Break the Fake Lesson Plan:
Hoax? Scholarly research?
Personal opinion? You decide!

Grades: 10-12

This lesson is part of USE, UNDERSTAND & CREATE:

A Digital Literacy Framework for Canadian Schools:

http://mediasmarts.ca/teacher-resources/digital-literacy-framework

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.

**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

The Lesson

Photocopy the following handouts:

- *Break the Fake: Find the source*
- *Break the Fake: Verify the source*
- *Break the Fake: Check other sources*
- *Hoax? Scholarly research? Personal opinion? You decide!* Assignment Sheet

Prepare to project the Three Steps to Verify Websites slideshow.

Three Steps to Verify Websites

Distribute the handouts *Break the Fake: Find the source, Break the Fake: Verify the source* and *Break the Fake: Check other sources.*

Show slide two of the *Three Steps to Verify Websites* slideshow. Go through the *Break the Fake: Find the source* handout and ask students how they would verify this story by finding the source.

When the class has discussed the question for a few minutes, show slides 3-4 and explain that in this case they simply have to follow links in the story to see that it came from a legitimate news source.

Next, show slide 5 of the slideshow. Go through the *Break the Fake: Verify the source* handout and ask students how they would find out which of these sources is more reliable by verifying the source.

When the class has discussed the question for a few minutes, show slides 6-10 and explain that while both are legitimate organizations, the American Academy of Pediatrics has a better claim to be an authority (because it represents many more doctors than the American College of Pediatricians) and that the American College of Pediatricians also has a *bias* around sexual orientation that might compromise their reliability. (Remind students not to mix up bias and authority: a biased source starts with what they believe and then chooses or interprets the facts to fit those beliefs. Someone who is actually an expert on something will probably have stronger opinions about it than someone who isn't - but they'll be better-informed opinions.)

Now show slide 11 of the slideshow. Go through the *Break the Fake: Check other sources* handout and ask students how they could check other sources to find out whether this claim is true.

When the class has discussed the question for a few minutes, show slides 12-14 and explain that sometimes if this step doesn't turn up any results — in other words, if no other sources are covering a story — that's a sign that you should be skeptical. Point out the value of Wikipedia in identifying *consensus* (what most people who are expert on a topic think is supported by the evidence) Finally, mention that sometimes it can be useful to limit your search to only sources that you already know are reliable.

Beginning the Exercise

Now divide your class into groups of three to four. 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?

Distribute the assignment sheet *Hoax? Scholarly Research? Personal Opinion? You Decide!* and have students investigate one of the pairs of websites. (You may choose to assign pairs of websites to the groups, to make sure that all of them are evaluated.) 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. What did they find out, and which steps did they use to do it?

Website Analysis

Any of the three steps can be used to evaluate any of the websites, but for each pair of websites there is a step that will be fastest and most effective:

Key Step: *Find the source. Natural Home Remedies* is published by Best Health, a magazine that gives you no particular reason to think it's an authority; *Prevent Seasonal Flu* is published by the US Centers for Disease Control and Prevention, an authoritative and reliable source.

Key Step: *Verify the source*. Both sites are run by advocacy groups, so verifying their credibility is the most important step. *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. *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.

Key Step: *Check other sources.* Both *Express* and the *CBC* are reliable sources, so this is the most useful step. Checking the News tab of a Google search for "solar minimum" and "ice age" shows that only one other source has run stories suggesting it will affect surface temperatures. Using the specialized science search for "solar minimum" and "ice age" finds a number of articles showing that the solar minimum won't affect surface temperature, Finally, the Wikipedia article for "solar minimum" does not contain the words "ice age" and does not say anything about its possible effect on surface temperature.

Break the Fake: Find the original source

Because it's so easy to copy and share things online, it's important to find out where something originally came from before you decide whether or not to trust it. Someone might have shared it with you on social media, or a news story might be based on someone else's story.

The easiest way to find the source is usually to follow links that will lead you to the original story. In social media like Facebook or Twitter, the link is usually at the end or bottom of the post.

On a website, follow links that lead back to the source. Look for phrases like "According to" a source, a source "reported" or the word "Source" at the top or bottom of a story. Like in this example below - click on highlighted words "Associated Press":

According to the Associated Press, The International Olympic Committee's executive board has recommended breakdancing, skateboarding, sports climbing and surfing be added to the 2024 Summer Games in Paris.

Make sure to keep going until you're sure you're at the original!

You can also use a search engine like Google or DuckDuckGo. See if you can find any information about where the story originally came from and do a search including the name of the source.

To find the original source of a photo or image, you can use something called *reverse image search*. Start by right- clicking on the image and selecting the option "Copy Image Location." Then go to the website Tineye.com and paste in the address you just copied and sort the results to show the oldest first.

If you don't know if the original source is reliable or not, use the *Find the source* tip sheet to find out.

If you can't find the original source, use the *Check other sources* tip sheet to see if the story is for real.

Break the Fake: Verify the source

Whether you're looking at a website, photo, video or news story, what really matters is whether or not the people who originally created it are trustworthy. Even when it has been shared with you by someone you trust, like a friend or family member, you can't know if they checked the facts. So it's up to you!

You can't always confirm that something is false, but if the source isn't reliable you have no reason to believe it.

To find out if a source is reliable, ask these three questions:

• **Do they really exist?**
  It's easy to make fake pictures, fake websites and fake social network profiles that look just as real and professional as anything out there.

  "About Us" pages and profiles are easy to fake, so use Wikipedia or a search engine like Google to find out if other people say they really exist. Pay attention to things that are hard to fake: for example, if somebody claims to work for a particular company, check the company's website or do a search for their name and the company's name to see if they've ever been mentioned together in reliable sources (like a newspaper you already know is real).

• **Are they who they say they are?**
  It's easy to pretend to be someone else online, so once you know the source really exists, you need to find out if what you're looking at really came from them.

  Some social networks, like Twitter and Instagram, verify users by putting a blue checkmark next to their name. This does not mean they're necessarily a reliable source, but it does mean that they are who they say they are.

To find out if you're on an organization's real website or social network profile, do a search for them and compare the top result to the site you're on.

- **Are they trustworthy?**
  For sources of general information, like newspapers, that means asking if they have a process for making sure they're giving you good information, and a good track record of doing it. How often do they make mistakes? If they do make mistakes, do they admit them and publish corrections? Are they willing to publish things their owners, or their readers, wouldn't agree with?

  For more specialized sources, you want to ask whether they're experts or authorities on that topic. Being an expert is more than just being a doctor, a scientist or a professor: make sure they are an expert in the area that they are talking about.

  You also want to make sure their position isn't biased, but don't mix up bias and authority. A biased source starts with what they believe and then chooses or interprets the facts to fit those beliefs. Someone who is actually an expert on something will probably have stronger opinions about it than someone who isn't - but they'll be better-informed opinions.

Break the Fake: Check other sources

This step may sometimes be the last one you do, but it could also be the first. The News tab is better than the main Google search for this step because it only shows real news sources. While not every source that's included is perfectly reliable, they are all news outlets that really exist. Here is an example of how this works:
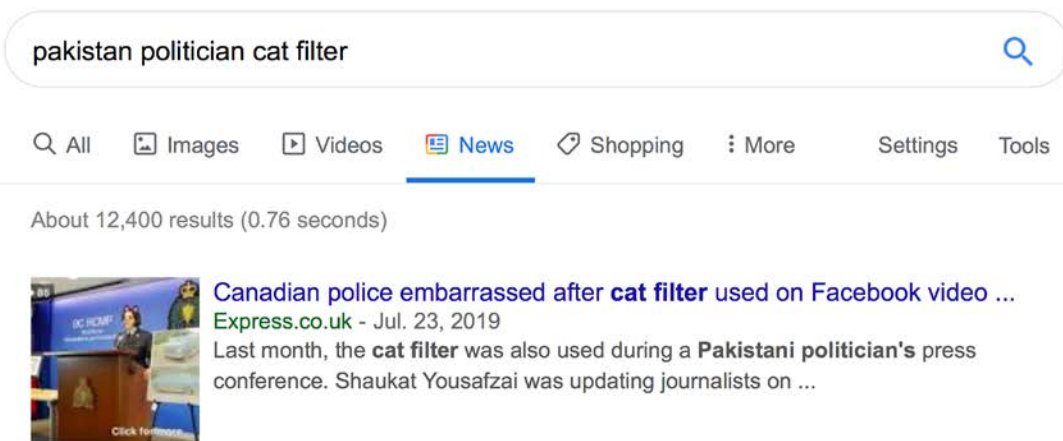
You can also use our custom news search, *bit.ly/news-search*, which searches ten Canadian and international sources of reliable news.

By taking this step, you can be sure you get the whole story. Remember, all sources make mistakes sometimes, but reliable ones will correct them.

Looking at other sources can help you find out if the first place you saw something might have been leaving something out. This is also a good way of discovering any possible bias that might exist in any one source.
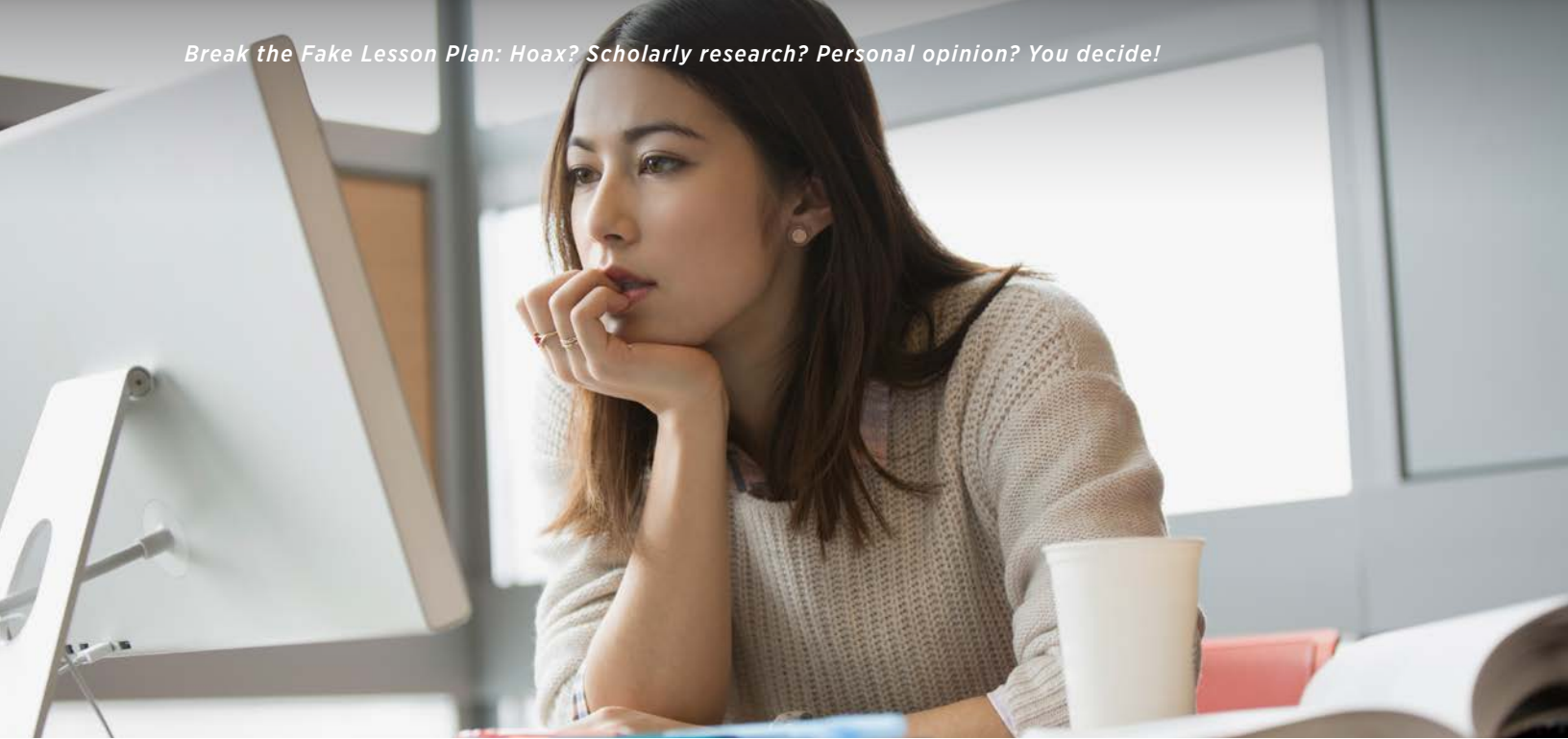
You can also use this step to find out whether something agrees with what most experts on that topic think - what's called the consensus view. While it's generally good reporting to give both sides of a story, including views that experts
agree aren't right can result in spreading misinformation.

Wikipedia is a good place to find the consensus on a topic because each Wikipedia article represents the consensus of its editors. Just remember to watch for warning banners that suggest a specific article might not be reliable.

This article **needs additional citations for verification**. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed.
Find sources: "Sergio Mihanovich" – news · newspapers · books · scholar · JSTOR *(December 2018)* *(Learn how and when to remove this template message)*

You can use our custom search *bit.ly/science-search* to find the consensus on specialist topics like science and medicine.

If you want to know if another specialist source is reliable, check out the *Find the source* tip sheet.

Website Evaluation Assignment

Below you will find six websites, grouped into pairs based on the topic. In each pair, one website is more reliable than the other. Your assignment is to use the three steps we have covered to identify which is more reliable and decide whether you feel it is reliable enough to use as a research source for a school assignment.

Start by choosing which step you think is likely to help you verify the websites as quickly and effectively as possible. Use the tip sheet for that step as a guide. If you aren't able to get a satisfactory answer, try again with another step.

Websites

Topic: Flu Remedies

Natural Home Remedies: Colds and Flu:
https://www.besthealthmag.ca/best-you/home-remedies/natural-home-remedies-colds-and-flu/

Prevent Seasonal Flu:
https://www.cdc.gov/flu/prevent/index.html

Topic: Consumer Advocacy

Consumer Reports:
https://www.consumerreports.org/cro/index.htm

Center for Consumer Freedom:
https://www.consumerfreedom.com/

Topic: Solar Minimum

Sunspots 'Will Bring Down Temperatures for Decades' Says Report:
https://www.express.co.uk/news/science/1159227/weather-forecast-long-range-solar-minimum-maximum-ice-age-space-weather-news

or *bit.ly/minimumexpress*

The Sun is Quieter Than Normal, But Don't Panic:
https://www.cbc.ca/news/technology/solar-activity-1.5049337

or *bit.ly/minimumcbc*

Task Assessment Rubric:

Hoax? Scholarly research? Personal opinion/ You decide! Assignment sheet

	Learning Expectations	Achievement
Use 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 com- puting.	*Finding and Verifying:* use information technology-related vocabulary in context apply digital tools to gather, evaluate, and use information locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media	Insufficient (R); Beginning (1); Developing (2); Competent (3) Confident (4)
Understand 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.	*Finding and Verifying:* judge the validity of content found on the Internet, how to find appropriate material, and what sources can be trusted use overt and implied messages to draw inferences and construct meaning in media texts understand that anyone can publish on the Web, so not all sites are equally trustworthy	Insufficient (R); Beginning (1); Developing (2); Competent (3) Confident (4)

	Learning Expectations	Achievement
Create 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.	*Finding and Verifying:* communicate ideas and information in a variety of oral, print and other media texts, such as short reports, talks and posters understand how meaning is produced through multimedia (text, images, audio, video) and how culture is produced through the Internet and social media in particular	Insufficient (R); Beginning (1); Developing (2); Competent (3) Confident (4)