
This lesson is part of USE, UNDERSTAND & CREATE: A Digital Literacy Framework for Canadian Schools:

Overview

This lesson is designed to help students determine the validity of information that is presented to them on the Internet. After reviewing a series of evaluation techniques for online resources, students form groups to assess selected websites based on accuracy and authority, advocacy and objectivity, and currency and coverage.

**Note to Teachers:**

Hoax? Scholarly Research? Personal Opinion? You Decide! is an online exercise designed to help students determine the validity of information that is presented to them on the Internet. Teachers should check the links that are provided for the activities to ensure they are functioning correctly.

Although we have endeavoured to link only to sites suitable for secondary students, there is always the possibility of encountering potentially offensive materials on, or through, some sites.

Preparation and Materials

Photocopy the following handouts:

- The Web as a Research Tool: Evaluation Techniques
- Authority and Accuracy Assignment
- Advocacy and Objectivity Assignment
- Currency and Coverage Assignment

The Lesson

Distribute The Web as a Research Tool: Evaluation Techniques to students and review and discuss the main points.
Beginning the Exercise

Before starting the lesson, divide your class into three groups. Each group will be given a specific topic that they will be evaluating on the sites they visit. The main question that students must decide is:

Would you use this website for a research paper? Why or why not?

When the groups have been designated, distribute the following assignment sheets:

- Authority and Accuracy Assignment
- Advocacy and Objectivity Assignment
- Currency and Coverage Assignment

Give students some time to review the exercise and discuss their exercise questions. Each group will then be given 10 minutes to examine two websites from their assignment sheets. After 10 minutes, the groups will report their findings to the class.

Website Analysis

Authority and Accuracy: All About Explorers is inaccurate (which becomes increasingly clear as you read on); Weird News is accurate and authoritative (Sky News is a legitimate news organization, and clicking the logo will take you to their main news page); Manitou Pontoon Boats may be accurate but is not authoritative (searches for two of the three “experts” cited in the article only lead back to the article.)

Advocacy and Objectivity: Consumer Reports is run by an advocacy group, Consumers Union, but because it advocates for consumer protection and education, rather than any corporation or business sector, its reviews can be taken as unbiased. Classy Mommy Blog receives money and free products from various businesses so its reviews cannot be taken as unbiased. The Center for Consumer Protection is a coalition of restaurants, food companies, and consumers working together to “promote personal responsibility and protect consumer choices.” They may be sincere, but they're clearly not unbiased when it comes to food issues.

Currency and Coverage: Flu Spreading in Canada, U.S. is fairly complete for a news article, but is not current (from 2013 — point out that currency is particularly important in news stories!); Natural Home Remedies is incomplete, only looking at “natural” treatments for cold and flu (which doesn’t mean it isn’t a useful source of information, but it can’t be your only source of information on the topic); Flu.Gov has complete information about different kinds of flu virus, prevention, treatment, etc. and is current (the Current Flu Situation subpage is updated frequently.)

Additional information on evaluating Web resources can be found in the authors' book Web Wisdom: How to Evaluate and Create Information Quality on the Web, published by Lawrence Erlbaum Associates, 1999.
The Web as a Research Tool: Evaluation Techniques

By Jan Alexander and Marsha Tate


How can you find out if online sources are accurate and reliable?

Traditionally, five print evaluation criteria have been used to verify information:

- **Criterion 1: Accuracy**—How reliable and free from error is the information?
  - Are there editors and fact checkers?

- **Criterion 2: Authority**—What are the author’s qualifications for writing on this subject?
  - How reputable is the publisher?

- **Criterion 3: Objectivity**—Is the information presented with a minimum of bias?
  - To what extent is the information trying to sway the opinion of the audience?

- **Criterion 4: Currency**—Is the content of the work up-to-date?
  - Is the publication date clearly labelled?

- **Criterion 5: Coverage**—What topics are included in the work?
  - Are the topics included explored in depth?

Adapting Five Traditional Print Evaluation Criteria to Online Resources

- **Criterion 1: Accuracy of Online Resources**
  - Almost anyone can publish online
  - Many online resources not verified by editors and/or fact checkers
  - It’s easy to create hoax or joke sites that look as professional as reliable sites

- **Criterion 2: Authority of Online Resources**
  - Often difficult to determine authorship of online sources
  - If author's name is listed, his/her qualifications frequently absent
  - Publisher responsibility often not indicated
Criterion 3: Objectivity of Online Resources

- Goals/aims of persons or groups presenting material often not clearly stated
- Web often functions as a “virtual soapbox”

Criterion 4: Currency of Online Resources

- Dates not always included on Web pages
- If included, a date may have various meanings:
  1. Date information first written
  2. Date information placed on Web
  3. Date information last revised

Criterion 5: Coverage of Online Resources

- Online coverage may differ from print coverage
- Often hard to determine extent of online coverage

Additional Challenges Presented by Online Resources and How To Cope with Them

Marketing-Oriented Web Pages

Challenge

- In print sources, usually clear distinction between advertising and information
- On the Web, the distinction between advertising and information can easily become blurred

Coping Strategy

- Determine if advertising and informational content are being supplied by the same person or organization;
- If so, advertising likely to bias informational content

"Infomercial" Web Pages

Challenge

- Blending of entertainment, information, and advertising on web pages

Coping Strategy

- Caveat Emptor: View these Web pages with the same critical eye you would an infomercial
Web Pages Out of Context

**Challenge**
- Search Engines can retrieve web pages out of context
- May or may not be a way of determining source of information

**Coping Strategy**
- Always try to return to the “home page” of a site to determine source of information

Instability of Web Pages

**Challenge**
- Web pages may move or disappear without notice

**Coping Strategy**
- Try to determine the stability of your source
- Document source to the fullest extent possible

Susceptibility of Web Pages to Alteration

**Challenge**
- Web pages are susceptible to both accidental and deliberate alteration

**Coping Strategy**
- Attempt to verify information using other sources

Applying Evaluation Techniques to Specific Types of Online Resources

**Step 1: Identify the Type of Online Resource**
- Entertainment
- Business/Marketing
- Reference/Information
- News
- Advocacy
- Personal Page

**Step 2: Use the Appropriate Checklist**
Step 3: Based on the Checklist Criteria, Determine the Relative Quality of the Online Resource

- The more “yes” answers to questions indicates a higher quality resource

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Authority and Accuracy Assignment

How critical an observer are you? Learn how to evaluate information sources by doing the following exercise. You only have 10 minutes, so be sure to stay on task!

Pick any two sites from the list below. What evidence can you find to determine the basis for claims made on these pages? How could you tell whether or not the information provided is accurate?

- All About Explorers (http://allaboutexplorers.com/)
- Strange News (http://news.sky.com/strangenews)
- Manitou Pontoon Boats (http://www.manitoupontoonboats.com/boating-maintenance-tips-for-the-off-season/)

Questions to consider when reviewing web pages for authority and accuracy.

1. Can you determine who put this page together?
2. What is the background, credentials, or authority of the author of this web page?
3. How would you verify the information presented on this web page?

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Advocacy and Objectivity Assignment

How critical an observer are you? Learn how to evaluate information sources by doing the following exercise. You only have 10 minutes, so be sure to stay on task!

Pick any two sites from the list below. What evidence can you find to determine whether or not these sites are favouring a particular point of view or are taking an objective approach?

- Consumer Reports Online (http://www.consumerreports.com/)
- Classy Mommy Blog (http://classymommy.com/)
- Center for Consumer Freedom (https://www.consumerfreedom.com/)

Questions to consider when viewing these web pages for advocacy and objectivity.

1. Do the author(s) present the information as fact or opinion or conjecture?
2. Does this page present more than one viewpoint or opinion?
3. Can you determine who or what group sponsors this web page? Do they hold a particular view or opinion?

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Currency and Coverage Assignment

How critical an observer are you? Learn how to evaluate information sources by doing the following exercise. You only have 10 minutes, so be sure to stay on task!

Pick any two sites from the list below. What evidence can you find to determine how up to date these pages are and whether or not they cover their topics as completely as they claim?

- Natural Home Remedies: Cold and Flu (http://www.besthealthmag.ca/best-you/home-remedies/natural-home-remedies-colds-and-flu/)
- Flu.Gov (http://www.flu.gov/about_the_flu/index.html)

Questions to consider when reviewing web pages for currency and coverage.

1. What does "up to date" or "current" mean for this site? (Hint: What is the latest date you can find on this site?)
2. Does the site really provide information on all the aspects or areas it claims to cover?
3. Is the information provided uniformly complete for all the aspects and areas the site claims to cover?

Bonus question: Where could you find more up to date or complete information on your topic?

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### Task Assessment Rubric: Website Analysis

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<th>Use</th>
<th>Learning Expectations</th>
<th>Achievement</th>
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<td>Skills and competencies that fall under “use” range from basic technical know-how – using computer programs such as word processors, web browsers, email, and other communication tools – to the more sophisticated abilities for accessing and using knowledge resources, such as search engines and online databases, and emerging technologies such as cloud computing.</td>
<td><strong>Finding and Verifying</strong>&lt;br&gt;use information technology-related vocabulary in context&lt;br&gt;apply digital tools to gather, evaluate, and use information&lt;br&gt;locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media</td>
<td>Insufficient (R); Beginning (1); Developing (2); Competent (3) Confident (4)</td>
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<th>Understand</th>
<th>Learning Expectations</th>
<th>Achievement</th>
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<td>Understand includes recognizing how networked technology affects our behaviour and our perceptions, beliefs and feelings about the world around us. Understand also prepares us for a knowledge economy as we develop information management skills for finding, evaluating and effectively using information to communicate, collaborate and solve problems.</td>
<td><strong>Finding and Verifying</strong>&lt;br&gt;judge the validity of content found on the Internet, how to find appropriate material, and what sources can be trusted&lt;br&gt;use overt and implied messages to draw inferences and construct meaning in media texts&lt;br&gt;understand that anyone can publish on the Web, so not all sites are equally trustworthy</td>
<td>Insufficient (R); Beginning (1); Developing (2); Competent (3) Confident (4)</td>
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<tr>
<th>Create</th>
<th>Learning Expectations</th>
<th>Achievement</th>
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<td>Create is the ability to produce content and effectively communicate through a variety of digital media tools. It includes being able to adapt what we produce for various contexts and audiences; to create and communicate using rich media such as images, video and sound; and to effectively and responsibly engage with user-generated content such as blogs and discussion forums, video and photo sharing, social gaming and other forms of social media. The ability to create using digital media ensures that Canadians are active contributors to digital society.</td>
<td><strong>Finding and Verifying</strong>&lt;br&gt;communicate ideas and information in a variety of oral, print and other media texts, such as short reports, talks and posters&lt;br&gt;understand how meaning is produced through multimedia (text, images, audio, video) and how culture is produced through the Internet and social media in particular</td>
<td>Insufficient (R); Beginning (1); Developing (2); Competent (3) Confident (4)</td>
</tr>
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