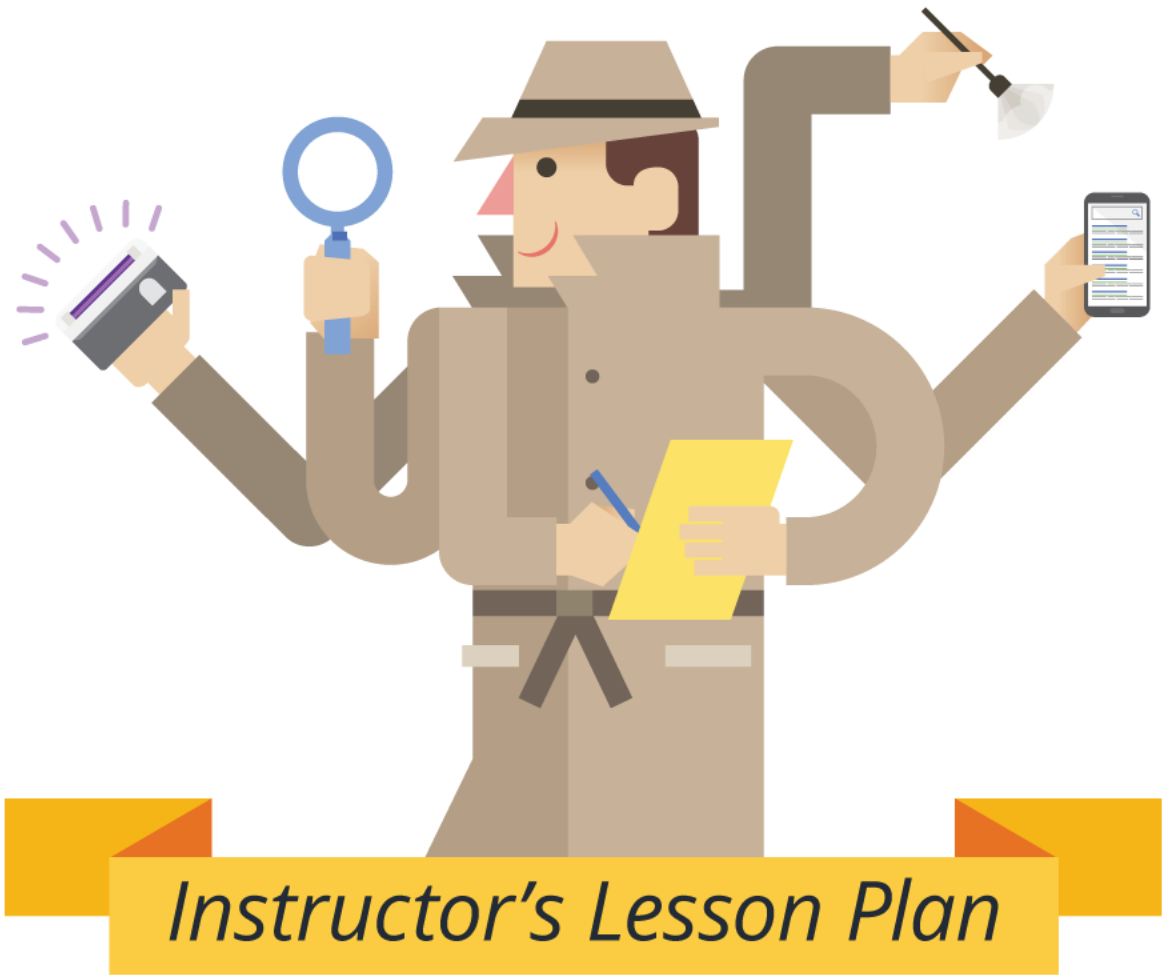


1

Becoming an Online Sleuth



I. Lesson Plan Overview

1. Smart Searching (10 mins)

- 1.1 Boolean Operators (5 mins)
- 1.2 Using Synonyms (5 mins)

2. Evaluating Online Sources (50 mins)

- 2.1 Pre-assessment (5 mins)
- 2.2 S.U.R.E Video (10 mins)
- 2.3 Types of web sources (5 mins)
- 2.4 AACCO Video (10 mins)
- 2.5 URL Analysis (10 mins)
- 2.6 Source Comparison (5 mins)
- 2.7 Copyright (5 mins)

3. Extra Tips

- NLB Resources
- S.U.R.E Resources

II. Student's Handbook Activities

Activity 1: Boolean Operators

Activity 2: True or False - Evaluating Online Sources

Activity 3: How S.U.R.E. are you?

Activity 4: URL Analysis

Activity 5: Source Comparison Table

Instructor's Overview

Description

In this class, students will:

- i. Learn how to conduct smart searching online
- ii. Identify guidelines for evaluating the credibility of content online

Time Required

Approx. 60 minutes

Prerequisites

Students need to understand the difference between lies and truth, fact and opinion. They also need basic computer skills and experience searching topics online.

Recommended Level

Upper Primary to Lower Secondary

Essential Questions

How do you search for your topics efficiently?
Why is it important to be alert and check sources while exploring online?

Learning Goals

Students will:

- i. Learn how to search for information using keywords and search strategies
 - Boolean operators
 - Using Synonyms
- ii. Identify guidelines for evaluating online sources
 - Comparing different types of web sources
 - Evaluation Criteria
 - URL analysis
 - Copyrights

Preparation

- Projector and Screen (to show videos)
- Computers and Internet Access
- Print the handouts/activities

Videos

- Detecting Lies and Staying True
<http://www.youtube.com/watch?v=fXFbQKz3anw>
- SURE Lok Hom and the case of the Mysterious Map
<http://www.youtube.com/watch?v=fHGQN4dmOG8&feature=c4overview&list=UUUpPsXrrGvRKuuaoFN6Vd9Q>
- SURE Lok Hom and the Case of Cosplay Showdown
<http://www.youtube.com/watch?v=cLZoUIhte58&feature=c4overview&list=UUUpPsXrrGvRKuuaoFN6Vd9Q>
- SURE Lok Hom and the Case of Antique Chairs
<http://www.youtube.com/watch?v=idBVtj9s7F4&feature=c4overview&list=UUUpPsXrrGvRKuuaoFN6Vd9Q>

1 Smart-Searching Online (10 mins)

Let the students do an online search using the following topic:

'Where does Singapore River start and end?'

Using the handout (*Activity 1*) on smart searching, introduce students to the concept of Boolean Operators.

Start by asking students to identify the keywords of the task:

- 'Singapore River'
- 'start'
- 'end'

Note that there are two portions to this task:

- a. Start of Singapore River
- b. End of Singapore River

You can begin with asking students to search for the starting point of Singapore River first.

1.1 Boolean Operators — AND, NOT, OR (5 mins)

Boolean operators have the ability to broaden or narrow your search results.

- **Narrow**
E.g. 'Singapore River' AND 'starting point' will narrow your results as compared to just 'Singapore River'
- **Broaden**
E.g. 'Singapore River start OR source' will broaden your results as compared to just 'Singapore River start'

Get students to have a try at using 'AND', 'NOT', 'OR' in their keyword search to have an idea of how their search results can be narrowed or broadened.

The following keywords can be used:

- 'Singapore River AND start'
- 'Singapore River start OR source'
- 'Singapore River NOT cruise'

For Google search engine, substitute 'NOT' with a dash (-) to exclude a word. Note that there should be no spacing after the dash sign. It will be 'Singapore River -cruise'.

Ask the students to write down the number of search results that they get for each of the attempt, and compare to see how the results are narrowed or broadened.

Note to instructors:

You can apply the same format to finding out the endpoint of Singapore River using:

- 'Singapore River AND end'
- 'Singapore River end OR finishing point'
- 'Singapore River NOT cruise'

1.2 Using Synonyms (5 mins)

To expand search results, you can use words that mean the same thing to search for your topic. Expose students to the idea of synonyms.

For example, in searching for the start of Singapore River, you can consider replacing 'start' with:

- starting point
- source
- origin

2 Evaluating Online Sources (50 mins)

2.1 Pre-Assessment- Evaluating Online Sources (5 mins)

Pass out the True or False Questions handout ([Activity 2](#)) and have students circle a "T" or "F" after each statement.

True or False?

If I can find it online, it must be true. **(F)**

There is an email address listed in the website, so it must be a legitimate source! **(F)**

The website looks really official. The information it offers must be true. **(F)**

There are a lot of graphs and charts on the site. With all this information it must be true. **(F)**

It is clear who wrote the content because there is contact information and the information seems current and error-free. I can safely use this information for my homework assignment. **(F)**

I should always compare the information I find online with at least 2 other sources. **(T)**

I should always be a skeptic when it comes to information that I find online. **(T)**

I should always think about what's missing from a website. **(T)**

I should always review the sources (or author) of the website. **(T)**

2.2 Video Time—How S.U.R.E are you? (10 mins)

Get students to watch the following videos:

For Primary level

- SURE Lok Hom and the case of the Mysterious Map
<http://www.youtube.com/watch?v=fHGQN4dmOG8&feature=c4overview&list=UUUpPsXrrGvRKuuaoFN6Vd9Q>

For Secondary level

- SURE Lok Hom and the Case of Cosplay Showdown
<http://www.youtube.com/watch?v=cLZoUIhte58&feature=c4overview&list=UUUpPsXrrGvRKuuaoFN6Vd9Q>

Ask the students what S.U.R.E stands for, and elaborate on the concepts behind S.U.R.E. (*Activity 3*)

- **Source**
 - Look at its origins. Is it trustworthy?
 - Make sure that the source of information is credible and reliable.
- **Understand**
 - Know what you're reading. Search for clarity.
 - Look for facts rather than opinions.
- **Research**
 - Dig deeper. Go beyond the initial source.
 - Investigate thoroughly before making a decision, check and compare with multiple sources.
- **Evaluate**
 - Find the balance. Exercise fair judgment.
 - Look from different angles—there are at least two sides to a story

2.3 Types of web sources (5 mins)

After showing the video on S.U.R.E concepts, expose the students to different types of web sources that they can find online.

There are a wide variety of sources available on the internet. Some examples include:

- Videos
- Sound Recordings
- Written Work – personal blogs, official publications, news articles etc.
- Visual Works – advertisements, posters
- Maps and directories

Using the research topic of 'Where does Singapore River start and end?', consider the following web sources:

- **YouTube Video**
Singapore River: Flowing quietly through time
<http://www.youtube.com/watch?v=7VXYujjawRc>
- **Infopedia Article**
'Source of the Singapore River' Infopedia
http://infopedia.nl.sg/articles/SIP_181_2005-01-25.html
- **River Cruise Singapore Website**
<http://www.riverexplorer.sg/>
- **Personal Research**
'A River Ramble: The Evolution of Singapore River'
<http://www.fom.sg/Passage/2011/07river.pdf>

Watch the following video by Google:

- 'Detecting lies and staying true': <http://www.youtube.com/watch?v=fXFbQKz3anw>

Get students to attempt to assess the usefulness of each type of web source.

- Are the sources trustworthy?
 - Ask the students to come up with a list of factors they think makes a web source trustworthy and have them share out with the class.
- Lead a discussion on the topic, relying on these talking points:
 - Anyone can write things on the web.
 - Although many things on the web may be interesting and correct, we can't always be sure that everything is necessarily *true*.
 - Not everyone is an expert on the subject on which they write.
 - Since we don't always know who wrote the information or if they are qualified to write on the subject, we need to be alert and check information before we can trust it.

2.4 Video Time — AACCO Evaluation Criteria (10 mins)

Watch the SURE video that reveals the ways to assess online sources using the evaluation criteria of AACCO.

- SURE Lok Hom and the Case of Antique Chairs
http://www.youtube.com/watch?v=idBVtI9s7F4&feature=c4overview&list=UUUpPsXrrGvRKu_uaoFN6Vd9Q

Get the students to share on what are the evaluation criteria that the video had shown. Ask them to explain what each of the criteria mean.

You should be familiar with the following terms of the 5 evaluation criteria:

- **Accuracy**
 - What factual information am I getting?
 - Is the information based on personal opinions or experiences only?
- **Authority**
 - Who is the author?
 - What is his or her background and qualifications?
- **Coverage**
 - What topics are covered by the source?
 - Are the topics in-depth or brief?
- **Currency**
 - When is the source published?
 - Has it been updated recently?
- **Objectivity**
 - Why did the author write this?
 - What does he or she hope to achieve?

2.5 URL Analysis (10 mins)

Investigate the source:

Check the URL - what is the domain extension and what does it stand for? (*Activity 4*):

The domain extension of the online source will often reveal about the type and function of the website:

<i>.edu</i>	<i>Educational</i>
<i>.com</i>	<i>Commercial</i>
<i>.gov</i>	<i>Government</i>
<i>.net</i>	<i>Network</i>
<i>.mil</i>	<i>Military</i>
<i>.int</i>	<i>International</i>
<i>.org</i>	<i>Organization</i>

Using the following research question, demonstrate the different types of websites available for a particular subject by analysing the url extension:

'What are the native plants in Singapore?'

Consider the following sources:

- Flora Singapura (**commercial**)
<http://florasingapura.com/Home.php>
- Nparks (**government**)
<https://florafaunaweb.nparks.gov.sg/>
- National University of Singapore (**educational**)
http://rnbr.nus.edu.sg/raffles_museum_pub/flora_of_singapore_tc.pdf

The three sources on the same topic have url extensions ending with .com, .gov.sg, and .edu respectively. Discuss on how these can indicate on the usefulness and reliability of the websites.

You can use the following links to further lead a discussion on evaluating credibility of a source on the topic.

Other links:

- 'Helping native plants bloom' Wild Singapore
<http://www.wildsingapore.com/news/20070708/070709-1.htm>
- Biodiversity Conservation in Singapore
<http://www.bgci.org/resources/article/0585/>
- Ehow
http://www.ehow.com/list_5993735_native-plants-singapore.html
- Garden Guides
<http://www.gardenguides.com/135047-native-plants-singapore.html>

After understanding both evaluation criteria and domain extension analysis, ask the following questions:

- What are they trying to get me to believe: What is the purpose of the site? Why was it created? Is the purpose clear? Is it to sell something, to inform, to explain, to persuade, to entertain, to share, etc.?
- What kind of a website is it? Is it a business website? Is it a personal website? Is it a news source?
- What is the point of view of the site: What information is included? What information is missing from this website? What is the bias of the author? What ideas or opinions are missing? Is the information presented in a balanced way? Can you detect any ideas or opinions that are missing?

Other good questions to ask yourself:

- Is there contact information that can be verified?
- Are there any links or footnotes to other relevant and reliable sources?
- Does the website use correct grammar, spelling and sentence structure?
- Are graphs and/or charts clearly labeled?
- Is the content current?
- Are there dates that show when the site was created and updated?

2.6 Source Comparison (5 mins)

Using the topic on 'Where does Singapore River start and end?', make use of the Source Comparison Table (*Activity 5*) to get students to evaluate the quality of at least 3 sources. You will then discuss with the class which web sources were the most trustworthy and useful, and which sources were the least reliable and why.

You can refer back to the sources that were discussed in the previous session:

- **Youtube Video**
Singapore River: Flowing quietly through time
<http://www.youtube.com/watch?v=7VXYujjawRc>
- **Infopedia Article**
'Source of the Singapore River' Infopedia
http://infopedia.nl.sg/articles/SIP_181_2005-01-25.html
- **River Cruise Singapore Website**
<http://www.riverexplorer.sg/>
- **Personal Research**
'A River Ramble: The Evolution of Singapore River'
<http://www.fom.sg/Passage/2011/07river.pdf>

You can also consider the following other sources:

- **NewspaperSG**
<http://newspapers.nl.sg>
Search for 'Singapore River'
- **Archives Online**
Maps and Building Building Plans
http://archivesonline.nas.sg/maps_building_plans/
Search for 'Singapore River'
- **National Heritage Board, 'Singapore River Trail'**

<http://www.nhb.gov.sg/NHBPortal/Trails/SingaporeRiver/SingaporeRiver-Overview>

- **National Environment Agency, 'The Singapore River Story'**
http://www.nea.gov.sg/cms/sei/envision_11jan_issue1.pdf
- **PUB, 'The Singapore Water Story', PUB**
<http://www.pub.gov.sg/water/Pages/singaporewaterstory.aspx>

2.7 Copyright (5 mins)

Is it clear who created the content?

Can you tell what the qualifications of the author are?

Is the content protected by copyrights?

Who holds the copyrights?

Discuss the meaning of copyrights:

When a person creates an original work that is fixed in a physical medium, he or she automatically owns copyright to the work. Copyright ownership gives the owner the exclusive right to use the work in certain, specific ways.

Many types of works are eligible for copyright protection, including:

- Audiovisual works, such as TV shows, movies, and online videos
- Sound recordings and musical compositions
- Written works, such as lectures, articles, books, and musical compositions
- Visual works, such as paintings, posters, and advertisements
- Video games and computer software
- Dramatic works, such as plays and musicals

Ideas, facts, and processes *are not* subject to copyright.

Names and titles *are not*, by themselves, subject to copyright protection.

For more information about Copyrights, visit:

- <http://www.youtube.com/yt/copyright/what-is-copyright.html>
- <http://www.teachingcopyright.org/curriculum/hs>

3 Extra Tips for the Instructor

Sources for online sources that you can trust:

NLB E-resources (*eResources.nlb.gov.sg*)

An extensive collection of online databases covering various subjects. The page requires user to log in with particulars.

Infopedia (*eResources.nlb.gov.sg/infopedia*)

An electronic encyclopaedia on Singapore's history, culture, people and events.

SURE Portal (*www.nlb.gov.sg/sure*)

A portal with various information literacy resources based on S.U.R.E.