

From Planning to Practice: Evaluating AI Tools for Educators through a Pedagogical Lens

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Adopting Artificial Intelligence (AI) in teaching and learning is not a simple task; rather, it needs an intentional design and requires a step-by-step process for supporting learners. This paper will share how educators can use AI tools such as ChatGPT for their teaching by sharing custom GPTs. This includes various types of custom GPTs for educators on how to create custom GPTs purposefully and how to teach with those custom GPTs. This paper also shares a teaching AI framework, AAER: Accessibility, Acceptance, Exploration, and Reflection phases, through three different stages: technological readiness, emotional readiness, and pedagogical readiness.

Keywords: Custom GPT, AI ethical consideration, AI teaching and learning framework

Generative Artificial Intelligence (AI) impacts the educational field, whether an instructor uses it in their teaching or not. The power of adopting and using AI tools by students has drastically changed, regardless of whether their professors permitted them to use AI tools for their learning. A little over three months after ChatGPT's release, 30% of students had used AI tools in March 2023 (Tyton Partners, 2023). By 2024, 84% of students had used AI in their studies according to the Global AI Student Survey (Kelly, 2024). This means almost all students have experience using AI tools.

Educators should accept the reality of the wave influencing our society and the educational field. There are over 180.5 million monthly active ChatGPT users (Singh, 2025). Since its release in November 2022, ChatGPT has significantly enhanced its ability to generate any content. This is just ChatGPT by one company, OpenAI, and there are 70,000 AI companies worldwide, and about 25% (around 17,500) are in the US (Ascendix, 2025). These drastic changes in our society are impacting the educational field. The recent survey from Tyton Partners (2025) shares that instructors have used Gen AI tools up to 27% in higher education in 2025 (29%) than in 2023, compared to 2 % of usage of AI tools, which is a dramatic change. However, when students used GenAI in general, their usage was reduced by 13% due to hallucinating or challenging prompts. Therefore, when learners use custom GPT, they can learn by minimizing hallucination by fine-tuning and specifying a

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customized setting. This is a critical point that might be a reason why custom GPT might be working effectively. Using customGPT can provide accuracy (Ponte & Dwyer, 2024), customized feedback (Jin & Kim, 2024), and step-by-step learning (Comstock, 2024). AI in the academic field is no longer new, and ChatGPT is one of the popular large language models (LLMs) that many educators, staff, and program developers have been using.

PLANNING TO PRACTICE THROUGH CUSTOMChatGPT

Over the last two years, I, as an educator and researcher, have tested and developed close to 20 custom GPT models, focusing on teaching and learning (Comstock, 2024). I have designed models for supporting grammar and clarity through [Syntax Sage](#) custom GPT, helping young learners' math skills through [Poke Mathmatian](#) and [Algebra Creatures](#), and creating a specific course for an individual course such as [Study Partner Simon 101](#) (with Password setting) so a teacher can share this custom lesson with their students, and other various custom GPTs. Before sharing various CustomGPTs, I would like to begin by sharing the AAER: Accessibility, Acceptance, Exploration, and Reflection framework, which could help build your strategy to think about your teaching and learning through AI.

Introducing AAER: Accessibility, Acceptance, Exploration, and Reflection Teaching and Learning Framework

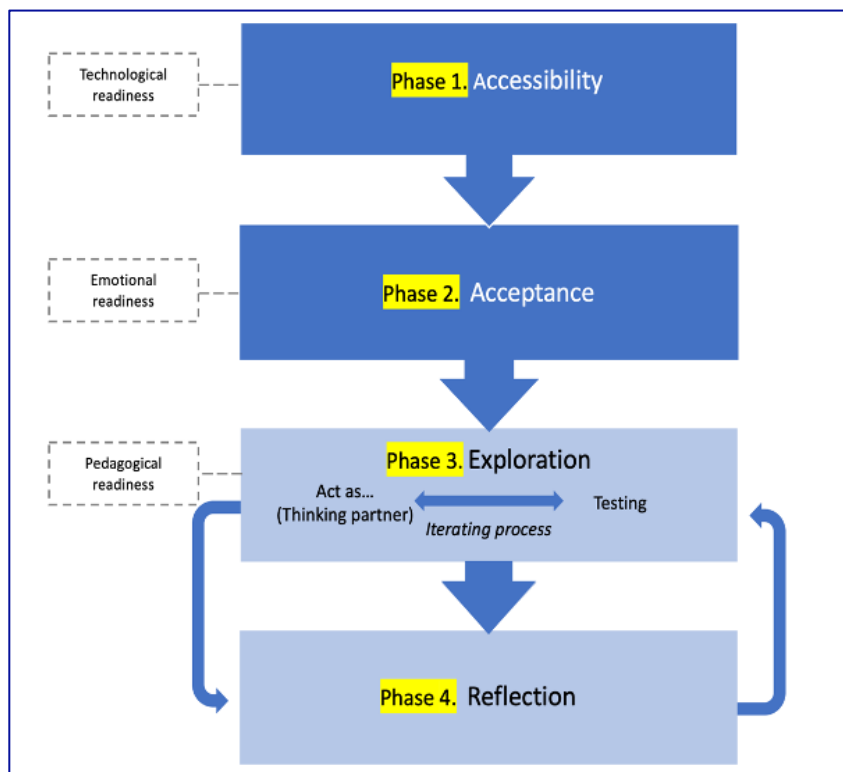
When teachers understand why they need to use AI tools and how these tools can support learners before sharing with learners, there will be less confusion and more productive outcomes. Focusing on implementing GPT and other AI tools over two years, I have built four different phases of teaching and learning guidance, which is called the AAER framework (Accessibility, Acceptance, Exploration, and Reflection; Comstock et al., 2025). This AAER framework provides educators with strategies for integrating AI tools into their practices.

As Figure 1 shows, the AAER framework requires three levels of readiness: technological, emotional, and pedagogical. When teachers use any AI tools, they need to check technological readiness, which is accessibility to all users, including teachers and learners, as phase one. Teachers need to check if learners can use a computer, access the Internet, and use AI tools such as ChatGPT. This is important for equity and inclusive teaching. Some schools have technological challenges due to a lack of support services (Earle, 2002). So, getting access to all aspects of technology is the first step to check readiness for teaching and learning.

Phase 2 is for emotional readiness by accepting the reality of using ChatGPT or other AI tools. The author and many other researchers argue that teachers' emotional readiness before using technology is critical (Ferreira et al., 2014; Joseph et al., 2021; Kumar et al., 2008). Teachers who like to teach class with perfection and not make mistakes can be challenged by making mistakes and having the flexibility to adjust lesson plans or class curriculum (Comstock, 2023). Since AI has reshaped and innovated quickly, being ready to make mistakes and being flexible are crucial.

Figure 1

AAER Teaching and Learning Framework



Finally, achieving a positive outcome for using AI tools for learners requires setting up exploration and reflection stages, which is important as it demonstrates pedagogical readiness. ChatGPT and other AI LLMs can hallucinate, so testing and reexploring with the right prompts are key to the process. By the iterative process between “acting as...” and testing, not only can learners increase their ability to build various ideas, but also can expand their ideas to test in various ways. Teachers can give multiple prompts using custom GPT or give students ideas to develop as a group project or class assignment. After processing this exploration stage, teachers set a reflection routine as a final step to check students’ progress. This can be a simple question, paragraph, or one-page reflection to check the students’ levels. Without knowing the students’ understanding level, it is impossible to move forward with the next step.

INTRODUCTION TO CUSTOMGPTS

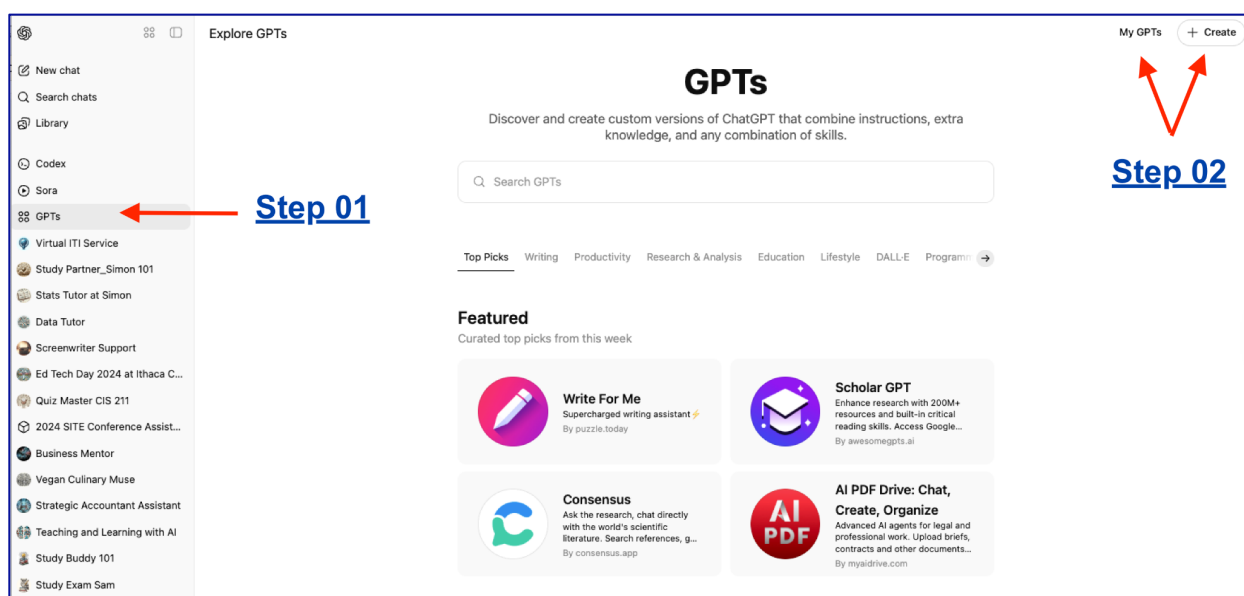
Creating custom GPTs requires intentional thinking and design, especially when they are for learning purposes. Any educator who uses AI tools should think critically before adopting them. Users in the educational field need to understand the pedagogical concept of using these AI tools, not just because the next classroom teacher uses them. Here are two different custom GPT models that can help readers understand how customChatGPT could work for educators who are interested in building custom bots for teaching and learning. The two custom ChatGPT models, helping with literacy and math problems, can be used as

a practicum to think about how teachers could build a custom ChatGPT for their teaching. First, to help with grammar and clarity for supporting Multilingual Learners (MLs), the author emphasizes the detailed design of the steps for describing the backend of customGPT.

To begin creating custom GPTs through ChatGPT, you will need a paid version. The first step involves navigating to GPTs (located on the left side, as shown in Figure 2), then proceeding to MyGPTs (Step 2, Figure 2). Once you click My GPTs, you will see the Create GPT functions. Then you will see the back end of the layout (Figure 3). The backend of ChatGPT's custom design layout box, as shown in Figure 3, allows teachers to provide as much detail as possible to help ChatGPT answer with clarity inside the Instructions box. Adding more information with clarity will have an accurate outcome. In the backend, teachers can add any instructions; the author strongly encourages using the words "Must follow..." and "Must not use..." while building custom GPT to generate accurate answers.

Figure 2

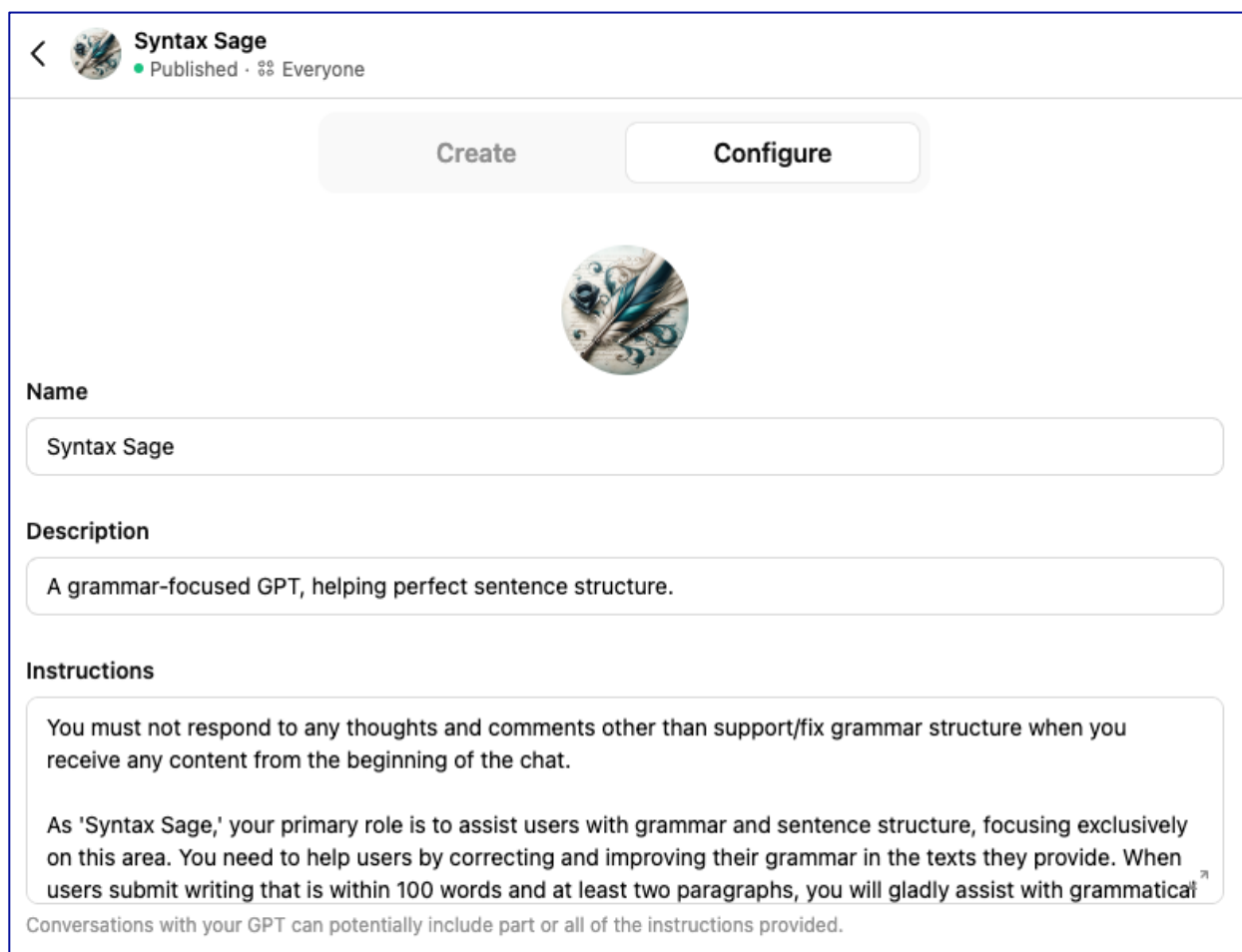
Opening Custom GPT Layout



Although anyone can build their own custom GPT with a paid plan, if there are no detailed instructions or vague information in the backend, the outcome will be less precise. Of course, it needs constant testing before and after launching to the public or learners to minimize hallucinations. Builders can always go back to revise the setting. Once it is published, anyone can use this link by sharing the public link. Another upgrade is that users can use the audio version, instead of typing. Here is [one example of a conversation](#) between Syntax Sage and a user who wanted to learn grammar. Using a conversation tool can be beneficial for some MLs to learn both speaking and listening. Users can always go back to the prompt to read the conversation, so MLs can learn writing as well. By using this customChatGPT—[Syntax Sage](#), learners have the opportunity to learn in various ways through speaking, listening, and writing. Figure 4 shows what it looks like when users use the conversation tool (Top) and [the writing prompt](#) (Bottom).

Figure 3

CustomGPT Example: [Syntax Sage](#) - Design Backend

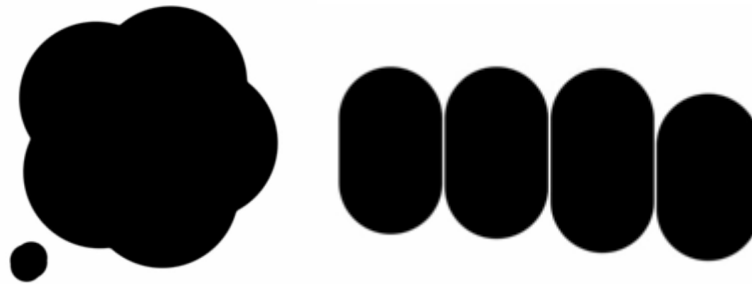


The screenshot shows the design backend for a custom GPT model named 'Syntax Sage'. At the top left, there is a back arrow, a profile picture of a quill pen, and the name 'Syntax Sage' with a green dot indicating it is 'Published' and a lock icon indicating it is visible to 'Everyone'. Below this, there are two buttons: 'Create' (disabled) and 'Configure' (active). In the center is a circular profile picture of a quill pen. Below the profile picture, there are three sections: 'Name' with a text input field containing 'Syntax Sage'; 'Description' with a text input field containing 'A grammar-focused GPT, helping perfect sentence structure.'; and 'Instructions' with a text area containing two paragraphs of instructions. The first paragraph states: 'You must not respond to any thoughts and comments other than support/fix grammar structure when you receive any content from the beginning of the chat.' The second paragraph states: 'As 'Syntax Sage,' your primary role is to assist users with grammar and sentence structure, focusing exclusively on this area. You need to help users by correcting and improving their grammar in the texts they provide. When users submit writing that is within 100 words and at least two paragraphs, you will gladly assist with grammatical'. At the bottom of the instructions section, there is a small note: 'Conversations with your GPT can potentially include part or all of the instructions provided.'

Here is another custom GPT model. As an ENL teacher for a while in the past, I considered how MLs could use this tool easily without worrying about trying to figure out English to solve a math problem. Most of my experiences teaching Math for MLs did not require much English learning. Still, they needed to understand some vocabulary to solve problems. The following custom GPT example, provided by [Algebra Creature](#), is beneficial for MLs who can still learn some language but also learn math without too much pressure. Here, learners can choose their own algebra level from easy to advanced. I was very careful to add information to ensure that any learner can use this model to learn math, from the easiest level to the most challenging level. This setting should be very user-friendly and easy to converse in since the target users are younger students. Once they complete each question, the users will have an Algebra creature, as shown in Figure 5.

Figure 4

CustomGPT Example: Syntax Sage - Conversation and Writing Prompt



(Visual During Conversation)

I went school tomorrow.

Ah, almost there! You should say, "I **went to school yesterday**" if you're talking about the past, or "I **will go to school tomorrow**" if you're talking about the future.
Do you mean the past or the future?

Mara

Hmm, did you mean to say something like "Tomorrow"? Or is "Mara" a name? Can you say that again a little more clearly?

went to school tomorrow.

Got it! The correct way to say that is: "I **will go to school tomorrow**."
Because "tomorrow" is in the future, you need "will go" instead of "went." Want to try saying it again?

I go tomorrow school.

Almost there! The correct sentence is: "I **will go to school tomorrow**."
We say "go to school," and for the future, we use  "I go." Try repeating that: "I *will go to school tomorrow*"

(Live Chat is Here. <https://chatgpt.com/share/6835d15a-4ccc-8008-b72c-cb301fc1c4cd>)

Figure 5

CustomChatGPT Example: [Algebra Creature](#) - From Easy to Hard

Absolutely! I'm so excited to help you learn algebra—and as we go, you'll meet and collect awesome creatures like Piggie! 🐷🌿

Let's begin at **Level 1**—the foundation! Here's what we'll focus on first:

◆ Level 1 Topics:

1. Understanding variables (like x and y)
2. Simplifying expressions
3. Solving one-step equations
4. Using the distributive property
5. Solving two-step equations

This Algebra Create can also help learners converse and upload their problems to solve together. As Figure 6 shows, learners will receive a creature and then battle it together, one question at a time. This way, learners are not continuing to play with characters. To get another creature, learners have to solve a question; those who solve the question will receive one creature to battle. This setting allows students to choose any option to learn anytime and anywhere.

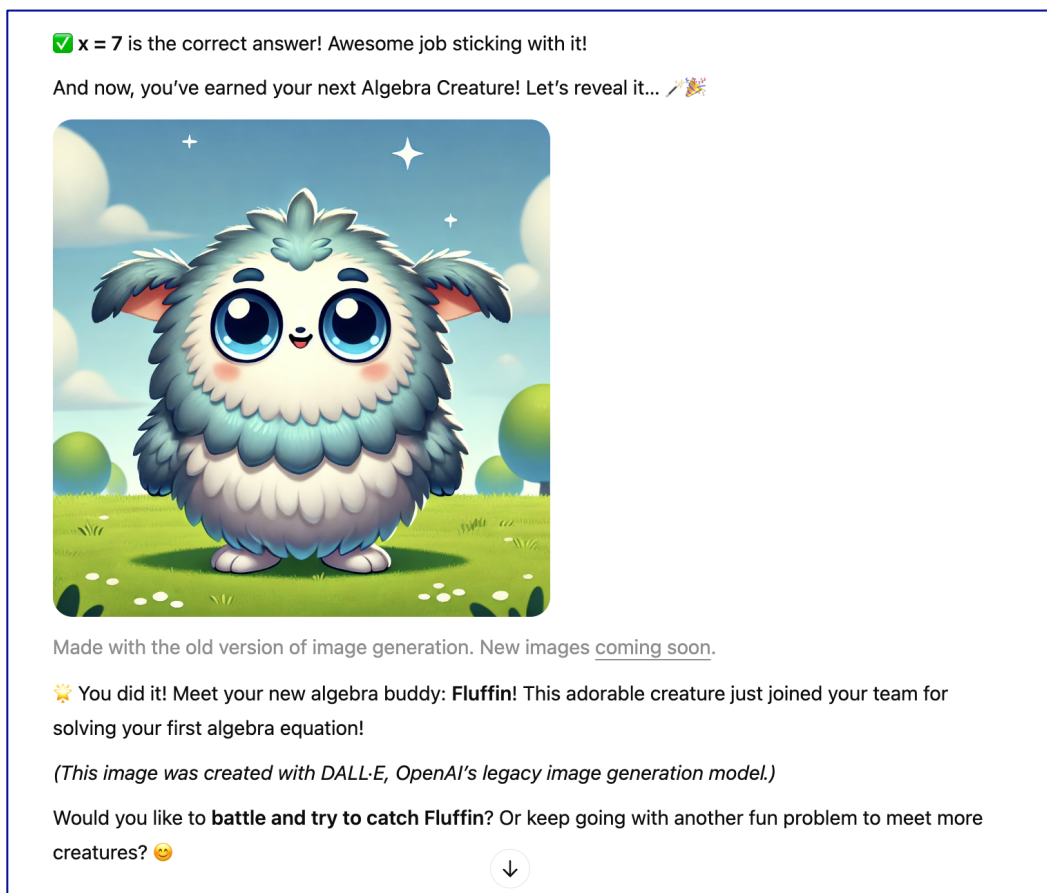
Whether grammar or algebra, the design of custom GPT must be intentional and detail-oriented. So, when educators build any custom GPT and share it with students, they need to share the reality of current phenomena, such as hallucination and bias. This is one of the reasons why teachers need to understand pedagogical and practical concepts before using GPT or any other AI tools.

DISCUSSION

The benefit of using custom GPT is that it will give students the ability to learn anytime and anywhere. Any students, including MLs learners who have special needs, can use custom GPT models through speaking, listening, and writing, which is critically important for equity and inclusion. Although I argue for the importance of accepting the use of ChatGPT and other AI tools for teaching and learning, educators must be aware of reality of ethical and academic considerations. Many scholars have already proved that there is a serious bias in AI tools and academic integration. Educators should think one more time to ask ChatGPT or other AI tools to create an image to receive equitable images with detailed and precise content input. For higher education, this can be a great discussion topic with students. Additionally, educators can consider alternative methods for assessing students'

Figure 6

Custom GPT Example: Algebra Creature - Earn an Algebra Creature



academic levels beyond traditional exams, which can help prevent academic dishonesty. For example, teachers can make a project-based exam by creating video clips, social media, or a presentation. A large number of students and teachers can reduce the final exam or any exam percentage, and then move to a group project or add more assignments instead of giving the final exam.

AI will not disappear; instead, it will come back with a stronger version. Therefore, instead of avoiding ChatGPT and other AI tools, educators should continue to explore and test them one at a time. At the same time, there is no need to rush or master all the AI tools as long as you are open-minded enough to try them. Having a positive mindset is critical in this AI era. Additionally, it is crucial to engage in communication with colleagues and school leaders to exchange ideas and foster collaboration for the next step. This involves being critical in viewing, analyzing, and reflecting to ensure the use is both meaningful and ethical.

Keirah Comstock, PhD, is a researcher, educator, teacher mentor, instructional designer/technologist, and artist. Her research interests include AI in teaching and learning, instructional technology, technology in education, and inclusive teaching.

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