followed to get to this page. Note that the actual page is not linked.

Intuitive URLs. A URL is a page "address." It consists of a domain, folders, and pages.

According to Nielsen, many users try to figure out a site’s structure by looking at the URL (248). Also, users try to anticipate where a link will take them by looking at the URL. Of course there are limitations writing intuitive URLs—for example, the best domain name may already be taken. But there is no reason for folder and page names to be inexplicable. The best URLs work like breadcrumb trails. For example, it would make perfect sense for the English department at the University of Tennessee to have the URL http://www.utk.edu/academics/artsci/english.html.
One could chop off the URL at each slash mark and arrive at a larger category page. Instead, the address is http://web.utk.edu/~lalance/english.htm. If the user hacks off the /english.htm, he arrives at the default home page for UT personal pages, which has no relationship to the English department. Instead of getting a sense of the site’s structure, the user realizes that the university’s site does not really have a structure.

**Page Design**

Page design on the Web is not site design, though it should be consistent throughout a site. It is also not designing “cool graphics” in Adobe Photoshop. Page design is arranging content and navigation elements on a single Web page—it is the glue that holds a site together. Perhaps the best way to approach page design is from a rhetorical perspective. As Karen Schriver states, “... the rhetorical approach provides document design with a rich theoretical framework for thinking about the complex relationships among the communicator, the audience, the words and pictures, and the context” (58). This approach provides a clarity of communication that an artistic or technological approach cannot.

From the rhetorical approach, three basic design concepts can be applied to Web page design to create a more effective communication tool. A combination of visual hierarchy and rhetorical clustering would improve the communication a site’s individual pages while repetition across the site would provide continuity.

**Visual hierarchies for the Web**

Chances are, a page designed for the Web will not always appear the way the designer intended. With a mix of platforms, browsers, and screen sizes, it is nearly impossible to have all the
elements on a Web page appear the same way every time. But having a perfectly uniform page design on every screen is not important if the relative importance of information on a page is communicated. Fleming lists the four factors that help achieve a visual hierarchy:

- relative size of elements
- placement or position
- color and contrast
- movement (64).

These principles are the same as those used in print design, but have largely not been embraced by the Web.

**Rhetorical clusters on Web pages**

A rhetorical cluster, according to Schriver, is “a group of text elements designed to work together as a functional unit within a document” (343). She gives four common examples of rhetorical clusters: illustrations with annotations and explanations, body text with footnotes, procedural instructions with visual examples, and front matter of a feature article. An example of a rhetorical cluster on the Web would be an article with links to supplemental information, other articles, research materials, and so on. On the Web, each page should be its own, self-contained rhetorical cluster. Rhetorical clustering is the page design equivalent of content “chunking,” a topic that will be discussed in detail in the next section.

**Repetition across a site**

Once a page design is determined, it is important that that basic design be repeated across the Web site for continuity. According to Schriver, repeating the way rhetorical clusters are
displayed across pages will help establish continuity, which makes the navigation of the document more usable, and will help create an identity for the site (511). Site identity is important in that the user should know when he is on a site or has left the site based on the page design.

**Content**

“The surest way to arouse and hold the attention of the reader is by being specific, definite, and concrete” (Strunk and White 21). In no place is this adage truer than on the Web. Content is what attracts a user to a Web page; quality content is what keeps the user there. According to Nielsen, quality content for the Web does not simply mean well-written prose with high production values. Quality content is that which fulfills the user’s goals—quickly (160). Unfortunately, quality content is rare. A lot of this problem has to do with where Web content comes from—too often, print material deemed acceptable to be “thrown up” on the Web. When writing for different media, style is supposed to change. News writing is different from formal, academic writing. Technical reports are different from screenplays. So writing for the Web should also have its own style. Text for the Web must be easy to read—short and scannable. By examining issues of macro- and micro-content on the Web, one can see how a style for writing for the Web is evolving. “Chunking” content, improving scannability, and creating appropriate page and link titles are some of the issues dealt with in developing a writing style for the Web.

**Focusing Web macro-content**

Macro-content is what a user visits a site to see or read while micro-content is more for navigation purposes. Macro-content must be focused for the Web audience, and increasing the
focus of text on the Web has a macro-element and a micro-element. The macro-element involves the concept of “chunking,” which means breaking down content into small “chunks” of information. The micro-element is increasing scannability of the chunked pages. Both chunking and increasing scannability play into page design in that they affect the page visually.

The skinny on chunking

As previously mentioned, chunking means to break down content into smaller “chunks” of information. Content chunking is not a new concept. According to Lynch and Horton, “Long before the Web was invented, technical writers discovered that readers appreciate short ‘chunks’ of information that can be located and scanned quickly” (24). Chunking is useful in a Web context because it takes advantage of hypertext. Since there are no space constraints on the Web, there is no reason for multiple topics to occupy the same page. Figure 4 shows a prototype for the Daily Beacon Style and Policy Manual Online. In this example, information from one chapter of the text edition, story guidelines, is contained on one page. The links at the top of the page “target” information on the topics contained further down on the page. Nielsen points out one problem with the “target” link: users think when they click on a link that they are being taken to another page, but if they hit the back button, they will remain on the same page which can cause confusion (115). Another problem with target links is that they do not offer the same immediate navigation as a chunked page. If a user is looking at one of the topics discussed towards the bottom of the page, he will either have to click a “back to top” link or scroll back up if he wants to go elsewhere on the site.

There are several advantages to “chunking” information. First, instead of an endless page explaining every aspect of a concept—like how to write a story—each page can deal with one idea—like how to write a lead. Also, the problems present with target links are eliminated. There
General Tips:
Start at the beginning.
Write stories straight through from first paragraph to last.
If deadline or an editor prevents you from writing further, you still have a story.

The Lead
Journalists call the first paragraph of an article the "lead." The lead is the most important part of any story. The lead determines whether readers read further or put down the paper from boredom. Also, some people never read further than the lead. The tidbit of news they learn must be pithy and accurate.
To write a lead, tell a friend the gist of your story in one sentence. Write down what you said. You have written a summary lead. Hit the return key.
Do not worry about creating a lasting, literary mark with your lead. Long, wordy sentences are the bane of the business. Short, snappy, summary leads of 25 words or less constitute the majority of newspaper leads. One sentence paragraphs give newspapers their distinctive look and ease the task of reading.
Reread your lead to make sure you answered the most important of the who, what, when, where, why and how questions.

The Body
Write down the rest of your facts from the most important to the least important. Journalists call the method of writing information in order of importance the "inverted pyramid" because you stack the "bigger" facts atop "smaller" facts. Use short sentences. When you run out of facts, stop. You wrote a story.
is no confusion with the browser's back button and less scrolling means that the navigation aids are almost always visible. Figure 5 shows how the page looks when it contains only one chunk of information. While there are still improvements to be made on the micro-level, this page is already an improvement over Figure 4. With a chunked page, the user gets exactly the information he is looking for—no more, no less.

Figure 5: The chunked page. This page shows only one of the pieces of information in the story guidelines category.
The scoop on scannability

But improving Web content does not end with chunking. The text in Figure 5 still comes directly from the print material. The text may be well-written, but it is wordy and hard to scan. Since Web pages are scanned instead of read, the information presented in the example needs to be optimized for scannability. In his Oct. 1, 1997 Alertbox column, "How Users Read on the Web," Nielsen lists six ways to increase scannability of text on the Web:

- use inverted-pyramid style
- have no more than one idea per paragraph
- write around half the word count of conventional writing
- highlight keywords
- use subheadings
- break content into lists

Some of these six guidelines are established principles used in other forms of writing. They each enhance scannability, but in very different ways.

Inverted-pyramid style. This established style principle from journalism seems to work well on the Web. The idea behind the inverted pyramid is that the most important facts—who, what, where, when, why, and how—are given up front, then the details get smaller and less important as the story progresses. Nielsen explains in his June 1996 Alertbox column that the reason the inverted pyramid works on the Web is because studies show that users do not scroll. In this case, using the inverted pyramid allows those users who refuse to scroll to at least get the main idea of a story.
Single-idea paragraphs. A single-idea paragraph is like a micro content-chunk; only things pertaining to one part of a concept are allowed in a single paragraph. Like inverted-pyramid style, single-idea paragraphs are frequently used in journalism. Figure 6 breaks up the text from Figure 5 into mini-chunks. Each paragraph contains a single idea about the lead of a news story.

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The first paragraph of an article is the "lead."

The lead is the most important part of the story because it determines whether readers read further or die of boredom. Some people never read further than the lead. Therefore, the lead must be pithy and accurate.

To write a lead, tell a friend the gist of your story in one sentence. Write that sentence down -- it's your lead.

Don't work too hard to create a masterpiece.

Opt for short, snappy leads over long, wordy sentences.

Reread your lead to make sure you answered the most important of the who, what, when, where, why and how questions.

Figure 6: The "better" chunked page. The paragraphs on this page have been shortened and separated to facilitate scanning.
Concise text. There are two main reasons why text for the Web should contain around half the words of text for print. First, studies have shown that reading online is physically a lot different from reading print material. Nielsen states that people read material onscreen 25 percent slower than in print and, in general, feel that reading from a computer screen is uncomfortable (101). Second, overlapping with the theory behind the inverted pyramid, readers are not looking for the best expository writing when they are on the Web—they want “just the facts” in the shortest amount of time possible. Concise text allows the reader to obtain the desired information without having to wade through excess verbiage. Figure 6 not only contains single-idea paragraphs, but also around 30 percent less words than Figure 5.

Highlighted keywords. Because readers scan text on the Web, highlighted keywords are important because they attract the eye. There are several types of highlighted keywords. Links are one type. Most often, links are underlined and are a different color from the body text, so they pop out at the reader. Because links are so noticeable, usability experts advise that Web designers avoid using “click here” as the linked portion in a phrase such as “click here for more information about subject A.” “Click here” is not a good phrase to highlight because it does not tell the user anything about where the link might take them. This type of link has what is known as poor “rhetoric of departure” (Nielsen, June 1996 Alertbox). It is preferable for “subject A” to be the linked portion since it will pop out at the user. The user knows that if he follows the link “subject A,” he will get information on that topic; it has good rhetoric of departure.

Another type of highlighted keyword is a word within the text that is given a typographic treatment (bold, italic, color) different from the regular body text. These highlighted words serve as vines in the textual jungle—the reader can “swing” from keyword to keyword until he finds
the information he is seeking. Figure 7 uses bolded keywords to emphasize key points. This illustration shows the text fully Web-optimized.

Figure 7: Fully optimized Web text. This page contains not only chunked information with more concise text than previous examples, it also shows highlighted keywords.
**Subheadings.** Like highlighted keywords, subheadings help the reader scan over a text body to find desired information. It is important for a subhead to clearly explain what information it contains or a reader might miss what he is looking for by skipping over a subhead that appears irrelevant. In the Oct. 1, 1997 Alertbox, Nielsen states that subheadings should be meaningful—not “clever” ones. While it is understandable that “clever” headings may be misleading like teasers, this point is one of the few which make Nielsen appear to be an old fuddy-duddy. If a subhead expresses what type of information follows, even in a clever manner, then it has achieved its purpose. It would be better here to take into account the target audience and write serious or clever subheads based on audience needs.

**Bulleted Lists.** Schriver notes, “Compared to the format of typical paragraphs, bulleted items stand out from their surroundings because they employ extra horizontal and vertical space (504). So, like highlighted keywords and subheadings, bullet lists help break up the text and call attention to important ideas. Lists also aid in making Web writing more concise.

**Creating appropriate Web micro-content**

As mentioned previously, micro-content is a content area that assists with navigation. This area mainly deals with page titles and headlines—items that are very likely to be seen out of context. Headlines and page titles for the Web come with almost the opposite advantages and disadvantages of print publications. Therefore, once again, these items must be created specifically for the Web instead of being recycled from a print counterpart.
Creating a Web headline

In the Sept. 1998 Alertbox, Nielsen gives two ways in which online headlines are different from printed headlines: they are often shown out of context and the small space of a single Web frame gives less surrounding information on the subject. These are both disadvantages to headlines on the Web. He points out that the headline, which is often used as a page title, could be used as a bookmark or could pop up on a search engine. In these two areas, the headline will be viewed sans story and therefore needs to be clear about what exactly a story is about. But the Web has an advantage here that print publication does not. A newspaper, for example, may have a story about a CEO winning an award for outstanding community service. That story would probably be accompanied by a mug shot of the CEO or a photo of the person accepting the award. But the headline may be limited in space and read “CEO wins award.” If this headline was used on the Web, it would be unclear who won an award and what for. There is no reason for a Web site to use a size-constrained headline. The Web site has the freedom to use something like “BigCorp CEO earns community service award,” which is more specific and gives more background on what a story is about. This rewrite would also alleviate the second problem dealing with the information on the page itself. It gives the reader two pieces of information— who and what—they did not get with the print headline.

Writing effective page titles

Like headlines, page titles often stand alone, out of context. It is best, then, that the page title describes what exactly is contained on a page. An extremely bad way of doing page titles can be seen with The (Memphis) Commercial Appeal’s recently redesigned site. Every page has the title “Gomemphis.com :: The Commercial Appeal.” This title scheme makes bookmarking specific
sections of the online newspaper impossible. If a user wanted to bookmark the restaurant review section and the prep sports section, "Gomemphis.com :: The Commercial Appeal" would appear twice on his bookmark list and he would have to remember in which order he had bookmarked the pages. Most likely, he will not use the bookmarks. The better method is quite obvious: if the restaurant review section was titled "The Commercial Appeal :: Restaurant Reviews," then the bookmark would be usable. As it is now, the page titles make the CA's Web site user-hostile.

Avoiding "teasers"

In print publications, one concept widely used is that of the "teaser." A teaser is a device used to lure the reader to purchase the publication and to "look inside." For the most part, teasers are a big tease. The actual information is usually not what it was advertised to be. But that does not matter to those producing print publications for the same reason it does not matter to the VCR manufacturer that the user cannot program the VCR clock—the sale has already been made. On the other hand, Web publishers must be wary of using teasers. If, in a list of contents, a reader runs across a teaser, he will most likely avoid it. Following a link is a bigger time investment than turning a page in a magazine, and if the link title does not clearly state what is on the other side there is no reason that a time-conscious user will follow it. Another problem with teaser links is that they resemble advertising. Anything resembling advertising on the Web is something users avoid like the plague (Nielsen 77).

Conclusion

As the World Wide Web shifts from entertainment source to information provider, Web sites must evolve from print documents with links to documents with material tailored for the Web.
While some sites will always possess the Web's anarchic spirit, those which seek mainstream readers and consumers will eventually need to replace unbridled creativity with style and usability guidelines. Natural selection will weed out those sites which are hard to use, aesthetically displeasing, or drains on user time. Users will revisit those sites which offer them the information they desire in the shortest amount of time with the smallest amount of fuss.

Information architecture, page design, and content are the key — all must be optimized for the Web in order for a site to be usable. If a Web designer simply regurgitates available print material on a Web site, there is no benefit for the user — he could have read the print material instead of wasting time reading on-screen and waiting for downloads. While it may appear that style and usability guidelines constrict the freedom of the Web, they actually expand user benefits by taking advantage of hypertext as a unique medium for communication.


Alison Joyner

Senior Thesis Proposal

In the past few years, the Internet has revolutionized communication. Information of all types is available to anyone with Internet access, and businesses, universities, and the media have all scrambled to put up Web sites in order to remain competitive and to attract consumers, students, and readers. Unfortunately, these Web sites are often put together by those who are most comfortable with the technology—graphic designers and computer programmers—and the usability of these sites is an afterthought, if a thought at all. The purpose of building the Web site (communicating with the masses) becomes lost in flashy design, use of cutting-edge technology, and illogical categorization. Since the role of the technical communicator in industry is to create documents that communicate effectively, these companies should enlist the help of technical communicators to ensure that these Web sites are fulfilling their purpose; that they are usable. The questions I seek to answer with this thesis are how can Web sites be made more usable, what are the key criteria for a Web page to be considered usable, and can basic principles from document design be employed on the Web, and if so, should they be?

Recently, people have begun researching the usability of Web sites, and they have created criteria for what makes a site usable. For my senior honors thesis, I would like to review the literature from researchers such as Dr. Jakob Nielsen, Jeanne Fahnestock, and Karen Schriver, and critique the conclusions of the research, with particular attention to comparing the principles
discussed by Nielsen (whose background is in software engineering) with those discussed by Fahnestock (whose background is in classical rhetoric) and Schriver (who has moved from rhetoric into documentation design and software engineering).

The purpose of comparing and critiquing the principles of the scholars named above will be to enable me to develop my own criteria for Web page usability, which I will then use to evaluate several Web sites for usability using those criteria and do a field test. Based on the field test, I will refine my own criteria and expand them into a set of principles for what makes a usable Web site. Finally, I would like to do an evaluation of where the technical communicator fits into the Web picture, and how basic concepts of technical writing and editing can be employed in Web design to create better, more effective Internet communication.

A planned writing and production schedule is attached, as is a bibliography of sources. Dr. Michael Keene has agreed to be the director for this project and XXXXX will be the second reader.


