



**World Wide
Web
Site Design**

"The NISD Webmaster Series"

Northside ISD Department of Instructional Technology

World Wide Web Site Design

Campus Webmaster Links

www.nisd.net/cmptecww/webmasters/thanks.htm

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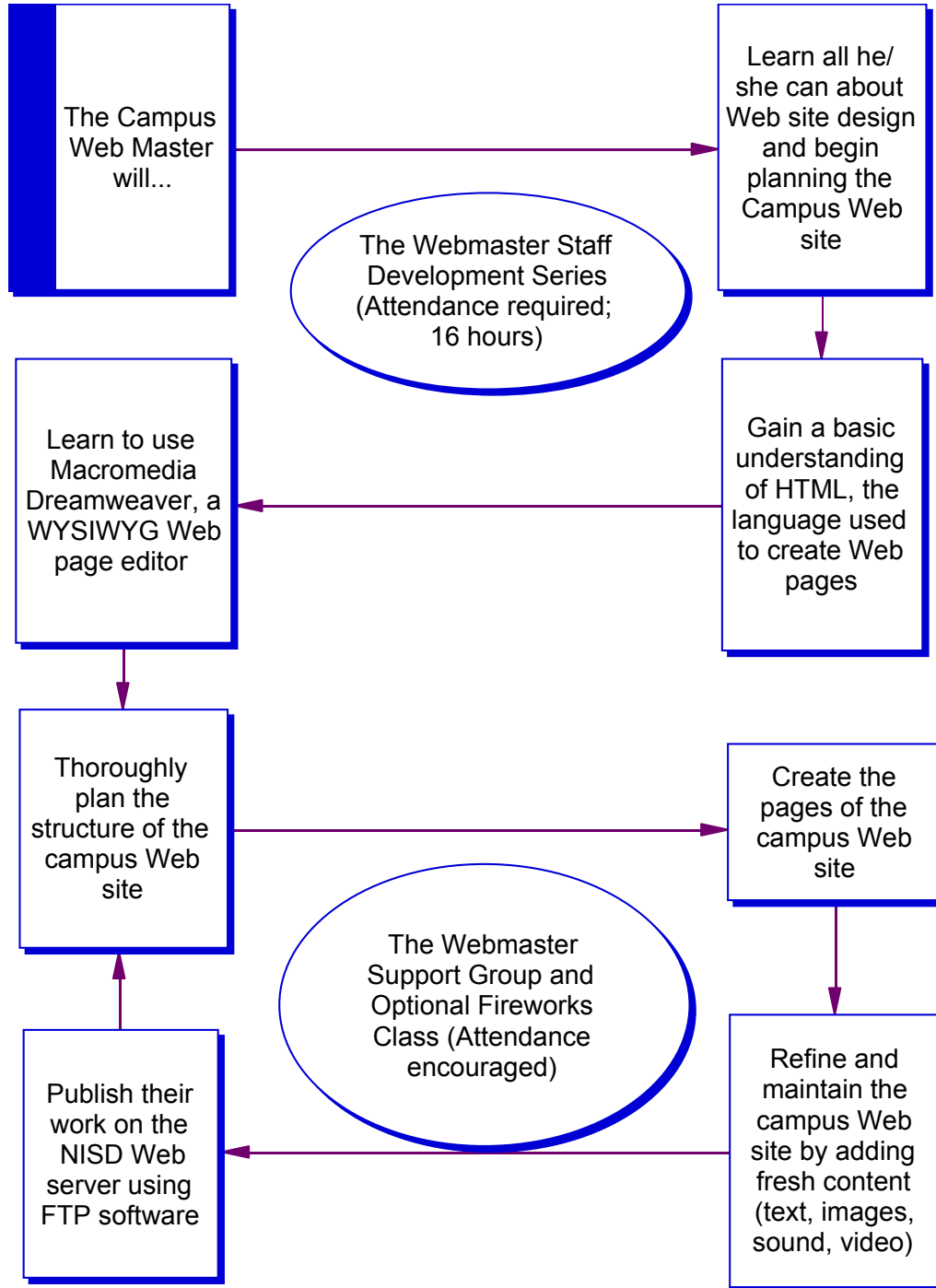
World Wide Web Site Design

Objectives

1. Understand the role of the Campus Webmaster and Web Publishing Acceptable Use..
2. Understand the overview of the NISD Webmaster Initiative.
3. Visit some exemplary NISD sites.
4. Learn how to plan, organize, and structure your web site.
5. Study good and bad design structure and design elements.
6. Study NISD Campus Web Site Standards and other guidelines.
7. Become aware of copyright issues.
8. Learn some basic HTML tags to create a web site.

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The Role of the Webmaster



The NISD Webmaster Initiative Slideshow

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Collaborative Effort

- Communications Department (responsible for District site)
- Information & Technical Services (create & maintain Web server accounts)
- Instructional Technology (training and support for campus and department Webmasters)

History

- NISD Web site debuted September 1997
- Classes for campus & department Webmasters began November 1997

The Webmaster Job

- Attendance required for sixteen hours of training over two days
- Attendance encouraged- Monthly Webmaster Support Group
- Experts “Rule of Thumb”
- 80-200 hours to develop a site
- 10-40 hours per week to maintain
- Stipend position for 2001-2002 (\$1,600)

Class One: World Wide Web Site Design (4 hours)

- Visit NISD exemplary sites
- Plan the web site
- Good & bad structure and elements
- NISD and other publishing guidelines
- Copyright issues
- Critique out-of-district school sites
- Learn to use basic HTML tags

Class Two: Creating a Web Site with Dreamweaver - Part One (4 hours)

- Learn basic skills of Dreamweaver software to create Web pages
- Use appropriate design elements & structure
- Review NISD Web publishing guidelines

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Class Three: Creating a Web Site with Dreamweaver - Part Two (4 hours)

- Review Dreamweaver basics
- Advanced skills in Dreamweaver
 - Editing HTML source code
 - Jump menus
 - Frames
 - Behaviors
 - Layers
 - Javascript password protection
 - Cascading Style Sheets

Class Four: Publishing Your Site and Advanced Topics (4 hours)

- Account ID and password for NISD Web server
- Campus Webmaster and Campus Office e-mail addresses for your homepage
- Creating a "hit counter"
- Work with digital images (clipart, scanned, camera, Web-created) and explore techniques for best use of graphics
- Adding sound
- Learn valid names for the Unix Web server
- Learn to FTP files, via Dreamweaver, to the NISD Web server

Monthly Support Group

- Mini-lessons
- Discussion & sharing
- Open lab time to get help

Campus Site Goals - Required

- communication & positive image
- interesting & inviting view of campus life
- current calendars, news, & events
- showcase achievements, awards, recognitions
- helpful information regarding teams, departments, faculty, administrators
- helpful information regarding rules, programs, philosophy, mission
- links to relevant NISD departments
- links to relevant external resources (TEA, PTA)

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- classroom Web pages created by teachers

Campus Site Goals - Optional

- instructional tool
- publish writing, artwork, & other student works
- general reference links for students & teachers
- curricula-related general resource links for students & teachers
- curricula-related Web components used as part of classroom instruction
- links to online enrichment activities
- links to online remediation activities
- interactive and/or collaborative online student projects
- Web pages created by students

Department Site Goals

- Information (news, calendars, etc.) for parents & community members
- Showcase instructional & program initiatives
- Helpful resource links for parents & community members
- Build an identity

Key NISD Web Publishing Standards

- Protection of **student** privacy
- **NO** last names, individual photos, home addresses or phone #s, grades or test scores
- Parental permission before publishing student work or photos or first names
- Site reviewed & approved by Principal or Director before publishing
- See Instructional Technology Web site for other elements of the Web Site Standards

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The Five Step Process for Creating a Web Site

Step 1: Needs Assessment

- Determine the goals and objectives of the Web site.
- Consider the resources needed to meet the goals and objectives.
- Determine how the goals will be met.

Step 2: Design the Site

- Divide the project into smaller components that can be dealt with in greater detail.
- Develop a storyboard for each component.
- Determine content, links, and multimedia use.
- Develop repeated page elements (e.g. banners, graphics, icons).

Step 3: Implement the Site

- Create rough drafts of Web pages.
- Make sure home page links correctly.
- Refine each page.
- Document your progress.

Step 4: Refine the Site

- Add multimedia elements.
- Add hypertext links.

Step 5: Maintain the Site

- Evaluate and improve the site.

Taken from Learning and Leading With Technology November 1996

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Step 1: Needs Assessment

Decide exactly why you want your school to be on the web. Consider not only why you want your school on the web, but why will people want to visit your site. Think about how people will use the information. Designing a good web page takes time and effort. Think and plan ahead. Decide how you will determine if your web site is "doing its job".

Visit many sites and see what you like and don't like.

A few ideas for what you may want to put on your web site:

Description of school's philosophy

People

Teachers

Classes

Administration

Instructional Assistants

Custodial

Cafeteria

Parents

Links of Interest

Academic link to each grade level

Calendars

Curriculum

Information about thematic units classes may be covering

Stories about recent field trips

Information on a special school holiday or event

School Calendar

PTA meetings

School Programs/performances

Descriptions of school clubs

On-line magazine

Information about your community, its local history and landmarks of the area

Original Artwork

Scanned photographs of students engaged in projects/programs

Writing

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Links to other helpful resources

Search engines

Homework help sites

Ask-an-Expert site

Location (City, State)

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Step 2: Designing the Web Site

Organization, organization, and organization. These are three of the most important words when designing a web site. It is very important to plan ahead to know exactly what you want on your web site. **Keep your pages short, simple, and straightforward.**

Tips to make designing your site easier:

- Write out an outline for your site. Write down all of the information that you want to include in your site. Decide where your links (levels) will be. Try to plan the big picture, then divide the site into smaller more manageable issues.
- Storyboard your site. Get out the crayons and markers and start drawing! Included in this manual is a blank storyboard that you can use to help you design your site. Think of the colors that you want to use. Colors include background (do you want patterns or plain), headlines, text, buttons, etc. It is important to keep all of the buttons the same through out all of your web pages. This gives the pages uniformity.
- Can you categorize the information into manageable groups? Can the content be put into categories that are named from your audiences perspective and not yours? A major mistake that beginners make is to dump tons of information onto one page. Visitors at a site don't necessarily want to sift through all that information.
- Can new information be added easily? Will new information fit into your categories?
- Keep the layers balanced if at all possible. Don't have users go through 10 menus to get to the actual document.
- Add hyperlinks that fit your site. Many beginning web developers have numerous links just because. Make your links (inside your pages and outside) meaningful.
- Avoid dangling links - put the link on the actual reference, not on the words "Click here".
- Surf the web to see what's good and what's bad.
- Determine how graphics will fit into your pages - too much will slow transmission. Not enough will dull the look.
- Consider how it may look on various platforms, via various browsers. View your pages from a Macintosh or a Dell computer. View using different monitor

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resolutions. The rule of thumb is to write for a 600x800 resolution using a 15" monitor for Netscape 4.0 or higher. If it looks good at this setting it will probably look good elsewhere.

- Design a template, then re-use it. Use the same background, color scheme, buttons, etc. throughout your web site.

Graphic Design Considerations

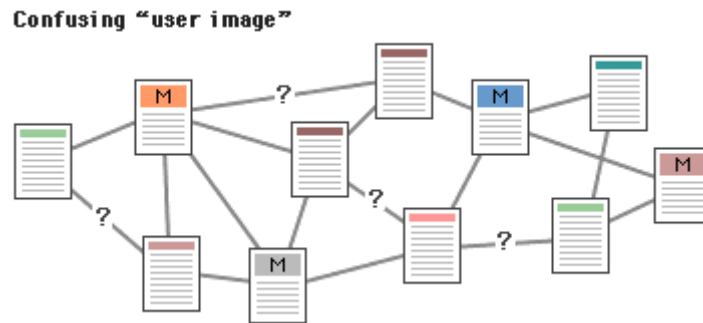
- Good graphic design always seeks the optimal balance between visual sensation and graphic and text information.
- Page design in HTML should emphasize the power of hypermedia links. There is no need to recreate what has already been done.
- Hypertext Markup Language (HTML) is a hypertext system, emphasizing interactive linkages between graphic, text, or media documents.

Design your site so visitors will want to make a return visit.

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Site Structure

The user's perception of and assumptions about the organization of your World Wide Web (WWW) site can have a major impact on the usability of your page and site design. The power of WWW lies in the myriad of links that are possible with hypertext linkage of documents and Web sites. Unfortunately, only one piece of your Web site is visible at a time (the current page), so users instinctively begin to build a mental model that they use to predict the scope and structure of your Web. Although all of your Web pages may be extensively interconnected, you don't want the user's mental model of your Web site to look like this:



Users need predictability and structure, with clear functional and graphic continuity between the various components and subsections of your Web site. Banner graphics, signature icons, or other graphic devices can be very useful in reinforcing domain identify within subsections of your site. Carefully organized graphic identify programs and user interface elements can clarify and reinforce Web site structure, and ease the user's cognitive load in a new and complex Web site.



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Balancing the Web Structure

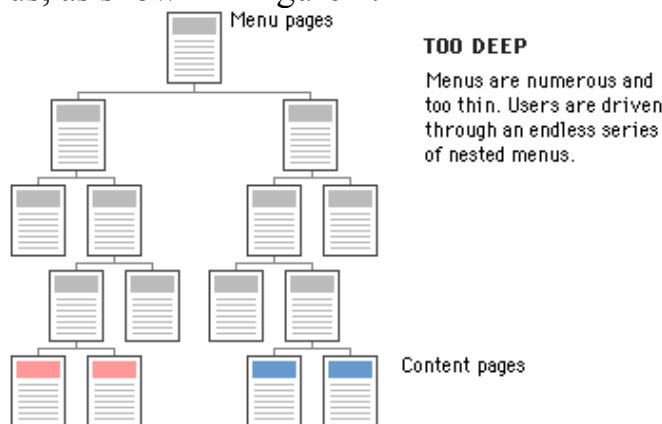
Proper Web design is a matter of balancing the structure and relationship between menu or home pages and individual content pages or other linked graphics and documents. The goal is to build a hierarchy of menus and pages that the user perceives as natural and well structured.

Web sites can often overwhelm the user. Sites with an excessively shallow link hierarchy have massive menu pages that develop into confusing laundry lists of unrelated information over time. On the other hand, an excessively deep hierarchy loses continuity and requires the user to wait for many pages to load before receiving the information.

Too Shallow: The structure is too horizontal. This creates a menu that has too many topics on a single level.



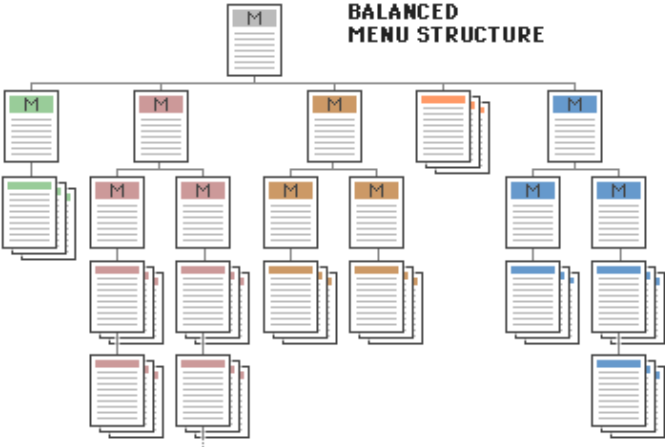
Too Deep: Menu schemes can also be too vertical. Information is buried too many layers of menus, as shown in Figure 2.



Balanced: Complex document structures require deep menu hierarchies, but users should never be forced into page after page of menus if direct access is possible.

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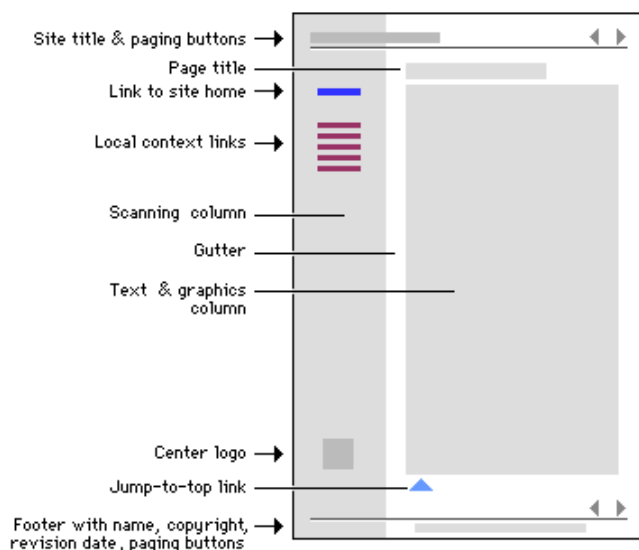
The goal is to produce a well-balanced hierarchical tree that facilitates quick access to information and helps users understand how you have organized the information. Figure 3 illustrates a well-balanced structure.



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Essential Elements of WWW Documents

Documents buried deep within WWW sites are often accessed directly, with no preamble or context. Therefore, it is important that each page behave as an independent document that explicitly states the author, the institution, the date of creation, a statement of copyright, and a link to the home page.



The essential items that should appear on every WWW page are:

- Author or contact person
- Link to local home page
- Institution
- Date of creation or revision
- Statement of copyright

Other very useful items that should be included in every well-designed web page include:

- The URL of the document.
- Links to other related pages in the local Web site.
- Logo or seal of the institution.
- Button bars or other navigation aides.

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Step 3: Implement the Site

This is where you actually construct your web site. A variety of web-authoring software is available on the market. Web authoring is based on HTML. HTML stands for hypertext markup language. By learning HTML, you are actually learning the programming language used to create web pages. We will look at source codes for various web pages in this class.

Recently, many software companies have developed WYSIWYG editors. This stands for "What You See Is What You Get". When you write web pages using HTML, you see the programming code and don't actually see what the site looks like on the web until you view it there. With a WYSIWYG editor, you design the site exactly as you would see it.

Step 4: Refine the Site

This is the time that you really jazz up your site. Use scanners, digitized cameras etc., to make your site exciting and inviting. Be careful not to overdo it. Many webmasters load their site with heavy graphics, causing the site to download slowly! Users will not wait for a site to download, they will choose another site.

Step 5: Maintain the Site

Now that your site is finished and posted, continual maintenance is essential. Nothing is more frustrating to a visitor than to get outdated information or have questions about something that is posted on your web site.

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A Great Webmaster will:

- Update information before it becomes outdated.
- Include a link to the schools home page and the district's home page.
Remember a user may link to your site in the middle not at the beginning.
- Include the city and state that you are located in. There may be more than one XXXXX Elementary in the US.
- Check links frequently. (Nothing is more frustrating than to get an error message).
- Link only to appropriate pages.
- Stay legal. If you are unsure, link to it!
- Let people know you are there. You can register your site with Yahoo, Classroom Connect, etc.
- Post the date when the site was last updated.

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| Top 10 Ways to Improve Your Home Page | |
|--|--|
| 10 | Use backgrounds intelligently |
| 9 | Keep your graphics within a small window width |
| 8 | Use thumbnail graphics |
| 7 | Don't abuse frames |
| 6 | Use JPEGs and GIFs intelligently |
| 5 | Use Height and Width Tags |
| 4 | ALT Tag your important images |
| 3 | Avoid over-using Image Maps |
| 2 | Include your email address |
| 1 | Be Unique! |

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Top Ten Mistakes in Web Design

1. Using Frames

Splitting a page into frames is very confusing for users since frames break the fundamental user model of the web page. All of a sudden, you cannot bookmark the current page and return to it (the bookmark points to another version of the frameset), URLs stop working, and printouts become difficult. Even worse, the predictability of user actions goes out the door: who knows what information will appear where when you click on a link?

2. Gratuitous Use of Bleeding-Edge Technology

Don't try to attract users to your site by bragging about use of the latest web technology. You may attract a few nerds, but mainstream users will care more about useful content and your ability to offer good customer service. Using the latest and greatest before it is even out of beta is a sure way to discourage users: if their system crashes while visiting your site, you can bet that many of them will not be back. Unless you are in the business of selling Internet products or services, it is better to wait until some experience has been gained with respect to the appropriate ways of using new techniques. When desktop publishing was young, people put twenty fonts in their documents: let's avoid similar design bloat on the Web.

3. Scrolling Text, Marquees, and Constantly Running Animations

Never include page elements that move incessantly. Moving images have an overpowering effect on the human peripheral vision. A web page should not emulate Times Square in New York City in its constant attack on the human senses: give your user some peace and quiet to actually read the text!

Of course, <BLINK> is simply evil. Enough said.

4. Complex URLs

Even though machine-level addressing like the URL should never have been exposed in the user interface, it is there and we have found that users actually try to decode the URLs of pages to infer the structure of web sites. Users do this because of the horrifying lack of support for navigation and sense of location in current

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web browsers. Thus, a URL should contain human-readable directory and file names that reflect the nature of the information space.

Also, users sometimes need to type in a URL, so try to minimize the risk of typos by using short names with all lower-case characters and no special characters (many people don't know how to type a ~).

5. Orphan Pages

Make sure that all pages include a clear indication of what web site they belong to since users may access pages directly without coming in through your home page. For the same reason, every page should have a link up to your home page as well as some indication of where they fit within the structure of your information space.

6. Long Scrolling Pages

Only 10% of users scroll beyond the information that is visible on the screen when a page comes up. All critical content and navigation options should be on the top part of the page.

7. Lack of Navigation Support

Don't assume that users know as much about your site as you do. They always have difficulty finding information, so they need support in the form of a strong sense of structure and place. Start your design with a good understanding of the structure of the information space and communicate this structure explicitly to the user. Provide a site map and let users know where they are and where they can go. Also, you will need a good search feature since even the best navigation support will never be enough.

8. Non-Standard Link Colors

Links to pages that have not been seen by the user are blue; links to previously seen pages are purple or red. Don't mess with these colors since the ability to understand what links have been followed is one of the few navigational aides that is standard in most web browsers. Consistency is key to teaching users what the link colors mean.

9. Outdated Information

Budget to hire a web gardener as part of your team. You need somebody to root out the weeds and replant the flowers as the website changes but most people

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would rather spend their time creating new content than on maintenance. In practice, maintenance is a cheap way of enhancing the content on your website since many old pages keep their relevance and should be linked into the new pages. Of course, some pages are better off being removed completely from the server after their expiration date.

10. Overly Long Download Times

I am placing this issue last because most people already know about it; not because it is the least important. Traditional human factor guidelines indicate 10 seconds as the maximum response time before users lose interest. On the web, users have been trained to endure so much suffering that it may be acceptable to increase this limit to 15 seconds for a few pages.

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Seven Deadly Web Sins

1. "J-pigs," and GIFs that aren't jiffy

Most people build their first Web site locally, off a hard drive or a fast LAN connection. Often, they end up with dazzling sites. The graphics are incredibly rich, the sound is beautiful, the animations nifty, and all work like a Swiss watch. Unfortunately, most of us will connect to their sites with a 14.4Kb-per-second or 28.8Kbps modem talking through an often-slow and usually bursty Internet, making access to the sites a form of slow torture. Here are some hints to help you avoid this problem:

Create small Web graphics at the lowest acceptable pixelation and color depth. Simple graphical elements such as buttons and bullets usually look fine in 16-color mode. You rarely need to work in 24-bit color depths.

Try saving your graphics as both GIFs and JPEGs to see which gives you the smallest file size at an acceptable resolution. The difference in file sizes can often be as surprising as it is unpredictable. Some wags refer to corpulent JPEG graphics as "J-pigs."

If you must use large graphics, don't spring them on your site visitors without warning. Try using thumbnail previews so readers can choose whether to download the full version.

Avoid huge image maps. Often, the use of text and a few well-chosen graphical buttons will be far easier for your site's visitors to download, navigate and use than a large image map. If you must use an image map, keep it as small as possible, at the lowest color depth you can get away with.

Use similar smaller-is-better logic for all page elements. For instance, use compact MIDI files instead of bloated WAVs for background sounds, and use Java applets, VBScripts and in-line AVIs only when they add something meaningful-and keep them small at that.

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2. Hard-to-read pages

Your Web designer may have a 500-pound, professionally calibrated 21-inch multi-megawatt monitor, but your site visitors may have cheesy LCD laptops or crummy 14-inch VGA monitors that haven't been degaussed since the Earth's magnetic poles reversed. Among other things, watch for:

Type that doesn't provide enough contrast with the background color, such as blue on black. Busy backgrounds that compete with the type, making it hard to read. Reliance on specific color palettes or fonts rather than standard Windows palettes. Teeny, tiny type that becomes illegible on a less-than-perfect screen.

Also bear in mind that Web pages are meant to be viewed on screen, and on-screen text works best when there's very little scrolling. If your text runs long, break it into several pages and let readers jump from page to page instead of forcing them to scroll through one elephantine unit. And break long lists into separate sub-lists, unless you have a compelling reason not to do so.

3. "This page under construction"

Don't roll out half-baked pages or sites. All sites and pages evolve, but if yours is so unfinished that you need to warn your visitors, it's not ready.

Make sure all the links on your pages do what they're supposed to do, and that all the other features work properly. You'll only frustrate your site's visitors if they don't get what you promise them, or if they run into syntax errors and other weirdness.

4. Recycle-but not on the Web

Web content can be almost anything except repackaged print material or stuff that merely duplicates what's readily available in hard copy. The Web lets you do so much more than the print medium. You can interact with your readers or empower them to get exactly what they need from your site. Limiting them to what they're already able to do in print ensures your site will fail. Besides, merely duplicating what you already offer elsewhere is a sure-fire way to annoy those site visitors who

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travel the Web on their own dime. If they've already seen the material elsewhere, you've just wasted their time and money-and you'll be hard-pressed to get them to visit you again.

5. Advanced-feature abuse

Don't use a feature just because it's cool. For instance, don't use Frames bordered areas of a browser window that can function as independent mini-browsers in their own right) when an ordinary table will do. Framed pages can be deathly slow. Likewise, don't use Forms for free-form text or as a substitute for e-mail. They're a great way to let readers place orders, fill out questionnaires and reply to you with formatted information, but it's no fun typing running text into a small, vanilla Web window.

And before you build a site that requires a browser extension or add-in, know that at best, many of your site visitors will have to download and install the add-in before they can use your site. At worst, with a browser-specific add-in, many of your visitors won't be able to access your site at all. (Even today, something like 20 percent of visitors to public sites don't use Netscape-and that percentage is growing.) Your safest bet is to be browser-neutral wherever possible. If you do use a proprietary plug-in, provide a viable alternative for people with other browsers.

6. Unequal access

Most everyone now uses a graphical browser to surf the Web, but some people don't have a choice. For example, people with visual handicaps often use text-based browsers, sometimes coupled with text-to-speech synthesizers. Don't shut them out. If you provide alternate text behind your graphics, everyone can use your pages-an important legal issue in business intranets, and an important human issue everywhere.

7. Untested waters

Don't turn your visitors into guinea pigs. Before going public, test your site on a variety of systems, screen resolutions, color depths and access modes (such as via a 14.4Kbps modem connection, or the slowest common speed your site visitors are

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likely to use). Make sure that what worked great on the development systems will deliver in the real world, and that the site is responsive. One rule of thumb suggests top-level "welcome" pages should show something almost immediately upon access, and completely load in less than 20 seconds with a normal connection.

It All Begins With A Plan

- **Assign responsibility** - Web development can't be done as a "spare time" project. Decide in advance who will do what-- provide content (text and graphics), design pages, post pages, handle comments, maintain the site, etc. As a rule of thumb, the design stage can require 80-200 hours. Depending on complexity of the site, maintenance will generally require 10-40 hours per week.
- **Design your information**
 - **Know where you're going before you start.** Identify all your audiences and all the purposes you want the site to accomplish.
 - **Identify the information** that must be included in your site to address the needs of your audiences and to accomplish your purposes.
 - **Map out your information** before you start creating pages.
- **Design your pages**

Make graphics work for you. It's easy to go overboard with graphics. Good design aids the reader without getting in the way. If your page becomes too cluttered with bells and whistles, the reader will be the one to suffer. Large graphics files dramatically slow response time.

Use a consistent design on all the pages in your Web site.

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Keep in mind non-graphical browsers. Provide alternatives for readers using text-only browsers, especially if you have utilized graphical image maps within your site.

Provide navigation tools. Include graphic navigation buttons or bars leading forward, back, and to the original index on deeper-level pages. A link to your home page gives readers the opportunity to return to the beginning should they become lost within your site.

Design for interactivity. Guest books, mail requests, and e-mail forms can build interest and will give readers a break from the sometimes-monotonous surf-and-scroll syndrome.

Keep your page address (URL) short and simple.

Keep it current. Remember, Web pages are living documents. If your information is out of date, it will be difficult to get readers back a second time.

Basics of Web Design

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Before you write your first HTML tag, you should have a concept of what you're going to publish, why you are going to publish it, and how you're going to present it. The best strategy is to consistently apply a few basic design and organizational principles to every single Web page you create.

This portion of the style guide will help you formulate that strategy while ensuring that your site flows well and maximizes the potential of the Web.

- Stay Simple and Consistent
- Standard HTML
- Key Elements: Content and Navigation
- Page Design
- Graphics
- View, View, and View Again
- Run a Final Checklist

Stay Simple and Consistent

- Don't overwhelm your visitors with options. "Less is more" in Web design. Limit home page content to ten items, with seven the optimal number.
- Keep all text short and to the point.
- Build in predictability and structure, with clear functional and graphic continuity between various components and subsections.
- Develop modestly sized banner graphics, signature icons, action buttons, or other graphic devices to build identity within your site. If your home page has a signature graphic, incorporate part of the graphic or a smaller version on subsequent pages.
- Limit your environment to four levels and give readers a road map to help them know where they are and how to get to where they want to be.
- Include a "Back to Home Page" link on deeper-level pages.

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- Link to your campus, department, program, school, and/or unit pages.
- Link to the Indiana University home page.
- Proofread and edit carefully.

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Standard HTML

Basics of an HTML page

- Title: informs the browser what to display in the window header
- Header: include the main purpose of the site, because search engines read the header first
- Body: the content of the page

The following source code is the standard for creating a Web document. Remember that search engines such as Lycos and Yahoo draw from the head/title area of a page as they perform searches. Choose what you put in the title area carefully.

```
<HTML>  
<HEAD>  
<TITLE>Title of Your Page</TITLE>  
</HEAD>  
<BODY>
```

The content of your page goes here, finishing with an informational footer.

```
</BODY>  
</HTML>
```

- Head/Title: As mentioned in the previous section, this is an extremely important part of your Web page. Be sure to choose this information carefully.
- Links to other related pages.
- Up-to-date information. Make sure the information within your site is checked and updated at least once a month.
- Interactivity: sign in, mail requests forms.

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- ALT, HEIGHT, and WIDTH tags in graphics to make them load more efficiently as well as be accessible by all browsers. For example: ``.
- Footer, the signature of the page. The footer should list author or contact person with e-mail address, link to local home page, date of creation or revision, statement of copyright, and the URL of the document.

Navigation: A table of contents is essential

- Build a table of contents on your home page telling what your site offers. Keep the text short and the navigational graphics small yet attractive.
- Include graphic navigation buttons or bars leading forward, back, and to the original index on deeper-level pages. A set of red arrows like the ones in this document can be found in the Buttons and More section of the Resource Library.
- Divide documents larger than five screens into sections, all linking back to the main table of contents. Feel free to copy the source code on this document in setting up large pages.

Page Design

- Remember that white space accentuates what is there. Well-spaced elements on the page will increase readability. Italic type is hard to read on many computer screens and should be used sparingly.
- Include information concerning the size of the file when providing links to images, sounds, movies, or other downloadable files. It's annoying to click an icon and discover you just requested a 10-megabyte sound file.
- Make sure your background does not interfere with readability of text.
- Limit the use of elements that take a long time to load, including large graphics, excessive use of frames, animated GIFs, Java, or Javascript.

World Wide Web Site Design

- Avoid overuse of the term "under construction." Every Web site is generally considered to be under constant construction.
- Eliminate the term "click here." Work the link into the wording of the text. A link is evident by the underline or variation in color.
- Be aware that many readers find the BLINK tag annoying . . . use it sparingly.
- Keep a close eye on your links to avoid dead ends.

Graphics

When it comes to graphics -- photos, drawings, icons, etc. -- the number-one rule is to keep the file size as small as possible. Many people access the Web by modem, dramatically slowing the speed in which pages load. A 200k file can take several minutes to load. Following are some rules of thumb:

- Limit your graphics to 472 pixels wide. This is the default width for a Netscape window on a 13-inch monitor.
- Scan images for Web use at 72 pixels (dots) per inch. Computer monitors typically display at 72 ppi, making it unnecessary to save images at higher resolutions. The higher the resolution, the larger the file size.
- Keep individual graphics under 60k.
- Try not to use more than one large graphic per page. If you have a collection of graphics you'd like to display, shrink the graphic to thumbnail size and link it to a full-sized version.

There are only two graphic file formats read by most Web browsers: GIF and JPEG. Though more browsers are recognizing JPEG, there are still some that do not. It is best to stick with the GIF format to assure the highest level of compatibility.

World Wide Web Site Design

View, View, and View Again

- View your page on different monitors and browsers, including the text-based Lynx browser. It should look good, or at least be coherent, on any monitor or browser.
- Print your page and inspect it. Many users like to make hard copies of Web pages.
- Test your page over a 14,400 modem. Is it taking too long to load? Most pages should take no longer than 50 seconds. Less than 30 seconds is preferable.

Run a Final Checklist

Once you have designed your site and it is ready to go public, ask yourself these basic questions.

- Do pages load quickly?
- Do they look inviting?
- Are descriptors crystal clear?
- Is navigation easy?
- Are links rewarding?
- Is the information current?

World Wide Web Site Design

Campus Web Site Standards

Global Statements

- ◆ The **primary focus**, which is expected of every Campus Web Site, is to promote a positive image for the campus and District, as well as to keep students, parents and community members informed about campus life. (*see examples*)
- ◆ The **secondary focus**, which is optional for every Campus Web Site, is to use the site as an instructional tool for students and teachers. Appropriate curriculum related links and Web components that enhance courses and subject areas are a valuable instructional resource for students. (*see examples*)
- ◆ The Campus Web Site be developed and maintained by a “**Campus Webmaster.**”
 - A successful Campus Webmaster will be a staff member who is creative, logical, and skillful in computer technology. The Campus Webmaster must necessarily excel at time management and work well with other campus staff. (Professional staff members are preferred; however, paraprofessionals may be considered on a case-by-case basis.)
 - The Campus Webmaster **may or may not be the CIT.**
 - The Campus Webmaster will be **required** to devote a minimum of **15 hours per month**, outside the regular school day, to the Web site and will be paid an annual stipend of \$1,600.
 - The Campus Webmaster will submit a **monthly log** to Instructional Technology, documenting Webmaster work.
 - Staff development and software will be provided for Webmasters at no cost to the campuses:
 - New Campus Webmasters will be **required** to attend the 16-hour NISD Webmaster Staff Development Series in the fall. Macromedia Dreamweaver, the new NISD software standard for Webmasters, is used in the Webmaster Staff Development Series. (The previous software standard, Claris Homepage, is no longer

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available and no staff development will be offered on this product.)
New Campus Webmasters may also attend an optional 6-hour
Macromedia Fireworks course in the spring.

- Veteran Campus Webmasters may attend optional courses for Dreamweaver (6 hours) and Fireworks (6 hours) in the fall or spring.
 - Web Masters are encouraged to attend the monthly Webmaster Support Group meetings to enhance their skills. Webmasters will be notified of the meeting dates.
-
- ◆ The **goal of the *Campus Web Site Standards*** is to present District campuses to the electronic eyes of the world in as unified a manner as possible without squelching the creativity and enthusiasm sparked by this avenue of communication.

World Wide Web Site Design

Standards

I. Required Elements

A. Homepage

1. Link back to Northside homepage
2. E-mail contact for the campus office
3. E-mail contact for the Webmaster
4. Mailing address
5. Telephone and fax numbers
6. Copyright statement
7. Date of last revision. Update information before it becomes outdated or monthly, whichever is most current.
8. Six to ten links to sub-menus/documents
9. Link to a Credits Page (source citations)
10. A hit counter
11. Download time of 10 seconds or less from within the NorthsideNET

B. Sub-Pages

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1. Link back to the campus homepage and/or the relevant sub-menu
2. Download time of 30 seconds or less from within the NorthsideNET

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II. Web Publishing

The **Campus Webmaster**, under the direction of the Campus Principal, is responsible for developing and maintaining the Campus Web Site.

1. Protection of **student privacy** is imperative.
 - **Do not** publish surnames.
 - **Do not** publish photos of individuals (groups are acceptable).
 - **Do not** publish home addresses.
 - **Do not** publish home phone numbers.
 - **Do not** publish grades or test scores of individual students.
2. Get parental permission before publishing any information (photos, voice, video) about a student or before publishing any student work. The Campus Web Master or designee must keep a copy of this release, which must be renewed annually, on file.
3. The Campus Web Site (especially links to the outside world) must be reviewed and approved by the Campus Principal. **The Campus Principal makes all final decisions regarding the scope and design of the Campus Web Site.**
4. The Campus Principal or Campus Webmaster may designate other campus employees to work with the Campus Webmaster, as part of a “Campus Web Team.” Campus Web Team members can **volunteer** their time to maintain their own department or teacher/classroom web sites. Campus Web Team members must abide by the NISD Guidelines for Web Publishing.
5. All official (i.e. approved by the Campus Principal) campus department and teacher web sites must reside on the District web server. **Only** the Campus Webmaster or designated Web Team members may upload content to the campus site, all of which must

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reside on the NISD web server. Upload passwords are not to be shared with anyone other than the Campus Web Team members.

6. There must be no errors in spelling or grammar.
7. The content must be appropriate for K-12 education, in line with the District Acceptable Use Policy, and useful to the target audience.
8. Include graphical elements that complement rather than detract from the content.
9. Maintain functional and graphical continuity (i.e. similar “look and feel”) on all pages down through the second layer. Take into account the needs of **the campus departments** when designing the Campus Web Site.
10. Keep it simple! Content is much more important than gratuitous use of the “latest and greatest” in Web authoring tools. If necessary, the Campus Webmaster or Campus Web Team members may discuss additional needs (technology infrastructure, hardware, software etc.) with the District’s Instructional Technology Webmaster.

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Hallmarks of a Well-Designed NISD Campus Web Site

Primary Focus (Communication & Positive Image)

- ✓ All “Required Elements” Standards are included
- ✓ All “Web Publishing” Standards have been achieved
- ✓ Visitors are able to navigate easily within the Web site
- ✓ All links work correctly
- ✓ An interesting and inviting view of campus life is presented
- ✓ Current calendars, events, and news are published
- ✓ Student and campus achievements, awards and recognitions are showcased
- ✓ Helpful information regarding teams, departments, faculty, staff and administrators is included
- ✓ Helpful information regarding philosophy, mission, rules and programs is included
- ✓ Links to relevant NISD Departments are provided (ex. Special Ed., Gifted & Talented, Academic Standards, Instructional Technology)
- ✓ Links to relevant external resource links for parents are provided (ex. special needs sites, PTA, Texas Essential Knowledge & Skills)
- ✓ Classroom Web pages created by teachers are published

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Hallmarks of a Well-Designed NISD Campus Web Site (cont.)

Secondary Focus (Instructional Tool)

- ✓ Writing, artwork, and other student works are published
- ✓ General reference links for students and teachers are present (ex. maps, dictionaries, almanacs, encyclopedias)
- ✓ Curricula-related general resource links for students and teachers are present (ex. math sites, science sites, history sites, language arts sites)
- ✓ Curricula-related Web components used as part of classroom instruction are included (ex. topic hotlists, treasure hunts, subject samplers, and Web quests)
- ✓ Links to online enrichment activities are provided
- ✓ Links to online remediation activities are provided
- ✓ Interactive and/or collaborative online student projects are included
- ✓ Web pages created by students are published

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Web Law FAQ

May I freely copy, print, and email things I find on the Web?

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The Internet is the sort of place where it is extraordinarily easy to copy things, although it must not be forgotten that ease of copying did not start with the Internet. The cassette recorder made it easy to copy record albums. The photocopier made it easy to copy printed works. The videocassette recorder made it easy to copy movies. Floppy disks made it easy to copy computer software. In any of these media, the fact that something is physically easy to copy something does not mean that it is legal to copy it, or morally acceptable to copy it.

Absence of a copyright notice does not mean it is okay to copy something. Under US copyright law, for example, any original work fixed in a tangible medium is automatically protected by copyright regardless of whether any copyright formalities are done. Under the Berne Convention the absence of a copyright notice does not mean that a work is not protected by copyright.

Clearly one way to solve the problem is the simple step of obtaining the permission of the copyright owner. Yet another way is to confine one's copying to items that are in the public domain, for example because they were created hundreds of years ago.

Obtaining permission is a more difficult task than one might think. Suppose you see a web site that contains something you wish to copy, and suppose you obtain permission from the webmaster of that site to copy it. Does this mean you may post it on your web site without fear of liability? The answer is no, unless it happens that the webmaster is in fact the owner of all rights in the work you wish to copy. Can you be sure the work was not copied (in an unauthorized manner) from someplace else? If not, then permission from the Webmaster does not put you in the clear.

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The legal system does, however, permit some kinds of copying if it is done without the permission of the copyright owner. Under US law, for example, even if the copyright owner has not given permission, it is still okay to copy something so long as the copying falls within what is called "fair use". Regrettably for those who are eager to copy things, it is not easy to say for sure what is or is not fair use. Legal factors that are taken into account include: the portion of a work being copied (copying a small portion is more likely to be fair use than copying a large portion); the effect of the copying on the market for the item being copied (if the copying activity makes people less likely to buy the item, then the copying is unlikely to be fair use); and the use educational purposes is more likely to be fair use than some other uses).

If you see something on the Web and are tempted to copy it, why not just put in a link to it? For example, Internic has a policy according to which domain names are registered, and the policies are posted on Internic's web site. If I am tempted to copy the policy into my web site, why not just put in a link to the place where the policy may be found?

It is clear that the law will evolve in this area. Perhaps after some years of experience with the Web, courts will decide some cases that will provide guidance as to what is fair use and what is not.

No discussion of copyright and the Web would be complete without at least a mention of the notion of "implied license". For example, when I use my web browser to view a site, I am necessarily copying information from that site to the screen of my computer. Many web browsers have "cache" capabilities, in which case I am also necessarily copying the information into the cache as well. Most browsers have the capability to print what is on the screen, so if I print it I am automatically making a copy of it on paper.

As years go on the courts will develop the notion of implied license in connection with the Web, but it is clear that there is some sort of implied license that is automatically granted by anyone who sets up a web site and makes it open to the public. The implied license surely includes those things we think of as "normal" web activity -- viewing web pages, clicking on links, seeing the web text on the computer screen. What must not be forgotten, though, is that such an implied license is by no means a grant that permits members of the public to do whatever

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they may please with the material found on a web site. To draw analogies, the person who publishes a book is not granting to the public the right (via implied license) to photocopy the entirety of the book and to sell the copies. The musician who releases a compact disk is not granting an implied license to set up a facility for copying the CD's and selling the copies.

Common sense suggests that if a webmaster has placed a copyright notice so that it is seen by visitors to a web site, then the webmaster probably is trying to communicate to the public that the contents of the site are not to be freely copied in all ways. Of course, as mentioned above, the absence of a copyright notice does not mean a site is not protected by copyright.

As will be appreciated from the above discussion it is impossible, of course, to answer the "may I copy this?" question in general. If you care about copying some particular item you should consult competent counsel for advice.

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May I scan any image I wish and post it on my Web site?

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The short answer is "no". While it is physically and technically easy to scan images out of books and magazines, and to place computer-readable (GIF and JPG) copies in one's web site, the fact that it is physically and technically easy does not make it one's web site. The safest course of action is to obtain permission from the copyright owner before posting a scanned image into your web site.

Suppose you take a photograph yourself -- can you freely scan it and put it on your web site? Even this sort of photograph can cause trouble. If it is a photograph of someone else, it is safest if you obtain a "model release" from that person releasing you from liability for use of the photograph.

From the above discussion it should be clear that if you really care about this you should seek advice of competent counsel.

May I use images from the Web sites of others?

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Before the Web came along, the only way a publisher could make use of images from others was by physically copying the images into the work being published. The above discussions regarding the copying of text or images address such copying. But the Web allows a new and quite interesting way of using the images of others, namely the "IMG" hypertext reference. It is physically and technically easy to include an IMG reference in your web site, giving a URL (address) located on somebody else's web site.

The use of an IMG reference to somebody else's web site is intriguing. Suppose your web site is on a machine in which you are charged "per megabyte" for its use

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by visitors. Then when a visitor to your web site views one of your pages, and if the image on your page is an IMG reference pointing to somebody else's web site, the visitor's browser will obtain the image from that web site. It won't run up your bill.

Or suppose your web site is on a machine that has only a slow (narrow bandwidth) link to the Internet. Then if a visitor to your web site views a page of yours that contains an IMG reference to some other web site, the visitor's retrieval of the image won't slow down your link. It will slow down the link of that other web site instead.

There are practical reasons why you might not wish to use IMG links to images on the web sites of others. The image might be changed without your knowing it, leading to an unpredictable result for visitors to your web site. The image might be deleted from its web site, leaving a gaping hole in your web page.

But in addition to practical reasons why you might not wish to use IMG links to the web sites of others, there are legal reasons, and that is the purpose of this discussion.

Consider one case that really happened. A fellow noticed that two of his favorite cartoon comic strips were posted daily on a web site hosted by the distributor of the strips. He looked closely at the distributor's web page and determined the IMG URL addresses containing the actual strips. He then made up his own web page saying something like "here are my two favorite comic strips" in a header, followed by the two IMG references. A visitor to his web page would see the header and the two strips.

The next thing that happened was, of course, that lawyers got into the picture. This fellow got a letter saying that he was violating the distributor's copyrights by his placement of the comic strips onto his page. He posted an article in a usenet group asking for comments about the letter.

One commenter said that the distributor's conduct in making its strips available as image files on the Internet amounted to placing them in the public domain, so that anybody who wished could do anything they please with the images. Common

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sense suggests that this cannot be so; the publisher of a book, in a world in which there are photocopiers, is not giving permission to the world to make copies of the book.

One commenter pointed out that it is technologically possible to reduce unauthorized IMG references, for example by programming the server so that it will provide the requested image file only if the previously accessed page was the distributor's page that might normally contain the image. Such an approach has several drawbacks, chief among them that it only works if the browsing client

being used by the visitor happens to provide what is called a "referer" header; not all do this. Another drawback of this approach is that it makes every image request take longer.

The way this particular story ended was that the fellow chose to delete the IMG references entirely, and to use instead more commonplace HREF references so that a visitor to his site could click on the HREF references and reach the distributor's web pages. As a result, we will never know what would have happened if the case had been decided in court.

Clearly the safest course is to avoid the use of IMG references except in the special case where permission has been obtained from the owner of the site having the image file.

May I freely link to the Web sites of others?

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This is a question that has led to heated discussion in various Internet discussion groups in recent months. As will become clear, however, most of the disputes turn out to be semantic; once the definitions of certain terms are agreed upon most of the disputes disappear.

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The question seems easy enough to state: is there any legal or ethical impediment to setting up a link to someone else's web site?

A first difficulty comes if one succumbs to the temptation to rephrase the question as "is a URL copyrightable?" The person who phrases the question this way triumphantly states that the answer is "no" and thus that anyone who wishes may place any URL into any web site without having to answer to anyone else. A URL is rather like a telephone number or a street address.

Arguably it is no more protectable by copyright than a telephone number, due to its primarily functional quality. So indeed the answer to the question "is a URL copyrightable?" is "no". But the world is filled with legal constraints on behavior in addition to those that come from the copyright laws. If you post a sign saying "call this telephone number to reach a chronic liar", then unless the person at that telephone number is indeed a chronic liar, you will be subject to legal liability for libel. And it will be no defense at all that the telephone number was uncopyrightable.

Having discerned that the question "is a URL copyrightable?" is irrelevant, how can we arrive at an answer to the original question? An important step is to figure out what kind of link we are talking about. The previous section discusses a somewhat esoteric kind of link, the so-called IMG link. For the reasons discussed in that section, it seems prudent never to make an IMG link to someone's web site without getting permission first.

But the fact is that if you were to study several hundreds web sites, you would find that the links from one web site to another are virtually all so-called HREF links, and that virtually none of them are IMG links. An HREF link is the kind we are all accustomed to. It is a region on the screen which, when selected by the visitor, causes the present screen to be erased and causes an entirely new screen to be loaded. The words "previous section" in the previous paragraph are an HREF link -- they cause the screen to be loaded anew with the text of the previous section.

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So now for clarity let us redefine the question as "may I freely set up HREF links in my web site, to the web sites of others?" As will be clear in a moment, the short answer to that question is "yes". (Except in the case of framing, discussed below.)

The general rule proposed and set forth here, that one may freely set up non-framed HREF links to the web sites of others, is a rather reassuring rule since it happens to comport well with common practice and with common sense. The designers of the World Wide Web intended that it would be precisely that -- a web. One of the hopes and goals of the designers was that after the passage of some

years, a meaningful fraction of the sum total of human knowledge would be on the Web, and that it would be fully cross-linked. The idea was that while you might not find the answer to your question on the first web page you encountered, after a few rodent movements you would find the answer, as one web page led you to another, and another, eventually finding your answer.

Such a result -- a web of knowledge -- is only possible if people feel free to set up any and all HREF links that might come to mind. A person who steadfastly objects to any and all HREF links to his or her web site is missing the point of the World Wide Web.

Having said this, it is important to acknowledge that the proposed rule cannot be taken as a justification for setting up all imaginable links. A few fact patterns will illustrate.

A couple of months after our firm opened this web site to the public, we happened upon a web site in Massachusetts that had a link to the place in our web site where the most recent article of our firm newsletter appeared. The Massachusetts web site explained that its purpose was to provide web capability to those who could not afford it. As an example, the site invited readers to look at our newsletter. The clear message was that our law firm could not afford its own web site, and that this Massachusetts site was kindly providing a way for our firm newsletter to be seen by the public. We asked the site operator to delete any mention of anything in our web site, and he complied.

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Suppose someone were to set up a link to our web site, saying "click here to reach a web site of chronic liars". Assuming that our firm is not a bunch of chronic liars, then the link libels our firm. A court would not hesitate to order the party setting up the link to delete it.

Suppose someone were to set up a link to our web site, saying "See how prolific we are? We wrote all this!" The result would be someone taking credit for the work of others; stating it differently, they would be passing off our work as theirs. In the US, this would probably give rise to liability under the Lanham Act.

Framing. More recently a change in the capabilities of commonly used browsers has given rise to a way in which HREF links can lead to disputes. The new capability is that of "frames". A web author can cause a page to be divided into "frames", each of which can receive an HTML-constructed window of information. On most web sites that use "frames", the web designer provides all the content in each of the frames. Typically a small frame to the left is used as a menu, and a large frame in the center and right of the screen contains the main body of text, all of which originates from the same web site.

The controversial sites using "frames" are the sites that place advertising or editorial content in small frames around the edge of the screen, and that set up the main frame, in the middle of the screen, to contain HTML text from some other web site. In one site that recently drew controversy, the main screen contained content from MSN and from other news sources, while a frame across the bottom contained a banner advertisement.

This sort of frame-linking can lead and has led to disputes. The content provider whose content is in a middle frame might find itself juxtaposed with advertisements for products or services which it opposes. A conservative content provider might find itself juxtaposed with a liberal advertisement, or vice versa. There is also the danger that a web visitor might be misled as to the origin of the content in the middle frame, thus possibly giving rise to a claim under the Lanham Act (part of the US federal trademark law). It might appear that the web operator is passing off someone else's content as their own. And in any event the web operator could be deriving advertising revenue from the effort of others.

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This article suggests that one should do "frame" links to the web sites of others only after obtaining permission to do so.

But again let us try to keep reality in view. The vast majority of HREF links on the Web are not libelous and do not pass off one's work as another's. Most HREF links are quite clear to the visitor, who has no difficulty perceiving that by clicking on a colored line of text, she is going to a different web site. Such a user is also

aware that by clicking the "back" button she can return whence she came. Most of these links give rise to no legal liability at all.

Even if there is no legal requirement that the person setting up an HREF link (at least, a non-libelous, non-misleading, non-framed link) obtain permission from the owner of the site linked to, is there at least a moral requirement? Isn't it somehow "good form" to contact a Webmaster to say that an HREF link is proposed or has been set up? To this the answer we offer is this: If you are quite confident that you are not doing anything wrong in setting up a non-framed HREF link, then you probably are not doing anything wrong. Millions of HREF links have been set up in the World Wide Web, and the sky has not fallen and common sense has prevailed. Nonetheless, if you have any misgiving or doubt about a particular link, then the ethical thing to do is to write to the Webmaster and ask if there is any objection. This will give the Webmaster an opportunity to view the page containing the link, and to consider whether there is any reason to object to it.

A couple of additional examples may help to illustrate the common-sense aspects of this proposed rule.

Suppose that someone has set up a web site, and has not publicized it in any way. Suppose further that there is no choice but to make the site public, so as to permit testing of the site by means of visits from other countries. Then the person who stumbles on the URL for this site should, as a courtesy, ask if there is any reason not to link to the site. Setting up a link to the site might interfere with the testing, for example.

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One Internet discussion group about a year ago contained a posting from a fellow who operated a web site for a nonprofit organization relating to some particular educational needs. On his site, he had laboriously compiled federal laws relating to the subject of the web site; the laws were contained in a series of sub-pages. What prompted his posting was that another site (operated, if I recall correctly, by a competing non-profit organization) had set up HREF links to the sub-pages in such a way that this fellow's effort would go unrecognized. The inattentive visitor might not even notice having passed from one web site to the next.

This fellow wondered what his options were? Could he compel them to drop their links to his sub-pages?

The thing is, it wasn't exactly traditional passing off. The site never exactly said they had compiled these laws, for example, but merely had a link to the laws as provided on these sub-pages.

Quite a few participants in this Internet discussion group had no difficulty figuring out the right answer. This fellow should simply plaster the name of his non-profit organization all over the sub-pages. And at the end of each of his sub-pages, he should put in a link to his own main page. The result is that now the competing organization is directing its visitors to his own web site.

Linking to something other than a home page. There are some webmasters who say that they don't want people linking to anything but their home page. Webmasters who say this might be motivated by any of several concerns:

The webmaster might want to be able to change around the internal structure of the web site at will, thus perhaps denying responsibility for the trouble that is caused to others when the change causes links to break the webmaster may feel strongly that a visitor to a sub-page ought to be forced to read the contents of the home page first.

The view suggested here is that a Webmaster should be prepared for the possibility that members of the public may set up bookmarks to subpages, and that other HTML authors may set up links to subpages. Since this sort of bookmarking and linking can and will happen, the webmaster should be courteous to those visitors

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and HTML authors. The webmaster, upon moving a page, should have the courtesy to supply a "forwarding" page that lets the visitor know the new page URL. The webmaster should lay out each page with the expectation that bookmarks and links will be made to any and all possible locations within each page and sub-page. (On our Oppedahl & Larson site we provide our copyright notice and disclaimer on each page and sub-page for this reason, and each page and

sub-page has a link that returns to the top of the page or to the home page, again for this reason.)

In general, of course, it is desirable for one's site to be the subject of links from other sites. Most people who create web sites hope that lots of people will visit, and links from other sites promote this goal. Our web site, for example, is the subject of well over a hundred links, as shown in our page entitled Sites that Cite our Site. And our site is on the reading list for over a dozen college and university courses.

Someone has set up a link to my Web site without my permission -- what can I do?

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The first question would be, why do you care? Does the link cast you or your site or your organization in a bad light? Does it lead to a situation where someone else is taking credit for your work? For these or other reasons, as discussed in the previous section, you may have a legitimate gripe. Before you spend money on lawyers, though, it is suggested that you try resolving the problem by direct communication. Send an email or a paper letter explaining what you want done. Then if you must, consider retaining counsel, preferably counsel who are familiar with the Internet as well as with intellectual property.

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If the link is an IMG (image) reference, consider changing the URL of your image, and put some nuisance image in the place of the original URL for the image. That should discourage people from using your image without your permission.

But generally unless there is some special reason to the contrary, you should be pleased if someone sets up a regular (non-framed HREF) link to your web site.

How may I keep people from taking things from my Web site?

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There are a number of steps which the operator of a web site may take to attempt to minimize the extent to which others take things from it. The simplest is not to post on the web site. Another is to use the access controls built into the web server to limit the range of IP addresses that are permitted to enter the site. Still another is to set up password protection, so that only certain persons are permitted access to your site.

As will be appreciated, however, such suggestions would be of no help to most web site operators. Most web site operators want their web sites to be available and open to the world at large. Thus we can recommend some other steps that may dissuade others from taking things from you. These steps include: filing copyright registrations, placing copyright notices and related notices on your web site, obtaining trademark registrations, placing trademark notices on your web site, and seeking patent protection for whatever there may be in your web site that is patentable.

How do I obtain a domain name?

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In general terms, you obtain a domain name by making application to a domain name registration authority. For example, to obtain a domain name that ends in .com or .org or .edu, you make application to Internic, whose designated representative is Network Solutions, Inc. Internic by no means handles all domain names, however; domain names that end with two-letter country codes are administered by other authorities.

Prior to making application to the registration authority, you must find someone who operates a domain name server (DNS), who will agree to provide domain name service for your domain name. In addition, assuming you plan to use your domain name for email, you need to find someone who operates a mail exchanger (MX), who will agree to provide email service for your domain name. Finally, assuming you plan to use your domain name for a web site, you need to find someone who offers an HTTP server, who will agree to provide equipment hosting your web site. Often it is convenient to purchase all three services from the same internet service provider, but nothing about how the internet works requires that you do so. At Oppedahl & Larson, for example, we use Panix for all three services.

Having obtained at least your DNS service and having tested it (see a description of this process in an article in the New York Law Journal) then you may submit an application to the registration authority. Once the domain name is granted to you, then you should make careful note of the due dates (if any) for payment of maintenance fees (see a discussion of this in another article in the New York Law Journal).

How do I protect myself from loss of my domain name?

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The protective steps to take to keep from losing your domain name differ depending on which organization administers your domain name. If your domain name ends, for example, in .com or .org or .edu, then what matters to you are the

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policies of Internic, whose designated representative is Network Solutions, Inc. NSI has published various policies with which you must be familiar, and which are discussed in articles by Carl Oppedahl that have been published in the New York Law Journal. Another article that is a must-read was published in Network World. Among other things, it is wise to obtain a trademark registration for the domain

name immediately if one has not already done so. You should check your Who is record to be sure that your registration authority has correctly listed who owns your domain name (on rare occasions an unscrupulous internet service provider will list itself as the owner). You should also check the record to be sure it lists up-to-date postal, email, and telephone contact information for you. Finally, if your registration authority (e.g. Internic) charges maintenance fees, then you should make note of when your maintenance fees are due, and make inquiries if for some reason you do not receive reminders from your registration authority.

Don't those Web search engines violate the copyright laws?

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An indispensable resource on the Web are the search engines such as Altavista, Lycos, Yahoo, and Infoseek. These engines search the World Wide Web, reading one web page after another and constructing concordances permitting later retrieval of the URLs of web sites containing words of interest. It has been suggested by some that this concordance construction, which necessarily involves copying information found in the web sites, might violate the copyright rights of the web site owners.

It is not possible, of course, to state as a general rule whether such sites engage in activity that gives rise to copyright liability, since each engine is programmed differently and the retrieved information is stored differently in each site. And in any event there have been no court decisions on this topic. But it is quite easy to imagine a court concluding that mere concordance extraction, without more, would

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be "fair use" or would fall within the implied license that any web site operator grants to its visitors.

Do MIDI, WAV, and MP3 files violate the copyright laws?

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MIDI, WAV and MP3 files are files which, when played back through appropriate software and hardware, reproduce sounds, music, or voices. It is commonplace for the designer of a web page to include not only image (IMG) files to provide images, but also to include MIDI or WAV files to provide audio accompaniment for the page. A WAV or MP3 file can reproduce any audio information (e.g. Homer Simpson saying "Doh", or the entirety of a popular song as heard on the radio or on a compact disk), while MIDI files only reproduce that which can be played on a keyboard. A WAV file that is ten seconds long when played back may take ten times longer to download, while a MIDI file that plays for five minutes may require only ten seconds to download. For this reason MIDI files are increasingly popular on web sites, since they don't take very long to load. An MP3 file that corresponds to a WAV file will take less time to download than the WAV file, but when played back will offer sound quality comparable to that of the WAV file. For this reason MP3 files are starting to be popular.

A MIDI file is created by playing music on a keyboard that generates MIDI data indicative of the keys that were pressed (or would be pressed; some MIDI files are created by means of editors rather than keyboards). The keyboardist may be playing music that he or she composed, or may be playing music that was composed by someone else, or may be playing music that is in the public domain (e.g. music that was composed and performed hundreds of years ago). A WAV or MP3 file is generally created by playing back some other audio sound source, such

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as a tape recording, into a sound card that transforms the audio input into a digitally stored file.

The question naturally arises whether any of the following violate the copyright laws: (a) creating a MIDI , WAV or MP3 file; (b) making a MIDI, WAV or MP3

file available on a web site; or (c) replaying a MIDI, WAV or MP3 file by using a browser to view a web page, or by using an MP3 player.

The answers turn on (1) what is in the MIDI, WAV or MP3 file; and (2) what country you are in. This discussion focuses on the law in the United States, and while many other countries have similar laws, there are differences from country to country.

Consider a MIDI file containing a Chopin Nocturne. Someone played the nocturne on a MIDI keyboard so that it could be recorded into a MIDI file. Let's call that person Albert (A). Albert places the file on Albert's web page. This is not a copyright violation because the nocturne, dating from a century ago, saw its copyright term expire many years ago. Let's suppose Paul, a member of the public, visits Albert's site and thereby plays the MIDI file. This is not a copyright violation because Albert implicitly gave Paul permission to do so by placing the file on the web site.

Now suppose Brad visits Albert's page, plays the MIDI file, and likes it. Brad makes a copy of the MIDI file and places it on Brad's web site so that visitors can hear it when they visit Brad's web site. This is likely to be a copyright violation (at least in the US), violating rights of Albert since Albert has rights in the performance recording.

Consider a MIDI file which is a rendition of a best-selling popular song (e.g. a song by Billy Joel). The file, if prepared without permission of Mr. Joel, is likely to be an unauthorized derivative work, giving rise to liability under the copyright laws.

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Consider a WAV or MP3 file containing the entirety of a best-selling musical compact disk. If this file is placed on a web site without the permission of the owner of the rights in the compact disk, then the web site operator is likely to be liable under the copyright laws. A visitor to the site who retains a copy of the file is also likely to be liable under the copyright laws. The same would apply to a WAV or MP3 file that is a copy of a movie or television sound track.

It is possible to spend enormous amounts of time and energy developing other fact patterns. What if the MP3 file contains only a few seconds from a song that is five minutes long? What if the WAV file contains only a few seconds from a television theme song rather than the entirety of the theme song? What if the MIDI file contains only a few bars of a long composition? What if the performer is performing purely for educational purposes, or non-profit purposes? What if the only visitors to the web sites are students? What if the purpose of the MIDI, WAV or MP3 file is for use in parody or satire? Will a website visitor who merely played the MIDI, WAV or MP3 file but did not retain a copy, nonetheless be liable? What if I claim to have had no idea that it was illegal? Each question will have a different answer, depending on its particular facts.

One must also bear in mind that activities on web sites, including activities involving WAV, MIDI or MP3 files, can give rise to liability under laws other than copyright laws. A WAV file that suggests an origin for goods or services (e.g. the theme song of a popular television show) might possibly give rise to trademark liability.

What will happen to you if you are found liable for copyright infringement? In the US, if the copyright owner previously registered the copyright with the Copyright Office, then you may have to pay amounts of money set forth in the copyright statute, anywhere from \$500 to \$20,000. You may also have to pay the attorneys' fees of the copyright owner.

In the US, regardless of whether or not the copyright owner previously registered the copyright, you may have to pay actual damages. In addition, the court may order impoundment and destruction of the instrumentalities that made the copying possible. This may include your computer, your hard disk, your backup media, your MIDI keyboard, your modem, and other hardware and software.

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What is the correct format for a URL on a business card?

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There seem to be three common styles for giving URLs:

- `http://www.patents.com/`
- URL: `http://www.patents.com/` (note the space before the `http://`)
- `<URL: http://www.patents.com/ >` (note the space before the `http://` and after the trailing `"/`)

The last is kind of ugly and probably best left for email and other computer-readable forms of communication. Clearly, anybody who knows what "http:" means should have no trouble making sense of any of the three forms. The most important thing is to be sure that the printer doesn't insert spurious spaces, or make periods into commas, or the colon into a semicolon, or misprint the / as a \. Most people leave off the ending /, but it is good to provide it. Most widely used web browsers are programmed to supply it (along with the "http://" if necessary) if omitted by the user. (Those who are printing business cards can be sloppy about leaving off the `http://` or the / but those who are writing html text must be very careful about such things.)

If you want to label things on your business card (like "phone:" and "fax:" and "email:") then use "URL:" for the URL.

Keep in mind also that an email address becomes a URL in this way:
`mailto:webmaster@patents.com` .

What is the correct format for a URL when provided in computer-readable form, for example in an email or news posting? The goal is to provide text which someone else's mail or newsreader can easily parse into URLs to make it easy to

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click on the URL as a browser link. For this, the third form above is appropriate. Note the space before the closing ">" which is required. If you employ the first or second forms, keep in mind that the URL must have a space before it and a space after it. (A common blunder is to place the URL at the end of the sentence, contiguous with a period, thus tricking the reader's browser into including the period as part of the URL, which then guarantees that the browser will not reach the desired page.)

How do I transfer or assign a domain name?

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Each domain name registration authority has its own procedures for assignment or transfer of a domain name. At present, the majority of domain names are administered by Network Solutions, Inc. ("NSI"). NSI has announced that henceforth it will refuse to honor transfer requests submitted in any form other than a particular form provided on the NSI web site. Readers are strongly urged to consult competent counsel before signing the NSI form.

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Copyrights in Cyberspace

Copyrights and the Internet

The issue of copyrights and intellectual property rights, as they relate to the web, is a fairly new one. Very few people have researched this topic and, therefore, little is known about what constitutes "stealing" from other web sites. I interviewed Dr. Jef Richards of the University of Texas at Austin to learn more about this topic. He teaches Advertising and Society, and is extremely familiar with the Copyright Law. Below I have included my findings:

The history of the Copyright Law

The main problem with copyrights is that the law that governs them is so outdated. The U.S. had used the Copyright Law of 1919 clear up until the 1960's. By then, the law was so outdated that it was hard for the courts to make it apply. So, they began revising it, and this process took around 10 years. One problem: by the time the Copyright Law of 1976 was implemented, it was already outdated as well. Needless to say, this is the law that we still follow today. Fortunately, there is a move in Congress right now to revise it yet again. It is hopeful that if there is a revised version of the Law, it will include special standards for internet.

What is the difference between the Copyright Law for a book and the Law for the Internet?

There is no difference between the Copyright Law as it relates to a book or the Internet. Copying pages from a book for a research paper is exactly the same as copying images found on a web site for your home page. You simply cannot take someone's work and use it for your own without giving credit where it is due. The reason that there is so much more copyright infringement on the web is that the technology of the internet provides much more convenience to those who wish to steal it. There is a presumption among internet users that if there is no copyright notice posted on the web site, anyone can feel free to use it as their own.

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What exactly is a copyright?

Copyrights are the right to own what you have created, and it protects that work from being abused or misused by others. A copyright may only be placed on something that is tangible, such as art, a musical piece, a book, or anything else created with originality and creativity.

How does "fair use" apply to copyrights and the Internet?

Fair use, as a rule, is generally exempt from copyright. This means that the public may use copyrighted material for educational purposes, term papers, etc. without obtaining permission to do so. This is a sticky situation for the web, however, because so many people have access to what is posted on the internet. Since fair use usually applies to a restricted audience, care should be taken when posting articles, etc. on the web for educational purposes.

Why are there no obvious warnings or references about copyright infringement on the internet?

This is a fairly new issue with the web and nobody is sure how to handle it. There are some cases in the courts right now for violation of copyrights on the internet, but this is new to them as well. The courts need to make some decisions about what should be allowed on the web, and what is illegal. Dr. Richards feels that the courts will probably find most cases in violation of the law. The offenders may claim that there was nothing on the web to warn them about copying, but this does not matter. In a book, it does not boldly state a warning, yet everybody knows that they should not copy out of the book. People should learn to treat the web the same way. They should follow the rules, regardless of if they are laid out explicitly or not. This will be more of an issue in the future, and hopefully, will also be handled better. Once the courts are able to make definite decisions on the current cases, the public will gain a clearer understanding of what is acceptable and what is not.

What about clip art and other types of stock art or material?

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Some clip art is copyrighted, some is not, while some are but they grant an unrestricted license for use. It is important to read the license and understand to what extent the materials may be used. Just because you paid for the CD-ROM that has a lot of clip art on it, does not necessarily mean that you may use all of it at your discretion.

If I see something on the web that I would like to put on my page, what should I do?

First and foremost, it is best to get direct permission for use granted to you by the copyright owner. This can be done by e-mailing or otherwise contacting them, letting them know you would like to use their material and how you plan to use it. Once they give you permission, you can use it for the purposes stated...but don't forget to include the Copyright notice!

What Should Be Included In a Copyright Notice

- The year of the copyright.
- Either © or the actual word "Copyright".
- The name of owner of the copyright.
- And an optional "All Rights Reserved".
- Here is an example...Copyright 1996 Brandi Dean. All Rights Reserved.

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Copyright and the World Wide Web

Everything you need to know to stay legal online

Situation: A student in your class finds a photo from a Web site and downloads it for a multimedia report. After the report is finished, she posts the entire project on your school Web site, picture included.

Question: At which point is the student violating the copyright law? When she first downloads the photo, when she posts it on the Web, or both times?

The answer to this question is not an easy or simple one. The arrival of the Internet and World Wide Web has raised an increasing number of questions about copyrighted materials and protecting an author's intellectual work when it's posted online. As wonderful a resource as the internet is, it also makes it very easy for users to cut and paste other people's work into their documents, leaving the creator bereft of any credit or deserved income.

So how can educators make sure that they and their students follow proper copyright law in Cyberspace? The key, as with most Internet safety issues, lies in being proactive. By following these few simple suggestions, schools can be sure that they stay safely within the current copyright laws.

As of this writing, there is no written-in-stone rule regarding schools and Web sites. For that reason, educators have to rely on what school administrator and Internet author Jamie McKenzie calls "parallel or analogic reasoning, drawing concepts and principles from decisions that have been rendered in related areas or domains." In other words, by looking at the copyright rules for other materials, schools can draw guidelines for online materials as well.

Taking material from the Net

In the past, teachers have relied upon the fair use doctrine to provide them with guidelines for copying materials for their classroom. "Fair use" is any limited use of a resource that is to be used for criticism, comment, news reporting, teaching,

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scholarship or research, and will not deprive a publisher or author from their income. A teacher can make a copy of a few pages from a good to aid in a lesson plan, but cannot photocopy the entire book and hand it out to students as the textbook for the year.

Treat the Internet the same as you would your offline materials by applying the fair use doctrine to it. In addition, when your students are using Net material in a report or project, be sure that they give credit where credit is due, regardless of whether the information was taken from an email message, Web site, or newsgroup. A guide on how to cite Net resources can be found at Classroom Connect's Web site.

URL: http://www.classroom.net/classroom/Citing_NetResources.html

Any software downloaded off of the Internet is considered to be copyrighted unless otherwise specified. Distributing such material, either over the Net or on a computer disk, is considered software piracy or is illegal.

As long as the work stays within the classroom, and is being used for research purposes, teachers and students are able to make free use of Net resources. However, extending that use beyond the school doors, whether it's on a Web page, in a published report, or the local newspaper, may place them in violation of copyright laws if they have not obtained permission from the copyright owner.

Contacting online publishers can be a fairly simple matter and ideally should be done whenever you want to use another Internaut's work, whether for a lesson plan, student project, or other work outside of the classroom. Unless there is a clear statement that the work you are copying from is free to use or is "public domain," and thus is free to do with as you please, you must assume that is copyrighted and contact the site's owners for permission to use their work. Fortunately you'll find that most site owners are more than willing to allow students to copy their material.

"Harvesting" Web sites

WebWhacker and other similar software products allow users to download entire Web sites onto your computer. Students can then make use of Internet resources without having to deal with bandwidth problems or the potential to access inappropriate material. Yet these software projects can create serious problems

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with copyright laws in that it allows visitors to more or less "steal" an entire site for their own purposes without the owner ever being the wiser. Thus, it's a good rule of thumb to never whack a site without contacting the site's owner for permission first, especially if you are going to use that site for some purpose other than basic research (i.e., report, global project, CD-ROM). A simple email message letting the Webmaster know you are downloading the site to save your students time and that it will **not** be posted online or used outside of the classroom should suffice in most cases.

Publishing Student's Work Online

Few would deny that student work done on the Web is intellectual property, and therefore deserves the same rights of protection granted to adults. However, several schools, concerned about student online safety, do not publish students' full names on their Web sites for fear of harassment from others. Therefore, if someone wants to publish or reprint some of your students' work, be sure to get parental permission before allowing it. To avoid any confusion, place an overview of the districts' policies regarding publishing student work on each of the school's pages, or on a separate page altogether.

Include information about the school district's policy towards copyright and plagiarism in the Acceptable Use Policy. Be sure that you clearly spell out the consequences for violating this policy so other teachers as well as students know what is expected of them. View the Bellingham School Copyright Policy listed below to see an online example.

Conclusion

Juggling all these issues can prove to be a full time job. For that reason, it might be a good idea to assign this duty to your school solicitor or a staff member, particularly if they are familiar with computer copyright laws. Have one person for each school to keep an eye on the Web site and deal with any copyright problems when and if they arrive.

Most importantly, don't let the fear of copyright issues prevent you and your students from mining the Web for information! Be cautious, but don't be so swayed by horror stories about online abuse and drastic legal action that you start hiding the computer in the closet. By taking these simple preventive measures, you will be able to ensure that your school's Net experiences will be relatively

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trouble-free ones.

A few quick copyright rules to follow in the classroom

- © As long as you limit use of the copyrighted work to inside your classroom walls, you are probably operating well within the copyright laws.
- © Always give proper credit to any borrowed Net work. Make sure that your students cite and attribute the work they take from the Internet for their reports and essays.
- © If you do post a copyrighted work online or take it outside of the classroom, contact the original owner of the copyright for permission. If you took the work from a Web site, email the site's Webmaster for permission.
- © Don't use something blatantly commercial. For example, don't download and re-post copies of a painting or a piece of software that is for sale online.
- © When in doubt, the best rule of thumb is to always ask for permission.

Related Web sites

Copyright Questions and Answers

URL: <http://web.capco.com/capco/QACopyright.html>

The Copyright and Fair Use Web site

URL: <http://fairuse.stanford.edu/>

Keeping it Legal: Questions arising out of Web site management

URL: <http://www.pacificrim.net/-mckenzie/jun96/legal.html>

Cyber Space Law for Non-Lawyers

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URL: <http://www.counsel.com/cyberspace/>

Ethics on the Net

URL: <http://199.233.193.1/cybereng/ethics/>

Copyright links

URL: <http://199.233.193.1/cylib.html#copy>

Ethics and Intellectual Property Resources on the Web

URL: <http://199.233.193.1/cybereng/nyt/ethics.htm>

Bellingham Public School Copyright Policy

URL: <http://www.bham.wednet.edu/copyright.htm>

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Web Site Evaluation

Listed below are a few questions to answer when evaluating a web site.

- Does the content make sense? Does it relate to what the students are studying in school? Is it especially interesting or humorous?
- Does the home page clearly show what's contained on the site?
- Does the content keep up-to-date or is information obviously no longer relevant (e.g. school calendars from months past, links that no longer work)?
- What kinds of interactive or collaborative projects are there, if any, in which the visitor can participate? Are they interesting and meaningful?
- Is the text easy to read? What about text size, color and style?
- How are graphics used on the site? Do they enhance the site or are they a distraction?
- Is it easy to move from page to page?
- Do the links to other pages on the site and e-mail connections work smoothly?
- Is student writing and artwork published on the site?
- Is it a site students would want to visit again? Why or why not?
- Is there any way to communicate with the students who published content on the site?
- What could be done in terms of content, graphics and links to make the site better?

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Great School Web Sites

This school is in Eugene, Oregon and has a great layout and design.

<http://www.4j.lane.edu/websites/whiteaker/whiteaker.html>

Highland Park Elementary in Austin ISD. They have done a fabulous job of setting up their site.

<http://www.hipark.austin.isd.tenet.edu/home/main.html>

Miraloma Elementary School

<http://nisus.sfusd.k12.ca.us/schwww/sch722/miralomahome.html>

Classroom Connect maintains a listing of schools all over the world

<http://www.classroom.net>

Region 20

<http://www.esc20.k12.tx.us/>

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HTML Tags

General Information

- Tag names always go inside angle brackets (<and>, like mathematical less-than and greater-than signs) so that the computer can recognize them as different from the flow of your text.
- An element is marked with a start-tag and an end-tag. The text surrounded by them is called the content of the element.
- The tag name is the same in both start-tag and end-tag, but the end-tag has a slash (/) after the opening angle bracket.
- The names of the elements are predefined in HTML: you can't make up your own. They are not 'case sensitive', so typing TITLE or TiTlE means just the same thing.
- Elements fall into one of three classes:
 1. Structural, like paragraphs, lists, section headings, figures, and tables; these are also called "block-oriented" elements because they contain blocks of text.
 2. Descriptive or content-oriented, because they describe the reason why certain words are significant, such as emphasis, an index entry, a citation, or a hypertext link.
 3. Visual, because they are a part of the external appearance, such as centering, or a new typeface, rather than having some intrinsic meaning.

In HTML, most elements are structural: there are also many descriptive elements, but very few visual ones, because the objective is to concentrate on content and meaning, rather than how it happens to look on any one user's machine.

- The word "tag" is used to describe the individual start- and end-tags; the

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word "element" refers to the whole element, including both start- and end-tags and the text content between them.

- A few elements are defined as empty: they only have a start-tag and they don't have any content. For example, `
` is used to mark special line-breaks (browsers do their own formatting of normal text, so this is only needed when you want to force a line-break to occur). There isn't any text to surround, so there's no end-tag:

The following is a list of basic tags we will be using in the class today:

Structure Tags

| | |
|--|--|
| <code><HTML></code> , <code></HTML></code> | First and last tags in every HTML document |
| <code><HEAD></code> , <code></HEAD></code> | Specifies that lines within the beginning and ending points of the tag are the prologue to the rest of the document. |
| <code><BODY></code> , <code></BODY></code> | Remainder of the HTML document is enclosed within this tag. |
| <code><TITLE></code> , <code></TITLE></code> | Title of the document; does not show on the page, but may show as the title of the screen |

Below is a sample of the above tags (This is the skeleton for every page)

```
<HTML>
<HEAD>
<TITLE> Susie's Home Page </TITLE>
</HEAD>
<BODY>
...
</BODY>
</HTML>
```

Headings

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<H1>, </H1>

Heading sizes run from 1 (biggest) to 6 (smallest)

Manipulating Text

Creates a line break (carriage return)

<P>

Acts to separate paragraphs or similar blocks of text

<HR>

Creates a horizontal rule line across the page

SIZE="..."

The vertical thickness, in pixels, of the ruled line

WIDTH="..."

The horizontal width of the ruled line. Can either be an exact pixel width or a percentage (the latter is indicated by a percent size: 25%, 50%, and so on)

Character Formatting

,

Boldface text

<I>, </I>

Italic text

<U>, </U>

Underlined text

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Block Text Formatting

| | |
|--|------------------------------|
| <code><CENTER>, </CENTER></code> | Centers text |
| <code>, </code> | Unordered (bulleted) List |
| <code>, </code> | Line Item in a bulleted list |

Links

| | |
|---|--|
| <code><A HREF>, </code> | With the HREF attribute, creates a link to another document or anchor. |
|---|--|

Example: ` CBS Home Page `

Graphics

| | |
|------------------------------|---|
| <code></code> | Inserts an inline image into the document |
|------------------------------|---|

Example: ``

Advanced Techniques

| | |
|--|------------------------------|
| <code><BODY BGCOLOR = "####"></code> | Changes the background color |
|--|------------------------------|

| | |
|------------------------------------|------------------------|
| <code><TEXT = "####"></code> | Changes the text color |
|------------------------------------|------------------------|

| | |
|---|--|
| <code><BODY BACKGROUND = "icon.GIF"></code> | Uses a graphic as a wallpaper type of background |
|---|--|

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Creating a Web Page Using HTML

- Insert the Webbie Day 1 AM disk
- Launch Notepad.
- Type the following text.
 - Tags are not case sensitive, so you can type all lower case, upper case, or a combination. *EXCEPTION*: Characters in quotation marks.
 - Usually, spacing and blank lines are NOT important. They just make the HTML more readable.

```
<HTML>
<HEAD>
<TITLE> Anderson High School </TITLE>
</HEAD>

<BODY>

</BODY>
</HTML>
```

This is the skeleton of your web page.

- Save the file on your floppy disk - name it **index.htm**.
- Minimize Notepad.
- Launch Internet Explorer or Netscape.

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- From the **File** menu, click **Open Page**.
- Click **Choose File**.
- Navigate to the 3-½ Floppy (A:) drive.
- Double click **index.html**.
- Click **Open**. The file appears to be blank. However, if you look at the Title Bar of the screen, you will see the text Anderson High School. This is what search engines look for - the words in the title of the page. We had to type the 7 lines of HTML in order to accomplish this.
- Return to the Notepad document by clicking **index.html** on the **taskbar**.

Compare the following text with the text on your screen to see what has been added. Insert the additional text:

```
<HTML>
<HEAD>
<TITLE> Anderson High School </TITLE>
</HEAD>
<BODY>
<H1>Anderson High School </H1>
<H2>"Where academic excellence is #1"
<BR>Anderson, Texas </H2>
</BODY>
</HTML>
```

World Wide Web Site Design

- Proof read and make corrections.
- From the **File** menu, click **Save**.
- Switch to Netscape.
- Click **Reload**.
- Switch to Notepad.

Compare the following text with the text on your screen to see what has been added. Insert the additional text:

```
<HTML>
<HEAD>
<TITLE> Anderson High School </TITLE>
</HEAD>
<BODY>
<BODY BACKGROUND="back11.gif">
<CENTER><H1>Anderson High School </H1>
<H2>"Where Academic Excellence Is #1"
<BR>Anderson, Texas </H2></CENTER>
<HR>
</BODY>
</HTML>
```

- Proof read your work.
- From the **File** menu, click **Save**.
- Switch to Netscape.
- Click **Reload** to view the page.
- Switch to Notepad.

World Wide Web Site Design

Compare the following text with the text on your screen to see what has been added. Insert the additional text:

```
<HTML>
<HEAD>
<TITLE> Anderson High School </TITLE>
</HEAD>
<BODY>
<BODY BACKGROUND="back11.gif">
<CENTER><H1>Anderson High School </H1>
<H2>"Where Academic Excellence Is #1"
<BR>Anderson, Texas </H2></CENTER>
<HR>
<UL><B> Check Us Out:
<LI> Clubs & Organizations
<LI> Administration
<LI> Counseling Services
<LI> Calendar
<LI> Students at Work
<LI> Departments
</B></UL>
</BODY>
</HTML>
```

- Proof read your work.
- Save your work.
- Switch to Netscape and Reload.
- Switch to Notepad.

Compare the following text with the text on your screen to see what has been added. Insert the additional text:

World Wide Web Site Design

```
<HTML>
<HEAD>
<TITLE> Anderson High School </TITLE>
</HEAD>
<BODY>
<BODY BACKGROUND="back11.gif">
<CENTER><H1>Anderson High School </H1>
<H2>"Where Academic Excellence Is #1"
<BR>Anderson, Texas </H2></CENTER>
<HR>
<IMG SRC="school.gif" ALIGN="RIGHT">
<UL><B> Check Us Out:
<LI>Clubs & Organizations
<LI>Administration
<LI> Counseling Services
<LI> Calendar
<LI> Students at work
<LI> Departments
</B></UL>
</BODY>
</HTML>
```

- Proof read your work.
- Save your work.
- Switch to Netscape and Reload.
- Switch to Notepad.

Compare the following text with the text on your screen to see what has been added. Insert the additional text:

World Wide Web Site Design

```
<HTML>
<HEAD>
<TITLE> Anderson High School </TITLE>
</HEAD>
<BODY>
<BODY BGCOLOR="FF0000">
<CENTER><H1>Anderson High School </H1>
<H2>"Where Academic Excellence Is #1"
<BR>Anderson, Texas </H2></CENTER>
<HR>
<IMG SRC="school.gif" ALIGN="RIGHT">
<UL><B>Check Us Out:
<LI> Clubs & Organizations
<LI> <A HREF="admin.htm"> Administration </A>
<LI> Counseling Services
<LI> Calendar
<LI> Students at Work
<LI> Departments
</B></UL>
Mail your comments to
<A HREF="mailto:kellysmith@nisd.net"> Kelly Smith </A>
</BODY>
</HTML>
```

- Proof read your work.
- Save your work.
- Switch to Netscape and Reload.
- Switch to Notepad.

World Wide Web Site Design

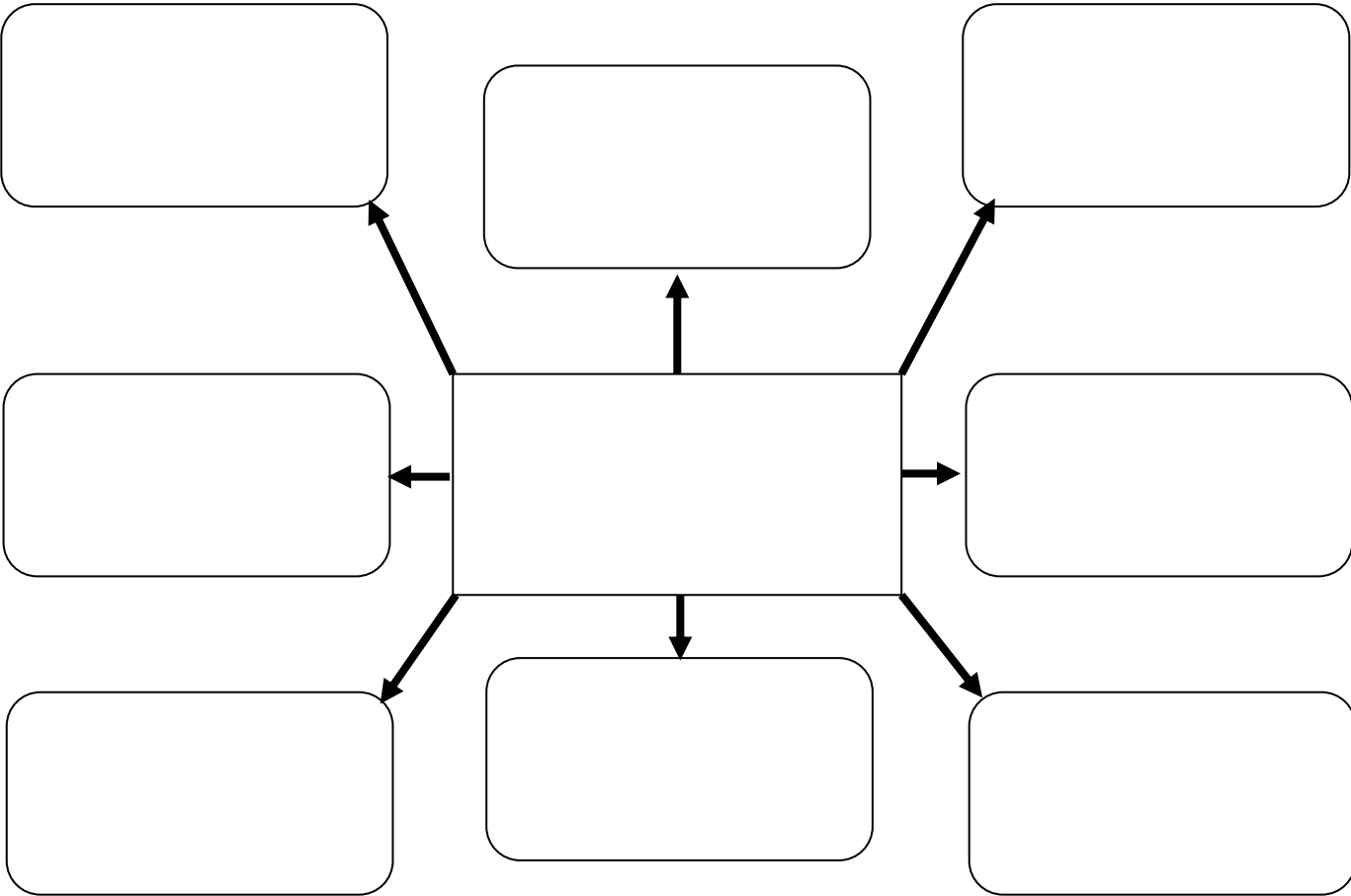
- From the **File** menu, click **New**.
- Type the following text.

```
<HTML>
<HEAD>
<TITLE> Anderson Administration </TITLE>
</HEAD>
<BODY>
<BODY TEXT="0066CC">
<CENTER><H1>Anderson High School Administration</H1>
Our Beloved Principal Is Mr. Joe Schmoie. He Is Terrific!! </CENTER>
<P>
<A HREF="index.htm"> <IMG SRC="up.gif" ALIGN="LEFT"> </A>
</BODY>
</HTML>
```

- Proof read your work.
- From the **File**, click **Save**. Save the file on your floppy disk as **admin.htm**.
- Switch to Netscape.
- From the **File** menu, click **Open Page**.
- Double click the admin.html document from your floppy disk.
- Check out the links and see if they work.

World Wide Web Site Design

Web Page Visual Organizer



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