## **CGT 141/CPT 141 Lecture 6 Wk 4**

Links, Links and More Links!

## **About Hyperlinks**

- Anchors, links, hyperlinks, hotspots are all generally synonymous
- Types (based on what you are linking to):
  - o To documents or parts of a document
    - Extrasite links: links to other servers
    - Intrasite links: links to internal documents on current server
    - Intra-document links: links to places in the current documents (book calls them fragments)
  - o To other protocols
    - Email links: links that open the user's email browser (assumes user has valid account and email program set up and available)
    - FTP links: links to FTP servers; permits visual drag and drop capabilities in many cases
- Types (based on the item you click):
  - o Text link: Text is used as the clickable element (most common)
  - o Image links: placing an anchor around an image; making the image "clickable"
  - o Image maps: Images that have hyperlinks associated to parts of them
- Global settings for hyperlinks
  - o Link colors <body> tag:
    - link non-visited, inactive links.
    - vlink visited link colors
    - alink active link (color right after click)
  - o Changing font (or individualized color):
    - <font> tag can be used on specific words or phrases
    - Is deprecated, we will use until we get to CSS
    - Attributes:
      - color specified in hexademical
      - face family, such as Arial, Times New Roman, etc.
      - size specified as +1, +2 or -1, -2. In relation to base font size.

## The Anchor <a> tag

- Used to create the all types of links except image maps.
- Generally three forms for the <a> tag:
  - o Linking to other elements (extrasite, intrasite, email, FTP, Image)
    - <a href="resource">Blah</a>
    - <a href="resource"><img "myimage.jpg border="0"></a>
  - o Intra-document (fragment) links:
    - Place to jump to:
      - <a name="myspot">
    - Link to that place:
      - <a href="#myspot">

- Common Attributes:
  - o href the source the link points to
  - o target where to open the link (default is the current window or frame)
    - Four default targets
      - \_blank (open in a new window in front of current)
      - \_top (open in topmost window that contains current window frame)
      - self (open in current window frame)
      - \_parent (relative term; open in window frame that contains current window frame)
    - Can provide your own frame name (will see later)
  - o name for naming a location (fragment) in a document to that it can be targeted
- Other important attributes:
  - o accesskey allows shortcut keys to be assigned (only newer browsers)
  - o tabindex allows you to control tab order when working with fields and include link
  - o title allows you define the text for "tool tips" (typically, IE only)
  - Other attributes not widely used. Be familiar with them, but we will not be using them
- About the href attribute:
  - o May be absolute path or relative path
  - o Absolute sources:
    - Complete sources relative to the protocol
      - A complete URL to another page on the same server (wasted typing)
      - A complete URL to a page on another server (only way to do it)
      - A complete URL to a page and named anchor (fragment) on another server
        - o <a
          href="http://somesite.com/index.asp#myspot">Blah
          </a>
  - o Relative sources (on the same server):
    - Other pages relative to the current page
      - If file exists in same directory, just put file name:
        - o <a href="page2.html">
      - If file exists deeper in file structure, put folder (from current file position):
        - o If page is inside a directory named info, "beneath" current file:
          - <a href="info/"> if link to default page (index.html)
          - <a href="info/page2.html">
        - If page is inside a directory named info, inside a directory named anotherfolder, beneath current file:

- <a href="info/anotherfolder/"> if default page
- <a href="info/anotherfolder/page2.html">
- If file exists higher in the file structure, use ../ (carryover from DOS and UNIX), use ../ to traverse directories.
  - o If file is one-level up in the directory structure and is default page:
    - <a href="../">
  - o If file is one-level up in the directory structure and is named something else:
    - <a href="../page2.html">
  - o If file is two-levels up in the directory structure:
    - <a href="../../page2.html">
  - o If the file is two-levels up in the directory structure, and in a folder named info:
    - <a href="../../info/page2.html">
- Can also use what are known as aliased roots
  - o Aliased roots are set up on the server and are directories that function as a root location.
  - o Permit developers to truncate references to anchors
  - The actual directory that is set up as an aliased directory can reside anywhere in the server structure.
  - o If images folder is aliased directory:
    - <a href="/courses/> if accessing default page
    - <a href="/courses/catalog.html">
    - Note foreslash in from of images directory name.

## Image maps

- Two primary types of image maps
  - Client-side where the definition of the "hot spots" and their associated links are defined in the HTML code using <map> and <area>; interpreted by the client.
  - o Server-side where the definition of the "hot spots" and their associated links are defined by an external .map file.
    - Server-side maps were the first type supported.
    - Typical of Unix environments and some "free" server environments
    - We will not examine server-side maps in this course as they are not as widely use today, and they put an added drain on system resources because each time the user clicks them, the server has to interpret the map.
    - Client-side image maps
  - o An image (GIF, JPG or PNG)

- o Add usemap attribute to <img> tag
- o Create a <map> section with <area> tags defining the hot spots
  - The coordinate values for the <area> tag can be determined in Photoshop, using the Info panel/window and the marquee (mask) tool.
  - <map> section can be anywhere in the <body>
  - Origin for image is upper-left corner; positive x is to the right, positive y is down
- The <map>...</map> tag
  - o name only attribute
    - If <map name="mymap">, then <img src="mymap.jpg" usemap="#mymap">
- The <area> tag
  - o The <area> tag is placed inside the <map>...</map>
  - o No closing tag.
  - o Defines polygon that bounds the hotspot.
  - o Attributes
    - shape defines the shape (rect, circle, polygon)
    - cords
      - shape="rect" defines upper-left and lower right
        - o coords="x1, y1, x2, y2" where (x1, y1) is upper-left
      - shape="circle"
        - o coords="x, y, r" where (x, y) are center, r is radius
      - shape="polygon"
        - o coords="x1, y1, x2, y2,...xn, yn...x1, y1" where (x1, y1), (x2, y2) ...(xn, yn) are points defining the closed polygon.
          - Beginning and ending points must match (must be closed)
          - At least 3 points.
    - href URL to associate with hot area
    - alt alternative text for the area
- Using Image maps
  - o Be careful with them. Large raster images are not a good way to design for deliverability!
  - Often more effective to break the image into pieces and place in a table; then use <a> tags around the pieces of the image that are to be links.
  - o If you use them, make sure to include alt tags for every <area> for non-visual browsers.