Making AI Work for All: Enhancing Accessibility for Students in Higher Education

Introductions

Welcome to the Accessibility and AI series brought to you by Every Learner Everywhere and the Northwest Higher Education Accessibility Technology Group. It's a pleasure to have you with us today. My name is Norma Hollebeke, and I'm the Associate Director for Innovation and Programs with Every Learner Everywhere.

Every Learner is committed to creating inclusive and accessible materials. Our slides are designed with high contrast visuals, large text, and descriptive alt text for images. You can scan the QR code to view the slides on your phone if you prefer. If you need the slides in an alternative format or additional accommodations, please let us know. We value your feedback to make our content accessible for everyone.

A quick housekeeping note, we are recording this session for those who cannot join us today. Throughout the presentation, we welcome your questions and comments in the Q&A and in the chat.

Before I introduce our presenter, I'd like to take out just a few minutes to tell you a little bit about Every Learner Everywhere and the mission of our network. Every Learner Everywhere is a collection of higher education organizations with the 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.

Every Learner Everywhere is sponsored by the Gates Foundation. And here at Every Learner, our collaborative work to advance access to higher education centers on the transformation of post-secondary teaching and learning. We build capacities in colleges and universities to improve student outcomes with digital learning. Our mission is to partner with institutions to

harness digital learning technology, driving innovation in higher education to improve outcomes for every learner.
As I mentioned, this is in collaboration with the Northwest Higher Education Accessibility Technology Group, which is a joint project with the Orbis, Cascade Alliance and the Northwest Academic Computing Consortium to ensure that digital resources are equitably accessible to all users.

We're also joined by Teach Access today, which is a US-based non-profit organization dedicated to bridging the gap between the demand for digital accessibility skills in the workplace and the supply for professionals equipped with that knowledge. They collaborate with educational institutions, industry leaders, and disability advocacy groups to integrate accessibility principles into curriculum.

Now to our presenter. Rolando Méndez is the director of Education at Teach Access, where he works with educators to embed accessibility into teaching, learning, and course content. With over 20 years of experience as a learning designer and educator, he's focused on building inclusive, real-world learning experiences across education and workforce settings. Rolando is passionate about equity, technology, and helping make accessible second nature.
He proudly leads this work from his home base in Puerto Rico, and we are now going to turn it over to you, Rolando.

Presentation

Thank you, Norma. This is Rolando speaking. So today, I am really glad to be here with you all. Thank you for joining today. We are going to talk a little bit about AI and accessibility and how they meet together. And some of the considerations to make AI work for all students.
Up on the screen is the toolkit that Teach Access and Every Learner Everywhere released earlier this year. And there's a QR code that takes you directly to the web page where you can download this toolkit.

So speaking of the toolkit, the process we took when creating this work was involved at different experts from academia, disability community and industry. In academia, we sought the advice and expertise of faculty, researchers, students, instructional designers, and faculty

developers, and an industry of accessibility and artificial intelligence experts. And part of what their voices were included-- part of what we're going to talk about today.

So before we start, I would like for you to keep in mind that AI and accessibility are both broad topics that cannot be fully explored in a single session. So we will cover a lot in this session, but we will not be able to go through it all. Part of the content of this presentation comes from that toolkit that we mentioned, and it reflects the state of AI technology and accessibility consideration as of the publication date, back in March 2025.

As you know, both of these fields are actively updating and advancing. So things might have shifted a little bit, et cetera. General AI tools were used to develop some of the examples and to ensure that the language was accessible specifically using plain language. And we will show a couple of examples on how to do that. And then mention of specific tools just for illustrative purposes only, and should not be interpreted as an endorsement from Teach Access or Every Learner Everywhere.

So first, we will start by laying the foundation. And we do this just to get us to start talking about these topics from the standpoint of understanding. And first, in our next slide, we will start talking about disability or defining how we approach disability. And at Teach Access, we approach disability or the definition of disability as a 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. It's a little bit based on different definitions of disability by the World Health Organization and the Americans with Disabilities Act National Network.

So when we talk about disability, we should keep in mind that disability is not a monolith, that it is a spectrum of disability that are visible, invisible, permanent, temporary, situational, and co-occurring.

Another term we like to talk about when talking about accessibility is ableism. And when we talk about ableism, we refer to the discrimination and social prejudice against people with disabilities based on the belief that typical abilities are superior. It is rooted in the assumption

that disabled people require fixing and defines people by their disability. And it includes harmful stereotypes, misconceptions, and generalizations of people with disabilities.
And part of this definition was taken from Access Living. and the reason we include talking about ableism is because we might encounter some harmful stereotypes, misconceptions, and generalizations of people with disabilities when working, interacting with AI.

And now that we've talked about disability and disability spectrum, ableism, we would like to define accessibility. And we define accessibility as the design of products, devices, services, and environments for people with disabilities in mind. And when we talk about accessibility, as we will see in the next slide, is that one size does not fit all. What is accessible to one person with a disability is not necessarily accessible to someone else with the same or a different disability.

Remember, we talked that disability is not a monolith, that it is a spectrum of various types of disabilities. So consequently, the solutions or the principles of accessible design will not impact and benefit everyone equally. So we need to keep in mind something that needs constant adaptation, iteration, and collaboration.

So we've defined disability and accessibility. Then why should we care about accessibility? So there are different arguments that could be used to talk about accessibility and convey the importance of accessibility. There are legal considerations in the United States, Americans with Disabilities Act, the recent Department of Justice guidance on Title II of the ADA, more recently, last June or last summer, the European Accessibility Act came into effect. And there are many other laws around the world that require products and services to be accessible. There's also that aspect of social justice responsibility. This is because approximately 1.3 billion people globally identify as having a disability. In the United States, one in four adults identify as having a disability. And recently, there were up to 3.5 million college students or students enrolled in college that identify as having disabilities. And keep in mind that this numbers are related to people that identify as having a disability. That could even more. We expect these numbers to be even larger.

In terms of the quality, there's an aspect or relation between accessibility and quality educational experiences. The State University of New York or SUNY, Online Course Quality Review Rubric, or OSCQR, Quality Matters, and the International Society for Technology and Education Standards, they all have criteria that other criteria for quality in online education that addresses accessibility in the learning experiences.

In terms of institutional sustainability, accessibility leads to innovative processes and the elimination of access barriers that could lead organizations to reach more constituents or consumers, et cetera. And there are even accrediting bodies that have integrated accessibility as part of criteria for accreditation.

The Association for Computing Machinery, ACM, the Accreditation Board for Engineering and Technology, or ABET, they have criteria or they have guidance on having programs and schools teach about accessibility to their students as part of workforce readiness, part of like competencies or skills that students should have when entering the workforce, et cetera. And now that we've discussed accessibility that it's not a one-size-fits-all solution and we should care about it for different reasons, we should talk about the Web Content Accessibility Guidelines, W-C-A-G, WCAG. I'm pretty sure that most of you in the room are familiar with them. And these are a set of rules from the World Wide Web Consortium, or W3C, to create accessible websites and digital content.

In our experience at Teach Access, we find that these guidelines are highly technical. Thus, we don't think it's the best starting point for learning about accessibility, or designing accessibility, especially in educational settings. Nonetheless, their four principles-- Perceivable, Operable, Understandable, or Robust, or the acronym, POUR, they do provide a framework for comprehending and applying accessible design.

With that out of the way, let's talk a little bit about artificial intelligence. So artificial intelligence can be defined as a field of technology focused on developing computers and machines that are capable of simulating human intelligence tasks such as comprehension, learning, problem solving, decision making, creativity, and autonomy. And when we talk about

artificial intelligence, there are some important terms that we should keep in mind, and we will cover them in the next slide.

First of them is machine learning. And machine learning refers to the concept of machines can learn from data, rather than being programmed for every single task. And they find patterns and make predictions or decisions based on the information they are given. For example, a movie recommendation from Netflix, from your streaming service, or product recommendation from Amazon or online retailers.
On the other hand, there's language model. And it's a type of AI system trained to predict what word, phrase, or sequence is more likely to come next based on patterns it has learned from large amounts of text. For example, ChatGPT, Copilot-- these language models summarize readings, generate explanations, et cetera.

And when talking about artificial intelligence, we need to keep in mind and how it relates to accessibility and inclusiveness for all is that if people with disabilities are not presented, or are underrepresented in the data used to train, if the data used to train AI is biased, or inaccurate, and if AI systems are designed to prioritize non-disabled characteristics or behavior, or people with disabilities are not included in the development of AI model tools, it will have a consequence.

Before we go to those, I'd like to point out to this call out box from our toolkit that's on the screen that says, "The biases and ableist practices that AI can have reflect how often society focuses on normal standards when creating technology." This is from Tessa Wolf, an Every Learner intern last year. And she's a learning education study student at University of Illinois. And she was involved in the creation of this toolkit as well. So if all of these things are true, then AI fails to recognize or correctly interpret data related to people with disabilities. For example, an autonomous vehicle might not identify-- or may not identify, I'm sorry, a wheelchair user as a pedestrian or a health care system might deny an insurance claim by assessing a medical necessity using criteria-based only on non-disabled patients.
If all of these things that I mentioned in previous slides are true, then AI may also overlook how people with disabilities communicate or interact with text. And some of the examples of this is how an autocomplete feature might overlook alternative spellings or phrasing, or a speech

recognition system might misinterpret the speech patterns of people with speech impairments.

For example, for someone who has a stutter and they might ask a system or an AI assistant for instruction, they might have problem interpreting those speech patterns. Also, AI might perpetuate ableist terms and harmful stereotypes, or spread false or misleading information about disability-related topics. Or it can be incompatible with assistive technologies or the tools that are developed with AI might be incompatible with assistive technology.

But this is not to say that AI is bad, or AI is a big no-no. AI also can create possibilities for people with disabilities. So we'll talk about in the next slide.
So for example, people with ADHD and/or autism can use AI tools to break down complex tasks, organize ideas, reframe writing, adjust tones, or interpret social cues in communication. People with dyslexia can use AI as a writing aid-- writing an essay, or a document, or a report at work. People who are deaf or hard of hearing can rely on AI-generated captions and transcriptions to follow and review meetings and lectures.

Or people who are blind or visually impaired can use AI tools to describe, summarize, or convert visual content into accessible formats. And people who have motor disabilities can rely on AI tools to do daily activities, such as navigating websites and make phone calls. And these are just a few examples of the many possibilities that I can create for people with disabilities.

Even AI, can be used in, or as assistive technology, or AT. If you don't know assistive technology, with regards to tools or devices that help people with disabilities in various areas of life. There are AI-powered assistive technologies that are transforming how people with disabilities navigate spaces, communicate, learn-- Meta Skylar by the Ray-Ban sunglasses that has an interface with Meta AI, et cetera.

AI can also be used as an assistive technology itself. There are AI tools that can function as assistive technologies, offering support with reading and writing tasks, helping reduce the cognitive load often experienced by students with disabilities in higher education.

So we have talked a little bit about disability, accessibility, and then AI, the possibilities of AI is not integrated, if people with disabilities are not integrated in the creation of AI tool in the development of AI solutions or systems. Now, let's talk about AI and accessibility and tying them together in the context of higher education.

So just to recap a little bit of an overview about accessibility in higher education, in our experience, colleges and universities in the United States are focused largely on providing accommodations, creating inclusive learning environments, designing accessible learning materials, developing inclusive academic experiences, and more recently, especially within a public institution, complying with the Title II guidance of the Department of Justice, the ADA. And then we have how that looks, especially how it looks in higher education. But what about AI? So as we know and probably everyone in the room knows, AI has been sparking diverse and dynamic conversations across higher education, particularly in teaching and learning. I was in a conversation yesterday where one of the people involved were saying, well, we have seen, slowly seeing it among our institutions that the first-- we were talking about, academic integrity and how AI was kind of interfering with that process.

But now we've seen the conversation shifting on how AI is transforming pedagogy, instructional design, learning, but also like transforming how universities, how colleges and universities and educational institutions operate, how these processes happen behind the scenes.

So up on the screen, there's a call out box from the toolkit as well. And it says, "In higher education, AI is a topic that generates many interesting conversations. And one of the most important topics is pedagogical innovation. Another big topic is ethics and bias in AI. There's 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 inequities if not implemented properly." And this is a quote from Bernabé Soto Beltrán, from the Interamerican University of Puerto Rico, who was also involved in the toolkit.

So as we see, AI in higher education has been-- the institutions across the United States and around the world have been having different conversations around AI and how it has been transforming different areas of education.

So what about AI for student support? AI tools-- and I would like to highlight these use cases of how AI tools can 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.

And I'm guessing if we have some educators in the room, people might have used AI to generate quiz, or maybe help put together the instructions for an assignment, or brainstorm an assignment for a course and maybe guide an activity that we could use in class. It can also help us identify trends in data and see how we can better support our students and approach proactively these challenges students face, and then create resources to help students. And AI also can simulate learner interactions, allowing instructional designers to test and improve course designs before they are implemented. If there are people in the room that have used-- they're instructional designers that have used are for these types of work, for them to share those experiences in the chat.

Also, AI tools can enhance interactions between institutions and their students. For example, intelligent tutoring systems can adapt each learner's progress and provide personalized feedback. And we have had these sort of tools long time now. Like math tutors, and other types of support tools for students.

And also, it can provide personalized feedback, while AI chatbots can handle routine questions or guide students through common processes. So an example was one of the institutions I used to work at before Teach Access, we had implemented an AI-powered chatbot. And the intent or focus for its implementation was to help students, or was supposed to handle routine questions about where to find certain documents that student needs to complete enrollment, to complete financial aid processes, to complete admission processes. So it was to help them complete or handle those routine questions or guide them through common processes that they had to do every year like request for graduation, or request a transcript, et cetera.

So AI can also be used for supporting learning, but AI can be used for accessible content. So AI tools can be used to generate alternative text, or alt text for images, charts, and graphs. There's a really good tool created, or system or page created by the Arizona State University that does this. You can upload an image and it creates an image description, but also alternate text.

AI tools can also provide real-time captions for videos and live sessions. They can create transcripts of lectures and discussions. We have a colleague at Teach Access that work at Michigan State University that has used AI tools, for example, to go through transcripts of lectures and highlight important topics that were discussed, create study guides for students, and then he would share those with his students to help them in the learning.

AI tools can translate content into other languages. It can be used to convert complex contexts into plain language and break down intricate concepts of processes into smaller, more manageable steps. And as a tip, or a rule, always review your outputs to ensure accuracy and relevance. For example, with alt text, you will get lots of text, sometimes with some of the tools, and then you will need to trim those down to make sure that you follow the guidelines for alt text.

For example, real-time captions, we have used AI generated captions for some of our recordings. We always have to go through them because it might miss complex or technical terms, or someone that's not a native English speaker might misinterpret some of the things. For example, every time these types of services go through my voice in some of the recordings, it usually get something wrong, is, of course, because I'm not a native English speaker.

So those are the things that we need to look at. We can use them to help with the work, but we must also always remember that we should review them to ensure accuracy and relevance. But it can help with the work.

So one of the things that you probably heard from colleagues, from other trainings, that is all about the prompt. And the quality of the outputs, and specifically for the use cases that we just mentioned, is only as good as a prompt you use. Just for guidance here, we should think

of prompts as instructions. The more context and direction you provide, the better the GenAI assistant can understand and deliver what you need.

There are many frameworks that can be used to create the writing prompts. Personally, I have used the CREATE framework, or other frameworks. And I have been very specific or very general, and have gotten different results. So it's good playing around. But considering the CREATE framework, which is recommended, which says that you should include character or describe the perspective you want the GenAI system to take, the request, or to clearly explain the task you want the GenAI assistant to complete.

Provide one or two examples to guide the GenAI assistant. The example-- the A represents adjustments, so provide feedback. You will get responses, so provide feedback on early responses and keep adjusting the prompt. Then always specify the type of output. So specify how you want the final response to be formatted-- maybe as a quote, maybe as a document, a Microsoft Office template, or maybe as a social media post.

And then add extra special instructions or constraints, like for example, one of the reviews of online resources says, act unlike a typical AI. So you probably don't use em dashes or don't have these certain words that tell that sounds like it is AI. So you play around with these different specifications for what you want that AI tool to achieve, and you will get more robust, or an output that is closer to what you really want to get as an output.

So there are some other strategies to write good prompt. And I would recommend just playing around with them, because it gives you some ideas on how you become. These strategies help you become a better AI user. Also help you learn in the process how to create prompts. But you can ask the GenAI assistant to be a prompt generator.

So the purpose of this strategy is to specifically, or explicitly, tell the GenAI tool or assistant to act as a prompt generation for a given purpose. So an example would be, "act as a prompt engineer. I want to create prompts to help instructors design accessible assignments. Generate 10 clear and detailed prompts that I can use to explore this topic."

So here, we're saying I need help writing the prompts. And then you can choose from any of the prompts and you can pursue those. It's fun to try in two or three tools and see the different results each of these tools yields.
So the other strategy is asking the GenAI assistant for prompt patterns. So the purpose of this is to request prompt templates for different kinds of tasks. For example, you can ask the GenAI assistant to generate five prompt types the instructors can use to help students practice accessibility thinking.

So when you're thinking of training and development, those faculty developers that are in the room, or maybe those librarians that teach students how to use AI, or teach educators how to use AI, these are some of the things you can use, the GenAI tools for, or assistance for. You can help them create prompts they can use for whenever they need to complete these things. You can even be creative. And as you're working to meet the Title II of ADA guide deadline in April next year, then how can we prepare people to have the tools to be able to create accessible learning materials, accessible learning experiences, et cetera.

There's another strategy of using a meta prompt. And a meta prompt is a prompt about prompts. So it essentially tells the GenAI assistant how to build one for you. So an example of this could be, "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." So you go iterate and work on that prompt that will help you yield the results you want.
There are three other strategies to write a good prompt. You can use iteration loops and what you do is just refine prompts by looping in with the GenAI assistant. So this helps you or this lets you create or develop prompt literacy over time. So it's like you put in, "how could I improve this prompt to get more precise, creative, or actionable results?" And then you start getting recommendations. You reward your prompt. And then you ask for feedback, et cetera.
Also, you can combine roles and constraints which make prompts more powerful by assigning the GenAI assistant roles and constraints. For example, I play around with this one before putting this slide deck together said, "You're an instructional designer experienced in universal design for learning. Write three prompts faculty could use to reflect on accessibility barriers in the courses. Each should fit in one paragraph." So it's like, you need it to be 150 characters.

Or maybe, "write a description that meets the following criteria." So you combine roles and constraints. You give a different perspectives to get different outputs and get that output that you're looking for.

Finally, ask for explanations on why a prompt works. And this is something I like to use GenAI for, is like, I put a text like, what do you think about this, this learning objectives, or this way I'm explaining this topic to a certain audience. And this trains you to recognize what makes a prompt clear, scope- and goal-oriented. And of course, the GenAI assistant always has a suggestion of how you can improve. It starts with a "Great problem. I like how you put a thought on this," or something like that. And then it starts giving you suggestions on how to improve it.

So an example of a prompt would be, example-- "explain why this prompt is effective and how could it be improved for clarity or focus." You could adapt this for writing as well. So if you're writing a description, a session, you can say, "explain if this text is effective for explaining first year students what accessibility is, and tell me how I could improve it for clarity, focus, or which gaps, which things I'm missing, which things could help deliver the message," et cetera. So we've talked about, the importance of writing a good prompt and some strategies to play around with prompts. So let's go over a couple of examples that we could use. And earlier, we talked about different ways AI could be used to work accessible content for learning.
So here's an example of how to use AI tools for generating explanations. So the prompt that we use-- and I'm going to put the prompt that we use and then the output that we got back. But again, you can test them out and you can play with your own. Usually, I don't-- and this is just a clear framework that I talked about earlier. But I usually don't include this very specific guidelines. I keep it all together.

But for example, "you're 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." Remember that we talked that WCAG might be too technical for faculty to understand right away? So it's like helping how do we address that? How do we explain these technical concepts to faculty that have already too much on our plate.

So a couple of guidelines that were included in the premise, like use everyday language and [AUDIO OUT] plain language, keeping the explanation to 150 to 200 words, including one short analogy or metaphor, and ending with a practical tip that could apply in their own work. So that's what we inputted as a prompt.
So the example we got back, the explanation was when we designed course materials, notice the em-dash slides, websites, or online documents and that 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 in parentheses, 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 blackboard is clear, but yellow chalk on a light green board can be hard to see. The same thing happens on screen where colors are dissimilar. Some people will struggle to read your content. So, a practical tip. Before finalizing your slides or web page, check your colors with a free online color contrast checker. It takes seconds and it ensures your content is clear and accessible for everyone.

And I would like to call out that if you notice, it explains a color contrast to a non-technical audience. But here is one, the iteration part becomes important because for example, we could ask them specify or add more clarity around the rules for contrast. And then maybe personally I would change the example or analogy, because the white chalk on a blackboard is clear. That analogy might not resonate with modern audiences because again, we use screens, we use a whiteboard.

And then, in the practical tip, I would just maybe say, please list a couple of tools that are easy to use for a non-technical audience. And then you can start playing around with that prompt and asking for more clarification, kind of build on that response.

And I'm going to let it kick. So now we talked about AI tools or GenAI tools could be used to explain very complex topics and put them in plain language. Or maybe we're explaining a lot in a constrained amount of time. Because that's what happens with accessibility. We have to go through a lot in such short periods of time.

So another example would be to break down steps. And this helps students who are neurodivergent, or students who have ADHD, or on the autism spectrum. So here's an example of a prompt you could use to break down steps. And I know this webinar was aimed at librarians too. So here is for librarians. But it could be adapted for other roles as well.

The prompt is, "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, like one idea per step. Include what to do, why it matters, and how to know when you're done for each step. And suggest optional tools or strategies that will help with focus and organization. Example mind maps, color coding, checklists, and present the information in a clear list format that someone could easily follow or print as a checklist."

So that is the prompt that was entered into the GenAI system. And let's see what it came back with. So the list that it did was choose a focus topic. What to do? Pick-- step one, sorry. Choose a focus topic. What to do? Pick one question or idea you're curious about. The example is, how does AI affect accessibility in higher education? Why it matters-- a clear topic keeps your research manageable and focused. Done when-- you can explain your topic in one sentence. And try this-- use a mind map or ask GenAI to help refine your question.
Step number two, gather background information. What to do? Read short overviews, encyclopedias, guides, summaries. Why it matters is helps you learn key terms and concepts before diving deep. You know you're done when you can identify several keywords for searching. And try the following-- highlight or color-code key terms to organize your ideas.
And number three, search for sources. And in this slide, you will not see the entire thing because it would not fit if there were many steps. Search for sources. What to do? Use library databases, Google Scholar, or your library's catalog. This matters because it helps you find quality resources to build a strong foundation. You know you're done when you found several relevant sources that fit your topic. And try this, keep a simple search log or checklist to track databases and keyword.

And on the right side of the screen is the infographic that the GenAI tool came back with. So the same is titled "How to Conduct Literature Review Step-by-Step Guide." And it has a little subtitle that says, "designed to support focused organization and clarity for all learners." And what it does has icons on the left, light bulb, a book, a magnifying glass, sheets of paper, pencil and paper, and then a written paper.
And then it has step number one, choose the focus topic, step number two gather background information, step number three, search for sources. and it has in there, yeah. Sources that read and take notes strategically to organize what you found, write a review, et cetera.
So as you can see, it can produce outputs in different formats. So we have the explanation that we could use to create the guide that we give to students and share with faculty. But we also create that cheat sheet, or maybe that guideline, or that rubric, or that infographic.
So we also talked about, GenAI and how it could be used to generate alt text. And this example is from the toolkit specifically. And what we did was upload the flyer for back to school promotion, or promo graphic from Teach Access that had assignments, lessons. It was promoting the cross-disciplinary resources for educators from our Teach Access curriculum repository.

And the prompt we used to generate alt text description was, "Please generate a detailed and accurate alt text description for this image." And you can insert that URL or upload the image file. "Be sure to include key details such as the main subject, objects, people, their positions, colors, and any other visual elements that are significant to understanding the image. Provide context that would be helpful for a person who is blind, or has low vision, ensuring that the description conveys the overall meaning or purpose of the image."

And again, with this, it was done maybe many months ago. There are other tools that I think-- I mentioned if you're working in the educational space, check out the Arizona State University's Optics Generator. I think it does a good work to getting you started. Then you have to refine too, adapt it to best practices for alt text. But it's a way to engage faculty in doing the work without feeling that it's too much.

So this is what we entered and this is what we got back as an alt text, or the description. It says, "The image is a private graphic promoting back to school cross-disciplinary resources for educators by Teach Access. At the top, a yellow banner with black text reads 'back to school'

accompanied by the Teach Access logo, which features a bridge design above the text 'Teach Access' in white.

Below this, the subtitle, 'Cross-disciplinary Resources for Educators' appears in white text on a dark blue background. The center of the image features a grid of six circular buttons label with white text, and dark blue backgrounds highlighting resources type, assignments, lessons, presentations, syllabi, discussions, and videos. Behind the buttons, dark blue background includes faint, chalk-like illustrations of various educational symbols such as light bulbs, books, globes and geometric shapes.

In the bottom left, there is partial image of a document titled 'Exercise Understanding Alt Text' display against a white paper background with a red border clipboard. Bottom right corner features a stylized orange teacup with steam rising, sitting on a wooden saucer"
As you can see, there's a lot of context, and it's not necessarily following alt text best practices. So you would have to refine the prompt to keep it short. But as you see, you can get a lot of descriptions and you can work on creating that alt text for an image. But it really works-- it's also useful for infographics, or for data. It can help you explain the data in plain language. So there's another use case that it can be used for.

So another thing that AI could be used, and maybe this for the people in instructional design, instructional technologies, or IT, AI tools for accessibility reviews. And AI tools could be used to identify potential accessibility issues. Such a useful prompt to see some of the accessibility issues on a web page might be, "Review this web page's HTML code, and you insert the URL, and identify any potential accessibility issues, including missing alt attributes or proper heading structures, Suggest improvements based on WCAG 2.2 guidelines."

And again, this is just like a general way in which you could identify, but I would suggest better using testing tools, manual and automated testing tools. But you can also ask AI to list the most common accessibility issues. And this is more for instructional designers, or maybe one that's designing a process. Common accessibility issues students with a specific disability face in an online course, and that can help you highlight challenges and inform inclusive design and kind of thing.

Again, you have to start playing around with the prompts because you might not get what you want or what you need in the first one. I would always suggest checking two different-- two systems. Usually I play around with ChatGPT, Microsoft Copilot, compare how they respond to the same prompt and play around with their responses. So that's something you could use.

And it's always a tip, or like I mentioned with whatever you ask for, always follow up with thorough testing to ensure the solution meets real world needs. For example, this will never be substitute for consulting people with disabilities, or for consulting accessibility professionals that do the specific work of checking for accessibility issues, et cetera.

So we've covered a couple of use cases and higher education and-- there are some things that we would recommend and we would recommend it in the toolkit for things that [AUDIO OUT] institutions, higher education institutions, colleges, and universities should keep in mind when adopting AI.

And recommendations were involving people with disabilities when developing AI policies and ensuring accessibility as a core priority of those policies. So one of the main-- is if you're creating a policy around AI, make sure you involve students with disabilities, employees or faculty with disabilities, and then make sure that when you're drafting that policy, accessibility or the adoption or procurement of accessible tools as part of-- a priority.

And then when you procure AI tools and procure intentionally designed for-- tools that are intentionally designed for accessibility, for example, we recommend seeing the California State University Accessible Technology Initiative as an example. They do have some guidance on that, and it links to a couple of other rubrics that have been built by partners like Pope Tech et cetera.

Always integrate inclusive AI across academic and administrative processes. Make sure that when we're integrating them, we do that, make sure that it's accessible, that it's not creating additional barriers. And when using these tools in teaching and learning specifically, carefully consider how they may create opportunities and barriers for people with disabilities.

For example, one of the people that contributed to the toolkit mentioned or advised against using blanket policies that cover everything, because there are things that we need to consider. Because there are some tools, like for example, if we ban the use of GenAI tools for a course these tools can be used as assistive technology because some of the students might not have access to other types of assistive technology, or they can be used in different ways. So we need to be careful when creating this-- when integrating these tools into teaching and learning, how they may create both opportunities and barriers for people with disability.

So the other recommendation or consideration is to promote AI literacy, to help all stakeholders understand its potential and limitations. And I know many universities have started doing this, creating faculty development activities, or courses, or trainings for faculty, for students that can help them understand AI, how to use them. But there's a good framework that was promoted and we linked to in the toolkit. I can't remember the institution correctly, but it's linked there. But it gives you step because there are different types of AI users. Probably myself, at this moment, I don't see myself creating AI tools or building something more than using it for day-to-day work and like that basic use. But there are other types of users, and you will need to give some sort of AI literacy depending on the type of user. Also advocate for the responsible and inclusive use of AI and engage in continuous improvement. So as part of any process that has to do with accessibility, with technology adoption, it is important that we do continuous improvement, that we collect data, that we see what's working, what's not, that we do adjustments based on that.

So there are a couple of considerations that will help shape the future of AI. And as we have mentioned, and again, these are two broad topics-- AI and accessibility-- too much to be covered in one hour. So AI has great potential to advance accessibility inclusion for people with disabilities and to realize its potential, developers, educators, policymakers need to prioritize inclusive design practices by addressing issues such as biases in AI systems, improving accessibility features in tools, or in tools that integrate AI, and ensuring that AI-generated content is usable for people with disabilities.

That's another thing I mentioned. Always check the output because we might ask something to be accessible, but then when we check the reading order manually, it might not be necessarily fully accessible. So there's always that thing that we need to verify and consult.

With that I think I've covered a bit of information and we will head to the Q&A.
So thank you, Rolando. We have quite a few questions, especially about the alt text. That seemed to generate a lot of curiosities. One of the questions regarding alt text is, do you have an LLM that you recommend for creating alt text and how much do their image recognition capabilities differ?

The one we have tried with-- we have been using ChatGPT. And then again, let me search for the Arizona State University one Alt image generator. I don't know what LLM they're using, but that one I've used it for a couple of image descriptions of more complex image descriptions. And it has been mostly accurate. And it's good.

I always have to do-- again, if I'm doing a short alt text description, I have to tweak it and put only important information. But yeah, I mostly use that one. Those are the two that I have played around with. I think I would say those two are the ones that I've used the most.
And here I'll find the generator so I can-- and again, like I mentioned, the capabilities, or they tend to identify-- I've tried different prompts. I never got it. Maybe I need to read-- again, iterate a lot because some of the times I've done this, it's in a bit of a hurry. But play with the prompt a little bit to get that sweet spot of getting the alternate text that I need for our purposes of Teach Access. It might be different from a website or mostly for presentations, for resources, and materials.

Let me see if I are there any other questions. And again, I know that some of these-- whenever I put alt text and I'm reading through the chats, I know that you might get longer answers. Always familiarize yourself with the best practices, and you have to do some cut down. Because there are some learning management systems that have some character limitations. And again, it's supposed to be the essential things.

Yeah, that's one of the big questions, is the example that you gave had a very long alt text description.
Yeah.

And some LMSes do have those limits. So what would you suggest in that case?
Oh, that one it had a lot of information that was not essential. So it's the information that's essential to understanding the content of the image. And talking about the little cup that has steam coming out of it, or the whiteboard was not essential to understanding the context. So I would say that it just-- playing around with it. Because all the times I played with generating alt text, I always get a lot of information that describes the image, especially those images that have many elements, but they're not essential to conveying the information that we want to convey to the user.

So it's always some tweaking. And maybe trying another prompt, write it, shorten it to 150 characters, or maybe a sentence, and play around with it to fit it to what are your learning management system constraints.

So. And there are-- yeah, yeah. Go ahead.
I was going to say still on that same thing on the alt text. If you're talking about a learning management system, a lot of times negative you a little checkbox that you can just check off, decorative. Are there specific guidelines around the alt text images, and how decorative should be defined? And when you delineate that importance of a decorative versus something that's relevant.

It's like the ones that you should include-- the ones that have important information that is not conveyed anywhere else. I know there's a rule. It's the current-- it's for decoration, you just mark it as such. But I typically see-- I always use an image to convey, like emphasize, or create a visual analogy, or some sort of-- so I always include it. That's me personally.
But if it's not, I always include, for example, this one is like five students in an auditorium sitting. And I always include it, even though it's decorative.

And I see another question about-- and these tools that you mentioned, for example, Microsoft or Canvas, they have those. Be careful what-- again, check the output. Use it as a starting

point. Again, there's the art of alt text is an art to master. There are people that specialize in it. I am not a master of alt text. I would recommend-- it's a good starting point, to see what the GenAI think is important. Then you use judgment, et cetera and then you play around and work your-- And remember, when you're working with faculty, and in the context of faculty, and thinking about meeting the Title II of ADA guideline, you're asking a lot of people to do this work that they don't usually do. And they're learning a new-- accessibility is a complex-- it's very complex. So you're asking them to create work on contrast, to create work on alt text. So these are very things that need to be understood. So these are ways or tools that you can help them do these things. But then give them the tools, but also give them the best practices so they can evaluate how good the outputs are.

Conclusion

Well, we're running out of time, and I know there's still a lot more questions up there. We will try to get some of these questions answered in some way, shape, or form. Maybe post it with the transcript on the website when we post the recording.

Here's Rolando's information, to reach out to Teach Access, to get some more insight to those accessibility questions. Rolando, I really would love to thank you for your time and energy today, and some clarifications.

For those in our audience, we do have two more webinars in this series. We have the one in November and then the last one in December. If you want more details on registration and things like that, please visit the Every Learner website for those details. The registrations should be up sometime early next week for both of those. So we really are excited about having this series and Rolando kicking it off for us.

For our audience, we ask that you take just a few minutes out to complete our survey for today's webinar using the link that we're posting in the chat for you. If you've got something else to do immediately after, don't worry, we'll send you the link to the survey in the follow-through email within the next couple of days along with the link to the recording.

And with that, on behalf of Every Learner Everywhere and our partners, thank you for being here. Rolando, thank you very much for your time. And we thank those of you in our audience for the work that you do every day to support our students. Thank you very much, and have a wonderful day.