# Unit 3

Tools of the Cyberworld
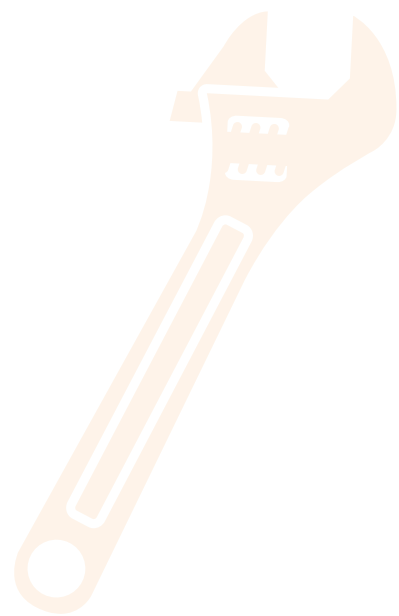
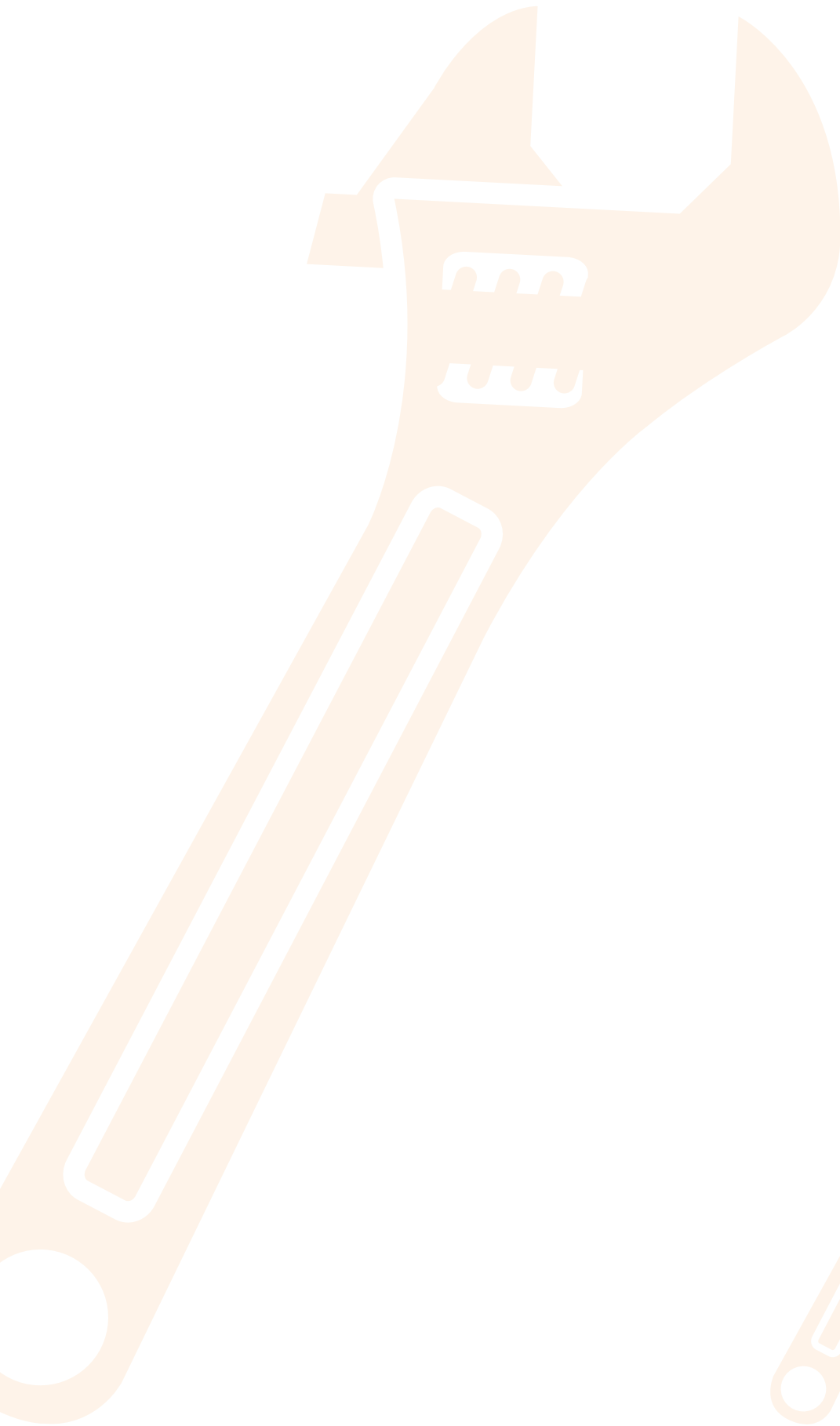## Explore, Learn, and Connect

Summary

In the cyberworld, arming yourself with the right tools makes it easier to find what you need when you need it.

In this unit, you'll learn how to research and evaluate websites and use social media. You will also explore different mobile devices and learn how to make smart decisions when shopping online.
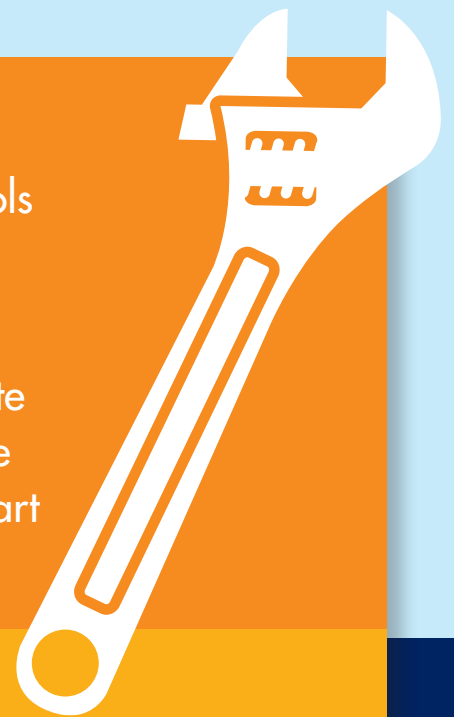
Unit Contents

Chapter 7

Exploring the Internet:
Researching and Evaluating the Web

Overview

"It's time to do some research!" your teacher says, ushering you into the school media center. But what do you do when you get there? In this chapter, you will learn strategies for conducting effective online research, including methods of assessing the credibility of websites. Included is a discussion of how to avoid plagiarism by correctly citing sources.

Key Terms

- Credibility
- Bias
- Top–level domain
- .gov
- .edu
- .org
- Sources

- Copyrighted
- Bibliography
- Citation
- MLA
- Works Cited page
- Plagiarize

Let's Explore!

The Internet is a digital world at our fingertips, just brimming with information waiting to be discovered. But what are the most effective ways of exploring that world? In Chapter 2, you learned that the Internet is a global communication network that allows computers to exchange and share information worldwide. The Internet makes it possible for people around the world to connect and share ideas across time zones and geographical locations. However, because cyberspace is such a large realm, it is easy to get "lost." It can sometimes be difficult to find the information you need. So, the most effective way to explore the Internet is to have strategies in place for doing research on the Web and for evaluating the websites you find there.

Use targeted keywords, write research questions, and be cautious about what you share and where you go online.

Follow the Three Key Factors of Surfing the Web

Think back to Chapter 2, where you learned about the three key factors of surfing the Web: *search*, *strategy*, and *safety*. Without these three factors, it can be easy to get lost on the Web! **But by following these techniques, you will have a better chance of exploring the Web with safety, efficiency, and success:**

❶ Search

Most surfing sessions start with the user typing targeted keywords about a subject into a search engine. Often, it's helpful to employ a Boolean search, linking keywords with **and**, **or**, or **not**.

❷ Strategy

Good strategies for searching the Web include writing research questions; extracting keywords from the questions and typing them into a search engine; using synonyms if the keywords don't bring up the results you want; keeping track of which keywords and synonyms you use; and recording the results of your searches.

❸ Safety

You should always be cautious about what information you share online and which websites you visit.

Out of these three factors, the way you approach Web searches is the most important element in using your time efficiently. In order to find the information you are looking for online, you should create a search strategy, which will enable you to narrow your search and avoid unrelated topics.

For example, if you were searching for information on cell phone safety, you would want to use keywords and phrases that would lead you to relevant articles. Keywords such as *texting* and *driving* are more specific than general terms such as *safety* and *concern*. More specific keywords will typically yield more specific results.

Assessing Credibility

The different websites accessible on the Web can make our job as researchers tricky. How do we know which information we can trust? If information is available on the Web, does that automatically make it accurate? The answer is that, just as with printed information, not all information available online is factual. The old adage "Don't believe everything you read" applies to the Web, too.

In fact, you should carefully evaluate the information you uncover online. Consider the ==credibility==, or trustworthiness and reliability, of the content before taking it as the truth.

Remember the differences between informational and corporate/e–commerce websites, which you learned about in Chapter 2? While informational websites usually strive to offer credible content to users, corporate and e–commerce websites sometimes present inaccurate information in order to sell something. Remember that if an online offer seems too good to be true, it probably is!

> Just because something is online doesn't make it true. Don't believe everything you read.

Check It!

How do you know if a website is credible? The first step in evaluating its credibility is to review several important aspects of the site. **These aspects are discussed below and are summarized in Figure 7.1.**

Checklist of Credibility Criteria:

✔ **Author**

Who is the author or publisher of the website? You'll want to look at the credentials of the blogger, company, or expert and determine if he or she has the qualifications to provide information on the subject you are researching. Blogger names are often listed at the top or bottom of a blog post or in a sidebar. Some websites do not list specific authors, but you can learn more about the credibility of a company or a purported expert by reviewing the site's "About" page, if one is available.

Look for possible conflicts of interest between the author and the information provided on the site. For example, say that a website contains information that suggests that smoking is not dangerous to your health. You look at the "About" page and discover that the website is sponsored by a tobacco company. It is likely, then, that the information on the website is not credible. The tobacco company wants to sell cigarettes, so it cannot be relied upon to provide accurate information about the safety of its products.

✔ **Date**

When was the website published or updated? Look for copyright information at the bottom of a website's home page. If the site is more than a few years old and it has not been updated regularly, you may not be getting the most up–to–date information.

✔ **Purpose**

What is the purpose of the site? Is it to sell, inform, or discuss? Analyze the goals of the website to determine if you are reading an informational site or what amounts to an advertisement.

> Look for copyright information at the bottom of a website's home page.

✔ **URL**

What does the URL look like? Does it have a URL ending in *.edu* for education, *.gov* for government, *.org* for organization, *.com* for commercial sites, or *.net* for network sites? Different websites have different URLs. To help determine a site's credibility, you'll want to determine if you are visiting a personal website or blog, a government website, or another type of website.

✔ **Contact**

Is contact information available? Most credible websites will list contact information such as a telephone number, an email address, or a mailing address so that users may get in touch if they have questions.

✔ **Fact vs. Opinion**

Is the author writing from experience, using experts and research to discuss ideas, or simply giving an opinion? If you're doing research for a school paper, you'll want to stick with sites that present factual information offered by experts, rather than opinions. Be on the lookout for biases, too. A bias is a prejudice for or against something. If the author is biased, the information on the site might be one–sided.

Remember that anyone can post anything on the Web. Just because it's out there in cyberspace doesn't mean that it's accurate or trustworthy. An important lesson to learn about the Web is that not all information available on it is credible.

> Remember that anyone can post anything on the Web.

Figure 7.1

Check It!

❏ Is the author qualified?

❏ Did you spot any conflicts of interest?

❏ Is the website up to date?

❏ What are the goals of the website?

❏ What does the URL look like?

❏ Is contact information available?

❏ Is the website biased?
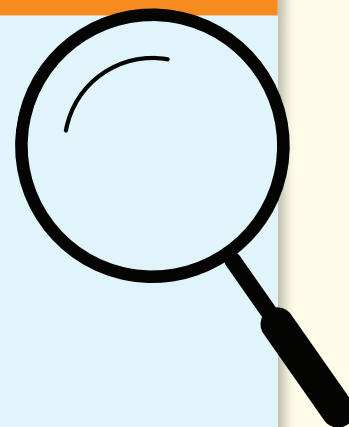
Common Credible URLs

As you consider the dizzying number of websites on the Web, you might wonder if there is a way to determine whether a website is credible by looking at its URL. It is true that a website's URL gives clues to its credibility, but even if the composition of the URL makes you think that a site must be credible, you should still evaluate it carefully.

When you encounter a URL, look at the letters that appear after the "dot." For example, the website of the White House is *www.whitehouse.gov*. The letters that appear after the "dot" are *gov*. That section of the URL is called the <mark>top–level domain</mark>. Looking at a URL's top–level domain will help you determine a site's credibility.

Websites ending in <mark>.gov</mark> are government–related websites. Generally, they can be trusted to provide credible statistical information, articles on many different topics, and government news. Examples of this type of site include *www.usa.gov* (official United States Web portal); *www.census.gov* (Bureau of the Census in the U.S. Department of Commerce); and *www.epa.gov* (U.S. Environmental Protection Agency).

Websites ending in <mark>.edu</mark> are the websites of educational institutions, such as colleges and universities. These sites usually offer a variety of credible data, especially about the school's operations and the research findings of its faculty and staff. (However, keep in mind that the administrations of colleges and universities may display bias on some issues.) Keep in mind that students sometimes receive free server space from the schools they attend, and they may create websites with an .edu top–level domain. You must be vigilant about these student–created websites, as they may contain inaccurate information or bias.

Credibility of Top–Level Domains

More Credible ← .gov — .edu →

Examples:
- www.usa.gov
- www.census.gov
- www.epa.gov

Examples:
- www.mit.edu
- www.uri.edu
- www.umass.edu

It is true that a website's URL gives clues to its credibility, but even if the composition of the URL makes you think that a site must be credible, you should still evaluate it carefully.

Websites ending in .org are the websites of organizations. While many organizations—especially nonprofits such as the American Heart Association or the American National Red Cross—provide credible information, they may sometimes be advertising products or services, too. Some organizations show considerable bias as well, so you must evaluate .org sites carefully.

.org

Websites with the top–level domains of *.biz*, *.com*, and *.net* deserve a higher level of scrutiny. For the most part, they are less likely to provide accurate information, especially because many of them are corporate or e–commerce websites bent on selling products to consumers. However, there are some exceptions. Most news organizations (newspapers, magazines, online content providers, etc.), for example, have .com websites, and they generally strive to provide the most accurate, unbiased information possible. (However, some news organizations have political biases so, as always, you must evaluate the information you receive from these sites.)

.net ? .biz .com
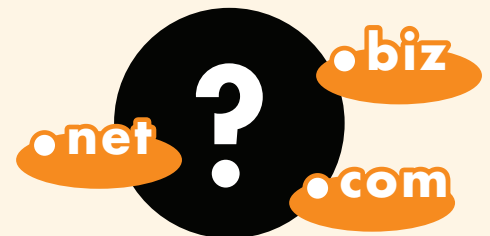
.org — .biz — .com — .net → **More Questionable**

Examples:
- **www.redcross.org**
- **www.idealist.org**
- **www.kidrex.org**

For Example Only:
- **www.iffy.biz**
- **www.couldbeok.com**
- **www.maybe.net**

Who Owns All That Information?

Just as we do with the information we find in print sources, we must give credit to the authors of information that we find online. When you use online information for your own purposes, such as writing a school report, you must cite the websites, or ==sources==, that provided the information you used to write your paper.

The reason we must cite sources is because they are ==copyrighted==, which means that the ideas—and the words used to convey them—belong to the author. When writing a research paper, the most common way to cite sources is to include, as the last page of the paper, a ==bibliography==, or list of the sources used.

Citations

Each entry in a bibliography is called a ==citation==, and you must include a citation for every source you use, whether it's a website, a newspaper, or a book. Online sources are cited differently, because they are different from traditional print sources. There are different formats used to cite sources, but one of the most common is called ==MLA== (which stands for Modern Language Association). The MLA style is used widely in schools, in publishing, and in the humanities. In MLA style, the bibliography is called a ==Works Cited page==. **The format for citing a page (or pages) on a website is outlined in Figure 7.2, which shows an example of a citation that would be placed on a Works Cited page at the end of a paper.**
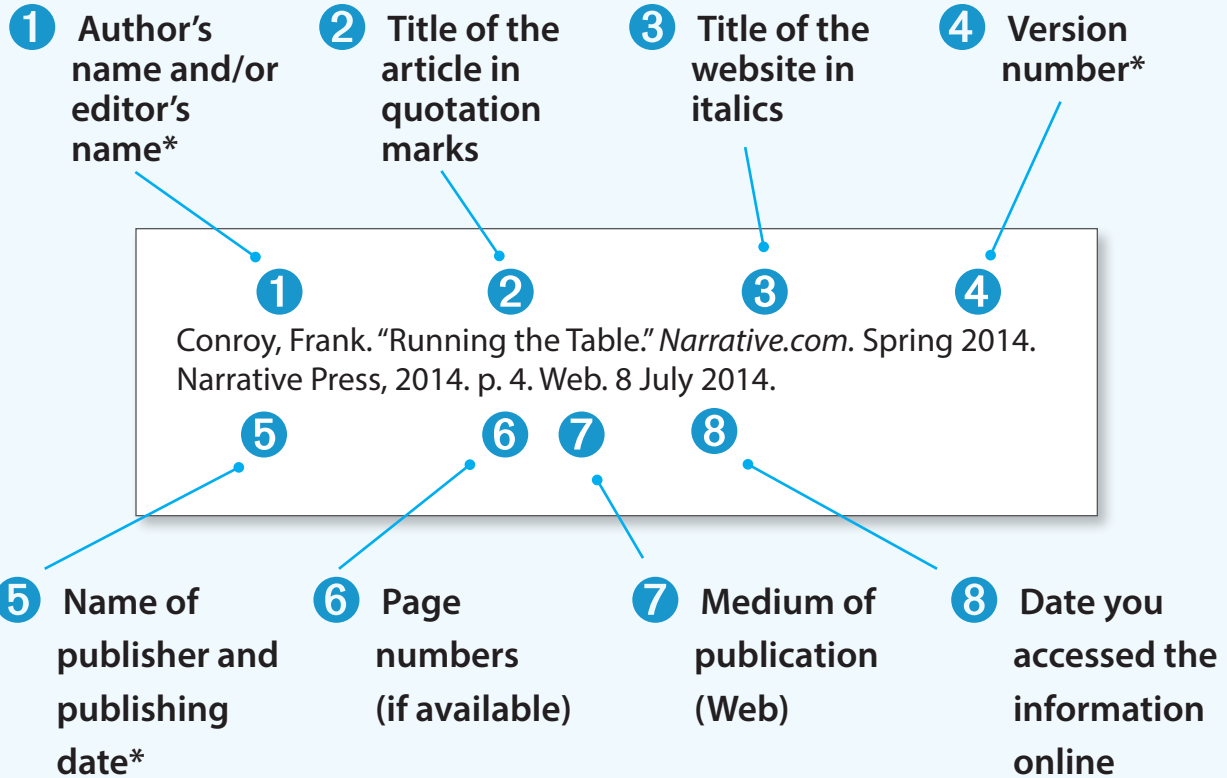
Besides citing sources on your Works Cited page, you must also cite them within the text of your paper. The in–text citation must correspond to the first word in the citation on the Works Cited page. **For example, say the sentence in Figure 7.3 is included in a paper you are writing about baking cakes and that you got the information in the sentence from page four of an article called "How to Bake a Cake" by Joe Smith.**

You cite your source using the word **(Smith**) that corresponds to the first word of the citation on the Works Cited page, plus the number of the page (**4**) on which the information is found. This way, the reader of your paper can easily find the source on the Works Cited page.

> You must include a citation for every source you use.

> **Remember:**
>
> **The reason we must cite sources is because they are copyrighted, which means that the ideas—and the words used to convey them— belong to the author.**

Figure 7.2

Sample Works Cited Citation

1 Author's name and/or editor's name*

2 Title of the article in quotation marks

3 Title of the website in italics

4 Version number*

Conroy, Frank. "Running the Table." *Narrative.com.* Spring 2014. Narrative Press, 2014. p. 4. Web. 8 July 2014.

5 Name of publisher and publishing date*

6 Page numbers (if available)

7 Medium of publication (Web)

8 Date you accessed the information online

1 If there is no author, the title of the website or article should come first.

4 Revisions, posting dates, volumes, or issues, if available.

5 Use *n.p.* if no publisher is available and *n.d.* if no publishing date is available.

Figure 7.3

Sample In–Text Citation

The lower air pressure in higher–altitude areas may require some recipe adjustments, such as a higher temperature or less baking time (Smith 4).
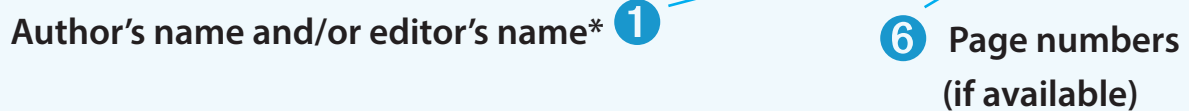
1 Author's name and/or editor's name*

6 Page numbers (if available)

Helpful Research Tips

When researching and collecting data from the Web, we must ensure we do not plagiarize, which is the act of taking someone else's work and presenting it as our own. Plagiarism is unethical, and it can get you in big trouble with your teachers. Sometimes, students don't mean to plagiarize, but they end up doing it accidentally because they are unclear about what it is.

You are plagiarizing if you do any of the following things:

- **Use a source's exact words** as your own.
- **Change a few words** in a source's sentence and use the sentence as your own.
- **"Borrow" the structure** of a source. For example, if an author's essay is organized into Parts A, B, and C, and you do the same with your own essay, that's plagiarism.
- **Present a source's ideas** as your own.

To avoid plagiarism, follow the steps below:

1. As you conduct research and take notes, **record citations** for your sources and indicate which of your notes go with which of your sources. This way, you won't mix up which source provided which information, and you will be sure to give credit to the proper authors.

2. Write down all of the URLs you visit, or **bookmark them** in your Web browser, so that you can revisit them later if needed.

3. Read all your sources and then **put them aside** as you write your own paper. This way, you will be less likely to use the wording that your sources used. You will be more likely to synthesize the information from your sources and put it in your own words.

When researching and collecting data from the Web, you must ensure you do not plagiarize. Your work should always be 100% yours, and your sources should always be cited.

Chapter 7   Assessment

What Do You Think?

Write a reflection of three to five paragraphs analyzing how you can determine if a website is credible. Your paragraphs should answer the following questions:

1 How can you determine if a website is credible?

2 What search strategies will yield the most credible websites? Why?

3 Why is it important to check how recently a website has been updated?

4 How does the identity of the author and/or publisher impact a website's credibility?

5 What is a conflict of interest? How can a conflict of interest impact a website's credibility?

Challenge: What Would You Do?

In this chapter, you learned how to evaluate websites. Now, apply what you have learned. Read the scenario below and write one paragraph explaining what you would do if you were faced with a similar situation. Use information from the chapter to justify your reasoning.

Scenario:

While doing online research for a paper about historical weapons, Joseph comes across an e–commerce website that sells weapons; a government website that details the history of war weapons; and a personal blog by a weapon enthusiast.

If you were Joseph, which website or websites would you use for your paper? Why?

Extension Activities

Activity 1 Short Answer

Write a one– or two–sentence response to each of the prompts below.

1 Explain the three key factors of surfing the Web.

2 Identify what information should be included in a Works Cited page.

3 Explain what a citation is and why it is important.

4 Identify which top–level domains in website addresses signal that a website has a strong chance of being credible. Explain your answer.

5 Describe how to create an in–text citation.

Activity 2 Key Terms

For each term, write a definition in your own words.

Bias	Credibility	Works Cited page
Citation	Plagiarize	

Activity 3 True or False?

Using the information from this chapter, determine whether each statement is true or false.

1 Websites that have a top–level domain of .com are always credible sites that provide accurate information.

2 Only sources that have a listed author are included on a Works Cited page.

3 If you use a source's sentence as your own, you are plagiarizing, even if you change a few words in the sentence.

4 Even if a website has a top–level domain that usually indicates accuracy, you should still evaluate the website for credibility.

5 If a website has a clear bias, it is sure to provide accurate, credible information.

Activity 4   Multiple Choice

Read the questions below. Use what you have learned in this chapter to help you choose the correct answer.

1   What is bias?

   A.   Only prejudice for something

   B.   Only prejudice against something

   C.   Prejudice either for or against something

2   How can you tell if a website is credible?

   A.   Anything on the Web is automatically credible.

   B.   You must evaluate the site for credibility.

   C.   If it has a top–level domain of .biz, it is credible.

3   Which is the top–level domain associated with colleges and universities?

   A.   .edu

   B.   .com

   C.   .net

4   At the bottom of a website's home page, you see a line of text that states the site is copyrighted. What does that mean?

   A.   The information on the website is credible.

   B.   The ideas, text, and graphics belong to the website's creator.

   C.   The website does not have to be included on a Works Cited page.

5   What is MLA?

   A.   A citation style for Works Cited pages

   B.   A top–level domain in a website address

   C.   A book that gives tips on determining website credibility

Hands-On

Web Traveler

In this activity, you'll become a Web traveler, exploring different sites to learn about a new subject while assessing the credibility of the information you find.

Step ❶

Select a subject that you want to learn more about or pick a topic that interests you. For example, you may consider your favorite sport, favorite food, information you need for a school assignment, or your hobbies.

Step ❷

Brainstorm a list of keywords and type them into a search engine one at a time. To get started, try these search engines:

www.kidrex.org

www.kidsclick.org

Step ❸

Find three different websites related to your topic and assess the credibility of each by using the Checklist of Credibility Criteria from this lesson. For each website, create a table to record your findings. Use **Table 7.1** as an example.

Step ❹

Out of the three sites you evaluated, which website is the most credible? Why? Justify your answers using concepts from the chapter.

Step ❺

Write a Works Cited page with citations for each website you visited on your travels. Remember to use the format shown on page 97.

Table 7.1

Credibility Checklist Sample

Checklist	Findings
Topic Searched	Robot technology
Author: Who is the author, and is he or she a credible authority on the subject?	The author is John Smith, a university professor who teaches engineering. Information on the website indicates that he has written three books on robotic engineering. He's also received awards for his research about robot technology. He appears to be a credible authority on robots.
Date: When was the website published? Is it up to date?	
Purpose: What is the purpose of the website?	
URL: What top–level domain is included in the URL? What type of website is it?	
Contact: What type of contact information is available?	
Fact vs. Opinion: Does the website include mainly facts or opinions?	