

## **TBLM ICT.9#1: “Internet 101” for Teachers**

### **Browsers**

A browser is software used to access and search the Internet. There are two commonly used browsers, both of which are available on the Internet and can be downloaded and updated without cost.

- **Netscape Navigator:** Although originally created for Macintosh computers, this browser can also be used on Windows-based computers.
- **Microsoft Explorer:** Although originally created for Windows-based computers, this browser can also be used on Macintosh computers.

### **Search Engines**

A search engine is a tool used to search the Internet. It creates large and comprehensive databases of URLs (Uniform Resource Locator) and textual keywords. A search engine allows the user to enter keywords to get a list of websites related to those words. Search engines can be organized into three categories:

- **Basic search engines:** These engines search huge databases of websites. They work quickly to provide an extensive list of websites that match the search criteria. Using different engines to do a search can yield different results because each engine may have access to different databases of websites. Various search engines may specialize (for example, Yahoo!igans! returns websites designed for students). Although the user can use each search engine in the same manner, one engine may return more hits than another. Keep in mind that more does not always mean better.
- **Metasearch engines:** A metasearch engine seeks information from several basic engines at the same time. It lists the hits according to each of the basic engines searched. This can result in hits repeated from one engine to the next, making it look as though more hits were found than there are in reality.
- **Gateways or directories (subject guides):** All sites found in directories have previously been screened and selected by a team of people, and regrouped in categories (e.g., arts, science, entertainment). The user needs to know in what category to look for the desired information. This is not always easy or evident.

### **Search Basics**

- **Not all engines are equal:** A user-friendly engine to use with students is one that will find the requested information with the simplest query.
  - Such engines are usually designed to include Boolean operators implicitly when searching even though they are not used in the query. (For example, a user-friendly engine will understand that a query on “Mary Poppins” means a query on “Mary” and “Poppins” or “Mary Poppins” although the user did not include Booleans to refine the search.)
  - Google and Yahoo! are examples of such engines.
- **Start-up tips:** To increase the success rate of a search, follow these simple steps at the start of a search:
  - **Spelling:** Use correct spelling. Incorrect spelling will result in no hits or incorrect ones.
  - **Singular versus plural:** A choice of singular or plural can make a difference in the number of matches found.
  - **Capital letters:** When in doubt, use all lower case, even for the name of a person or a place.

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- **Quotation marks:** Use quotation marks to group two or more words together (e.g., “red river” instead of Red River). This increases the chances of getting appropriate hits and more matches being found.
- **Too few or no hits:** Consider the following:
  - Is the search too narrow?
  - Are too many search terms used?
  - Check for spelling.
  - Check for singular versus plural of the words.
  - Brainstorm for synonyms of search terms for the subjects being sought.
- **Too many hits:** Consider the following:
  - Refine the search.
  - Narrow the search by adding other search terms (e.g., for “bears” use “grizzly bears”).
- **Boolean search operators:** These are terms or symbols that help refine a search. When combined with keywords, they form a search string.
  - AND, OR, NOT are examples of Boolean operators.
  - Symbols such as + - “ ” [ ] act as Boolean operators.
  - Not all engines use the same Boolean operators.
- **In-depth search:** Every search engine offers the option to do an in-depth search. The main page of the search engine has a button called “advanced search” or a similar term. This usually includes
  - indicating the engine-specific Booleans and explaining their appropriate use
  - making the search language-specific
  - allowing the user to restrict the search, such as “titles only,” or to limit the number of matches found

### **What’s in a Website Address?**

A URL (Uniform Resource Locator) is a system of symbols and abbreviations put together to form the Internet address of a website. The last set of digits of a URL can reveal something about the source of the website:

- **.com** identifies for-profit commercial websites (e.g., <<http://www.microsoft.com>> represents Microsoft; <<http://www.apple.com>> represents Apple).
- **.gov** identifies government websites. These letters are most often found followed by letters for the geographical location within a URL (e.g., <<http://www.gov.mb.ca>> represents the government of Manitoba).
- **.org** identifies non-profit organizations (e.g., <<http://www.pbs.org>> represents the Public Broadcasting System [PBS]).
- **.edu** identifies education websites, often universities.
- **~** identifies personal websites of individuals (e.g., </~Mary Jones> represents the personal website of Mary Jones). The ~ symbol is called a “tilde.” It is found on the top left section of most keyboards.
- **a two-letter code** at the end represents a country of origin (e.g., <.ca> is Canada, <.au> is Australia).

### **What Makes a Student-Friendly Website?**

Before asking students to do an Internet search, preview a few websites that will be representative of the type you want them to find, or that can serve as exemplars of issues they should be aware of as they search the Internet.

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In choosing suitable websites for students, determine the following:

- **Accessibility**
  - How quickly does the website open?
  - How many levels into the website do you have to click to find the page you need?
- **Accuracy**
  - Does the website list credentials for the author or organization?
  - Is the information objective or is it opinionated? Middle Years students need help and much practice in learning to assess the objectivity of information they find on the Internet. (See discussion of Bogus Websites below.)
  - Is the subject well addressed, from all sides of an issue?
  - Recognize clues in the URL (e.g., <.edu> is likely more valid and reliable than </~Mary Jones>).
  - Does the website feature an “email us,” “contact,” or other link to the author for feedback?
- **Appropriateness**
  - Does the website come from a bibliography of student-appropriate resources?
  - Is the text written at a level that can easily be read? (Advise students to use the five-finger rule: Each time they encounter a word they cannot read or do not understand the meaning of, they lift a finger. If all five fingers of a hand are up before the end of the page, its content is likely too difficult.)
  - Look for clues in the title (e.g., Weather for elementary students).
  - Look for clues in the URL (e.g., <.edu> could be academic).
  - Is the website organized in a way that makes it easy to find information?
  - Is the information chunked by sub-topics or written in long paragraphs?
- **Appeal**
  - Do the design and layout features contribute to the effectiveness of the website? (Keep in mind that the most colourful website does not make it more valuable. A drab website, however, may not encourage a student to keep searching for information.)

### **Strategies for Evaluating Information**

Students will need much practice at assessing good and bad websites in order to become comfortable at identifying websites that will be useful to them.

Many websites provide rubrics for assessing websites. Search the Internet using the terms “evaluating websites” to uncover useful hits, such as those found on the IMYM Links Database.

### **Internet Issues**

As students search the Internet, they need to be aware of issues such as the following:

- **Bogus Websites:** Remind students that information has to be analyzed and questioned to help identify unreliable websites. Bogus websites are deliberately created to provide inaccurate information. (Searching the Internet using the terms “bogus sites” should provide hundreds of hits.) Teachers can use bogus websites to
  - provide examples of why students should question what they read on the Internet
  - challenge students’ thinking and ability to decide whether or not websites offer reliable information
- **Copyright:** Web browsers make it easy to “borrow” text, clip art, diagrams, and illustrations with a simple click of the mouse. However, students need to be aware of issues surrounding the use of copyrighted materials and ways of dealing with those issues in a responsible, legal, and ethical manner. See TBLM ICT.9#2: Acceptable Use of Copyrighted Internet Resources for suggestions on how to handle copyright-related issues. Keep in mind that Canadian copyright law is different than American copyright law.

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- **Plagiarism:** Students need to be taught how to analyze and synthesize information in order to avoid downloading pages of text or copying paragraphs of information.
  - Teach students note-taking and paraphrasing skills to enable them to avoid plagiarizing. See the IMYM Links Database for suggestions on helping students with note-taking.
  - Explain the concept of plagiarism to students and show them examples. For suggestions on dealing with this issue, see the IMYM Links Database. Doing an Internet search with “plagiarism” as a keyword will also provide websites with helpful suggestions.

### **Glossary of Internet Terms**

Searching the Internet using the search terms “glossary internet terms” will provide many useful hits with definitions of Internet terminology.