

Lesson 16: Sources and Research

45 minutes

Overview

This lesson encourages students to think more about their responsibilities as consumers of information and how to find relevant and trustworthy information online. After viewing and discussing a video about how search engines work, students will search for information relevant to their site. They'll need to analyze the sites they find for credibility to decide which are appropriate to use on their own website. By the end of this lesson, students should have developed strategies for determining which websites are more trustworthy and tie these strategies back to their own role as content producers by looking for ways to make their own sites appear more trustworthy.

Question of the Day: How do we find relevant and trustworthy information on the Internet?

Standards

Full Course Alignment

CSTA K-12 Computer Science Standards (2017)

- IC - Impacts of Computing

Agenda

Warm Up (10 minutes)

Internet Scavenger Hunt

Activity (30 minutes)

Research and Trustworthiness

The Trustworthiness Checklist

How Search Works

Wrap Up (5 minutes)

Journal

Objectives

Students will be able to:

- Identify elements that contribute to a website's trustworthiness or untrustworthiness
- Use basic web searching techniques to find relevant information online

Preparation

- Print a copy of the Internet Scavenger Hunt activity guide for each pair of students, or prepare to project the questions to the class.
- Create a blank poster titled **Trustworthiness Checklist** and place it on the wall.
- Check the "**Teacher's Lounge**" forum for verified teachers to find additional strategies or resources shared by fellow teachers
- If you are teaching virtually, consider checking our **Virtual Lesson Modifications**

Links

Heads Up! Please make a copy of any documents you plan to share with students.

For the teachers

- **Sources and Research** - Slides

▼ Make a Copy

For the students

- **How Search Works** - Video (**Download**)
- **Internet Scavenger Hunt** - Activity Guide

▼ Make a Copy

- **Links and Research** - Activity Guide

▼ Make a Copy

Vocabulary

- **Relevant** - closely connected to a topic
- **Search Engine** - A program that searches for items on the World Wide Web.
- **Trustworthy** - reliable, honest, and truthful

Teaching Guide

Warm Up (10 minutes)

Internet Scavenger Hunt

Group: Place students in pairs. They do not need to be in their project groups for this warm up, but will transition to those groups for the main activity.

Distribute: Each group will need a copy of the Internet Scavenger Hunt activity guide.

💡 Teaching Tip ▲

Reducing Printing: Rather than print an activity guide for each student, consider displaying the questions and allowing students to answer in their journals or on scrap paper.

Transition: Send students to the computers to prepare for the scavenger hunt.

🎤 Remarks

You have seven minutes to complete as much of this scavenger hunt as you can. Your goal isn't to answer every question on this list, but to find as much *accurate* information as possible in the time you've been given.

Prompt:

- Which things were hardest to find and how did you find them?
- How do you know that the information was accurate?

Discuss: Student pairs share out what they were able to discover during the scavenger hunt and what strategies worked well for finding accurate information. If possible, use the discussion to introduce the key vocabulary for the lesson.

Discussion Goal: These questions are intended to help students identify any searching techniques that they currently use. If students *don't* have clear strategies, you may want to spend some time discussing basic search techniques. Keep track of search strategies on the board for reference later.

As students discuss the search engines that they used in the process, you may want to challenge them to think about how the search engines are able to give them relevant results. This can provide a good transition to the video in the next activity.

Key vocabulary:

- relevant - closely connected to the topic (answers the question)
- trustworthy - reliable, honest, and truthful (gives a correct answer)
- search engine - a program that searches for items on the World Wide Web

Question of the Day: How do we find relevant and trustworthy information on the Internet?

Activity (30 minutes)

Research and Trustworthiness

Remarks

As you begin to build your sites, you may want to use information that you find on the web, or link to other sites relevant to the problem that you are trying to solve. As you do that, you'll need to think about whether the information you are using is trustworthy.

Group: Place students in their project groups.

Distribute: Give each pair one copy of the Links and Research activity guide, or hand out the journals.

Search: Give student groups about ten minutes to search online and fill in the table on the activity guide.

Share: Ask student groups to share out the different sites that they found and which they decided were the most and least trustworthy and why. Push students to give detailed reasons for why they trust a site or not, and keep track of them on the board.

Search: Give students a few more minutes to look through their source sites again with the new criteria from their classmates. If there is more class time, students may want to continue to find sources for their site.

The Trustworthiness Checklist

Set Up: Start a poster on the wall labeled **Trustworthiness Checklist**.

Prompt: Now that we've identified some sites that are, and are not, trustworthy, work with your group to come up with a list of things to check for when trying to determine whether or not to believe a website.

Have students record their responses on the bottom of their activity guides

Assessment Opportunity

Check students' lists to make sure that they are coming up with criteria that relate to a site's trustworthiness. For example, students might mention that trustworthy sites have clear contact information, cite their sources, tend to have fewer and less invasive ads, and may be better designed than less credible sites. The domains .edu and .gov are reserved for schools and the government, and may be more credible.

Share: Have groups share out their lists. As a class, generate a class Trustworthiness Checklist on a poster. You can refer back to this in the future whenever asking students to find information online.

How Search Works

 **Video:** Show students the [How Search Works](#) video in the slides.

To encourage active engagement and reflection, use one or more of the strategies discussed in the [Guide to Curriculum Videos](#).

Wrap Up (5 minutes)

✔ Assessment Opportunity ▲

Students should connect the criteria from the lists that they have created to their own sites. While they may not be able to control the web address of their site, they should be able to identify design elements and content features that will make their sites more trustworthy, such as orderly layout and properly citing sources.

Journal

Prompt: Think about your own websites - do you think people would find your site trustworthy or untrustworthy? What changes could you make to your site to encourage users to trust your content?



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