Unit 1 🌐

It's a Big World!

Exploring the Cyberworld

Summary

Cyberspace is a very big place. You must be aware of the many different roles you can play and the responsibilities you must shoulder as a member of the cyberworld.

In this unit, you'll explore what it means to be living in the digital age, the pros and cons of technology use, and how to be a responsible cyber citizen.

Unit Contents

Chapter 1

The Cyberworld and Cyber Citizenship

Overview

The digital age, the cyberworld, cyberspace—these concepts, which not long ago seemed to belong in a science fiction story, are an important part of life today. In this chapter, you will learn more about these concepts. You will also discover the characteristics of a cyber–literate person, come to understand what it means to be a good cyber citizen, and become informed about the moral principles we call cyber ethics.

Key Terms

- Digital or electronic media
- Virtual
- Cyberworld
- Cyberspace
- Cyber literacy

- Citizen
- Citizenship
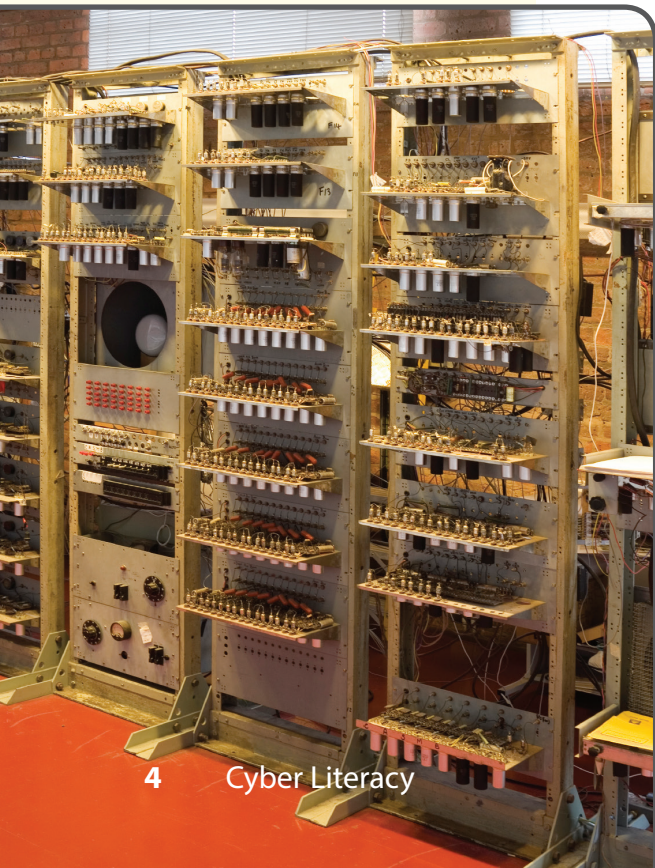- Cyber citizen
- Cyber citizenship
- Digital natives

The first "computers" were very large and required a lot of floorspace. ▼

Living in the Digital Age

Can you imagine a time when computers did not exist? While computers are a vital part of today's society, there was a time not that long ago that computers were nothing more than an idea. The first machines that we would recognize as "computers" were built during World War II, but they were massive (weighing 30 tons or more) and could be run only by a team of engineers. It wasn't until the 1970s that scientists and engineers began developing "personal computers"—machines small enough and advanced enough to be operated by just one person—leading to the laptops and tablets we see today.

With the invention of computers, our world changed dramatically. Over the last 40 years, the ways in which we communicate, interact, and connect with others have greatly expanded. Digital or electronic media—which include websites, computer software, e–books, and MP3 files—play an important part in making today's culture so interconnected. With digital media, we can accomplish many tasks from afar, such as communicating with each other without having to physically be in each other's presence. Digital media also make other tasks easier. Instead of loading a CD into a CD player, we can tap the screen on an MP3 player and hear our favorite song. Instead of setting up a film projector and a screen, we can watch a video on YouTube. Another benefit of digital media is that they make possible the creation of virtual spaces, or places that exist not in the real world but only online, including virtual schools and museums.

▲
It wasn't until the 1970s that scientists and engineers began developing "personal computers" such as this early model.

The Cyberworld and Cyberspace

Digital media are part of what is called the cyberworld, which is a term given to the modern world of computers, communications, and other digital technologies, such as mobile devices. The term cyberspace is used to describe the online environment of the cyberworld in which communications take place. Cyberspace is interactive, which makes it easy to connect with other people and the world as a whole. In fact, in cyberspace, we have 24–hour access, seven days a week, to information, communication, and collaboration.

The sheer size of the cyberworld means that there is a lot of information online that is available to everyone. Before computers, when people wanted to access information, they had to seek out books at a library or visit an expert for advice. However, the cyberworld makes it possible to do research online and acquire knowledge both quickly and efficiently.

> Cyberworld is the term given to the modern world of computers, communications, and other digital technologies.
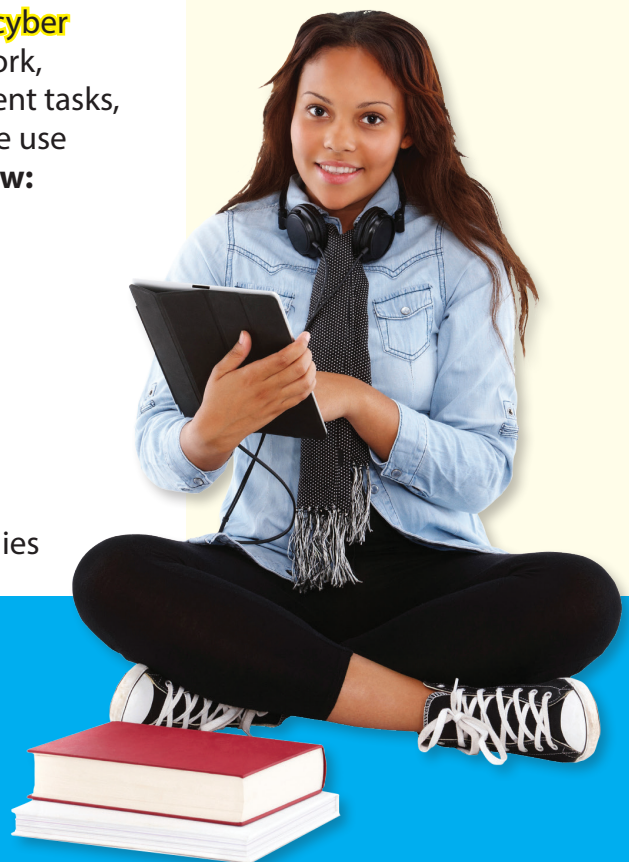
Cyber Literacy

What does it mean to live in the digital age? As our use of computers and other digital technologies continues to expand, we must also learn how to use new and emerging technologies. Being both proficient in the use of new technologies and comfortable in the atmosphere of cyberspace is called cyber literacy. It includes understanding how technologies work, having the ability to use technologies to perform different tasks, and being able to critique technologies and how people use them. **Cyber literacy includes the abilities listed below:**

- **Knowing how to use software**, such as word processing programs, to type a paper for school
- **Doing research online** to learn about a new topic
- **Understanding how technology can be used** for entertainment, school, work, and personal use
- **Adapting** to new technologies
- **Keeping current** on updates to existing technologies

Over the last 40 years, the ways in which we communicate, interact, and connect with others have greatly expanded, while our digital devices have gotten smaller and more powerful. ▶

Pros and Cons of Technology Use

One thing to keep in mind is that the size of the cyberworld also means that the ways we live, think, and communicate are all changing. Use the information below to review the pros and cons of technology use. Think about how you benefit from using technology and how you can be harmed by it.

Pro: Quick Access to Information

People can access information quickly and efficiently. What used to take hours of research in a library can now be accomplished in minutes with an online search engine.

Con: Overuse of Technology

People may spend too much time using technology. Overuse can lead to spending less time participating in the real world, which can affect relationships and social interactions.

Pro: Ease of Communication

People can communicate easily with friends and family online through email, texts, and social media platforms such as Facebook.

Con: Social Isolation

Increased online communication may create isolation from real–world friendships and face–to–face exchanges.

Pro: Productivity

People can accomplish tasks and increase their productivity through the use of technology.

Con: Growing Too Dependent

There is the possibility of growing too dependent on technology, which can negatively influence the ability to think critically and solve problems by yourself.

Citizens of the Cyberworld

Have you ever played on a sports team or participated in a group activity, such as volunteering at an organization or attending a birthday party? Every person is a citizen, or a member of different groups, whether at school, at home, or in his or her personal life. From staying safe to acting ethically, citizenship means participating in your world in a responsible way. When we embody good citizenship, we practice safe, ethical, and responsible decision–making, because we know that our actions can impact other members of the group or community.

Just as we have responsibilities in the real world, we also have responsibilities in the cyberworld. When you participate in the cyberworld, you become a cyber citizen, or a member of the global online community. Cyber citizenship is taking responsibility for your role in cyberspace and engaging in positive and ethical decision–making to stay safe online.

For many people today, maintaining positive cyber citizenship is a natural part of living in the digital age. This is because many people are digital natives, or people who were born after the invention of digital technology and have grown up using it. Digital natives are very familiar with digital technology and tend to understand it more thoroughly than people born before its invention.

> **Remember:** Digital natives are people who were born after the invention of digital technology and have grown up using it.

Your Role as a Cyber Citizen

What is your role as a cyber citizen? In the same way you understand how to responsibly fulfill certain roles as a citizen of your personal communities, you must understand how to do the same as a cyber citizen. Shown below are the responsibilities of real–world citizens and the responsibilities of cyber citizens. **Find the similarities and differences between the two lists, and think about your own actions in the cyberworld:**

Real–World Citizen Responsibilities

- **Listen** and **respond** thoughtfully to others.
- Be **cooperative** and **kind**.
- Maintain an **open mind** and a **willingness** to help others.
- **Follow rules** set by the communities in which you participate, such as school, family, or sports teams.
- **Communicate** effectively.
- **Respect** others.
- **Treat others** the way you want to be treated.

Cyber Citizen Responsibilities

- Use **respectful and kind language**, not hateful or bullying words.
- **Treat others** the way you want to be treated.
- **Don't share private information**, such as your passwords or home address.
- **Don't** *plagiarize*, or steal, information from the Web and use it as your own.
- Protect yourself and your computer by **following security measures**.

Cyber citizen responsibilities apply to everything you do online.

Respect and Responsibility

Being a good cyber citizen means following the key concepts shown below:

❶ Respect

Always be courteous and respectful to others online as you would be in real life. The age–old saying *Treat others as you would like to be treated* is an important rule to maintaining positive cyber citizenship. For example, if you wouldn't want someone to speak meanly to you or to be hurtful, then you should also refrain from using mean language online.

❷ Responsibility

Taking responsibility for one's actions is an important part of being a cyber citizen. Just as students refrain from cheating on exams in the classroom, they should also refrain from plagiarizing another's online writing or using copyrighted photographs they find on the Web without permission. A good rule of thumb is to behave in the cyberworld in the same way you would in the real world.

Online Ethics

While respect and responsibility make up the core of a good cyber citizen, another important part of positive cyber citizenship is ethics, or the moral principles we follow as citizens. We use *ethics* to make choices every day, both online and offline. Cyber ethics are specific to the principles that drive our actions while using the Internet, and they resemble many of the ethical guidelines we follow in the real world.

What Constitutes Unethical Behavior?

Is it unethical to use software for which you have not paid? Is it unethical to steal personal information? How about looking through someone else's email or social media accounts? In both the real world and the cyberworld, these actions are all unethical behaviors because they result in other people being hurt. You will learn more about cyber ethics, also called online ethics, in Chapter 11.

> The age–old saying *Treat others as you would like to be treated* is an important rule to maintaining positive cyber citizenship.

Chapter 1   Assessment

What Do You Think?

Write a reflection of three to five paragraphs on what roles you play in the cyberworld and how you fulfill your responsibilities as a cyber citizen. Your paragraphs should answer the following questions:

1. What types of technology do you regularly use? Do you use computer software, mobile devices, or entertainment technologies?
2. What advantages and disadvantages are associated with using the technologies you described in your answer to question 1?
3. What are similarities and differences between cyber citizenship and citizenship in communities in the real world?
4. In what ways do you believe you are a good cyber citizen?
5. How does your role as a cyber citizen compare to the cyber citizen roles played by your parents or friends?

Challenge: What Would You Do?

In this chapter, you learned about some of the technologies that are part of the cyberworld. Now, apply what you have learned. Read the scenarios below and determine which technologies can be used in each. To find the answers, use the information in this chapter, your prior knowledge, and information you find by doing research online. Write one or more sentences to provide an answer for each scenario.

1 Jessica wants to communicate with a friend who lives in another state without speaking aloud.
What technologies can Jessica use to do this?

2 Thomas wants to buy music without visiting a store.
What technologies can Thomas use to take this action?

3 Janice wants to watch a movie without going to a movie theater.
What technologies can Janice use to do this?

Extension Activities

Activity 1   Key Terms

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

Cyberworld	Digital native	Cyber citizenship
Digital or electronic media	Cyber literacy	Virtual

Activity 2   Short Answer

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

❶ Explain how digital or electronic media have made our lives easier.

❷ Describe how digital natives differ from people who are not digital natives.

❸ Define the term *cyber citizen*.

❹ Identify three elements of citizenship in the real world.

❺ Identify three elements of citizenship in the cyberworld.

Activity 3   True or False?

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

❶ As a citizen of the cyberworld, you are responsible for your actions and behaviors.

❷ There are no cons associated with technology use—only pros.

❸ Digital media assist in many everyday activities, including communicating with others, listening to music, and viewing videos.

❹ Cyber literacy discourages people from learning about new technologies.

❺ Cyberspace is interactive, which makes it easy to connect with other people and the world as a whole.

Extension Activities

Activity 4   Cyber Citizen Survey

As the cyberworld continues to expand, our duties as cyber citizens will also change over time. What roles do we have as cyber citizens? What responsibilities must we fulfill in the cyberworld? Do people view cyber citizenship differently? In this activity, you will answer these questions by learning what people think about their roles and responsibilities in the cyberworld.

Step ❶   Make a list of at least five people whom you can survey about cyber citizenship. Think of people such as your family members, friends, teachers, coaches, or neighbors.

Step ❷   Arrange a time to meet with each of the people on your list and ask each person the questions below. Record their answers on a piece of paper.

- What do you think of the cyberworld?
- What does the term *cyber citizenship* mean to you?
- What roles and responsibilities do you have as a member of the cyberworld?

Step ❸   Analyze the information from each of your interviews and look for similarities and differences in answers.

Step ❹   Write a one–page analysis reflecting on what you learned through your cyber citizen survey. In your analysis, write about the different definitions of cyber citizenship that you received and the similarities and differences in how people view the cyberworld.

Hands-On

Cyber Collage

Have you ever thought about how you use technology and what role you play in the cyberworld? In this activity, you will get the chance to explore your own behavior, practices, and participation in the cyberworld by creating a cyber collage.

Using images and text, create a collage representing your role in the cyberworld. Include different types of technologies you commonly use. To create your collage, you may use a software design program. You may also draw your images or use images found online or in magazines or newspapers.

Use the following prompts to help you as you select images and text for your collage:

- **Types of digital media you use**
  Do you use a computer or an MP3 player? What about the Internet or online communication methods?

- **Your habits in the cyberworld**
  Do you browse the Internet or check your email every day? How often do you chat with friends online?

- **How and why you use digital media**
  For what reasons do you use technology? Do you use computers for personal use, for school, or for both?

- **Why you like or dislike certain digital media tools**
  What technology do you feel you couldn't live without? Why?

Cyber Citizen Song/Rap

Society is governed by different sets of rules. There are rules you follow in order to show good manners when addressing adults, for example, or when eating at a restaurant. In this chapter, you learned some of the responsibilities of a good cyber citizen. Which do you feel are most important? What other rules would you add to this list? This is your chance to explain how you feel people should act in cyberspace.

Your teacher will put you in small groups. With your group members, decide on a list of at least 10 rules that you believe cyber citizens should follow while participating in the cyberworld. Write a song or rap that includes these rules and brief explanations of each. You can set the song or rap to the melody of an existing song, or you can make up your own melody.

Practice your song or rap with your group and then perform it for your class. You can play music to accompany your group and use props and costumes. Have fun with this assignment!