

The Digital Literacy Playbook



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everywhere

Acknowledgments

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Every Learner Everywhere is a network of partner organizations with expertise in evaluating, implementing, scaling, and measuring the efficacy of education technologies, curriculum and course design strategies, teaching practices, and support services that personalize instruction for students in blended and online learning environments. Our mission is to partner with institutions to harness digital learning technology, driving innovation in higher education to improve outcomes for every learner. We build capacity in colleges and universities to improve student outcomes with digital learning through direct technical assistance, timely resources and toolkits, and ongoing analysis of institutional practices and market trends. [WCET](#) (the WICHE Cooperative for Educational Technologies) and [WICHE](#) (the Western Interstate Commission for Higher Education) serve as the intermediary organizations for the Every Learner Everywhere Network. For more information about Every Learner Everywhere and its collaborative approach to advance student success in higher education through digital learning, visit everylearnereverywhere.org.

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Introduction

Artificial intelligence (AI) is rapidly transforming our world. It has already impacted everything from facial recognition software to personalized news feeds. AI holds the promise of providing an economic boon to developing nations, to revolutionize medical research and diagnostics, and to shorten the workweek in certain industries through increased productivity.

But amidst the excitement lies a critical need for **digital literacy**, as AI poses challenges to data privacy, security, and the reliability of output, as well as a host of ethical concerns. In this resource, we'll explore why digital literacy is the essential foundation for navigating the age of AI, unpacking the skills and knowledge needed to use digital tools effectively and to critically analyze the complexities and potential pitfalls of the online world. By helping your students build a strong foundation in digital literacy, you'll be equipping them to better navigate any digital realm.

The playbook begins with an overview of our framework for digital literacy, including two key skills and six competencies. Following sections address each competency in more depth. We close the playbook with a call to action, which includes four strategies for lifelong learning to maintain digital literacy.

► **Statement of Generative AI**

The Every Learner Everywhere Network advocates for a balanced approach to generative AI in higher education, recognizing its potential to enhance efficiency, creativity, and accessibility while maintaining academic integrity. The network emphasizes the importance of AI literacy and responsible use, encouraging institutions to integrate AI tools thoughtfully into curricula and administrative processes. By leveraging AI-driven solutions, colleges can personalize learning experiences, streamline operations, and provide round-the-clock student support, particularly benefiting diverse learners and those with disabilities. The network also stresses the need for clear policies and robust training programs to address ethical concerns, mitigate plagiarism risks, and promote original thinking. As generative AI becomes increasingly embedded in education and the world, Every Learner Everywhere underscores the importance of fostering expanded access to these tools while holding institutions accountable for ethical implementation, ensuring that AI augments rather than replaces human expertise in academic work.

► **Acknowledgment of Use Generative AI**

We acknowledge the use of artificial intelligence tools in the initial drafting process of this course content. Generative AI was employed as a starting point to efficiently generate ideas and create preliminary outlines. However, we want to emphasize that the final published material is the result of a rigorous collaborative effort by the authors and reviewers.

Following the AI-assisted draft, the authors engaged in thorough discussions, critical analysis, and multiple rounds of editing. This human-led process ensured that the content aligns with our educational standards, reflects current pedagogical best practices, and meets the specific needs of our learners.

Each element of the playbook was carefully vetted, contextualized, and enhanced based on our expertise and understanding of learner requirements. The final text represents a synthesis of AI-generated ideas and human insight, creativity, and professional judgment. We believe this approach combines the efficiency of AI with the irreplaceable value of human expertise in education, resulting in high-quality, engaging, and pedagogically sound course content.

A Framework for Understanding Digital Literacy

Digital literacy has become an essential skill set for success in higher education and the workplace. As technology continues to evolve and integrate into every aspect of academic and professional life, faculty members play a crucial role in equipping students with the digital competencies they need to thrive. This resource aims to provide higher education instructors with a comprehensive understanding of digital literacy and practical strategies to incorporate it into their teaching.

| What is digital literacy?

Digital literacy is the ability to effectively use information and communication technologies to find, evaluate, create, and communicate information. This definition underscores the importance of both cognitive and technical skills in today's information-rich environment. Taking into consideration various frameworks developed by the [United Nations Education, Scientific, and Cultural Organization \(UNESCO\)](#), [the EdTech Center @ World Education](#), and the [Digital Learning Collaborative](#), Every Learner Everywhere developed a digital literacy framework that provides a comprehensive view of digital literacy and its core components and is tailored for a higher education context.

Digital literacy serves as the foundational element of the framework, encompassing a wide array of competencies required to navigate the digital world. To achieve digital literacy, two key skill sets are needed:

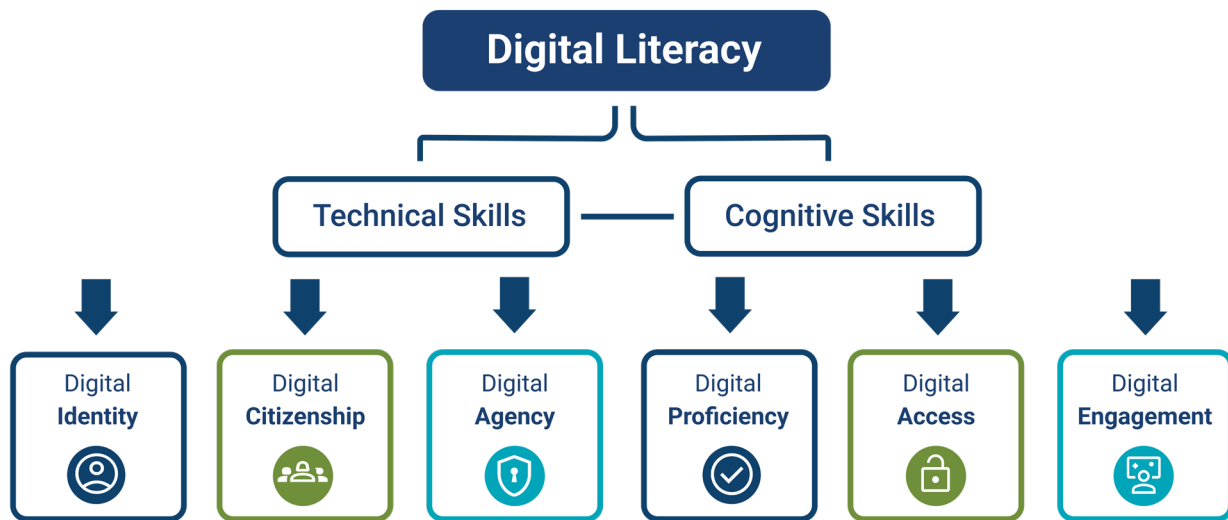
1. **Technical skills:** the ability to effectively use digital tools and platforms.
2. **Cognitive skills:** critical thinking, problem-solving, and the capacity to interpret and analyze digital content.



These two skill sets (technical and cognitive) are interdependent and feed into a range of more specific digital competencies:

	DIGITAL IDENTITY	Understanding and managing one's presence and reputation in online environments.
	DIGITAL CITIZENSHIP	Ethical and responsible participation in digital communities, recognizing rights and responsibilities.
	DIGITAL AGENCY	The ability to take control of one's digital actions, make informed choices, and influence one's digital environment.
	DIGITAL PROFICIENCY	Mastery of digital tools and platforms, applying these competently in various contexts.
	DIGITAL ACCESS	Awareness and facilitation of equitable access to digital technologies and resources.
	DIGITAL ENGAGEMENT	Active and meaningful participation in digital activities and communities.

By fostering both technical and cognitive skills, faculty can guide students to achieve a solid foundation for digital literacy, preparing them for the complexities of the digital world.



Examining each key skill of the framework will give you some language and strategies to build digital literacy in your students.

Technical skills form the foundation of digital literacy. At their most basic level, technical skills involve effectively using various digital tools such as educational software, meeting platforms, and project management apps. Technical skills also include how to protect your data and personal information as well as how to troubleshoot and solve problems when the technology is not working as you expect it to.

1. Basic Computer Skills:

- Device operation: The ability to use various digital devices like computers, smartphones, and tablets. This includes turning devices on/off, using input devices like mouse and keyboard, and navigating user interfaces].
- File management: The ability to create, organize, move, and delete files and folders on devices.

2. Software Proficiency:

- Productivity software: Competence in using common office applications like word processors, spreadsheets, and presentation software.
- Web browsers: The ability to effectively use web browsers to access online content and services, including an understanding of settings, cookies, and caches.
- Operating systems: Basic understanding of operating systems and how to navigate them.

3. Internet Skills:

- Web navigation: Proficiency in using search engines, following hyperlinks, and browsing.
- Online communication: The ability to use email, messaging apps, and other digital communication tools.
- Information retrieval: Being able to find and access information online.

4. Digital Security:

- Basic cybersecurity: Understanding online safety practices, including password management and potential threats.
- Privacy settings: Knowledge of how to manage privacy settings on various platforms and devices.

5. Adaptability:

- Learning new tools: The capacity to adapt to and learn new digital technologies as they emerge.
- Troubleshooting: Basic problem-solving skills for common technical issues.

Digital literacy, however, extends beyond technical proficiency. It also encompasses cognitive skills like critical thinking and evaluation of digital information, as well as social skills for responsible online behavior and collaboration. Developing these skills provides the necessary foundation for individuals to effectively engage with and navigate the digital world.

Cognitive Skills include analyzing how digital tools shape your engagement with the online world and how general use of digital tools influences our understanding of reality. When it comes to being digitally literate, several key aspects of cognitive skills are important¹:

- **Source Evaluation:** The ability to assess the credibility and reliability of online sources and information. This involves examining factors like author expertise, publication date, potential biases, and supporting evidence.
- **Information Analysis:** Critically examining digital content to identify main ideas, supporting details, and logical arguments. This includes recognizing logical fallacies and distinguishing between facts and opinions.
- **Context Awareness:** Understanding how digital information fits into broader contexts, including historical, cultural, political, and social frameworks. This might include knowing which digital tools are popular with different demographic groups, how engagement with these tools impacts user mental health, and what biases are perpetuated by these tools. Context awareness also may include understanding political forces at play, such as if the tool allows for misinformation or hate speech, if the algorithm feeds users only what they want to hear—thus narrowing their understanding of the world—and if, how, and why governments are trying to regulate tools.
- **Media Literacy:** The capacity to analyze different forms of digital media, including text, images, videos, and interactive content. This involves understanding how media can be manipulated or used to influence opinions and being able to identify personal biases and those present in digital content. This skill helps in maintaining objectivity when consuming and sharing information online.
- **Fact-checking:** The ability to verify claims and information using multiple reliable sources. This is crucial for combating misinformation and fake news.

¹ Please note this is not a comprehensive list of all components of cognitive skills around digital literacy, but a list to help you get started.

- **Ethical Considerations:** Thinking critically about the ethical implications of digital actions, including sharing information, using others' content, and participating in online discussions.
- **Problem-solving:** Applying critical thinking to solve problems encountered in digital environments, such as troubleshooting technical issues or navigating complex online systems.
- **Synthesis of Information:** The ability to combine information from multiple digital sources to form coherent and well-reasoned conclusions.
- **Adaptability:** Being able to apply cognitive skills to new digital technologies and platforms as they emerge, adapting to changing digital landscapes.
- **Financial Influences on Digital Tools:** Understanding who owns the digital tools and how the tool owners make money.

Someone who is digitally literate can grasp the big picture of how technology, society, culture, and politics all intertwine online.

ASSIGNMENT SUGGESTION: DIGITAL LITERACY COMPETENCIES

Reflect on your own digital literacy skills and consider how you can enhance your students' digital competencies:

- Conduct a self-assessment of your digital literacy skills using the **Digital Proficiency Self Assessment** found in Appendix A.
- After computing your score for each category of proficiency, identify three areas for personal growth in your digital literacy.
- Consider three ways you can integrate digital literacy competencies into your current course content to help students develop their own digital literacy skills.

Digital proficiencies, both technical and cognitive, affect all parts of the digital literacy framework.

| The Digital Literacy Framework in Action

Reflect on your own digital literacy skills and consider how you can enhance your students' digital competencies.

- Identify areas for personal growth in digital literacy.
- Consider how to integrate digital literacy concepts into your current course content to help students develop their digital literacy skills.

In the pages that follow, we will explore more deeply the six competencies of digital literacy.



Digital Identity

Your **digital identity** is how you project yourself online. This encompasses your presence on personal websites, social media platforms, and professional networks. On these sites and in these apps, you curate content, engage in online communities, and build your digital reputation. Your digital identity is like your digital fingerprint, made up of various elements that come together to create an impression of who you are online.

Elements that contribute to your digital identity include:

- **Online profiles** include your personal websites, social media accounts (Facebook, Instagram, etc.), and professional profiles on platforms like LinkedIn. The content you post, curate, and share on these platforms shapes how others perceive you online.
- Your **Digital Footprint** represents the trail of data you leave behind as you navigate the web. Your browsing history, online purchases, and even interactions in online games all contribute to your digital footprint.
- **Online Reputation** is developed over time as your digital footprint and online activities contribute to a bigger picture of who you are. While there is no one centralized repository for all that goes into your online reputation, it is also true that it is easy for anyone to search your interactions across multiple platforms to get a sense of who you are online. The importance of the online reputation of individuals and organizations has become so great that an entire industry of online reputation management (ORM) has been developed to help people develop a positive online reputation. ORM can't combat poor judgment, but it can help protect against cyber extortionists who post negative content about people and organizations and make them pay to have that content taken down. Some people set up Google alerts for themselves to monitor what is being posted about them online.

Online Reputation and Mental Health

Your students were likely born into a world saturated by digital tools and information. However, that does not mean they automatically understand the negative aspects of living in a digital world or know how to protect their reputation and their mental health. Students' online reputations can affect their ability to get scholarships, gain employment, be accepted into clubs and organizations, and even to volunteer.

Students should practice protecting their online reputation by:

- not oversharing
- not posting untrue or hateful things about others
- not engaging in online arguments with agitators trying to bait them into posting something you will regret

Students may have also already experienced cyberbullying affecting their mental health and wellbeing. In 2022, a [survey by Pew Research Center](#) found that 46% of teenagers (ages 13-17) reported experiencing cyberbullying. Behaviors considered cyberbullying include name-calling, spreading of false rumors, sending of unwanted explicit images, sharing of explicit images without a person's consent, physical threats, or persistent questioning about a person's location, relationships, or activities.

Other forms of online harassment include:

- **Trolling:** Repeated, deliberate online attacks to inflict distress and trigger an emotional response.
- **Doxing:** Public sharing of a person's private information without their permission.



If students are a victim of online harassment, they can:

- Report incidents to a school official or online reporting system.
- Preserve and share evidence through screenshots and photos or saved emails, messages, or voicemails.
- Consider temporarily disabling social media profiles or changing profiles to private.
- Mute aggravating parties or block them to prevent seeing their profile.

Here are some activities to help students better understand the importance of their online reputation and protecting their digital wellbeing:

1. Curating a Public Persona:

- Have students review their online presence and reflect on whether or not it represents who they are.
- Ask students how they are managing their digital reputation.

2. Cyberbullying and Online Harassment:

- Ask students to share their understanding of and experiences with cyberbullying and online harassment.
- Provide students with resources to cope with cyberbullying and online harassment.
- Digital wellbeing and mental health are closely interconnected in today's technology-driven world. Digital technologies, particularly social media and constant connectivity, can significantly affect mental health in both positive and negative ways.

Positive Effects of Digital Engagement	Negative Effects of Digital Engagement
Social Connection: Digital platforms can help maintain and strengthen relationships, especially over long distances, potentially reducing feelings of loneliness and isolation.	Anxiety and Depression: Excessive social media use has been linked to increased anxiety and depression, particularly due to social comparison and fear of missing out (FOMO).
Identity Exploration: Online spaces allow young people to experiment with and develop their identities, which is crucial for adolescent development.	Sleep Disruption: Blue light from screens and late-night device use can interfere with sleep patterns, negatively impacting mental health.
Access to Support: Digital technologies provide access to mental health resources, information, and support communities, which can especially aid those with limited local options.	Addiction and Compulsive Behavior: The addictive nature of social media and digital devices can lead to compulsive checking and scrolling, potentially harming mental wellbeing.

To mitigate negative impacts and promote positive mental health outcomes, students can employ digital wellbeing strategies:

- **Practicing Mindful Usage:** Being intentional about digital device use, setting boundaries, and practicing digital detoxes can help maintain a healthy balance.
- **Curating Online Experiences:** Actively managing social media feeds to promote positive content and limit exposure to harmful or triggering material.
- **Balancing Online and Offline Activities:** Ensuring that digital engagement doesn't replace important offline activities like exercise, face-to-face interactions, and nature exposure.
- **Utilizing Wellbeing Tools:** Many devices now offer built-in digital wellbeing features to monitor and limit screen time.

By understanding the connection between digital wellbeing and mental health, students can make informed choices about their technology use. This awareness allows for the cultivation of healthier digital habits that support rather than detract from their overall mental wellbeing. Digital well-being is finding a balance that allows students to harness the benefits of digital technology while mitigating its potential negative impacts on their mental health. Just talking with students about the ethical issues of digital literacy will help them engage with technology more critically to foster a more responsible and inclusive digital space for all.

Discussion Reflection Questions

- How do curated online personas affect your sense of self and relationships?
- How can you reduce comparison and FOMO (fear of missing out) when using social platforms?
- How might your current social media presence affect future job prospects?
- What constitutes cyberbullying or online harassment?
- How does excessive screen time and social media use impact mental health?
- What are some strategies for setting healthy boundaries around technology use?

These questions cover a range of important topics related to online reputation and mental health for college students. The goal is to encourage critical thinking about digital behaviors and their impacts on wellbeing.

ASSIGNMENT SUGGESTION: UNDERSTANDING DIGITAL IDENTITY

Learning objectives: Students will critically analyze their own online presence, explore the impacts of digital footprints, and develop strategies for managing their digital identities effectively.

Tasks:

- 1). Conduct an audit of your own digital footprint by listing all search engines, social media platforms, and any other digital services you use.
- 2). Write a summary of how you use each digital tool, including your level of engagement with the tool (multiple times a day, once or twice a day, several times a week, once or twice a week, etc). and the nature of your engagement with others (are you posting content? Are you liking or commenting on the content others post? Are you engaging in conversations? Are you engaging in arguments? Are you reposting content?). What user names and handles can be associated with your name?
- 3). Reflect on the findings: Were there surprises? How does your digital footprint align with how you perceive your identity?
- 4). Imagine you are a recruiter for your a job. If you had access to the summaries in #2, how would that affect your determination of the individual's fitness for the position?
- 5). Develop three strategies for managing your digital identity that include making the overall footprint more positive, removing unwanted content, and addressing any misalignment you found between your online presence and how you see yourself.

Digital Identity in Action

Your digital identity is a comprehensive representation of who you are online, encompassing your presence across various digital platforms. It's essentially your virtual persona, shaped by your online activities, content, and interactions. Maintaining a positive digital identity requires careful consideration and proactive management:

1. Be mindful of what you share online.
2. Regularly audit your online presence.
3. Engage thoughtfully in online communities.
4. Utilize privacy settings on social platforms.
5. Develop a consistent personal brand across platforms.

Remember, your digital identity can have real-world implications, affecting personal relationships, professional opportunities, mental health, and overall reputation. By actively managing your online presence, you can ensure that your digital identity accurately reflects who you are and aligns with your personal and professional goals.



Digital Citizenship

Digital citizenship refers to your online behavior, including how you interact with others, utilize digital tools, and conduct yourself in virtual environments. Just as there are norms for interacting in the physical world, the digital space has its own etiquette. Responsible digital citizenship promotes respect, safety, and inclusivity online.

Key aspects of digital citizenship include:

- **Online Etiquette or Netiquette:** Just as there are rules of courtesy in face-to-face interactions, online etiquette involves treating others with respect. This includes avoiding cyberbullying, being mindful of what you share, verifying content before reposting, commenting on, or liking it, and thinking through the consequences to your online reputation before you post anything.
- **Digital Safety:** Being a good digital citizen means protecting yourself and others online. This involves using strong passwords and two-factor authentication, being cautious about what information you share about yourself and others, and being aware of online scams and threats. A good digital citizen is mindful of their own safety and the safety of others.
- **Online Judgment:** The digital world is full of information, but not all of it is reliable. Digital citizenship involves being able to critically evaluate information you find online, fact-checking before sharing, and being aware of biases in digital content and in algorithms that feed you content. Cultivating your online judgment can protect you from spreading disinformation online. It is especially important to be mindful of only consuming content that aligns with your beliefs. If this is happening, you could be stuck in a confirmation bias algorithm.

Misinformation and Disinformation

The key difference between disinformation and misinformation lies in the intent behind the spread of false information:

MISINFORMATION

Misinformation refers to false or inaccurate information that is spread without the intent to deceive or cause harm. Key aspects of misinformation include:

- It is shared inadvertently by people who are unaware that the information is false.
- It can result from honest mistakes, misunderstandings, or lack of fact-checking.
- The spreader does not have malicious intent.

For example, if someone shares an outdated news article about store hours without realizing it's no longer accurate, that would be considered misinformation.

DISINFORMATION

Disinformation, on the other hand, is false information that is deliberately created and spread with the intent to deceive, mislead, or manipulate. Key aspects of disinformation include:

- It is intentionally false and designed to cause harm or achieve a specific agenda.
- The creator and initial spreaders are aware that the information is false.
- It often has malicious intent, such as political manipulation or financial gain.

Governments or other entities may use disinformation to influence public opinion or sow discord.



EXAMPLES OF MISINFORMATION AND DISINFORMATION

Disseminating misinformation and disinformation online typically involves various strategies designed to exploit human psychology, social media algorithms, and the rapid sharing nature of digital platforms. Common strategies include:

- **Clickbait Headlines:** Sensational, provocative, or misleading headlines designed to grab attention and drive traffic, often without delivering accurate content.
- **Fake News Websites:** Websites that mimic legitimate news outlets but publish false or misleading information.
- **Social Media Bots and Trolls:** Automated accounts (bots) and human-operated accounts (trolls) that amplify false information, create fake engagement, and manipulate public opinion.
- **Deepfakes and Manipulated Media:** Highly realistic but fabricated images, audio, and video created using advanced technology to deceive viewers.
- **Echo Chambers and Filter Bubbles:** Leveraging social media algorithms that show users content similar to what they've already engaged with, reinforcing existing beliefs and isolating them from opposing viewpoints.
- **Astroturfing:** Coordinated campaigns that create the illusion of widespread grassroots support for a particular idea, often using fake accounts and paid influencers.
- **False Attribution:** Spreading content that appears to come from reputable sources but is actually falsified or taken out of context.
- **Memes and Infographics:** Using easily shareable visual content that can convey misleading information quickly and persuasively.
- **Fake Experts and Impersonation:** Using individuals who falsely claim expertise or impersonating credible sources to lend false information an appearance of legitimacy.
- **Conspiracy Theories:** Spreading complex and often baseless narratives that explain events or situations as the result of secret, powerful groups.
- **Selective Reporting and Cherry-Picking Data:** Presenting facts selectively to support a particular narrative while ignoring context or contradictory information.
- **Emotional Appeals:** Crafting messages that evoke strong emotions like fear, anger, or sympathy to override rational analysis and encourage sharing.
- **Hashtag Hijacking:** Using popular or trending hashtags to spread misinformation, ensuring it reaches a broader audience.
- **Coordinated Inauthentic Behavior:** Organized efforts to mislead people or manipulate public discourse by coordinating multiple accounts or networks of accounts.

Understanding these strategies is crucial for developing effective countermeasures and fostering digital literacy among your students.

Misinformation and disinformation pose significant threats to society in several ways:

- **Erosion of Trust:** Disinformation acts as a corrosive force, eroding faith in institutions and fostering division within communities. This erosion of trust can lead to skepticism and uncertainty, making it difficult for individuals to discern credible information from falsehoods.
- **Public Health Risks:** During health emergencies, misinformation can lead to incorrect interpretations of health information, mistrust of federal and state assistance, susceptibility to scams and conspiracy theories, and the use of unproven health treatments.
- **Societal Division and Polarization:** Disinformation plays a significant role in fueling societal divisions and polarization. It manipulates emotions such as fear and anger, leading individuals to accept information that aligns with their pre-existing beliefs, thus deepening societal divides.
- **Impact on Behavior:** Misinformation can directly influence behaviors, such as inciting violence or causing people to ingest harmful substances based on false health claims. It has been shown to impact real-world behaviors like voting patterns and participation in protests.
- **Threats to Democracy:** Disinformation is often used in coordinated campaigns by state and non-state actors to manipulate public opinion for political or ideological gains. This manipulation challenges the fundamental principles of human rights and democratic processes.
- **Mental Health Effects:** The spread of misinformation can cause mental distress, including anxiety, confusion, and depression. Misinformation has also led to panic and violence during public health events and natural disasters.

Misinformation and disinformation threaten society by undermining trust in institutions, endangering public health, fueling societal divisions, influencing behaviors negatively, threatening democratic processes, and impacting mental health.

| Discussion Reflection Questions

- How do you think the norms of online interaction differ from those in face-to-face communication? Can you provide examples of situations where digital etiquette might be different from in-person etiquette?
- In your experience, what are some of the biggest challenges to maintaining respectful and inclusive behavior in online environments? How can these challenges be addressed?
- What strategies can individuals employ to critically evaluate the information they encounter online, and how can these strategies help combat the spread of misinformation and disinformation in digital spaces?
- How do you think digital citizenship relates to privacy and data security? What responsibilities do individuals have in protecting their own and others' information online?

- As future professionals, how do you think your online presence and digital citizenship might impact your career prospects? What strategies can you employ to ensure a positive digital footprint?

These questions encourage students to reflect on their own online experiences, consider the broader implications of digital behavior, and think critically about the responsibilities of being a digital citizen in today's interconnected world.

ASSIGNMENT SUGGESTION: UNDERSTANDING DIGITAL CITIZENSHIP

Learning objectives: Students will learn the basic practices of netiquette, be able to identify false and biased content, and challenge themselves to consume content that does not confirm their existing beliefs.

Tasks:

- 1). Review [Indeed.com's 10 basic rules for Netiquette](#) and rank them in order of importance to you with 1 being the most important. Explain why you chose to rank the rules in the way you did.
- 2). Read [FAIR's Media Literacy Guide](#) for tips on how to spot bias and misinformation in the news. Share a story on the internet that you were not sure at first whether or not it was true or false. How did you decide to believe it or dismiss it as false?
- 3). Watch [GCF Global's 2.37 minute video on filter bubbles](#). Now list the top three sources from which you get your news about your local community, the country, and the world. How can you expand your sources to get new perspectives?

Digital Citizenship in Action

Online actions leave a digital footprint that over time forms your online reputation.

Responsible digital citizenship encourages creating a positive footprint by contributing meaningfully to online communities, sharing accurate information, and promoting a positive online environment.

To be a good digital citizen:

- Audit your logins to ensure you use strong passwords and two-factor authentication.
- Verify online content before sharing.

Overall, digital citizenship is about using technology in a way that benefits yourself and others. It's about creating a safe, inclusive, and respectful online space for everyone.



Digital Agency

Digital Agency empowers you to exert control over your data. In the digital age, data is the most valuable commodity. The two main aspects of digital agency are:

- **Data Control:** This involves understanding where your data goes online and having a say in how it's used. Control includes adjusting privacy settings on social media platforms and apps, being mindful of what information you share on websites and apps, and understanding how companies collect and use your data. Understanding the cookies settings presented to you when you visit a website for the first time is part of data control.
- **Algorithmic Awareness:** Websites and apps use algorithms to personalize your experience, curating content and ads they think you'll be interested in. Digital agency involves understanding how algorithms work and how they influence the information you see. Knowing how algorithms work enables you to be more critical of online content and make informed choices about how you engage with the digital world.

| Data Control

Think about how you support students' agency over the digital tools required for your classes. For example, if students are submitting original work to a plagiarism detector or generative AI tool, is that work now owned by or become part of the training set for that tool? If you require students to use a tool managed externally to your institution, does the vendor strip data of personal identifiable information?

Data Collection and Sharing:

- Ask students how much personal information they are comfortable sharing online.
- For each of the digital and online tools students use for your classes, find out who has access to students' data and how it is being used.
- Share with students how their data is collected, stored, and being used. Provide alternatives to digital tools if students do not consent to the data sharing arrangements.

Targeted Advertising and Algorithmic Bias:

- Explain to students how online platforms use their data to personalize their experience.
- Discuss with students how online platforms can expose them to targeted advertising that is manipulative or perpetuates bias.

Data Breaches and Online Security:

- Find out how vendors protect student personal information from being compromised.
- Explain to students the steps vendors are taking to safeguard their data.

TIPS FOR MANAGING DATA PRIVACY

1. **Adjust privacy settings:** Regularly review and update privacy settings on social media and other online accounts.
2. **Use incognito or private browsing:** This can help reduce tracking across sessions.
3. When prompted by a website, **do not accept all cookies**, but manage them so that you only accept the ones with which you are comfortable.
4. **Clear cookies and browsing history:** Periodically clear this data from your devices to limit tracking of your online activities.
5. **Opt out of personalized ads:** Many platforms allow you to opt out of ad personalization.
6. **Use privacy-focused tools:** Consider using privacy-oriented search engines, browsers, and virtual private networks (VPNs).
7. **Be mindful of data sharing:** Limit the personal information you share online and with apps.
8. **Read privacy policies:** Understand how companies collect and use your data.
9. **Use ad blockers:** These can help reduce tracking by advertisers.
10. **Diversify information sources:** Actively seek out diverse viewpoints to counter filter bubbles.



Website Cookies

Website cookies are small bits of data that websites store on your device (computer, phone, tablet) when you visit them. These cookies act like tiny memory aids, allowing the website to remember your actions and preferences over time.

Here's a breakdown of how website cookies work:

- **Creation:** When you visit a website, the web server (the computer that stores the website's data) sends a cookie to your device. This cookie contains information about your visit, such as the pages you viewed and any items you added to a shopping cart.
- **Storage:** Your device stores the cookie information, usually with an expiration date. This means the cookie will be active and accessible by the website for a certain period of time, which can range from a single browsing session to a predetermined time frame set by the website.

Retrieval: When you revisit the website, your device sends the stored cookie back to the web server. This allows the website to recognize you and potentially personalize your experience based on the information stored in the cookie. There are two main types of website cookies:

1. **Session Cookies:** These temporary cookies are erased from your device once you close your web browser. They might be used to remember things like what items you have in your shopping cart while you browse an online store.
2. **Persistent Cookies:** These cookies stay on your device for a set amount of time (days, weeks, or even years) even after you close your browser. They are often used to remember your preferences across different browsing sessions, such as your preferred language setting on a news website.

Here are some of the common purposes of website cookies:

- **Personalization:** Cookies can remember your preferences and browsing history, allowing websites to tailor content and recommendations to you.
- **Shopping Carts:** Online stores use cookies to keep track of the items you add to your shopping cart, even if you leave the website and come back later.
- **Login Information:** Some websites use cookies to store your login information so you don't have to re-enter it every time you visit.
- **Analytics:** Websites can use cookies to track how visitors use their site, which helps them improve the user experience.

You do have some control over website cookies. Most web browsers allow you to **see what cookies are stored on your device, block cookies from being stored, delete cookies that are already stored.** However, completely blocking cookies can prevent websites from working optimally.

Algorithmic Awareness

Digital agency includes understanding how algorithms influence the information you see online, how they shape your online experiences, and how you can manage your data privacy.

Algorithms are like recipes or step-by-step instructions that computers follow to solve problems or perform tasks. In the context of social media and streaming services, algorithms are used to decide what content to show you and in what order.

Social media algorithms analyze various factors to determine what appears in your feed:

1. **User interaction:** The posts you like, comment on, or share.
2. **Content type:** Whether you engage more with photos, videos, or text posts.
3. **Recency:** How new the post is.
4. **Relationships:** How close you are to the person posting (e.g., family, close friends).
5. **Time spent:** How long you view certain types of content.

Based on these factors, the algorithm creates a personalized feed for you, aiming to show content you're most likely to engage with. Algorithms play a significant role in shaping our online experiences and the information you encounter.



HOW ALGORITHMS INFLUENCE ONLINE INFORMATION

- **Personalization:** Algorithms analyze your browsing history, likes, shares, and other online behaviors to tailor content to your perceived interests.
- **Filter bubbles:** By showing you content similar to what you've engaged with before, algorithms can create "echo chambers" that limit exposure to diverse viewpoints.
- **Ranking and prioritization:** Search engines and social media feeds use algorithms to determine what content to show prominently.
- **Content recommendations:** Streaming services, e-commerce sites, and news platforms use algorithms to suggest content they think we'll like.
- **Ad targeting:** Algorithms analyze your data to serve personalized advertisements.

HOW ALGORITHMS SHAPE ONLINE EXPERIENCES

- **Information access:** Algorithms largely determine what information we easily find online.
- **Social connections:** Social media algorithms influence whose posts you see and suggest new connections.
- **Purchase decisions:** E-commerce algorithms shape product recommendations and pricing.
- **News consumption:** News feed algorithms impact the stories and sources you're exposed to.
- **Entertainment choices:** Streaming service algorithms guide your media consumption.

Algorithms use your user information to suggest content to keep you engaged with the platform. Algorithms constantly adapt to your behavior to create a tailored experience. While they can enhance your online experience, it's important to be aware of how they work and their potential impact on your digital life.

Online algorithms tend to shape more negative experiences for women and marginalized people in key ways:

- **Amplification of Harmful Content:** Social media algorithms often amplify extreme and harmful content, including misogynistic posts. By amplifying them, social media often normalizes misogynistic content and harmful ideologies that target migrants, immigrants, persons who identify as LGBTQ, and other marginalized groups.
- **Content Moderation Issues:** Platform algorithms often unfairly restrict content related to women and marginalized groups. For example, Instagram's algorithm may "shadowban" images of women in yoga pants while not applying the same restrictions to shirtless men.

While online algorithms have the potential to benefit society, they currently tend to create and amplify negative experiences for women and marginalized groups. Addressing these issues requires a multifaceted approach involving tech companies, policymakers, and users to create more equitable and inclusive digital spaces.

By being aware of data control and algorithmic influences, you can take more ownership of your online experience. This empowers you to make informed decisions about your data and navigate the digital landscape more critically.

Discussion Reflection Questions

- How do you personally exercise control over your data in your daily digital interactions? What challenges have you encountered in trying to maintain this control?
- In what ways might the personalization of content through algorithms impact world views and decision-making processes? Can you provide examples from your own experience?
- Consider a social media platform you frequently use. How transparent do you think it is about its data collection and usage practices? What steps could platforms take to improve transparency and user control?
- How might an individual's level of digital agency affect their online privacy and security? Can you think of scenarios where limited digital agency could lead to potential risks?
- As future professionals, how do you think understanding digital agency will impact your career field? What responsibilities might you have in ensuring ethical data practices in your workplace?

These questions encourage students to reflect on their own digital behaviors, critically examine the role of algorithms in shaping online experiences, and consider the broader implications of digital agency in both personal and professional contexts.



ASSIGNMENT SUGGESTION: DIGITAL AGENCY

Learning objectives: Students will learn about browser privacy settings and how to take control of their online privacy.

Preparation:

- Create small groups of 3-4 students each.
- Ensure each group has access to at least one laptop or desktop computer.
- Provide a list of common web browsers (e.g., Chrome, Firefox, Safari, Edge) for students to choose from.

Tasks:

- 1). Ask each group to select a web browser to focus on. Groups should aim for a diverse selection of browsers across the class.
- 2). For their chosen browser, each group should locate and screenshot the following:
 - Private browsing mode
 - Cookie settings
 - Do Not Track option
 - Pop-up blocker
 - Location sharing settings
 - Password manager settings
 - Search engine preferences
- 3). Have the groups document and present to the class
 - The unique privacy features of their browser
 - How to access and modify key privacy settings
 - Any challenges they encountered in finding certain settings
- 4). Individually, students can do the following in their own device:
 - Enable Do Not Track
 - Clear browsing history and cookies
 - Disable location services (this may disrupt some services on their smartphone such as location sharing)
 - Set up a content blocker extension

Conclude the activity by emphasizing the importance of regularly reviewing and updating privacy settings. Encourage students to apply what they've learned to their personal devices and share this knowledge with friends and family.

Digital Agency in Action

Digital agency equips individuals with the ability to manage their data and understand how algorithms shape their online experiences. It involves two main components:

Data control allows users to monitor where their data goes, how it is collected, and how it is used by platforms. This includes adjusting privacy settings, managing cookies, and being mindful of data-sharing practices. For educators, promoting digital agency means helping students understand how tools like plagiarism detectors handle their work and ensuring data privacy is respected.

Algorithmic awareness highlights the role of algorithms in curating online content, which can lead to personalized experiences but also create "filter bubbles" by limiting exposure to diverse perspectives. Awareness of how algorithms influence information allows users to be more critical of what they encounter online.

You can practice digital agency through:

- Managing data privacy
- Questioning algorithmic biases
- Protecting personal information

By taking these three actions, you can better control your digital presence and make more informed choices in the digital world.





Digital Proficiency

Digital proficiency is the effective use of online tools for various purposes in all aspects of life. Digital proficiency is not just a desirable trait but a fundamental requirement for success in the modern workforce, education, and everyday life. As technology continues to evolve, the ability to effectively engage with digital tools will remain a critical factor in personal and professional development.

Common examples of the use of online tools include:

Productivity and Collaboration

- Utilizing cloud-based document editors like Google Docs or Microsoft Office Online for collaborative work
- Managing tasks and schedules with digital calendars and project management tools
- Leveraging cloud storage solutions for file sharing and access across devices

Communication and Networking

- Using video conferencing platforms like Skype or Google Hangouts for remote communication
- Engaging professionally on social media platforms such as LinkedIn
- Participating in online communities and forums to share knowledge and connect with others

Learning and Skill Development

- Accessing and benefiting from online courses, tutorials, and webinars
- Using educational platforms and tools for self-paced learning
- Applying digital skills to research and academic pursuits

Content Creation and Media Literacy

- Creating and editing digital media, including videos, graphics, and audio
- Understanding how to identify reliable information and avoid misinformation online
- Using content management tools to create and curate online content

Staying Engaged in Learning

College students who want to engage in lifelong learning of digital technologies should:

1. **Stay Informed with Industry News:** Regularly subscribe to reputable tech publications and follow influential thought leaders on social media. Engaging with online forums can also help you stay updated on current trends and emerging technologies, which is crucial for adapting your skills to the evolving digital landscape.
2. **Utilize Online Learning Platforms:** Take advantage of online courses and platforms that offer flexibility in learning. These platforms often provide a wide range of topics and skill levels, allowing you to learn at your own pace and focus on areas that interest you or are relevant to your career goals.
3. **Engage in Networking and Community Involvement:** Join professional networks and communities related to your field of interest. Attend webinars, conferences, and meetups to connect with peers, share experiences, and learn from others' successes and challenges.
4. **Practice Digital Literacy Skills:** Focus on developing both basic and advanced digital skills, such as coding, data analysis, and effective online communication. Engaging in projects that require these skills can enhance your proficiency and prepare you for future job demands.
5. **Embrace a Growth Mindset:** Adopt a mindset that values continuous learning and adaptability. Be open to exploring new technologies and methodologies, as this will help you remain competitive in a rapidly changing environment.
6. **Participate in Practical Learning Experiences:** Seek opportunities for hands-on practice through internships, volunteer work, or collaborative projects. This real-world application of digital skills can reinforce your learning and make it more meaningful.
7. **Leverage Digital Tools for Collaboration:** Use collaborative tools and platforms to work on group projects or engage in discussions with classmates. This not only enhances your learning experience but also helps you develop teamwork skills essential for the modern workforce.

By actively pursuing these strategies, college students can foster a culture of lifelong learning that will serve them well throughout their academic and professional journeys.



| The Big Myth About Youth and Digital Technologies

There is a common misconception that younger generations are naturally more digitally proficient because of their lifelong exposure to digital tools. This can lead to faculty introducing digital learning tools to students without training them to use them or providing technical assistance in using them.

DIGITAL NATIVISM

Digital Nativism is a theory about how "digital natives," the generation born after 2000, are immersed in digital culture from a young age. This digital immersion leads to assumptions that these generations are inherently better at using digital tools and understanding digital culture than older generations.

Here's a breakdown of the concept and some critiques:

The Theory:

Marc Prensky coined the terms [digital natives and digital immigrants in 2001](#). His theory is that digital natives are supposedly more comfortable with multitasking, prefer visual learning styles, and can quickly adapt to new technologies. This supposedly creates a gap between them and "digital immigrants" – older generations who came to technology later in life.

The critiques:

This theory has been criticized for several reasons. It can be seen as:

- **Anglo-centric:** Digital nativism focuses on the experiences of English-speaking populations and doesn't consider the varying levels of digital access and education around the world. Another way the theory is Anglo-centric is that English dominates the internet, privileging English speakers. As of 2025, nearly half of all content on the internet is in English and nearly 60 percent of all websites on the internet are English-only.²
- **Classist:** It overlooks socioeconomic disparities in access to technology and the digital divide that persists. Not everyone born after 2000 has had equal opportunities to develop digital skills.
- **Oversimplification:** Digital literacy isn't just about being young and exposed to technology. It requires ongoing learning and adaptation as technology evolves.

While some younger generations may have a certain comfort level with technology due to growing up with it, digital proficiency is a skill that can be developed regardless of age.

² [statista.com/statistics/262946/most-common-languages-on-the-internet/](https://www.statista.com/statistics/262946/most-common-languages-on-the-internet/)

Discussion Reflection Questions

- How has your level of digital proficiency evolved over the past few years, and what factors have contributed to this evolution? Can you identify any specific skills you've developed or areas where you still feel you need improvement?
- In what ways do you think digital proficiency impacts different career fields? Can you provide examples of how digital skills might be applied differently across various professions?
- Consider a task or project you've recently completed. How did your digital proficiency (or lack thereof) affect your approach and the outcome? What digital tools or skills would have made the process more efficient or effective?
- How do you think the rapid pace of technological change affects the concept of digital proficiency? What strategies can individuals employ to stay current with evolving digital tools and practices?
- In your opinion, what role should educational institutions play in developing students' digital proficiency? Are there specific digital skills or competencies that you believe should be integrated into all college curricula, regardless of major?

These questions encourage students to reflect on their own digital skills, consider the broader implications of digital proficiency in various contexts, and think critically about the role of technology in education and professional development.

ASSIGNMENT SUGGESTION: DIGITAL NATIVISM

Learning objectives: Students will critically examine the theory of digital nativism by reflecting on their own experiences with digital technologies.

Tasks:

- 1). Briefly summarize your first memory of being online or using a digital tool such as a video game, tablet, or smartphone.
- 2). What, if any, formal training do you have in using digital tools? This could be taking a keyboarding class, a library workshop on using online search engines, a class on how to use Microsoft Office or Google Workspace apps, or an online or video tutorial on using a game, social media, or digital learning tools.
- 3). List three electronic devices you have been exposed to your entire life but still had to be taught, either formally or informally, to operate.
- 4). Based on the first three responses, would you consider yourself a digital native? Why or why not?

ASSIGNMENT SUGGESTION: DIGITAL PROFICIENCY

Learning objectives: Students will assess their own digital proficiency and create a plan for improving their digital proficiency.

Tasks:

- 1). Ask students to complete the **Digital Proficiency Self Assessment** found in Appendix A.
- 2). After computing their scores for each category of proficiency, ask students to create a plan to improve three of their technical skills.

Digital Proficiency in Action

Lifelong learning of technology is essential for success in today's workforce, education, and daily life, encompassing skills like collaboration, communication, content creation, and critical engagement with digital media. However, the assumption that younger generations, often labeled as "digital natives," are naturally more adept at using digital tools due to their exposure to technology is an oversimplification. True digital proficiency requires:

- Staying informed of advances in technology
- Taking online courses to keep up your technical skill levels
- Engaging in professional networks events that feature new technologies
- Adopting a growth mindset that values continuous learning and adaptability
- Participating in applied and collaborative projects that involve digital technologies

By taking these steps, you will find that digital proficiency is a skill that can be developed by individuals of all ages, not just younger generations.





Digital Access

Digital access is the ability to physically obtain digital devices and access broadband internet. Access is fundamental for digital engagement. Digital access refers to the ability to physically and financially obtain the resources necessary to fully participate in the digital world. However, unequal access resulting from wealth inequities, lack of investment in rural communities, and underfunding poor communities creates a **digital divide** that marginalizes certain populations.

Here's a breakdown of the key factors of digital access:

- **Physical Access:** This means having the devices needed to connect to the internet, such as computers, smartphones, or tablets. Unfortunately, not everyone has the resources to acquire these devices, creating a barrier to digital engagement. Another aspect of physical access concerns location. People who live in rural areas often do not have reliable broadband or cell service, making connecting to the internet difficult. Finally, physical access can be affected by a physical disability. While there is legislation to make digital tools and digital content accessible for those with limited sight and hearing, often additional equipment or apps are required for accessibility.
- **Financial Access:** A reliable internet connection is crucial for digital participation. However, internet plans can be expensive, and unequal access to affordable broadband limits digital opportunities for certain populations.

A lack of **digital access** creates a digital divide, where some have the resources to fully participate in the online world while others are left behind. This can have significant consequences, limiting access to:

- **Education:** Many educational resources and online learning platforms require both a stable and broadband internet connection, a wide bandwidth data transmission that allows for streaming video, interactive activities, and uploading and downloading large files.
- **Employment:** Job searching, communication, and even some skills training increasingly take place online, disadvantaging those without access.
- **Information:** The internet is a vast source of information, but those without access are excluded from this valuable resource.
- **Communication:** Staying connected with loved ones, engaging in online communities, and even accessing educational resources, news websites, and government services can be hampered by a lack of digital access.

Local, state, and Federal efforts to bridge the digital divide focus on initiatives like:

- **Subsidized internet plans:** Making internet connectivity more affordable for low-income families and for those living in rural areas, where internet access is more expensive because there are fewer customers.
- **Public Wi-Fi hotspots:** Providing free or low-cost internet access points in public spaces.
- **Device donation programs:** Distributing computers or tablets to underserved communities.
- **Digital literacy training:** Equipping individuals with the skills needed to effectively use digital tools and navigate the online world.

Open Educational Resources (OER)

Open Educational Resources (OER) are teaching, learning, and research materials that are freely accessible and can be reused, modified, and shared by anyone. These resources are either in the public domain or released under an open license, such as those provided by Creative Commons (CC), which grant users the rights to adapt and redistribute the materials without cost or permission. OER is distinguished by 5 permissions, also referred to as the 5 Rs of OER. These permissions allow educators flexibility in adopting OER for their courses.



RETAIN

keep forever



REUSE

use for your own purposes



REVISE

adapt or modify



REMIX

combine with other resources



REDISTRIBUTE

share with others

Openly Licensed Online Content

Openly Licensed Online Content refers more broadly to any digital content with an open license, regardless of its intended purpose. It may or may not be designed for educational use, it includes a wider range of content types like images, music, articles, datasets, etc., and openly licensed content may allow for some degree of reuse, but generally has more restrictions than OER, particularly the ability to modify it and remix it with other resources. Some examples of openly licensed content include:

Continued on next page.

Images

- **Flickr:** Hosts over 307 million CC-licensed images.
- **Wikimedia Commons:** Provides a vast collection of freely usable media files.
- **Unsplash and Pixabay:** Offer high-quality stock photos under permissive licenses.

Video

- **YouTube:** Contains millions of videos under CC licenses.
- **TED Talks:** Over 900 talks are available under CC BY-NC-ND license.
- **Public Domain Review:** curates a collection of images, films, audio files, and books which are in the public domain.

Audio

- **The Free Music Archive:** is a library of high-quality, licensed audio downloads directed by American radio station WFMU. It offers a large collection of music available under Creative Commons licenses. Users can explore music by genre, and each track page provides license and download options. The site allows up-and-coming artists to share their music and bio information.
- **ccMixer:** is a community remix site sponsored by ArtisTech Media and created by Creative Commons. It offers a variety of audio content including remixes, podcasts, samples, and a capellas that can be used for remixing or in mixed media projects. The site features music under various Creative Commons licenses.
- **SoundCloud:** is a global online audio platform that enables users to upload, record, and share their originally-created sounds such as music and spoken word. While not all content on SoundCloud is openly licensed, the platform's search function allows users to filter results to specifically licensed content.

Government websites

- **The official White House website (whitehouse.gov):** licenses third-party content under a Creative Commons Attribution 3.0 License. This allows users to share and adapt the content as long as proper attribution is given. Additionally, materials produced by the U.S. government are generally considered public domain under federal law, meaning they can be freely used without copyright restrictions.
- **[Data.gov](http://data.gov):** serves as a central repository for U.S. government data and information. Many datasets available on this platform are released under open licenses, including Creative Commons licenses, which facilitate reuse and redistribution while ensuring proper attribution.

Continued on next page.

- **NASA:** Most of NASA's content is available under a public domain dedication, allowing unrestricted use.
- **U.S. Geological Survey (USGS):** Many datasets and publications are also released under similar open licenses, promoting accessibility to scientific data.

Organizational websites

- **The Kaiser Family Foundation (KFF):** generally allows its content to be used for educational purposes without requiring written permission, as long as the material is not altered and the user is not charging for access beyond standard course fees like tuition or a course pack; this includes citing their materials or reprinting specific charts within textbooks and other educational contexts.
- **The Pew Research Center:** does not have fully open licensing for all of its content, but it does make much of its data and research openly available with some restrictions.
- Many news organizations including **PBS**, the **BBC**, and the **Learning Network** at the New York Times offer free resources for educators.

| The Digital Divide and Financial Considerations

The cost of course materials and the content in course materials can be obstacles to student learning. As much as possible, faculty should use course materials that are openly licensed, that represent students' identities, and that are relevant to student experiences.

Strategies that address access to course materials include:

1. Help students afford course materials embedded in online tools.

- If the digital tools you require in your classes have a subscription fee or purchase cost, ask the vendor to give you as many 'scholarship access codes' as they can for students who can't afford the fee.

2. Provide offline access options for your course materials.

- Make course materials --PDFs, PowerPoint slides, lecture recordings, etc--available for download so students can access them offline.
- Offer physical copies of materials for students to use from you or the institution's library.

3. Optimize course materials for low bandwidth.

- Use text-based materials when possible, as they require less bandwidth than video/ audio.
- Compress files and images to reduce file sizes.
- Break large files into smaller chunks that are easier to download.
- Provide transcripts as alternatives to video/audio content.

4. Build in multiple access methods for your course materials.

- Make materials available through multiple channels (e.g. learning management system, email, physical copies).
- Make sure students can access and engage with course materials on a mobile device, which may have better connectivity than computers in some areas.

5. Adjust your course design.

- Build in buffer time for assignments and exams for potential connectivity issues.
- Offer asynchronous options for participating in discussions or submitting work.
- Provide flexible deadlines for students facing internet access challenges.

6. Leverage campus resources.

- Make students aware of on-campus computer labs or WiFi hotspots they can use.
- Partner with the university library to offer extended hours or laptop/hotspot lending programs.

By implementing a combination of these strategies, faculty can help ensure that students with limited internet access are still able to engage with course materials and succeed academically. The key is to provide flexible options and be understanding of the technological constraints some students may face.

Discussion Reflection Questions

- How does the digital divide impact educational and career opportunities for individuals from underserved communities? Discuss any specific examples or personal experiences that illustrate these challenges.
- What are effective strategies that communities can implement to improve digital access for marginalized populations? Consider both short-term solutions and long-term investments.
- In what ways can digital access influence social and economic mobility? Reflect on how access to technology and the internet can affect one's ability to participate fully in society.
- How do financial and geographic factors contribute to the digital divide, and what role should government policies play in addressing these issues? Discuss potential policy interventions that could help bridge the gap.
- As future leaders, how can you advocate for equitable digital access in your community or workplace? Consider actions you can take to promote inclusivity and support those who lack access to digital resources.

These questions encourage students to explore the implications of digital access, solutions to bridge the digital divide, and their role in promoting equitable access to technology.

ASSIGNMENT SUGGESTION: DIGITAL ACCESS

Learning objectives: Students will learn how the cost of service plans as well as the availability of broadband directly impacts digital access.

Tasks:

1). Read the article by Broadband Search “[How do U.S. internet costs compare to the rest of the world?](#)”

2). Answer the following questions:

- What are the two main ways to access the internet?
- What are the three reasons internet access is so much less expensive in Europe than in the U.S.?
- What are three reasons internet access is so much less expensive in Asia than in the U.S.?
- What limiting factor to broadband access does the U.S. share with Africa?
- If you only had a mobile phone available to you, would you be able to successfully complete your college courses? Explain how you could do that or explain the functionality you’d lose if you could only use a mobile phone.

Alternative assignment for small groups:

1). In groups of 2 or 3, have students look up the cost and features of the internet plan they most often use at home.

2). Have students document their comparisons of the plans and discuss the pros and cons of each.

3). Now ask students to do the same activity for their ideal place to live once they graduate from college or conversely a rural community in the United States.

Digital Access in Action

Digital access is critical for participation in the modern world, yet many individuals remain marginalized due to disparities in physical and financial access to devices and reliable internet. These barriers contribute to the widening digital divide, leaving underserved communities with limited access to education, employment opportunities, and essential information.

Addressing this issue requires action at multiple levels. Programs that provide subsidized internet, public Wi-Fi, device donations, and digital literacy training are crucial steps in bridging this divide. Openly licensed online content and adaptable resources, such as OER, offer

powerful solutions for equitable access to educational materials. You can support digital access by advocating for:

- Distribution of affordable devices to students
- Subsidized broadband connectivity for students
- Adoption of open educational resources

Faculty can help ensure all students have the opportunity to fully engage in the digital world and succeed academically. Ensuring widespread digital access helps create a more inclusive and equitable society where everyone has the opportunity to benefit from the vast resources and opportunities available online.





Digital Engagement

Digital engagement describes the extent to which people utilize digital tools. It encompasses content creation, information consumption, online connections, collaboration efforts, and the overall value individuals place on using digital applications. Digital engagement goes beyond just spending time online. It's about how actively and meaningfully you participate in the digital world.

Here's a breakdown of what digital engagement entails:

- **Content Consumption and Creation:** consumption goes beyond passively browsing websites or social media feeds to more actively engaging with content. It can include reading articles critically, leaving thoughtful comments, or even creating your own content (like blog posts, videos, or social media updates).
- **Connection and Collaboration:** The digital world offers a vast network for connecting and collaborating with others. Digital engagement involves using online tools to connect with friends, family, colleagues, or like-minded individuals by participating in online discussions, working on projects together through collaboration platforms, or simply staying in touch through social media.
- **Value and Purpose:** Digital engagement isn't just about using technology for the sake of using it. It's about finding value and purpose in your online activities. You might use online tools to learn new skills, contribute to a cause you care about, or simply connect with others who share your interests.

The extent of your digital engagement can vary depending on your individual needs and preferences. Some people might be highly engaged, actively consuming and creating content, while others might use digital tools more passively for communication or information gathering.

Benefits of being digitally engaged include:

- **Access to Information and Learning:** The internet is a vast source of information and educational resources. Engaging with these resources online allows for continuous learning and exploration of new topics.
- **Connection and Community:** Digital tools can help you connect with others who share your interests, build online communities, and combat feelings of isolation.
- **Personal and Professional Development:** Many online platforms offer opportunities for professional development or learning new skills that can benefit your career.
- **Empowerment and Voice:** The digital world can provide a platform to share your ideas, advocate for causes you believe in, and participate in online discussions.

However, digital engagement is not a positive or welcoming experience for all. Digital engagement poses heightened risks for women and marginalized persons in several key ways:

- **Disproportionate Targeting:** Women and people of color, especially those in public-facing roles, face disproportionate targeting online through sexist and racist comments. Women who present as Black or Brown and who run for political office are twice as likely as other candidates to be targeted with misinformation and disinformation. Women of color candidates also receive the highest levels of online abuse and tweets combining misinformation and insults, and they are four times more likely than white candidates and twice as likely as men of color to be targeted with violent abuse online.
- **Online Harassment and Violence:** More than half of women and minorities experience online harassment and technology-facilitated gender-based violence (TFGBV). A majority of women and visible minorities report receiving hateful, vitriolic messages on a regular basis, including rape threats, insults, and death threats. In many countries, three-quarters or more of online hate speech victims are members of minority groups, including migrants and immigrants, members of the LGBTQ community, and people with disabilities. Women belonging to minority groups are disproportionately targeted both for being female and for being a minority. This online hate can lead to real-world violence and the dehumanization of minority groups.



- **Silencing and Chilling Effects:** This targeted abuse can lead to self-censorship and withdrawal from online spaces. The chilling effect of abuse can lead to less diversity of perspectives and engagement online.
- **Exposure to Risky Content:** Youth from minority communities may face higher exposure to risky content online including high levels of exposure to sexual, alcohol, drug, and violence-related content across social media platforms.
- **Barriers to Access and Opportunities:** While digital technologies can empower women and minorities, existing inequalities create barriers in the access to technology and participation and employment in the tech industry, which has a significant gender bias, with women making up only 15% of tech professionals.

While digital engagement offers many opportunities, it also amplifies existing societal inequalities and introduces new risks that disproportionately affect women and minorities. The reasons for these disproportionate challenges include:

- Existing societal biases and inequalities being amplified online.
- Efforts to silence and exclude marginalized voices from public discourse.
- The tech industry's own gender and racial biases influencing platform design and moderation.
- Lack of adequate protections and enforcement from social media companies.
- The intersectionality of discrimination, where multiple marginalized identities compound the abuse faced.

Addressing these challenges requires a multifaceted approach involving tech companies, policymakers, and users to create safer and more inclusive online spaces.



Validating Online Content

In today's digital age, students have unprecedented access to vast amounts of information online, but with this access comes the challenge of discerning credible sources from misinformation. As educators, it's crucial to equip students with the skills to critically evaluate the content they encounter online. By helping students validate the veracity of online information, we empower them to make informed decisions, engage in responsible digital citizenship, and enhance their academic research. Key topics students should be aware of regarding online content include:

The Spread of False Information: The spread of false information, often referred to as misinformation or disinformation, has become a significant issue in the digital age. Misinformation is false or misleading information shared without harmful intent, while disinformation is deliberately deceptive content spread to manipulate public opinion or achieve specific goals. Social media platforms, blogs, and other online sources can amplify the reach of false information, making it challenging for individuals to distinguish between factual and fabricated content. This phenomenon can have serious consequences, from influencing elections to shaping public perceptions of critical issues like health, science, and politics. Educating individuals on how to recognize and prevent the spread of false information is essential to fostering a well-informed society. Two ways you can help students recognize and stop the spread of false information include:

- Showing students how to identify credible sources online.
- Discussing with your students their responsibility in preventing the spread of misinformation.

Echo Chambers and Confirmation Bias: Echo chambers and confirmation bias are key factors that contribute to the reinforcement of false information online. An **echo chamber** refers to an environment, particularly on social media or other online platforms, where individuals are exposed primarily to opinions and information that align with their own beliefs. This limits their exposure to diverse viewpoints and can intensify their existing ideas. **Confirmation bias** is the tendency to seek out, interpret, and remember information that supports one's pre-existing beliefs while disregarding or dismissing information that contradicts them. Together, echo chambers and confirmation bias can create closed loops of information that strengthen misconceptions and hinder critical thinking, making it harder to evaluate content objectively. What can you do to help students break through information loops?

- Demonstrate to students how online algorithms create filter bubbles that reinforce existing beliefs by not allowing contrary beliefs into content feeds.
- Encourage students to expose themselves to diverse viewpoints online.

The SIFT Method

One of the best resources to help students identify and understand misinformation comes from Mike Caulfield, a digital literacy specialist who developed [Check please!](#), a starter course for students to learn fact-checking skills. The SIFT method asks students to stop, investigate the source, find trusted coverage, and trace claims, quotes and media to the original context.

The SIFT Method



STOP



INVESTIGATE THE
SOURCE



FIND BETTER
COVERAGE



TRACE CLAIMS, QUOTES,
AND MEDIA TO THE
ORIGINAL CONTEXT

Stop

Before engaging with any information you encounter online, take a moment to stop. Ask yourself if you recognize and trust the source. Don't continue reading or, more importantly, sharing the information until you have a clear understanding of its source and credibility.

Investigate the Source

You don't need to perform a deep investigation, but understanding the background of the source is essential. If you're reading an article on lung cancer by a lung cancer specialist with an M.D., it's important to know that upfront. Conversely, if the content was produced by an organization with a particular interest, like an oil company promoting plastics, that context matters.

This isn't to say that the lung specialist is always right or that industry-backed sources can't be trusted, but knowing the expertise and agenda of the source is critical to how you interpret the information. Taking a minute to research the source helps you decide whether it's worth your time and informs your understanding of the content's reliability.

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Find Trusted Coverage

If a claim made by online content piques your interest, don't rely solely on the source that initially caught your attention. Instead, seek out trusted reporting or analysis on the same topic. For example, if you come across a claim written by a politician that vaccines cause developmental conditions in children, it's a good idea to search for a reputable source, such as a research journal or content written by a medical professional who specializes in vaccines or developmental conditions in children. A good approach is to review multiple and diverse reputable sources to see if there is broad consensus on the claim. Multiple should be at least three reputable sources. Diverse should be sources that come from different perspectives or organizations. An example is checking a news story across three different news organizations (not all owned by the same parent company) and even checking it against an international news organization to get a different perspective on the story.

It's not necessary to always agree with the consensus, but knowing what experts say and understanding the history of the claim provides important context to better evaluate its validity.

Trace Information to the Original Source

Online content is often taken out of context. A viral video might not show the full story, a quote could be misrepresented, or a claim about a scientific study may not be accurate. Sometimes multiple sources report on the same story, which may make you think the story is valid, but when you investigate their source material, you find they all rely on the same, dubious source. In these cases, it's essential to trace the claim, quote, or media back to its original context. Understanding the full picture allows you to better evaluate its accuracy.

Ultimately, all of the SIFT strategies focus on providing the necessary context to engage effectively with digital information. Whether by investigating the source, understanding the consensus around a claim, or reconstructing the original context of media, each move helps restore the context often stripped away online. These techniques don't just expose outright misinformation but also help you critically engage with the flood of information in a more informed and thoughtful way.

Discussion Reflection Questions

- How do you differentiate between passive and active digital engagement in your own online activities? Can you provide examples of each and discuss their potential impacts on personal growth and societal contributions?
- In what ways has your digital engagement influenced your real-world relationships and experiences? Consider both positive and negative effects, and discuss how you balance online and offline interactions.
- How do you approach evaluating the credibility of online content in your digital engagement? What strategies do you employ to ensure you're consuming and sharing reliable information?
- Reflect on a time when you created digital content or collaborated online. How did this experience contribute to your understanding of digital engagement, and what challenges did you face?
- As digital platforms continue to evolve, how do you think the nature of digital engagement might change in the next 5-10 years? What new opportunities and potential risks do you foresee?

These questions encourage students to critically examine their own digital engagement practices, consider the broader implications of online participation, and reflect on the responsible use of digital tools for personal and professional growth. They also prompt students to think about the future of digital engagement and their role in shaping it.

ASSIGNMENT SUGGESTION: DIGITAL ENGAGEMENT

Learning objectives: Students will identify the value and purpose of their online activities.

Tasks:

1). Compose and record an oral essay on how you are using the internet and why you are using the internet. Discuss in the essay any content creation you are posting, the content you are consuming, collaborations you are having online, connections you are creating or maintaining online, causes you are contributing to online, and the things you are learning online. Try to include the value digital engagement brings to your life, which is a balance of the negative and positive outcomes of your digital engagement.

ASSIGNMENT SUGGESTION: VALIDATING ONLINE CONTENT

Learning objectives: Students will practice using the SIFT method for validating online content.

Tasks:

- 1). Find several news stories and opinion pieces online with dubious origins or bias in content. Alternatively you can ask the students to bring a story they read or heard online to class.
- 2). Distribute these to groups of 2-3 students to practice the SIFT method.
- 3). Have student groups report out their findings to the class.

By understanding digital engagement, you can become more intentional about how you use technology in your life. This allows you to maximize the benefits of the online world and participate in a way that is meaningful and fulfilling for you.

| Digital Engagement in Action

Digital engagement is actively and meaningfully participating in the digital world, while also carefully considering the validity of online content. Digital engagement describes the extent to which people utilize digital tools. To evaluate your engagement levels:

- Audit your digital engagement for a week
- Identify how often you consume and share information, and how often you engage in online collaborations

Determine the impact this engagement has on your personal and social well-being. The overall value individuals place on using digital applications is directly tied to how they engage online. Digital engagement goes beyond just spending time online. It's about how actively, meaningfully, and responsibly you participate in the digital world.



Digital Literacy in Action

As students develop digital literacy, they will gain the power to understand complex technologies, critically evaluate the ever-evolving online landscape, and participate meaningfully in shaping a more ethical digital world.

The journey towards digital literacy is continuous, fueled by curiosity and a commitment to lifelong learning and ethical applications of technology. Here's what you can do to encourage your students to develop their digital literacy:

- **Explore online resources:** Help them find the websites, tutorials, and even free courses to equip them with the digital skills they need.
- **Practice critical thinking:** Encourage students not to accept information at face value. Teach them how to question, analyze, and evaluate the algorithms, data practices, and potential biases they encounter online.
- **Embrace lifelong learning:** The digital world, and the ethical considerations surrounding it, are constantly evolving. Foster your students' curiosity and let them experiment with new tools and keep up with emerging trends.
- **Advocate for responsible digital technologies including generative AI:** Urge students to use their voice to promote ethical technology development and practices that benefit all of humanity.

Appendix A: Digital Proficiency Self-Assessment

This self-assessment is designed to help you evaluate your digital skills across five key areas essential for success in higher education. Rate your proficiency in each skill using the following scale:

Competencies	1 Novice	2 Basic	3 Intermediate	4 Advanced	5 Expert
Information and Data Literacy					
Finding and evaluating online information					
Managing and organizing digital files					
Using cloud storage services					
Understanding data privacy and security					
Communication and Collaboration					
Using email effectively					
Participating in online discussions					

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Competencies	1 Novice	2 Basic	3 Intermediate	4 Advanced	5 Expert
Collaborating on shared documents					
Using video conferencing tools					
Digital Content Creation					
Word processing (e.g., Microsoft Word)					
Creating presentations (e.g., PowerPoint, Google Slides, Canva)					
Basic spreadsheet skills (e.g., Excel, Google Sheets)					
Creating and editing digital media					
Online Learning and Research					
Navigating learning management systems					
Accessing and using online library resources					
Understanding academic integrity in the digital age					
Using citation management tools					

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Competencies	1 Novice	2 Basic	3 Intermediate	4 Advanced	5 Expert
Problem-Solving and Technical Skills					
Troubleshooting basic computer issues					
Installing and updating software					
Using browser features and extensions					
Protecting devices from malware					

Calculate your **total score** for each section and overall.

- 16-20 points per section: Advanced proficiency
- 11-15 points per section: Intermediate proficiency
- 6-10 points per section: Basic proficiency
- 1-5 points per section: Novice level, needs improvement

Total score (out of 100): ____

- 80-100: Excellent digital proficiency
- 60-79: Good digital proficiency, some areas for improvement
- 40-59: Moderate digital proficiency, consider focused skill development
- Below 40: Basic digital proficiency, significant improvement needed

Next Steps:

1. Identify your lowest-scoring areas and prioritize them for improvement.
2. Explore resources provided by your college's library or IT department for skill development.
3. Consider taking online courses or workshops to enhance specific digital skills.
4. Practice using digital tools regularly in your coursework and daily life.
5. Reassess your skills periodically to track progress.

Remember, digital proficiency is increasingly important for academic success and future career prospects. Continuous learning and adaptation to new technologies will serve you well throughout your college journey and beyond.



Every Learner Everywhere partners with colleges and universities to leverage technology in pursuit of student-centered, faculty-powered, and institution-driven improvement in teaching and learning.

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