CADRE Learning Series

Generative AI in STEM Teaching and Learning: Now and in the Future

January 24, 2025 | 1-2:30 PM ET

Learn more at go.edc.org/learning-series-AI

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(*Moderator*)

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About the CADRE Learning Series

- AI in STEM Education Research
- Rural Partnerships
- Instructional Observation
- Partnerships in Research
- Using Video in Education Research
- Designing Case Study Research
- Professional Development for Researchers Who Don't Study PD

Today’s Agenda

- Introductions (8 min)
- Overview of the teaching brief (15 min)
- Response from reviewer (5 min)
- Overview of the learning brief (15 min)
- Response from reviewer (5 min)
- Q & A with panel (30 minutes)

Artificial Intelligence in STEM Education Series

A three-brief series on AIED related to STEM education. The series' topics address ethical approaches to AI in STEM education research, AI for STEM teaching, and AI for STEM learning.

Why now?

- R&D work in AIED is wide ranging, rapidly growing, and quickly becoming integrated into STEM education
- Recent advances – especially the leaps in generative AI—are pushing us to reimagine what is possible for STEM teaching and learning
- Excitement about the promise of AIED as well as growing concern about the perils

Inspired by the question:

What are the essential considerations for researchers and developers who are designing, studying, and using AI in K–12 STEM classrooms?

Intent of series:

Generate reflection and rich discussion that furthers the ethical and transformative use of AI to achieve positive and wide-reaching impact for STEM educators and learners.

Artificial Intelligence in STEM Education Series

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Brief #1: Toward Ethical and Just AI in Education Research

Tiffany Barnes, Joshua Danish, Samantha Finkelstein, Ole Molvig, Sarah Burriss, Megan Humburg, Heidi Reichert & Ally Limke

go.edc.org/ai-ethics

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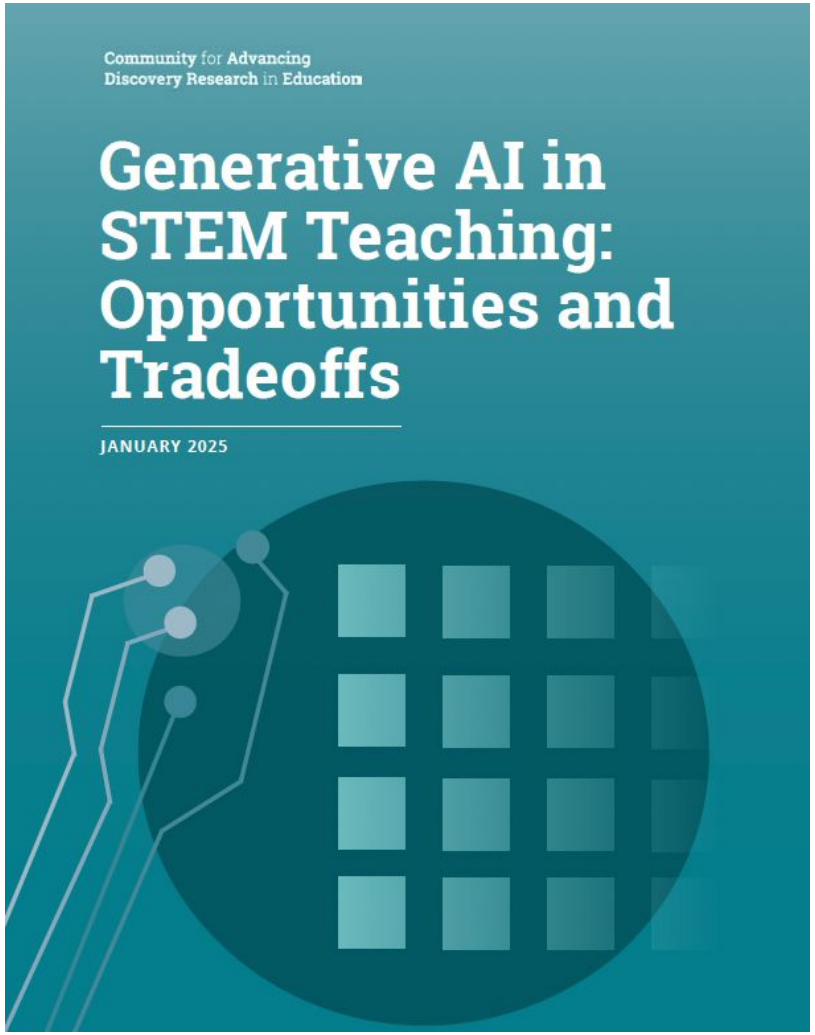
Brief #2: Generative AI in STEM Teaching: Opportunities and Tradeoffs

Jeremy Price & Shuchi Grover

go.edc.org/ai-teaching



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Brief #3: The Potential of Using AI to Improve Student Learning in STEM: Now and in the Future

Namsoo Shin, Kevin Haudek & Joseph Krajcik

Coming Soon!