Art 4208 **Interactive Media 1**

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Info on the Web

Image Formats
GIF-Graphic Interchange Format-uses a compression scheme called LZW, can contain only 256 colors or less. Used usually in artwork
Transparent GIFs-create the illusion of shapes other than rectangles. Mask or make background same as HTML page,
Animated GIFs-often called multi-block GIFs because multiple images can be stroed as sepearte blocks within a single GIF document
Interlaced GIFs-start out blocky and appear less and less blocky until they come into full focus.
JPEG-Joint photographic Experts Group-offers a 24-bit alternative to the 8- bit GIF File format. Used for photographic images. Note do not apply to JPEG!
Progressive JPEGs-support interlacing (where photo starts chunky and comes into focus)
PNG-8 and PNG-24-Portable Network Graphics cross platform file format and contains information about the characteristics of the authoring platform also good for partially transparent pixels (i.e. feathering). Uses a loss less compression method.

Image Color
Browser Safe Palette-216 common colors, composed of mathematical color combinations 6x6x6 (six different values of R, G, B)
Bit-Depth-Number of colors in an image, if you lower an images bit depth of colors you reduce the size of the file.
Dithering–Intermixing of two palette colors to create the impression of a third color. It is usually applied to continuous-tone images. Too much of this can make the image appear dotty.
Anti-Aliasing-Blends the edge of an object with its background. It helps to smooth the transitions between the shapes.

GIF Color Palettes
Perceptual-Generates a color table based on the colors currently in the image, primarily how people perceive it.
Selective-Generates a color table based on the colors currently in the image preserves flat and web-safe colors.
Adaptive-Generates a color table based on the part of the color spectrum that represents most of the color in the image. (Produces a slightly larger optimized file)
Web-Safe-Generates a color table by shifting image colors to colors that are available in the standard Web-safe palette.

HTML Information
URL: Uniform resource locator (identifier)
Domain: Name of site (www.domain.com)
Client/Server: The server is the provider of services, while the client is the consumer of the services
Servers: Very fast operating UNIX/MAC/PC processors (pre-emptive, multi-tasking/multi threading)
Search Engines: www.google.com, www.yahoo.com, www.excite.com
HTML (Hypertext Markup Language) is the set of markup symbols or codes inserted in a file intended for display on a World Wide Web browser page. The markup tells the Web browser how to display a Web page's words and images for the user. Each individual markup code is referred to as an element (but many people also refer to it as a tag). HTML is a formal Recommendation by the World Wide Web Consortium (W3C) and is generally adhered to by the major browsers.

**Instructor reserves the right to change syllabus throughout the quarter*

Browser: is an application program that provides a way to look at and interact with all the information on the World Wide Web. The word "browser" seems to have originated prior to the Web as a generic term for user interfaces that let you browse text files online. By the time the first Web browser with a graphical user interface was invented (Mosaic, in 1992), the term seemed to apply to Web content, too. Technically, a Web browser is a client program that uses the Hypertext Transfer Protocol (Hypertext Transfer Protocol) to make requests of Web servers throughout the Internet on behalf of the browser user. Examples are Firefox, Safari, Explorer

HTML Document: are plain-text (also known as ASCII) files that can be created using any text editor (e.g., SimpleText on a Macintosh; Notepad on a Windows machine). You can also use word-processing software if you remember to save your document as "text only with line breaks".

Required elements are shown in this sample bare-bones document:

```
<html>
<head>
<TITLE>A Simple HTML Example</TITLE>
</head>
<body>
<H1>HTML is Easy To Learn</H1>
<P>Welcome to the world of HTML. This is the first paragraph. While short it is still a paragraph!</
P>
<P>And this is the second paragraph.</P>
</body>
</html>
```

The required elements are the <html>, <head>, <title>, and <body> tags (and their corresponding end tags). Because you should include these tags in each file, you might want to create a template file with them. (Some browsers will format your HTML file correctly even if these tags are not included. But some browsers won't! So make sure to include them.)

Terms

Tags—Commands written between less than and greater than signssigns
<B>Big Boy</B>tomato
Attributes—Can specify other variations beyond the default for the tag
Value—Attributes in some cases have values, should be in straight quotations unless single letters A-Z or digits 0-9 or - or
<IMG SRC="image.gif" HSPACE=5>
Nesting Tags— More than one tag
<H1>Big Boytomato</H1>
Block Level Tags—They break the paragraph or text into next line
P, H1, BR, UL, Table
Special Symbols—replace the actual symbol in order to be read by the browser
  extra space
< is used for <
> is used for >
& is used for &
é is used for é

Absolute URLs—shows the entire path to the file http://www.site.com/web/index.html
Relative URLs—shows the relative address ../web/index.html in relation to the original
Exentsion— in order for Browser to read file it must have extension "index.html"
.htm, .html, .gif, .jpeg.....

Tag: is a generic term for a language element descriptor. The set of tags for a document or other unit of information is sometimes referred to as markup. When a web browser displays a page it reads from a plain text file, and looks for special codes or "tags" that are marked by the < and > signs. The general format for a HTML tag is:

```
<tag_name>string of text</tag_name>
```

It is important to note that the ending tag, contains the "/" slash character. This "/" slash tells a web browser to stop tagging the text.

Source code: The source code consists of the programming statements that are created by a programmer with a text then saved in a file to be read by browser.

Script: in computer programming, a script is a program or sequence of instructions that is interpreted or carried out by another program rather than by the computer processor (as a compiler program is). Multimedia development programs use "script" to mean the sequence of instructions that you enter to indicate how a multimedia sequence of files will be presented (the sequence of images and sounds, their timing, and the possible results of user interaction

JavaScript is an interpreted programming or script language from Netscape. It is somewhat similar in capability to Microsoft's Visual Basic, Sun's Tool Command Language, the UNIX-derived Practical Extraction and Reporting Language, and IBM's Restructured Extended Executor. In general, script languages are easier and faster to code in than the more structured and compiler languages such as C and C++. Script languages generally take longer to process than compiled languages, but are very useful for shorter programs.
JavaScript is used in Web site development to do such things as:
• Automatically change a formatted date on a Web page (see our "Today" page)
• Cause a linked-to page to appear in a popup window (see our "Make a WordPop!" page)
• Cause text or a graphic image to change during a mouse rollover
JavaScript uses some of the same ideas found in Java, the compiled object-oriented programming language derived from C++. JavaScript code can be imbedded in HTML pages and interpreted by the Web browser (or client). JavaScript can also be run at the server as in Microsoft's Active Server Pages (Active Server Page) before the page is sent to the requestor. Both Microsoft and Netscape browsers support JavaScript, but sometimes in slightly different ways.

DHTML (Dynamic HTML) A term commonly to describe HTML content that can change dynamically using apdiv's, layers and behaviors.

Cascading Style Sheet (CSS) is a Web page derived from multiple sources with a defined order of precedence where the definitions of any style element conflict. CSS gives more control over the appearance of a Web page to the page creator than to the browser designer or the viewer. With CSS, the sources of style definition for a given document element are in this order of precedence:
1. The STYLE attribute on an individual element tag
2. The STYLE element that defines a specific style sheet containing style declarations or a LINK element that links to a separate document containing the STYLE element. In a Web page, the STYLE element is placed between the TITLE statement and the BODY statement.
3. An imported style sheet, using the CSS @import notation to automatically import and merge an external style sheet with the current style sheet
4. Style attributes specified by the viewer to the browser
5. The default style sheet assumed by the browser
In general, the Web page creator's style sheet takes precedence, but it's recommended that browsers provide ways for the viewer to override the style attributes in some respects.

W3C: The World Wide Web Consortium (W3C) exists to realize the full potential of the Web. The W3C is an industry consortium which seeks to promote standards for the evolution of the Web and interoperability between WWW products by producing specifications and reference software. The Consortium is international; jointly hosted by the MIT Laboratory for Computer Science in the United States and in Europe by INRIA who provide both local support and performing core development. The W3C was initially established in collaboration with CERN, where the Web originated, and with support from DARPA and the European Commission." The W3C has taken over what was formerly called the CERN Hypertext Transfer Protocol daemon or Web server. You'll find some useful information at the W3C Web site (http://www.w3.org).