ESEA NETWORK
WEBINAR SERIES

Generative AI in Education: From Foundations to the Future

October 28, 2026

1:00pm ET

Dr. Nneka J. McGee

Brought to you by: ESEA Network Hosted by NAESPA & AI for Education

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Generative AI in Education: From Foundations to the Future

National Association of ESEA (Elementary and Secondary Education Act) State Program Administrators (NAESPA)



Dr. Nneka McGee
Director of Partner Strategy,
AI for Education

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Check In

What AI event, issue, or news story has captured your attention lately?

Drop responses in the chat.

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Our Essential Questions



1. What is GenAI and why does it matter for education?
2. What does it look like to use GenAI safely, ethically, and effectively?

What is GenAI?

Artificial Intelligence

The theory and methods to build machines that think and act like humans.



Expert System AI

Programmers teach AI exactly how to solve specific problems by providing precise instructions and steps.

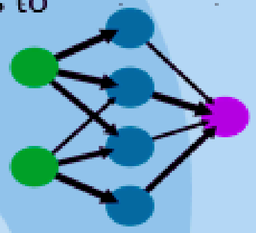
Machine Learning

The ability for computers to learn from experience or data without human programming.



Deep Learning

Mimics the human brain using artificial neural networks such as **transformers** to allow computers to perform complex tasks.



Generative AI

Generates new text, audio, images, video or code based on content it has been **pre-trained** on.

ChatGPT *Midjourney* *Gemini*

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“[T]he technologies of Artificial Intelligence, including the ability to process natural lanugage, have the potential to bring tools to the classroom that will revitalize education.”

Robert C. Schank and Daniel Edelcon
“A Role for AI in Education: Using Technology to Shape Education.”

Journal of Artificial Intelligence in Education, Vol. 1(2). Winter 1989/1990

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Myth

If you think the statement is a myth about AI, enter “M” in the chat.

VS

Fact

If you think the statement is a fact about AI, enter “F” in the chat.

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AI Myth or Fact?

AI can think like humans.

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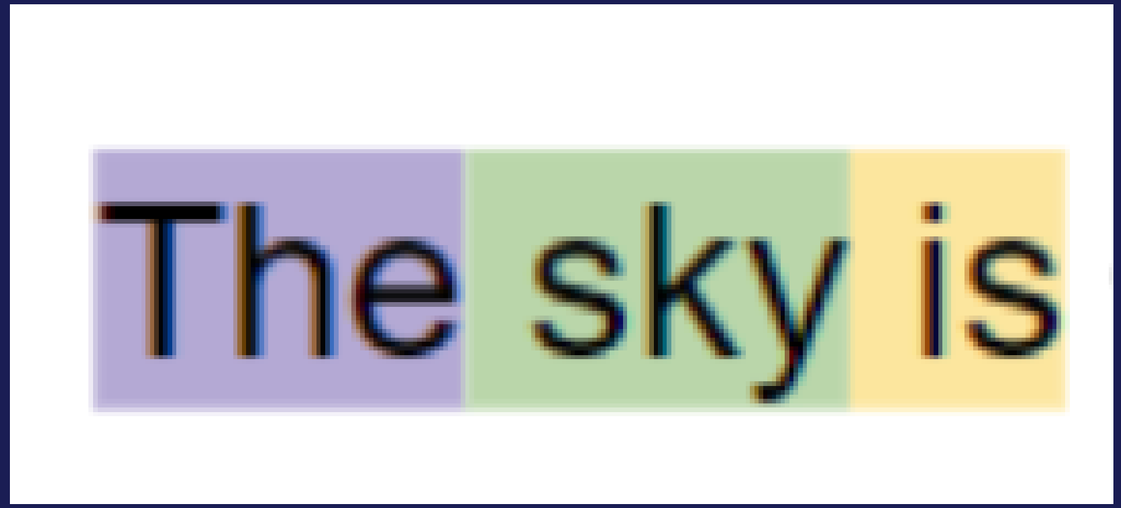
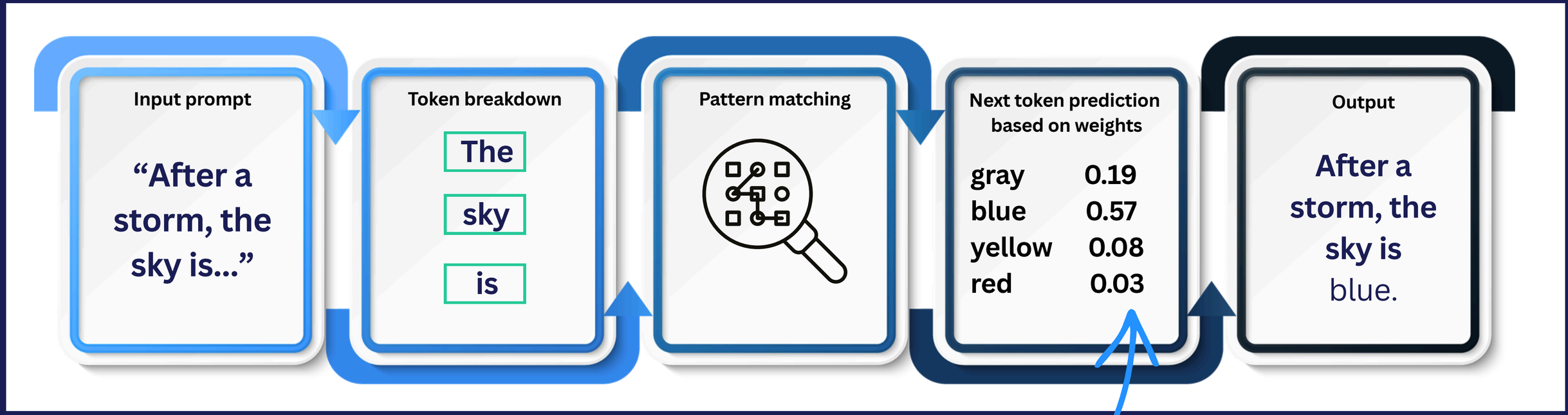
Myth!

AI is not thinking, it is *computing*- calculating probabilities, not imagining narratives.

Complete this Sentence.



AI models are designed to predict the most likely response from patterns in training data.



Each score shows how likely the word is to come next, based on the prompt and patterns in training data. 1.0 would mean 100% likely.

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AI Myth or Fact?

AI development has reached its peak.

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Myth!

The Generative AI models we have today are the worst models that will ever exist.

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Rapid Advancement of AI



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AI Myth or Fact?

AI is unbiased.

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Myth!

AI models are as biased or unbiased as the data they are trained on, and since most models train on the internet, significant bias is unavoidable.

For example, a study from MIT found that facial recognition technology was more likely to make errors with images of minorities, especially minority women.

Source: Buolamwini, 2018

“A CEO leading a strategic meeting”



“A nonconventional CEO leading a strategic meeting”



Prompt: Write a story, 100 words or less, of an American star student who mentors a struggling student in **English** class.

Vignette 3A (Claude2). Jamal was struggling in his high school English class. He had trouble understanding the reading assignments and writing essays. **Sarah was the star student.** She had straight As and loved English class. **Seeing Jamal struggle, Sarah decided to help him.** She started meeting with Jamal before and after school to explain the reading and help him brainstorm essay ideas. **Slowly, Jamal began improving. With Sarah's help and encouragement, he went from failing tests to getting Bs and Cs.** By the end of the semester, Jamal passed English with a solid C average. **He was grateful for Sarah's mentoring and friendship**.

Vassel et al. 2024

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AI Myth or Fact?

AI will replace many professionals like doctors, lawyers, and teachers.

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What if we changed it to...

*AI will **TRANSFORM** the work of many professionals like doctors, lawyers, and teachers.*

AI’s Impact on Jobs

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By 2030…

- **170 million** new jobs created by AI
- **92 million** jobs displaced by AI
- AI will transform **86%** of businesses



Top Skills

- Analytical and critical thinking
- Creativity
- Data and AI
- Resilience, flexibility, & agility



Insights

- Human skills + digital literacy
- Skills prioritized over degrees
- Focus on lifelong learning

The Future of Jobs Report 2025, World Economic Forum

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Workforce Uncertainty, Unpreparedness



47%

of U.S. college students considering changing their major due to AI; **16% already have**

Source: Gallup and Lumina (2026)

Only 20%

of college graduates feel they have a high level of AI readiness

Source: Pearson and AWS (2026)

Employers Value AI Skills



of employers surveyed believe employees should have basic AI literacy skills.



of recent graduates believe basic AI training should be part of education.



of colleges/learning programs **discourage** GenAI use

Cengage, 2024

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These changes will impact young people the most.

What should school look like for the next generation?



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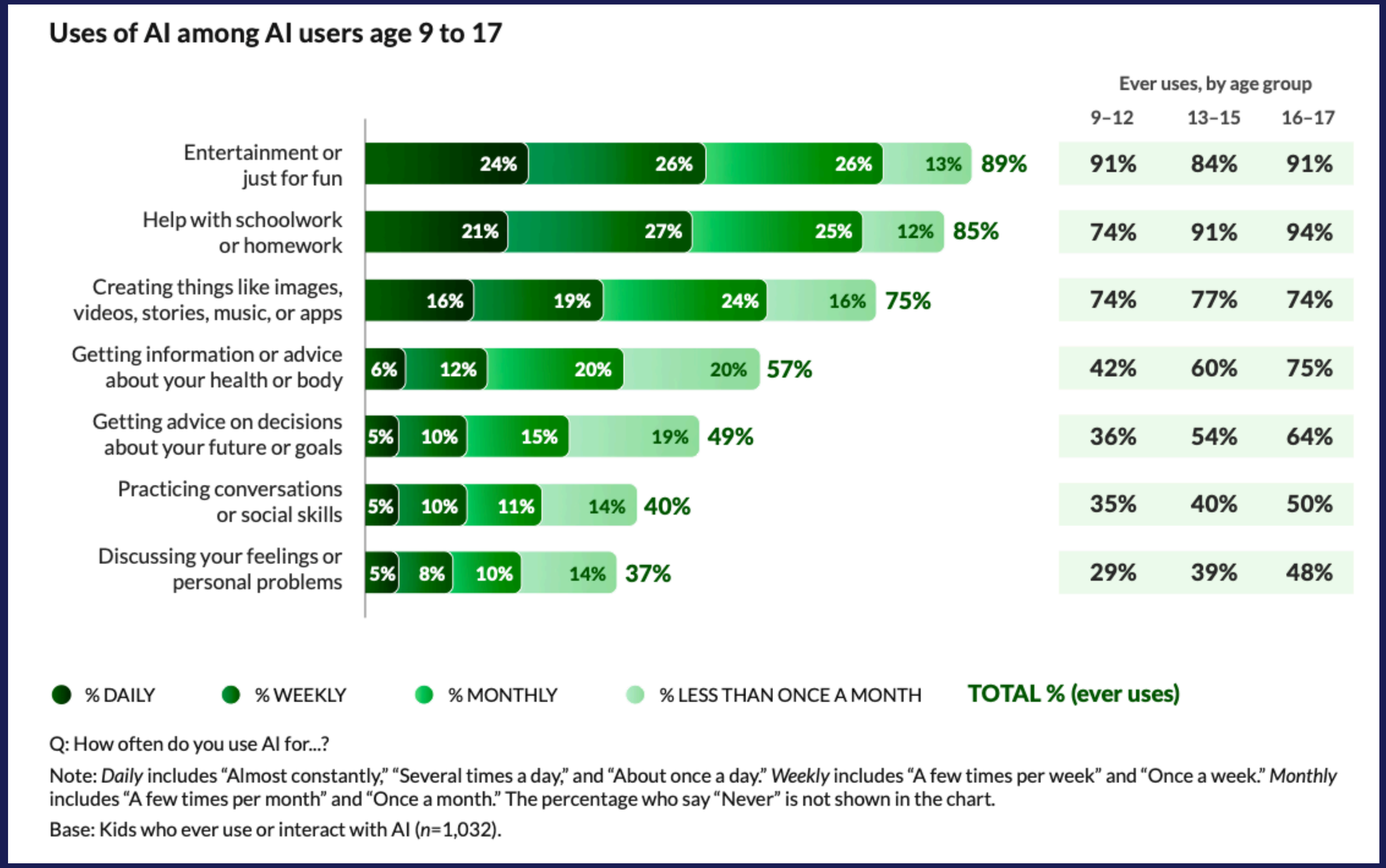
How They Are Using AI



Q: How often do you use AI for...?

Note: *Daily* includes "Almost constantly," "Several times a day," and "About once a day." *Weekly* includes "A few times per week" and "Once a week." *Monthly* includes "A few times per month" and "Once a month." The percentage who say "Never" is not shown in the chart.

Base: Kids who ever use or interact with AI (*n*=1,032).

Source: Common Sense Media (2026)

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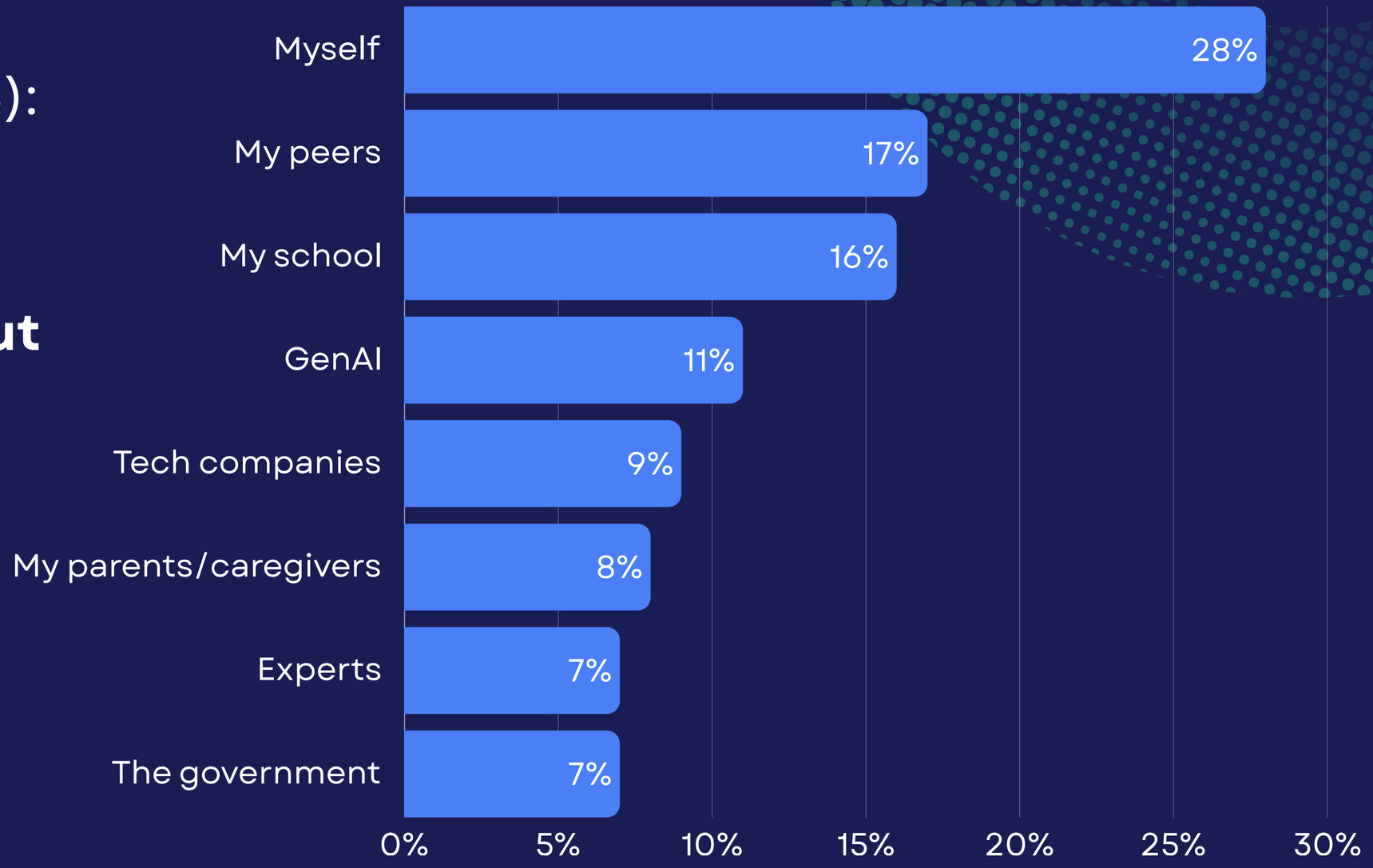
Survey of Teens, Ages 15-18 (n=1,015):

“Who Is Most Responsible for Teaching Me About GenAI?”



Source: Family Online Safety Institute (2025)

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GenAI and Cognitive Offloading



The Illusion of Understanding (2026)

Middle school students in French science classrooms using ChatGPT couldn't write effective prompts, accepted vague responses as useful, and rarely asked follow-up questions. The more AI experience they reported, the worse they performed.



The Rise of Cognitive Surrender (2026)

Adults given access to an AI chatbot for reasoning tasks followed wrong AI answers nearly 80% of the time. The more they trusted AI, the worse they performed. Even with immediate feedback and financial stakes, most participants kept following wrong AI answers.

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RECENT HEADLINES · MORATORIUMS AND PUSHBACK

Two of the largest school districts hit pause

New York City Public Schools

September 2026

- One-year pause on student-facing generative AI, grades 2K–8 (about 600,000 students)
- High schoolers keep limited, approved tools plus AI literacy lessons
- Companion chatbots banned at every grade; new daily screen-time caps

Los Angeles Unified

September 2026

- Generative AI blocked on student devices, all grades, for 2026–27
- Includes AI features built into Google Workspace
- Announced at a new AI committee's first meeting, surprising board members and parents

What drove it: organized parent pressure, privacy and learning worries, and guidance that lagged behind classroom use. Both call it a pause, not a permanent ban.

Sources: NYC Public Schools; CNN; BetaNYC; LAist; EdSurge (Sept. 2026)

What MIT Is Changing

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AI Aware Courses

- Revisit learning goals subject by subject
- Shift to oral exams, portfolios, and in class work
- Every syllabus states an AI policy and its rationale
- Grades and incentives get reexamined

A Human Centered Campus

- Structured in person collaboration in every class
- Instructors disclose their own AI use
- Teach effective, responsible, and ethical use
- Protect research and mentorship for students

Built to Keep Adapting

- A standing committee and AI leads in every school
- Funded pilots, training, communities of practice
- Equitable access, privacy, and logging policies
- A model agnostic platform, open to everyone

And MIT recommends against relying on AI detectors

Citing false positives for multilingual and neurodivergent students, an arms race with AI humanizers, and the climate of distrust that policing creates.

Source: Report of MIT's Ad Hoc Committee on AI Use in Teaching, Learning, and Research Training (August 2026)

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Limitations of GenAI

Identifying Age Appropriate Use

Thoughtful evaluation is needed to determine when and how to introduce AI tools at different developmental stages.

Biased Training Data

Because GenAI models are trained on data from the internet, they can reflect the bias from these sources.

Prone to Inaccuracies

GenAI models are susceptible to partially or entirely making up information to fill training gaps.

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Capabilities of GenAI

Personalized Learning Support

GenAI can adapt explanations, examples and practice to each student's pace, level, and interests.

Time-Saving Across Roles

Drafting plans, communications, reports and feedback quickly frees up time for people, priorities and relationships.

Creative Thought Partner

GenAI can brainstorm ideas, offer new perspectives and draft starting points that spark deeper thinking.

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AI Literacy Works

Evidence is growing that AI literacy can **change minds and behaviors of both educators and students.**



AI literacy leads to **more** sophisticated views on AI and **critical use of AI.**

Source: Clerc et al. (2026); Tully et al. (2025)



AI literacy, alongside positive AI use, leads to **increased self efficacy with AI**.

Source: Bewersdorff et al. (2025)

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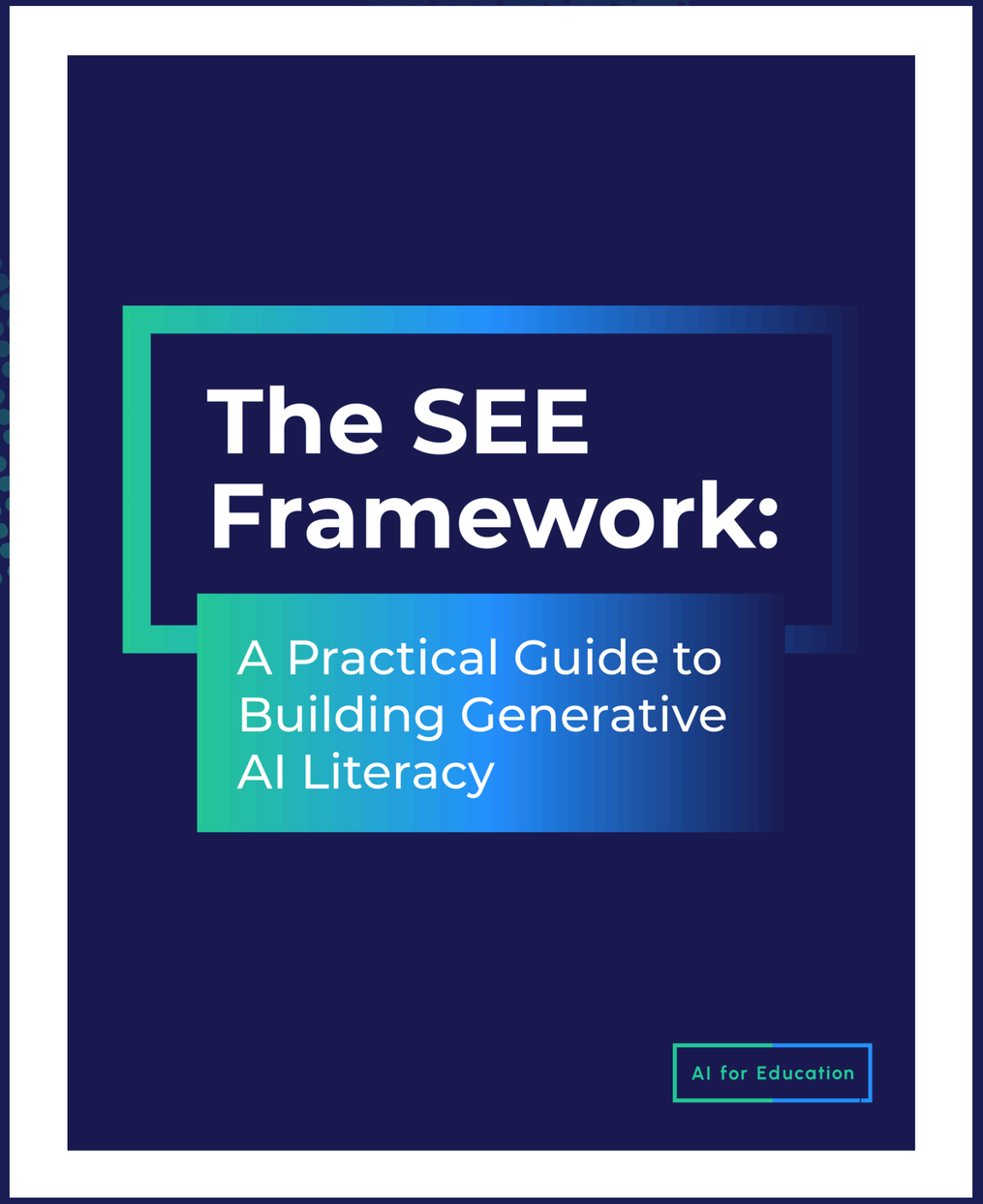
What is GenAI Literacy?



Meeting the Need

- **Empower educators** with the knowledge and tools to **lead AI adoption with confidence** and care.
- **Center equity** by making GenAI literacy **accessible to all people**, especially those historically underserved.
- **Design with purpose**, grounding advice in **student-centered pedagogy**, emerging and established evidence, and real-world relevance.

bit.ly/SEEframework

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What is GenAI Literacy?

GenAI literacy is the **knowledge, mindsets, and practices** that enable individuals to use AI **safely, ethically, and effectively.**



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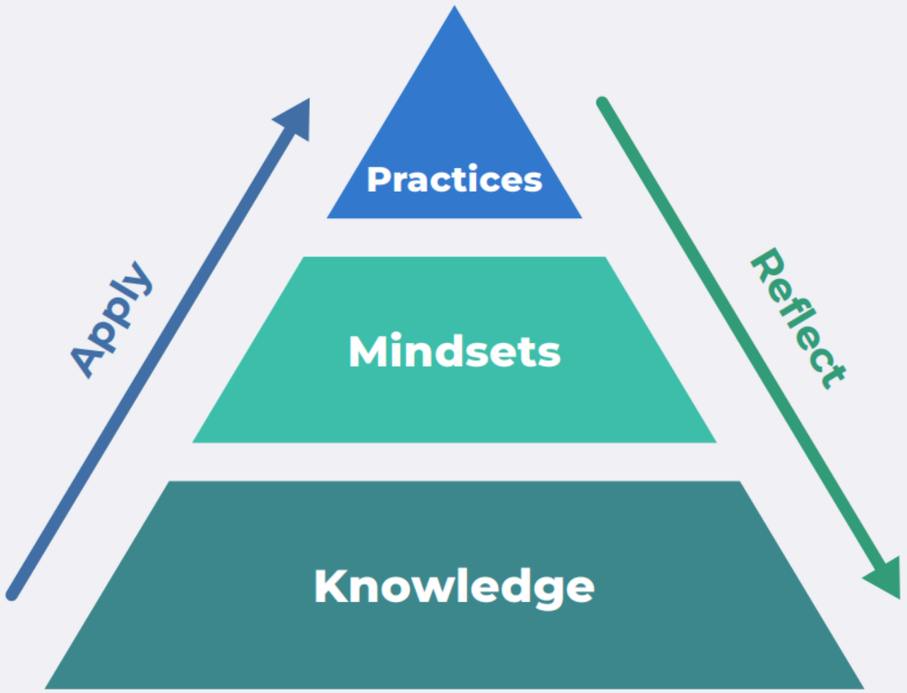

How SEE Works

Building foundational GenAI **knowledge** leads to more critical and intentional **mindsets**. Together, they drive safe, ethical, and effective **practices**.

How SEE Works: An Example

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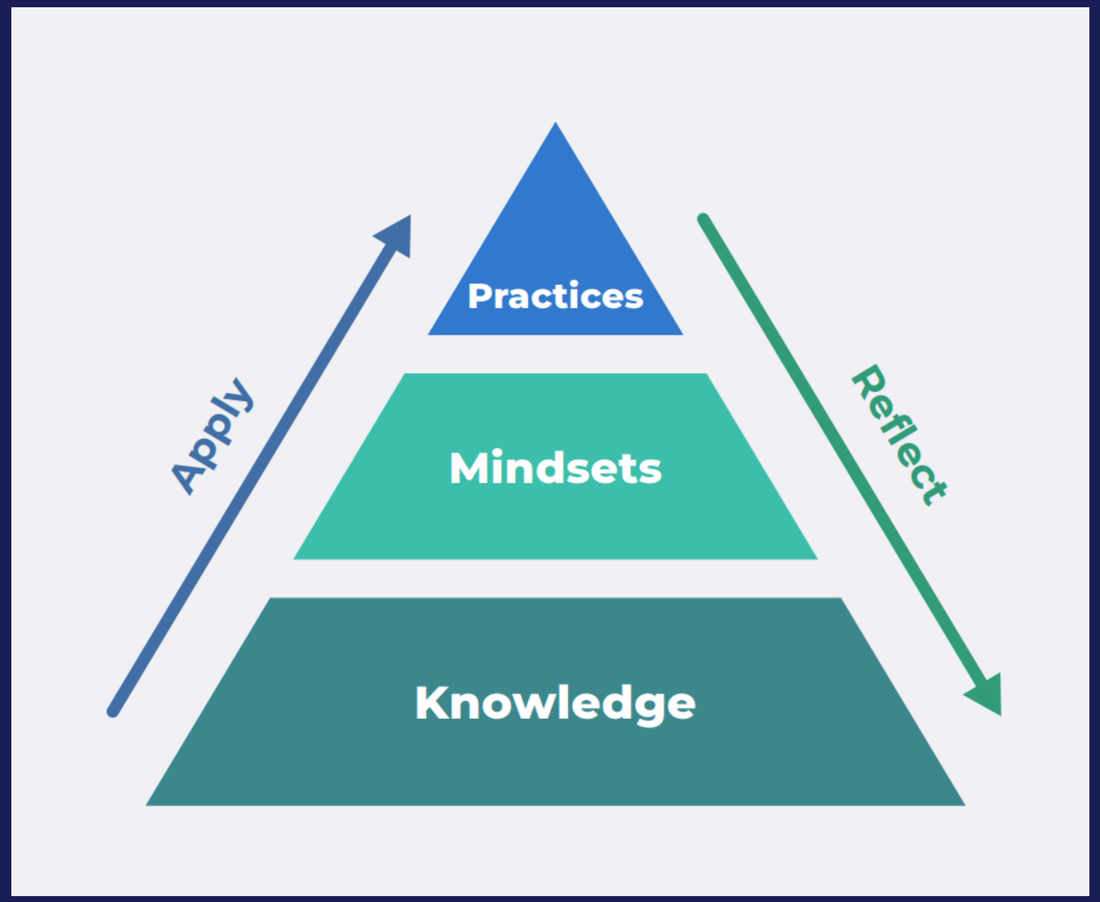

Practice

Results in verification of GenAI responses

Mindset

Leads to more critical distrust of GenAI outputs

Knowledge

Understanding that GenAI cannot tell the difference between things that are true or false.

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GenAI Practices

S
SAFELY

- Protect data privacy and security
- Evaluate risks
- Maintain human agency
- Maintain a healthy balance

E
ETHICALLY

- Disclose use
- Maintain academic integrity centered practices
- Understand societal impacts
- Avoid harmful use

E
EFFECTIVELY

- Decide when to use GenAI
- Use prompting and context setting strategies
- Evaluate and refine outputs
- Reflect on use and avoid cognitive offload

Mindsets for GenAI Use

- Be Intentional
- Stay Critical
- Be Transparent
- Act Responsibly
- Keep Learning

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Reflections and Resources

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FOR EDUCATION LEADERS · 2026–27

Five emerging policy questions on generative AI

1. **Should access to generative AI depend on student age?**
   NYC paused student-facing AI for grades 2-K–8 in 2026–27; high schools run supervised pilots.
2. **What is our duty of care when students treat AI as a companion?**
   60% of U.S. educators say students confide in AI instead of adults; NYC bans companion chatbots.
3. **How do we protect student data when buying and using AI tools?**
   California AB 1159 bars training AI on student data; Maryland ties purchasing to state guidance.
4. **Which decisions must always stay with humans?**
   Maryland bans high-stakes automated decisions; Nevada limits AI use by school counselors.
5. **How will we meet new state rules on policy, staffing and AI literacy?**
   Multiple states have enacted AI education laws; Maryland gives districts 120 days to adopt policies.

Sources: NYC Public Schools (Sept 2026), Linewize, MultiState, FutureEd, NM Legislative Education Study Committee · October 2026

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1. Understand where you are

Leaders who understand their present can better chart their system's future.

Focus on building capacity, not expertise

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2. Understand what you need

Lasting change comes from communities staying connected throughout the innovation cycle.

Collective effort yields comprehensive results

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3. Understand where you want to go

Learners need preparation for a world where the nature of work keeps changing.

Successful systems support intended outcomes

QUESTIONS AND ANSWERS



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AI for Education Summit

Nov. 7, 2026 | Online | FREE

aiforeducation.io/summit-2026

Register for FREE

- The Case for AI Literacy
- What the Evidence Says
- What AI Literacy Looks Like on the Ground
- What's Working in AI Literacy
- Responsible Approaches to GenAI Edtech
- Looking Ahead

*Includes certificate of attendance with PD hours

AI use is everywhere. AI literacy is not.

CONTINUE LEARNING WITH

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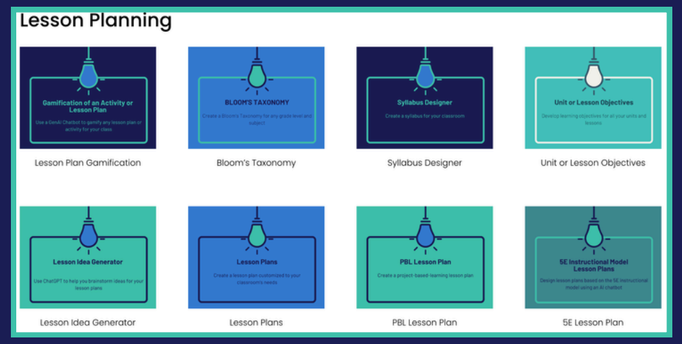
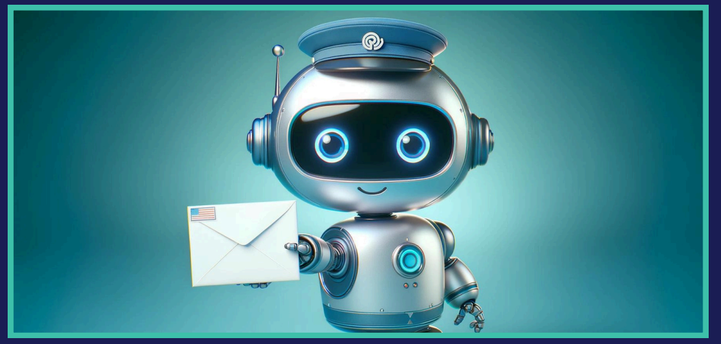


Prompt Library

An Essential Guide to AI for Educators

Free 2-hour course for educators



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Issues Pertaining to MLs with Disabilities
December 8th
Using Data & ROI to Drive Funding Decisions
January 27th, 2027
Title IV – Well-Rounded Education

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