LIVE PRESENTATION

Dewey Meets the Machine: Guided Inquiry Using Generative AI for Students Ages 7-11

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Outline

Introduction

Methodology

History of GenAI

Capabilities of GenAI

Dewey's Model of Inquiry

Modeling and Guidance

Example of Guided Inquiry

Final Takeaways

Introduction

- GenAI, a new society-changing technology
- Similarities to the emergence of social media
- Persistent achievement gaps
- Inquiry as a remedy
- GenAI potential to facilitate inquiry

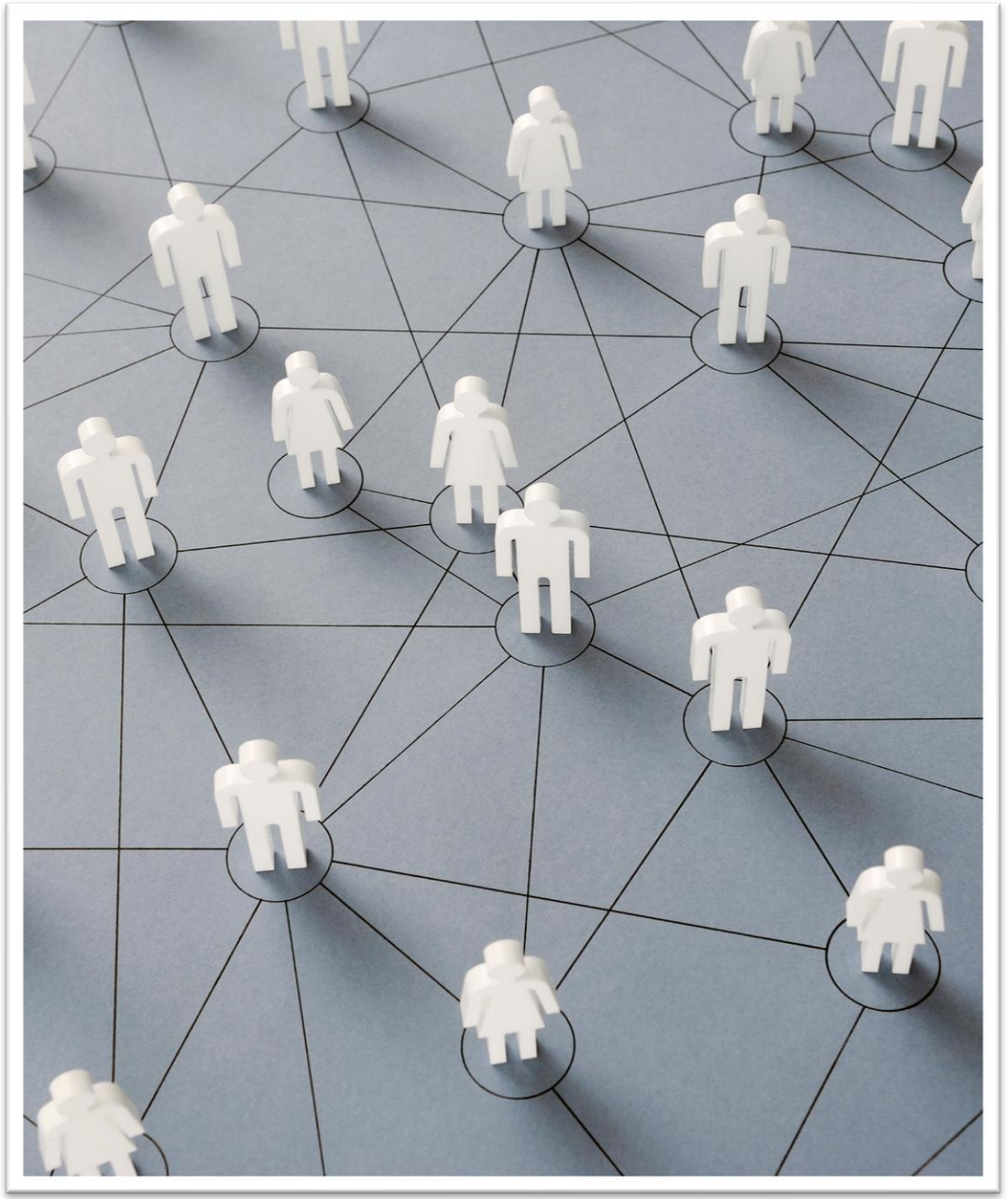
Methodology

- Qualitative content analysis approach (White and Marsh, 2006)
- Research question:
  - What do prominent developmental learning theories have to say about the use of GenAI in primary school?

GenAI History

GenAI Capabilities

Connecting the Known to the Unknown



Dewey's Model of Inquiry

- Identifying a problem
- *Exploring the problem*
- *Generating and testing hypotheses*
- *Reflecting*

Modeling and Guidance

- Gradual Release Process
  - *Fully supervised*
  - *Semi-supervised*
  - *Independent*

Example of Guided Inquiry with GenAI

- Common Core K.MD.1
- Activity: Let's go to the zoo!
- GenAI Tool: Microsoft Designer
- Problem: The animals get out, and the zoo needs our help to get them back in their cages. There are cages of different sizes. How can we make sure all the animals fit into their cages?

Final Thoughts

- Hallucinations by GenAI
- Inappropriate and false information
- AI taking on human aspects such as voice
- Overreliance on technology
- Technology should be used in enhance learning
- Combination of best practice and theory
- Teachers know best!
- More research to come…

Thank you

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*References listed in the Conference Proceedings