



November 6, 2025

AI for All Students: Making Learning Accessible

Teach Access

[Teach Access](#) is a US-based nonprofit organization dedicated to bridging the gap between the demand for digital accessibility skills in the workplace and the supply of professionals equipped with this knowledge.

We collaborate with educational institutions, industry leaders, and disability advocacy groups to integrate accessibility principles into curricula.

All of our programs and resources are free.



LEARN MORE >>

teachaccess.org

ROLANDO MÉNDEZ

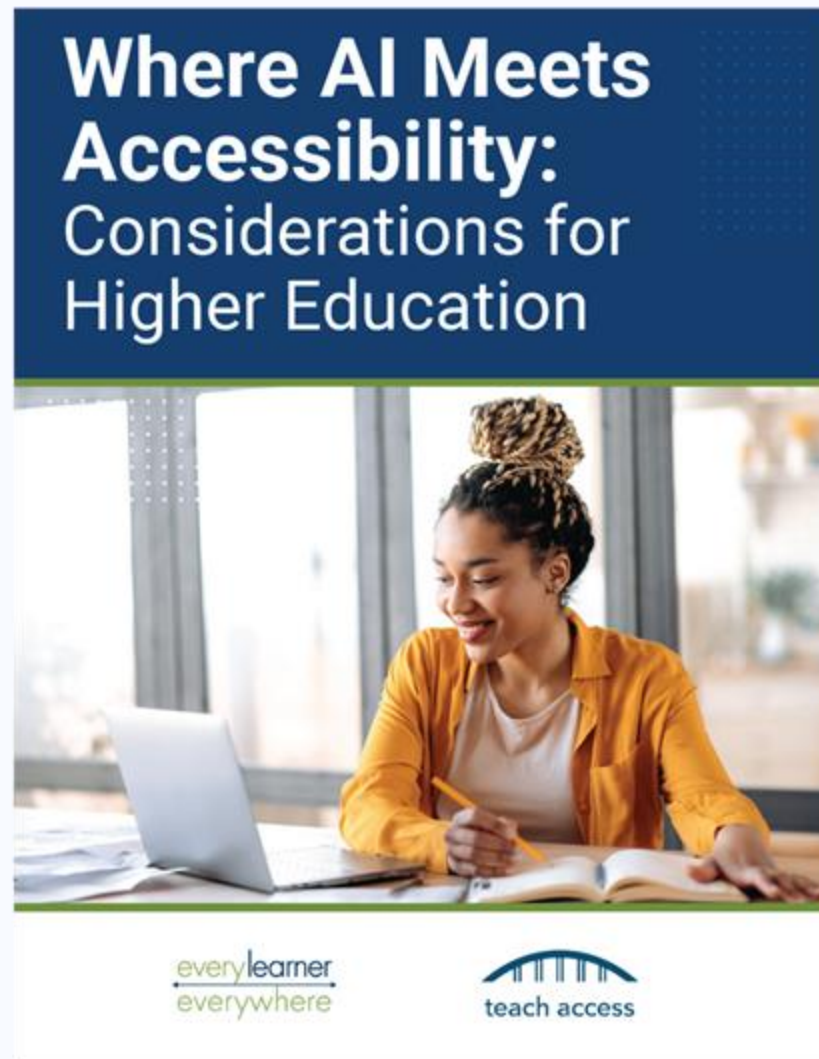
Director of Education,
Teach Access



Acknowledgements

- This presentation includes content developed through a collaboration between Every Learner Everywhere and Teach Access.
- It reflects the state of AI technology and accessibility considerations as of its publication date (March 2025).
- Some examples were created using generative AI tools, which also helped ensure the use of plain, accessible language.
- References to specific tools are provided for illustrative purposes only and do not imply endorsement.

Where AI Meets Accessibility: Considerations for Higher Education



How this Project Came Together

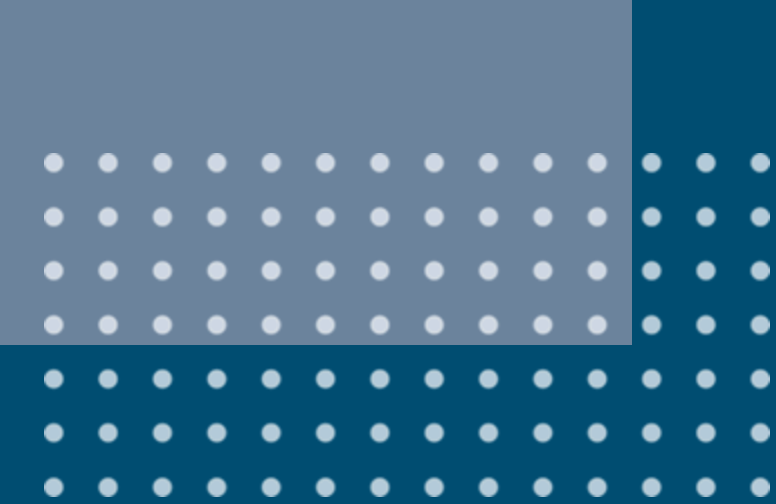
ACADEMIA

Faculty, researchers,
students, instructional
designers, faculty
developers

THE DISABILITY COMMUNITY

INDUSTRY

Accessibility and
Artificial Intelligence
Experts



LET'S TALK ABOUT DISABILITY AND ACCESSIBILITY

Disability

Broad term for impairments, activity limitations, and participation restrictions, referring to the negative aspects of the interaction between an individual with a physical or mental impairment and that individual's context.

SOURCES: [WORLD HEALTH ORGANIZATION REPORT ON DISABILITY](#), [AMERICAN WITH DISABILITIES ACT \(ADA\) NATIONAL NETWORK](#)

Disability is not a Monolith

It is a spectrum of disabilities that are

- Visible
- Invisible
- Permanent
- Temporary
- Situational
- Co-occurring



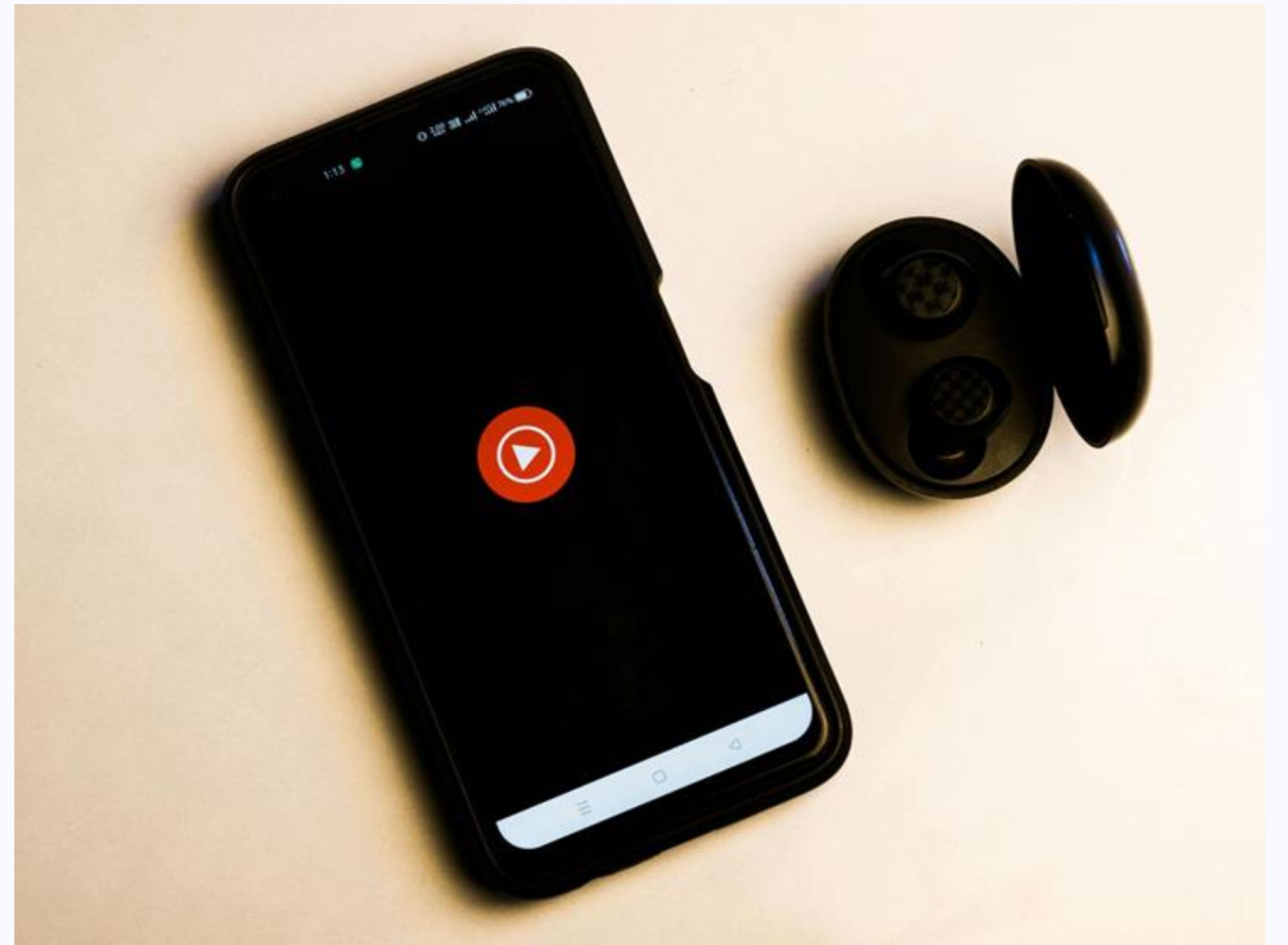
Ableism

- The discrimination of and social prejudice against people with disabilities based on the belief that typical abilities are superior.
- Is rooted in the assumption that disabled people require “fixing” and defines people by their disability.
- Includes harmful stereotypes, misconceptions, and generalizations of people with disabilities.

SOURCE: [ACCESS LIVING](#)

Assistive Technology

- Tools and devices that help people with disabilities in various areas of daily life, such as work, education, communication, entertainment, and shopping.
- They can be low tech (pencil grips), mid tech (voice amplifiers), high tech (screen readers), or custom tech.



Accessibility

The design of products, devices, services, and environments for people with disabilities

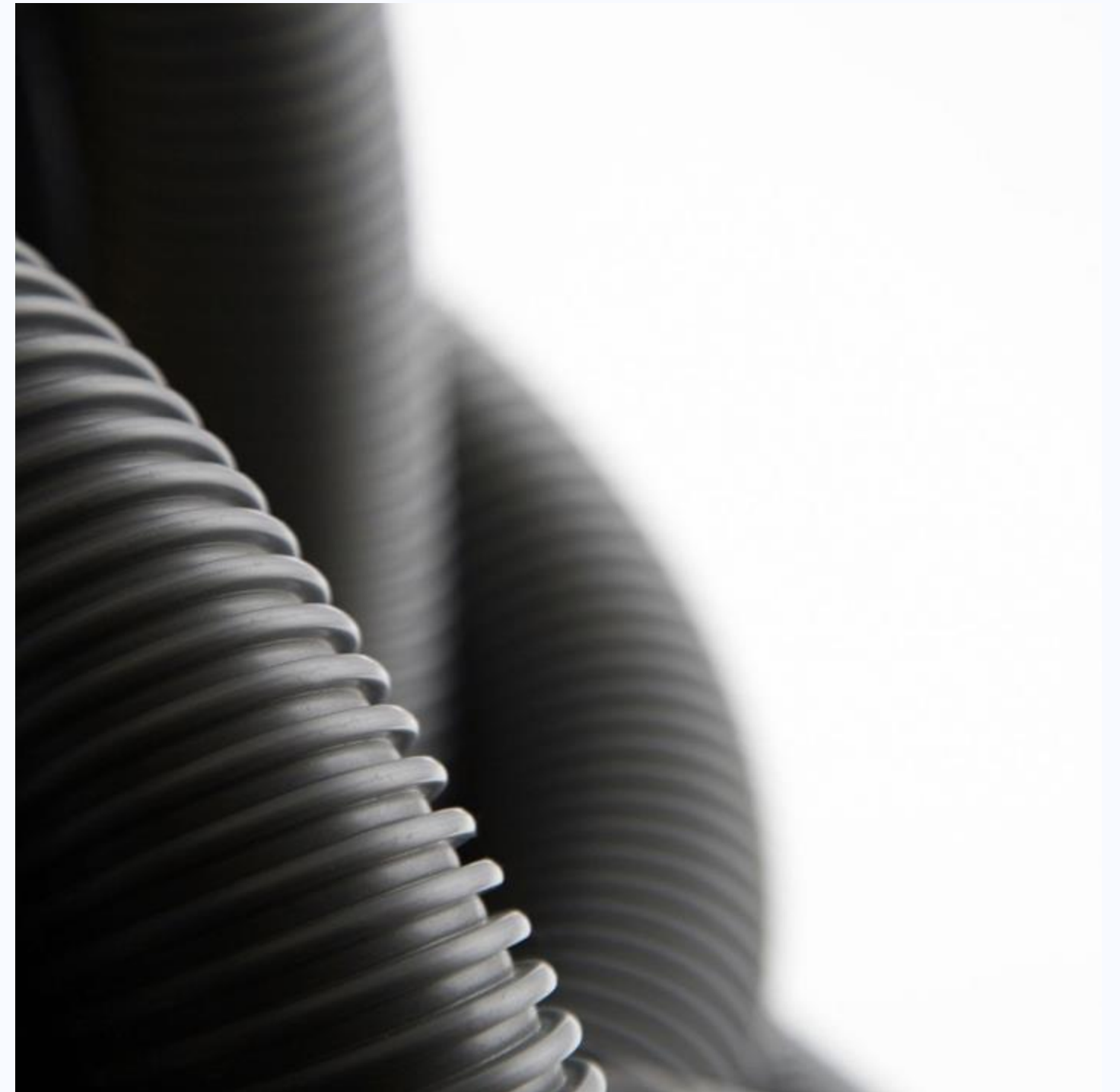
SOURCE: [INTERACTION DESIGN FOUNDATION](#)



Accessibility Requires Flexibility

What is accessible to one person with a disability is not necessarily accessible to someone else with the same or a different disability.

Remember: Disability is a spectrum!

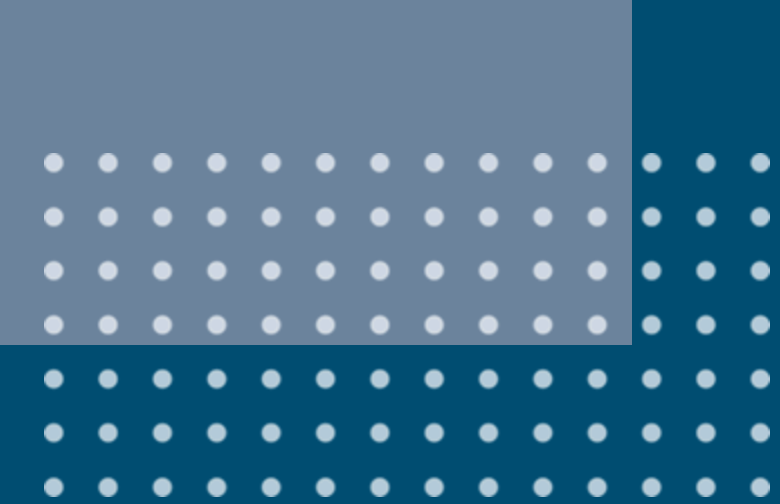


Accessibility is Important

- **Legal Considerations:** Americans with Disabilities Act (ADA), Department of Justice Guidance on Title II of the ADA, European Accessibility Act, etc.
- **Social Justice Responsibility:** Approx. 1.3 billion people globally, 1 in 4 adults in the U.S., and 3.5 million college students.
- **Quality Educational Experience:** State University of New York (SUNY) Online Course Quality Review Rubric, Quality Matters, International Society for Technology in Education Standards.
- **Institutional Sustainability:** Leads to innovative processes and elimination of access barriers.
- **Accreditation:** Association for Computer Machinery, Accreditation Board for Engineering and Technology (ABET), etc.

Web Content Accessibility Guidelines

- Commonly known as WCAG.
- Set of rules from the World Wide Web Consortium (W3C) to create accessible websites and digital content.
- These guidelines are highly technical, thus not the best starting point for learning about accessibility or designing accessibly.
- Nonetheless, their four principles (Perceivable, Operable, Understandable, and Robust) provide a framework for comprehending and applying accessible design.



LET'S TALK ABOUT ARTIFICIAL INTELLIGENCE (AI)

Artificial Intelligence (AI)

Field of technology focused on developing computers and machines capable of simulating human intelligence tasks such as comprehension, learning, problem solving, decision making, creativity, and autonomy.

SOURCE: [IBM](#)

Some Important Terms

MACHINE LEARNING

- The idea that machines can learn patterns from data rather than being programmed for every task.
- They find patterns and use them to make decisions or predictions.
- **Example:** Movie/product recommendations from Netflix or Amazon based on previous actions.

LANGUAGE MODEL

- A type of AI system trained to understand and predict language patterns, like which words naturally go together.
- More limited than a Large Language Model (LLM).
- **Example:** Your phone suggesting the next word as you type a text message.

Some Important Terms (Continued)

LARGE LANGUAGE MODELS (LLMs)

- A language model trained on a huge amount of text so it can handle more complex tasks like summarizing, answering questions, or writing.
- It uses what it learns to create responses that sound natural and fluent.
- **Example:** A virtual assistant that can help rewrite a paragraph for clarity or create a study guide from lecture notes.

GENERATIVE PRE-TRAINED TRANSFORMER (GPTs)

- A specific type of LLM designed to generate human-like language.
- “Generative” means that it can create text, “pre-trained” that it learned from lots of text, and “transformer, is the type of model it uses to understand language.
- **Example:** A GPT that acts as a tutor, answering questions about math or science in a way that’s easy to understand.

LLM-Powered Assistants



It's All About the Prompt

- The quality of an output is, in part, only as good as the prompt you use.
- Think of prompts as instructions. The more context and direction you provide, the better the GenAI assistant can understand and deliver what you need.
- Some iteration might be needed.
- Consider following the C.R.E.A.T.E framework when writing prompts.

The C.R.E.A.T.E Framework

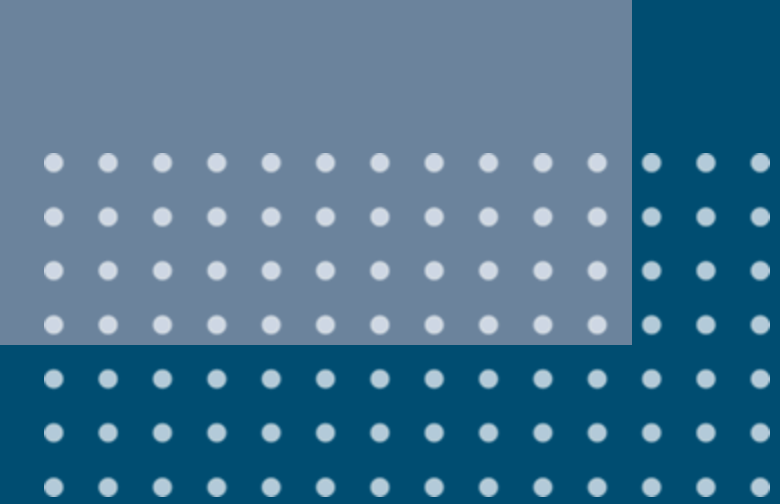
- **Character:** Describe the perspective you want the GenAI assistant to take.
- **Request:** Clearly explain the task you want the GenAI assistant to complete.
- **Examples:** Provide 1-2 examples to guide the GenAI assistant.
- **Adjustments:** Provide feedback on early responses and adjust the prompt.
- **Type of output:** Specify how you want the final response formatted.
- **Extras:** Add special instructions or constraints (Ex: “Act unlike a typical AI”).

Strategies to Write a Good Prompt

Strategy	Purpose	Example
Ask the GenAI assistant to be a “Prompt Generator.”	Explicitly tell the GenAI assistant to act as a prompt generator for a given purpose.	“Act as a prompt engineer. I want to create prompts to help instructors design accessible assignments. Generate 10 clear and detailed prompts I can use to explore this topic.”
Ask the GenAI assistant for prompt patterns.	Request prompt templates for different kinds of tasks.	“Generate 5 prompt types instructors can use to help students practice accessibility thinking.”
Use a meta-prompt.	A meta-prompt is a prompt about prompts; it tells the GenAI assistant how to build one for you.	“I want to create a prompt that helps me design a workshop agenda for faculty on accessibility in AI. Ask clarifying questions first, then write the best version of the prompt.”

Strategies to Write a Good Prompt 2

Strategy	Purpose	Example
Use iteration loops.	You can refine prompts by looping with the GenAI assistant. This lets you develop “prompt literacy” over time.	“How could I improve this prompt to get more precise, creative, or actionable results?”
Combine roles and constraints.	Make prompts more powerful by assigning the GenAI assistant roles and constraints.	“You are an instructional designer experienced in universal design for learning. Write 3 prompts faculty could use to reflect on accessibility barriers in their courses. Each should fit in one paragraph.”
Ask for explanations of why a prompt works.	This trains you to recognize what makes a prompt clear, scoped, and goal-oriented.	“Explain why this prompt is effective and how it could be improved for clarity or focus.”



LET'S TALK ABOUT AI AND PEOPLE WITH DISABILITIES (PWD)

AI is Trained on Data



So, If...

- People with Disabilities (PWD) are not represented or are underrepresented in the data used to train AI.
- The data used to train AI is biased or inaccurate.
- AI systems are designed to prioritize non-disabled characteristics or behaviors.
- PWD are not included in the development of AI models/tools.



BIASES IN TECHNOLOGY

"The biases and ableist practices that AI can have reflect how often society focuses on 'normal' standards when creating technology."

— Tessa Wolf, Learning and Education Studies Student at University of Illinois, Urbana-Champaign

Then AI...

- Fails to recognize or correctly interpret data related to PWD.
 - Examples: An autonomous vehicle not identifying a wheelchair user as a pedestrian, a healthcare system denying an insurance claim by assessing “medical necessity” using criteria based only on non-disabled patients.
- Overlooks how people with disabilities communicate or interact with text.
 - Examples: An autocomplete feature overlooking alternative spellings or phrasing, a speech recognition system misinterpreting the speech patterns of people with speech impairments.
- Perpetuates ableist terms and harmful stereotypes.
- Spreads false or misleading information about disability-related topics.
- Is incompatible with assistive technology.

Potential of AI for PWD

- People with ADHD and/or Autism can use AI tools to break down complex tasks, organize ideas, refine writing, adjust tone, or interpret social cues in communication.
- People with dyslexia can use AI as a writing aid.
- People who are deaf or hard of hearing can rely on AI-generated captions and transcripts to follow and review meetings and lectures.
- People who are blind or visually impaired can use AI tools to describe, summarize, or convert visual content into accessible formats.
- People who have motor disabilities can rely on AI tools to do daily activities such as navigate websites and make phone calls.

Sources: [The Evaluation of the M365 Copilot Pilot in the Department for Business and Trade](#), [AI can be a game changer for neurodivergent employees](#)

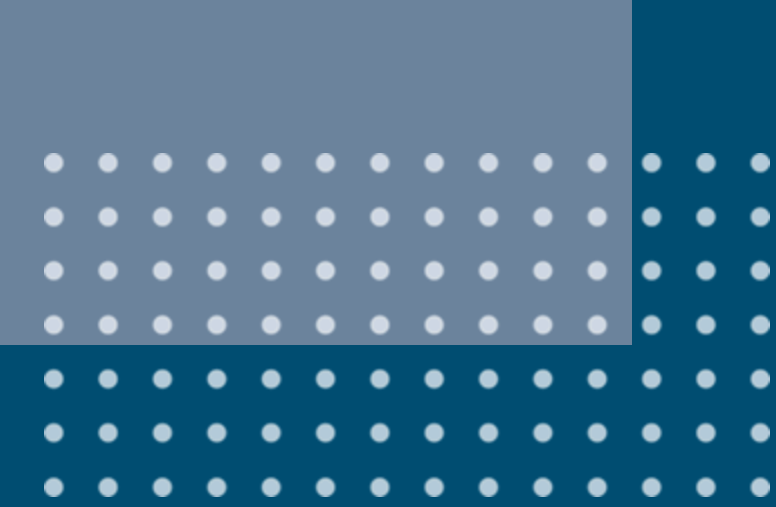
AI and AT

IN AT

- AI-powered assistive technologies are transforming how people with disabilities navigate spaces, communicate, and learn.
- **Examples:** Virtual meeting platforms like Zoom offer AI-powered live captions and transcription; tools such as Voiceitt using AI to recognize non-standard speech, such as stuttering or speech affected by motor impairments

AS AT

- AI tools can function as assistive technologies themselves, offering support with reading and writing tasks and helping reduce the cognitive load often experienced by students with disabilities in higher education.
- **Examples:** Using AI tools to create summaries or outlines, or AI-powered text-to-speech tools to support reading comprehension.



LET'S TALK ABOUT USING AI TO BREAK DOWN BARRIERS IN EDUCATION

Accessibility in Higher Education

Colleges and universities in the United States have focused on:

- Providing accommodations
- Creating inclusive learning environments
- Designing accessible learning materials
- Developing inclusive academic experiences
- Complying with Title II of the ADA

AI in Higher Education

Artificial intelligence is sparking diverse and dynamic conversations across higher education, particularly on teaching and learning.

Key topics include:

- Pedagogical innovation
- Instructional design
- Personalized learning



PERSPECTIVES ON AI

"In higher education, AI is a topic that generates many interesting conversations. One of the most important topics is pedagogical innovation. Another big topic is ethics and bias in AI. There is a strong debate about how to ensure that AI systems do not perpetuate social or cultural biases and how to use them fairly. And finally, there are discussions about access, as some see AI as a way to democratize education, while others fear that it could increase inequalities if not implemented properly."

— Bernabé Soto Beltrán, Director for Online Learning and Internationalization at Universidad Interamericana de Puerto Rico, Aguadilla Campus

Use Cases: AI for Student Support

- Help educators identify common challenges students encounter in specific topics or courses, enabling the creation of targeted resources and interventions. They can also assist with developing course materials, quizzes, and assignments.
- Simulate learner interactions, allowing instructional designers to test and improve course designs before they are implemented.
- Enhance interactions between institutions and their students. For example, intelligent tutoring systems can adapt to each learner's progress and provide personalized feedback, while AI-powered chatbots can handle routine questions or guide students through common processes.

Example: AI for Learning Design

PROMPT

“I teach an undergraduate statistics course for social science students. Please identify common challenges that students with dyslexia and ADHD may face in this course. Provide a bulleted list that includes a brief explanation of each challenge, along with practical teaching strategies or accommodations to support these students effectively.”

OUTPUT (EDITED)

- **Challenge:** Reading dense or technical text
 - **Support:** Use plain language, provide audio versions of readings, and highlight key terms.
- **Challenge:** Interpreting graphs and tables
 - **Support:** Use color coding, verbal descriptions, and simplified visuals.
- **Challenge:** Spelling and written expression
 - **Support:** Allow use of spell-check tools, offer oral response options, and focus grading on content over mechanics.

Use Cases: AI for Inclusive Teaching

- Explain complex concepts.
- Break down intricate processes into smaller, more manageable steps.
- Create organized checklists, timelines, or study schedules tailored to a student's workload.
- Analyze teaching materials and assessments to identify and reduce cultural, gender, or racial bias.
- Generate diverse examples, case studies, and narratives that reflect a wide range of cultures, identities, and experiences.

Example: Explanations (Prompt)

“You are an educator helping higher education staff and faculty understand technical concepts related to digital accessibility. Explain the concept of “WCAG color contrast ratios” in plain language for a non-technical audience. The audience understands teaching and learning but may not be familiar with web standards or coding.

Guidelines:

- Use everyday language and relatable examples (avoid jargon).
- Keep the explanation to 150–200 words.
- Include one short analogy or metaphor.
- End with a practical tip they can apply in their own work.”

Example: Explanations (Output)

“When we design course materials—slides, websites, or online documents—everyone should be able to read them comfortably. Color contrast is about how much the text color stands out from the background. The greater the difference, the easier it is to see. Accessibility guidelines called WCAG (Web Content Accessibility Guidelines) include rules for color contrast to help make sure text is readable for people with low vision or color blindness.

Think of it like writing on a chalkboard: white chalk on a blackboard is clear, but yellow chalk on a light green board can be hard to see. The same thing happens on screens when colors are too similar—some people will struggle to read your content.

Practical tip: Before finalizing your slides or webpages, check your colors with a free online color contrast checker. It takes seconds, and it ensures your content is clear and accessible for everyone.”

Example: Breaking Down Steps (Prompt)

“You are a librarian in higher education who supports neurodiverse learners, including students with ADHD and those on the autism spectrum. Break down the process of conducting a literature review into short, concrete, and clearly numbered steps.

Guidelines:

- Use plain, encouraging language and avoid academic jargon.
- Keep each step brief (one idea per step).
- Include what to do, why it matters, and how to know when you’re done for each step.
- Suggest optional tools or strategies that help with focus and organization (e.g., mind maps, color coding, checklists).
- Present the information in a clear list format that someone could easily follow or print as a checklist.”

Example: Breaking Down Steps (Output)

1. CHOOSE A FOCUSED TOPIC

- a. What to do: Pick one question or idea you're curious about.
- b. Example: "How does AI affect accessibility in higher education?"
- c. Why it matters: A clear topic keeps your research manageable and focused.
- d. Done when: You can explain your topic in one sentence.
- e. Try this: Use a mind map or ask GenAI to help refine your question.

2. GATHER BACKGROUND INFORMATION

- a. What to do: Read short overviews (encyclopedias, guides, summaries).
- b. Why it matters: Helps you learn key terms and concepts before diving deep.
- c. Done when: You can identify several keywords for searching.
- d. Try this: Highlight or color-code key terms to organize your ideas.

3. SEARCH FOR SOURCES

- a. What to do: Use library databases, Google Scholar, or your library's catalog.
- b. Why it matters: Finding quality sources builds a strong foundation.
- c. Done when: You've found several relevant sources that fit your topic.
- d. Try this: Keep a simple search log or checklist to track databases and keywords.

How to Conduct a Literature Review – Step-By-Step Guide

Designed to support focus, organization, and clarity for all learners



1. Choose a Focused Topic

What to do: Pick one question or idea you're curious about
Example: How does AI affect accessibility in higher education?
How to know you're done: Concept maps, or mind map



2. Gather Background Information

What to do: Read brief overviews (encyclopedias, guides, summaries) to find a basics
How to know you're done: Concept maps or mind maps



3. Search for Sources

What to do: Use library gens, Google Scholar, or the library's catalog
How to know you're done: Concept maps, notes
How to know you're done: Keyword list or search terms



4. Read and Take Notes Strategically

What to do: Skim on before read, introduce the topic
How to know you're done: Core and how sources are
How to know you're done: Visual organizer, outline, notes



5. Organize What You Found

What to do: Group articles that talk about similar idea or patterns
How to know you're done: Explore any themes and connections
How to know you're done: Formulate a thesis statement



6. Write the Review

What to do: Start with an overview of the topic, discuss the research
How to know you're done: Explain how the sources connect
How to know you're done: Peer review checklist

Use Cases: AI for Accessible Content

- Convert content into plain language.
- Generate alternative text (alt text) for images, charts, and graphs.
- Provide real-time captions for videos and live sessions.
- Create transcripts of lectures and discussions
- Translate content into other languages.

 **Tip:** Always review outputs to ensure accuracy and relevance.

Example: Plain Language

PROMPT

“Rewrite the following text in plain language so it’s understandable for a general audience with limited background knowledge or reading skills. Avoid jargon, simplify sentence structure, and use everyday words:

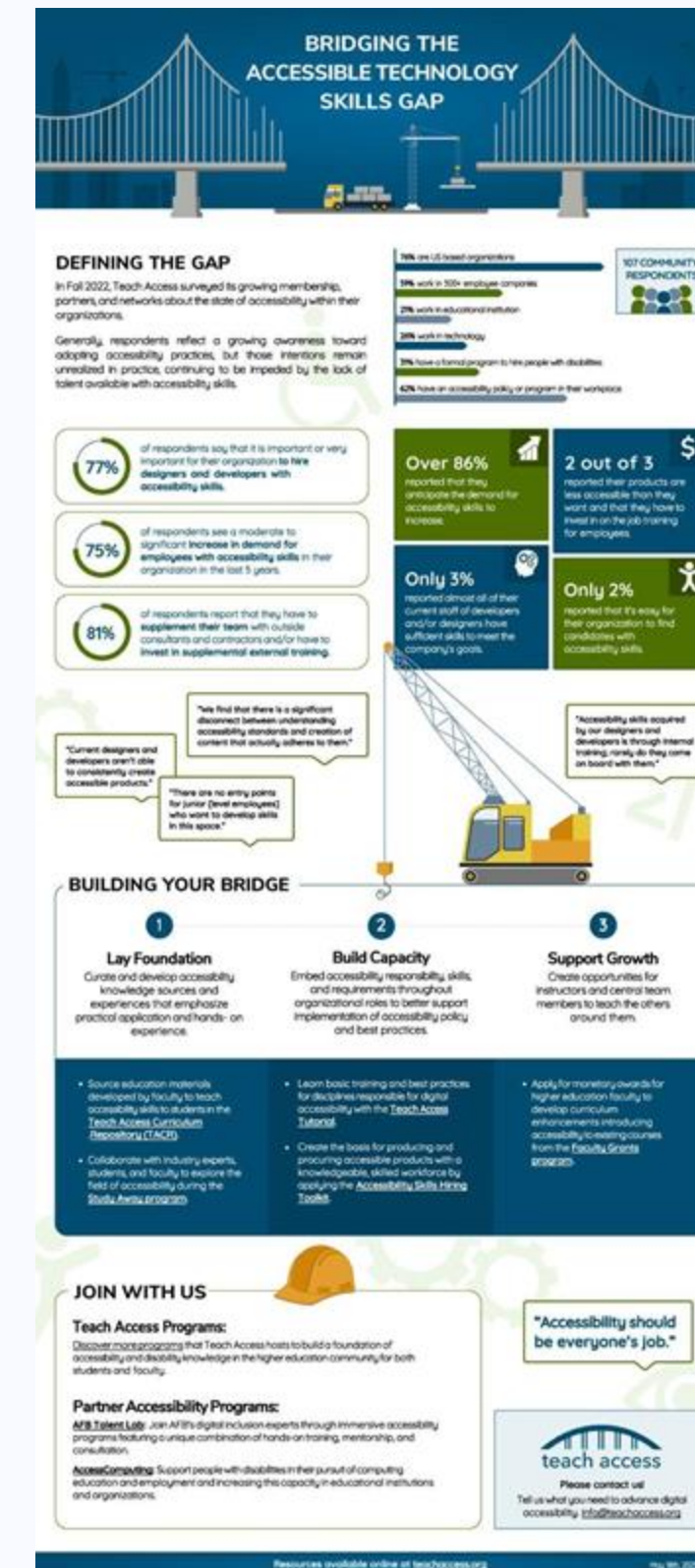
The implementation of differentiated pedagogical strategies is imperative to accommodate the heterogeneous cognitive profiles present within contemporary educational milieus.”

OUTPUT

"Teachers need to use different ways of teaching to support students who think and learn in different ways."

Example: Image Descriptions (Prompt)

"Please provide an image description for this infographic that meets accessibility standards. The description should be concise but informative, describing the key visual elements, structure, and main message or data trends. It should be understandable to someone who cannot see the image and should avoid interpreting or analyzing the content beyond what is visually presented."



Example: Image Descriptions (Output)

An infographic titled *“Bridging the Accessible Technology Skills Gap”* features an illustration of a bridge under construction across the top. Below the title, the infographic presents survey findings about accessibility skills in organizations. A section titled *“Defining the Gap”* explains that organizations recognize the importance of accessibility but struggle to find talent with accessibility skills.

Several statistic callout bubbles show key numbers, including 77% say hiring designers and developers with accessibility skills is important, 75% have seen increased demand for these skills, and 81% need to lean on external training or consultants. Additional highlighted figures include over 86% anticipate demand for accessibility skills to grow; 2 out of 3 say their products are less accessible than desired; only 3% report having enough skilled designers or developers; only 2% report that finding candidates with accessibility skills is easy. The infographic includes quotes noting lack of training and entry points for new professionals.

A lower section titled *“Building Your Bridge”* outlines three steps with icons: (1) Lay Foundation, (2) Build Capacity, and (3) Support Growth. Each step lists suggested programs and resources such as the Teach Access Curriculum Repository, Teach Access Tutorial, Accessibility Skills Hiring Toolkit, and Faculty Grants program. The footer invites organizations to join Teach Access and lists partner accessibility programs, with a hardhat icon and the statement *“Accessibility should be everyone’s job.”* The Teach Access logo and contact information appear at the bottom.

Use Cases: AI for Accessibility Reviews

AI tools can be used to identify potential accessibility issues.

- A useful prompt to see some of the accessibility issues on a webpage might be: *“Review this webpage’s HTML code [insert URL] and identify any potential accessibility issues, including missing alt attributes or improper heading structure. Suggest improvements based on WCAG 2.2 guidelines.”*
- Similarly, asking AI to *“List the most common accessibility issues students with dyslexia face in an online course”* can highlight challenges and inform inclusive design.

 **Tip:** Always follow up with thorough testing to ensure that solutions meet real-world needs and comply with accessibility standards.

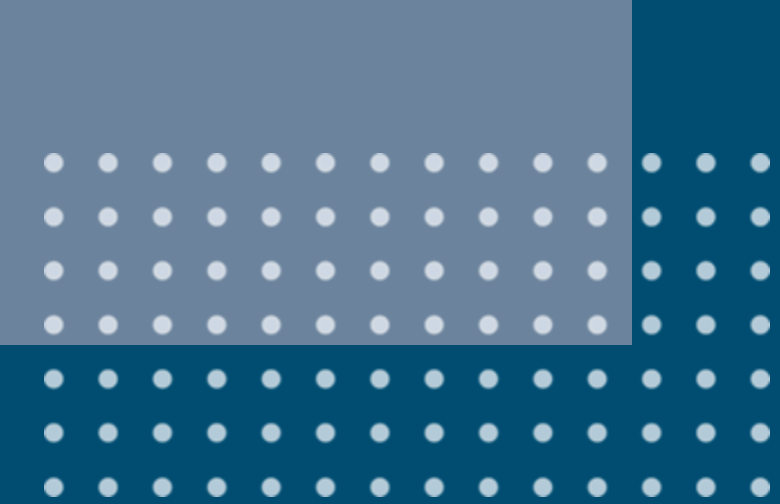
Considerations for AI in Higher Ed

- Involve PWD in developing AI policies, and ensure accessibility is a core priority.
- Procure AI tools intentionally designed for accessibility (See [CSU's Accessible Technology Initiative](#) as an example).
- Integrate inclusive AI across academic and administrative processes.
- Use AI tools in teaching and learning, while carefully considering how they may create both opportunities and barriers for PWD.
- Promote AI literacy to help all stakeholders understand its potential and limitations.
- Advocate for the responsible and inclusive use of AI.
- Engage in continuous improvement.

Shaping the Future of AI

AI has great potential to advance accessibility and inclusion for PWD. To realize this potential, developers, educators, and policymakers need to prioritize inclusive design practices by:

- Addressing issues such as bias in AI systems
- Improving accessibility features in tools
- Ensuring that AI-generated content is usable for PWD



Questions

Save the Date!



teach access

2026

STUDENT ACADEMY



Learn from experts in the disability & accessibility field about the importance of accessibility and the skills you need to advocate for a more accessible world!

Save the Date

FREE 2-day Virtual Workshop on Accessibility!
Thursday, February 26 & Friday, February 27
Student registration to open soon

sponsorships available

CONTACT INFO

Rolando Méndez

Director of Education,
Teach Access

rolando@teachaccess.org

[Linkedin/in/rolypepe](https://www.linkedin.com/in/rolypepe)

