INTERNET

The Internet & World Wide Web

OBJECTIVES: Upon completion of the Internet & World Wide Web component you will be able to:

- Demonstrate Internet searching abilities by performing searches within the basic and advanced search options in various search engines.
- (Along with completion of the other components). Compare the differences and similarities between the Internet, Electronic Databases, and Print Resources.

How did the Internet Begin? (History of the Internet)

- The Internet began as a concept to link together computers throughout the United States.
- In the beginning, only government computers, the military, and universities receiving defense-related funding were linked together by the Internet.
- Now, everyone has potential access to the Internet.

What is on the Internet? Who Controls It?

- The Internet encompasses more than just the World Wide Web. It includes file transfer, e-mail, and streaming media.
- No one organization controls the Internet. It is operated by telecommunication companies around the globe who maintain and provide access to small telecommunications companies and their customers.

What is the World Wide Web?

- The Web was developed in the late 1980’s when a physicist (Tim Berners-Lee) wrote a program to share his documents with colleagues through hypertext documents and web browsers.
- In 1992, Congress passed legislation to allow commercial entities access to the Internet. At that point, the World Wide Web’s popularity skyrocketed.
- The Web consists of files called Web pages. These Web pages are delivered to users’ computers through a Web browser.
- Currently the Web provides text, video, and other multimedia material, making it an extremely popular medium.

The Web Browser

- A Web browser is a software application that “reads” the Web pages, which are written in Hypertext Markup Language (HTML). Web pages are converted into a readable form.
• Examples of Web browsers include Microsoft Internet Explorer, Netscape Navigator, Mozilla Firefox, Google Chrome, and Apple’s Safari.
• The Web browser used at Sullivan University is Microsoft Internet Explorer (IE). NOTE: Look for the big, blue E icon on the computer desktop.

Are There Limitations or Problems with the Web and Web Pages?

The Answer is YES.

• Web pages can be removed, redesigned or updated, without user notification.
  o This can cause information to be lost or allow information to become, in a sense, misinformation, which has the potential to be dangerous for information searchers.
• Not everything can be found on the Web.
• There can be too much information on the Web, leaving the user confused and frustrated.
• Anyone potentially has the ability to place information on the Web. The information may not be reliable or valid and, in some cases, actually harmful.
  o Due to the accessibility to Web publishing, it is the user’s responsibility to evaluate any and all information retrieved from the Web.
• Not everything on the Web is free.

You Can Access (Get To) Web Pages in a Variety of Ways

• A user may type in the Uniform Resource Locator (URL), also known as the Web address in the browser’s address field.
• While ‘surfing’ through different Web pages, a user may find hyperlinks (links) to other Web pages.
• Users may use a Search Tool such as Google, Microsoft’s Bing, or Yahoo! to search the Web.

What is the Uniform Resource Locator (URL)?

• The URL, or Uniform Resource Locator, is the web address assigned to every page on the Web.
• The Web browser uses the URL to find and retrieve the requested information on another computer. When the information is found, it is displayed on the user’s computer monitor.
• The make-up of a URL (Web address):
• As you can see above, URLs (Web addresses) are made up of different components, one being a domain.
• A domain helps the user to identify the type of organization that is associated with the Web page.
• Here are some examples of domains:

<table>
<thead>
<tr>
<th>Domain</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>.com</td>
<td>Commercial Enterprise</td>
</tr>
<tr>
<td>.edu</td>
<td>Educational Institutions</td>
</tr>
<tr>
<td>.gov</td>
<td>U.S. Government Entity</td>
</tr>
<tr>
<td>.mil</td>
<td>U.S. Military Entity</td>
</tr>
<tr>
<td>.net</td>
<td>Network Access Provider</td>
</tr>
<tr>
<td>.org</td>
<td>Organization (Non-Profit)</td>
</tr>
</tbody>
</table>

• NOTE: Remember that a .com Web page may not be the most credible Web page due to the bias of commercial entities.

What are Search Tools? How Do They Work?

• There are many different types of search tools. These help you locate information from the Web.
• But... it is important to remember that no single search tool can locate each and every Web site. Various search tools search different and overlapping parts of the Web.
• The types of search vehicles include:
  o Search engines
  o Subject directories
  o Metasearch engines

Search Engines

• Examples include:
  ▪ Google (http://www.google.com)
  ▪ Bing (http://bing.com)
  ▪ Cuil (http://www.cuil.pt/)
  ➢ A search engine is automated and the information is compiled by computers. Search engines may contain only 1/6 or less of all of the pages on the entire Web. This means a user may miss over 75% of available Web information with the use of 1 search engine.
Users can search for some or all of the words appearing on a Web page.
- Users frequently get thousands and millions of results. Many results may not be what the user wants.
- IMPORTANT: When using a search engine, make sure to evaluate everything you find. The information found using a search engine is mainly unevaluated information.

Web Subject Directories

- Examples include:
  - The Yahoo! directory (http://dir.yahoo.com). NOTE: Yahoo! has a well-known search engine (http://www.yahoo.com) in addition to the directory.
  - The Open Directory Project (http://www.dmoz.org).

- Web subject directories are a collection of Web pages gathered by the creators of the directory or submitted by volunteers or publishers of Web pages.
- The Web pages in a directory are classified by subject.
- Web subject directories can be useful for researching broad subjects or topics.
- Though the web pages in a Web subject directory may have been evaluated prior to placement on the directory, the user is still responsible for thoroughly evaluating the Web page.

MetaSearch Engines

- Examples include:
  - Dogpile (http://www.dogpile.com) and Metacrawler (http://www.metacrawler.com) search Bing, Google, and Yahoo! simultaneously.
  - 37.com (http://www.37.com). Searches 37 search engines – NOTE: Some of the search engines are oriented towards certain topics and may not be acceptable for research purposes.
  - Google has a feature that will allow you to create your own custom metasearch (http://www.google.com/cse/). A Google or G-mail account is needed in order to access this beta feature.

- A MetaSearch Engine is very similar to a search engine but searches more than one search engine or Web subject directory at the same time.
- Metasearch Engines often retrieve information that presents no relationship to the requested query.

How Can I Effectively Search the Web?

- Knowing which search engine to use is not the only objective when learning about searching the Web. Knowing how to search effectively is also a must.
1. Read the search tools HELP page for instructions on how to perform an effective search.
2. Before you begin your search, figure out what it is that you are searching for. Get together a list of keywords and synonyms of the keywords that will help you in your search.
3. If you are retrieving few or no hits, check your spelling.
4. Remember, search tools calculate the number of times your search term appears on a page. If you are not retrieving the appropriate material, try a different search term. **Remember, no one search tool searches the entire Web.**
5. If you performed a search and had 1 million (1,000,000) sites on your results list, and decided to look at each site, at a rate of one site per second, it would take you 11.5 days to look at all the sites. That is looking at web pages 24 hours a day. **Using an Advanced Search can help you define or narrow your search.**