

Instructional Days: 5-7

Topic Description: Search engines and how they work are explored through trying various internet search techniques. A selection of Internet resources that are useful for finding information are introduced as well as a selection of Web 2.0 applications. Several websites are evaluated by using a rubric to determine if they are “good” websites.

Objectives:

The student will be able to:

- Perform searches and explain how to refine searches to retrieve better information
- Identify resources for finding information in addition to ranking based search engines
- Differentiate between ranking based search engines and social bookmarking (collaborative) search engines
- Use a variety of Web 2.0 applications
- Develop and use a rubric to evaluate websites

Outline of the Lesson:

- Journal Entry (5 minutes)
- Internet Scavenger Hunt (25 minutes)
- Discussion of other resources for finding information (10 minutes)
- Experimentation with these resources (15 minutes)
- Jigsaw activity involving Web 2.0 applications (55 minutes)
- Journal entry (5 minutes)
- Web site evaluation criteria (20 minutes)
- Hands-on evaluation of web sites (30 minutes)

Student Activities:

- Complete journal entry.
- Perform internet searches using varying levels of refinement.
- Identify other resources for finding information.
- In groups use the other resources to find relevant information.
- In groups complete jigsaw Web 2.0 activity and presentations.
- Complete journal entry
- Identify evaluation criteria and work in groups to evaluate websites using the rubric.

Teaching/Learning Strategies:

- Journal Entry: List at least three ways in which you currently use the internet.
 - Have students share their responses with their elbow partner.
- Have student groups complete an internet scavenger hunt.
 - A sample is provided, but you may want to create your own that is more specific to the interests of your students or have the groups create their own and exchange with another group.

- Other resources for finding information
 - In discussing the results of the scavenger hunt have students identify at least three resources other than search engines that they use to find information on the internet along with advantages (or disadvantages) over a general search engine.
 - Some examples might be:
 - Sites such as Google Maps or Mapquest to get directions or see satellite or street view images of anywhere in the country.
 - Address and telephone number lookup sites such as Switchboard or Yellow Pages to get personal and business information.
 - Sites such as the Internet Movie Database to get information on movies and television shows.
 - Sites such as Dictionary and Thesaurus to look up the meaning or spelling of a word or to find a synonym of a word.
 - Encyclopedic sites such as Wikipedia, Encyclopedia Britannica, or How Stuff Works to find an overview of a particular topic.
 - The Wayback Machine which stores snapshots of websites on various dates so that you can “go back in time” to see a site as it used to be.
 - Video-based information sources such as YouTube and Howcast
- Experimentation with these resources
 - Have the students work in groups to use the resources identified above in ways that are relevant to them. For example,
 - Use Google maps and StreetView to find and display where they live or the location of the school.
 - Use Wikipedia and Encyclopedia Britannica to find information on a topic they’re studying in another class. Have them compare the two articles and decide which provides more information.
 - Use the Wayback Machine to view an early version of the school website. Compare how much it has changed from the school’s current website.
- Jigsaw activity involving Web 2.0 applications
 - Divide students into groups to work on each of three different Web 2.0 applications. (Depending on the size of the class, more than one group may need to work on each application.) Applications should include a social bookmarking site (delicious.com or stumbleupon.com), a word cloud site (wordle.net) and a list creation site (tadalist.com). Each group should:
 - Set up an account in the application.
 - Explore the site and its features.
 - Prepare a presentation on their site for the remainder of the class.
 - During the student presentations, ensure that the following questions/issues are addressed:
 - What are the differences between ranking based and social bookmarking search engines?
 - Why would you want to create word clouds?
 - What are the advantages of using tadalist? Disadvantages?
 - What issues might there be with creating accounts online? (Lead into a discussion on privacy—what information should be kept private and why? Discuss encryption.)

- Journal Entry: Why do you need to evaluate websites?
- Web site evaluation criteria
 - It is important to be able to tell when a site is a hoax or subtly biased.
 - Brainstorm criteria that they could use to evaluate websites. As a group develop an evaluation rubric. (You can use the Sample Website Evaluation Rubric as a reference.)
- Hands-on evaluation of web sites.
 - Have the students work in groups and ask them to use the website evaluation rubric to evaluate websites they might need for a school project or an assignment from another class.
 - Discuss the results of their evaluations.

Resources:

- Sample Scavenger Hunt
- The Wayback Machine: <https://archive.org/web/>
- Google Maps (including StreetView): <http://maps.google.com>
- Wikipedia: <http://www.wikipedia.org>
- Encyclopedia Britannica: <http://www.britannica.com>
- Mapquest: <http://www.mapquest.com>
- Internet Movie Database: <http://www.imdb.com>
- Switchboard: <http://www.switchboard.com>
- Yellow Pages: <http://www.yellowpages.com>
- How Stuff Works: <http://www.howstuffworks.com>
- YouTube: <https://www.youtube.com/>
- Howcast: <http://howcast.com>
- <http://www.delicious.com>
- <http://www.stumbleupon.com>
- <http://www.wordle.net>
- Website Evaluation Rubric

Sample Scavenger Hunt

In your group, use the internet to find the following items. For each item include the steps you took to find each item.

1. A picture of the mayor of your town or city
2. A bus schedule
3. The address of the Chamber of Commerce for your town or city
4. A map of your state—and you have to point out where your town or city is!
5. A copy of the front page of your town's or city's web site
6. Something in writing that tells how many people live in the city
7. A picture of any historical landmark in the city
8. A picture of your congressman
9. A program or flyer from a local arts event
10. The names of all the city council members
11. Something that gives information about your local hospital
12. A list of schools in your town or city
13. The phone number of the local police department
14. Anything with the colors or mascot of a local college or community college
15. A picture of the state flag
16. A picture of the state bird
17. A schedule of activities or a pamphlet from a local nursing home or senior citizens center
18. A sticker or button from a local election
19. A list of safety tips from the local fire department
20. A speech by your governor

Sample Website Evaluation Rubric			
Authority			
Is the author identified?	Yes	No	Unsure
Does the author have appropriate qualifications with respect to the information being presented?	Yes	No	Unsure
Purpose			
Is the purpose to inform or give factual information?	Yes	No	Unsure
Coverage			
Is the information primary or secondary in nature?	Yes	No	Unsure
Is the information presented comparable to information on the same topic presented by other sites?	Yes	No	Unsure
Accuracy			
Is the information free of factual errors?	Yes	No	Unsure
Do the conclusions appear to be well-reasoned and supported by the facts presented?	Yes	No	Unsure
Is the information properly referenced?	Yes	No	Unsure
Objectivity			
Is the information free from obvious bias?	Yes	No	Unsure
Does the author avoid the use of emotional or inflammatory language?	Yes	No	Unsure
Does the author avoid trying to sell something or persuade the reader of a particular viewpoint?	Yes	No	Unsure
Currency			
Is the information up-to-date?	Yes	No	Unsure
Are there creation and revision dates?	Yes	No	Unsure
Accessibility			
Does the site have a professional appearance?	Yes	No	Unsure
Does it use proper grammar, spelling, and composition?	Yes	No	Unsure