

Outline for AERA PD26-03

Generative AI Literacy for Educational Generative AI Literacy for Educational Researchers: Understanding Systems, Applications, and Implications

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More detailed information and resources will be added as we approach the meeting.

Slides:  Generative AI Literacy for Educational Researchers: AERA 2026

Remember:

- **Bring your laptop.**
- **Make sure you have a gmail account that ends in .gmail to access google tools we may use in the workshop. Do not assume you will have access to these tools (gemini, google ai studio, NotebookLM) through your school without checking.**

Unit 1: Generative AI Foundations and Current Landscape

LO 1: Navigate the current generative AI landscape including familiarity with major platforms (e.g. ChatGPT, Claude, Gemini), understanding differences between products, multimodal systems, and specialized tools for image and video generation, as well as how GAI relates to other forms of AI.

LO 2: Understand how generative AI systems work including basic concepts of training data, probabilistic responses, and why generative AI behavior varies - drawing parallels to human learning and performance variability familiar to educational researchers.

LO 3: Understand and practice basic and intermediate prompt strategies including clear instruction writing, providing examples, and asking generative AI systems to "show their work" - skills transferable to research and teaching contexts.

Unit 2: Working and Measuring with Generative Systems

LO 4: Design appropriate GAI system evaluation

LO 5: Evaluate GAI long run behavior

References

<https://aistudio.google.com/>

Essays and sample prompt: bit.ly/4twBzva

Unit 3: Generative AI Bias and Social Impact Analysis

LO 6: Identify and analyze bias in generative AI systems by examining training data sources, testing generative AI responses across different demographic scenarios, and recognizing how historical inequities appear in generative AI text and image outputs.

Participants examine generative AI's societal implications through guided analysis of bias in training data and outputs. Activities include testing generative AI systems with prompts about different demographic groups, analyzing content for representation issues, and exploring case studies. Group experiments connect findings to educational equity concerns and historical patterns of bias.

Unit 4: Exploration of Generative AI Systems

LO 7: Explore a range of GAI applications relevant to educational research.

Guided exploration of text, image, video, and multimodal generative AI tools, including AI testing environments, relevant to educational research and practice. Activities include generating and evaluating AI-created educational artifacts, exploring video tools for instruction, and multimodal AI for assessment scenarios. Focus on understanding capabilities and limitations through direct experience and demonstration.

Unit 5: Developing Personal GAI Frameworks /

LO 8: Develop personal frameworks for responsible generative AI engagement in professional contexts, including ethical considerations and practical guidelines for future exploration.

Participants synthesize learning by developing personal guidelines for generative AI engagement in their professional contexts. Activities include integrating evaluation criteria for generative AI tools, discussing ethical considerations, and identifying areas for continued learning. Group sharing focuses on building confidence for future generative AI engagement while maintaining critical perspectives.

Unit 6: Final Questions, discussion & wrap up

Open conversation about areas of concern or remaining questions. Electronic polling will be used to manage work flow.