AI LITERACY / FLUENCY AS A PEDAGOGICAL PRACTICE

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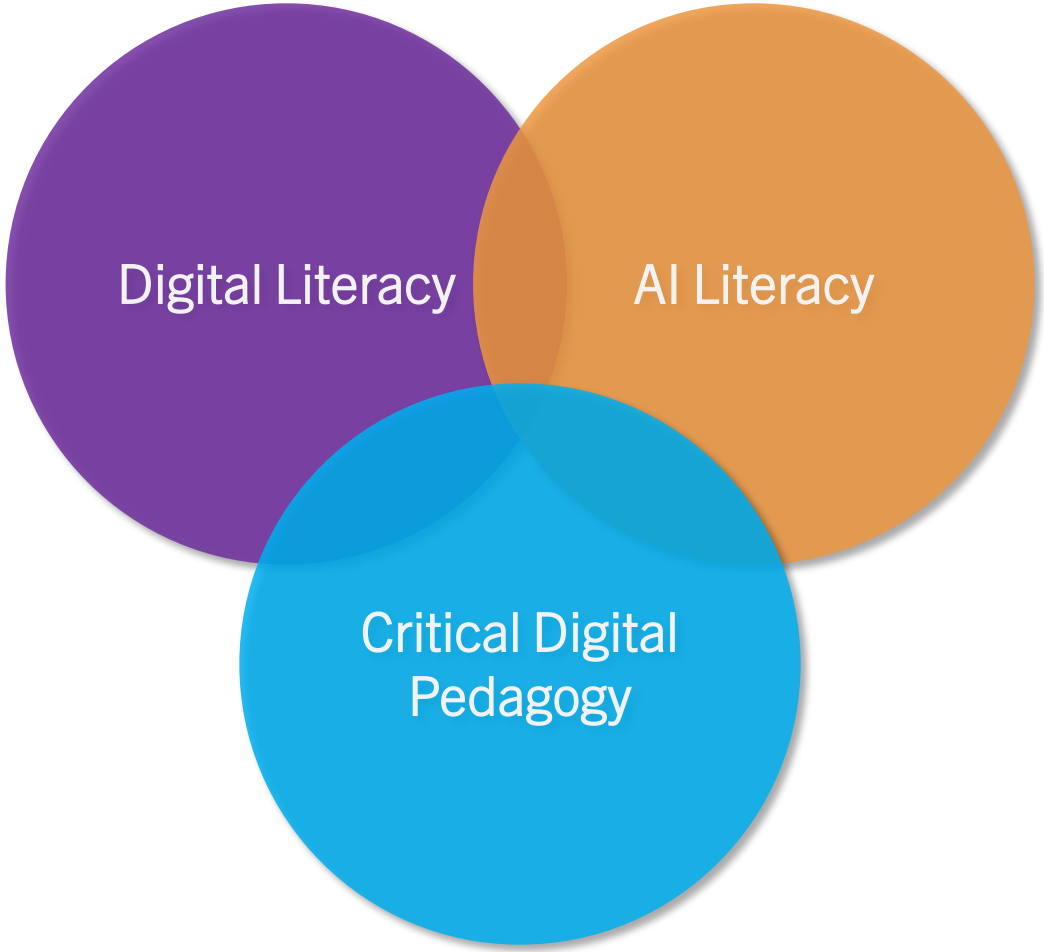
What is your biggest ethical or pedagogical question about AI in education?

- Ensuring academic integrity and honesty
- Addressing algorithmic bias and equity
- Protecting student privacy and data
- Keeping up with the pace of change
- Other

GOALS & AGENDA

- Frame AI literacy within scholarly context
- Explore practical and critical strategies for the classroom
- Cultivate a mindset focused on long-term agency


Digital Literacy
AI Literacy
Critical Digital Pedagogy

DIGITAL LITERACY

DIGITAL LITERACY

- “Digital literacy is about mastering ideas, not mastering keystrokes” (Gilster, 1997)
- Ability to access, evaluate, and synthesize information from digital sources

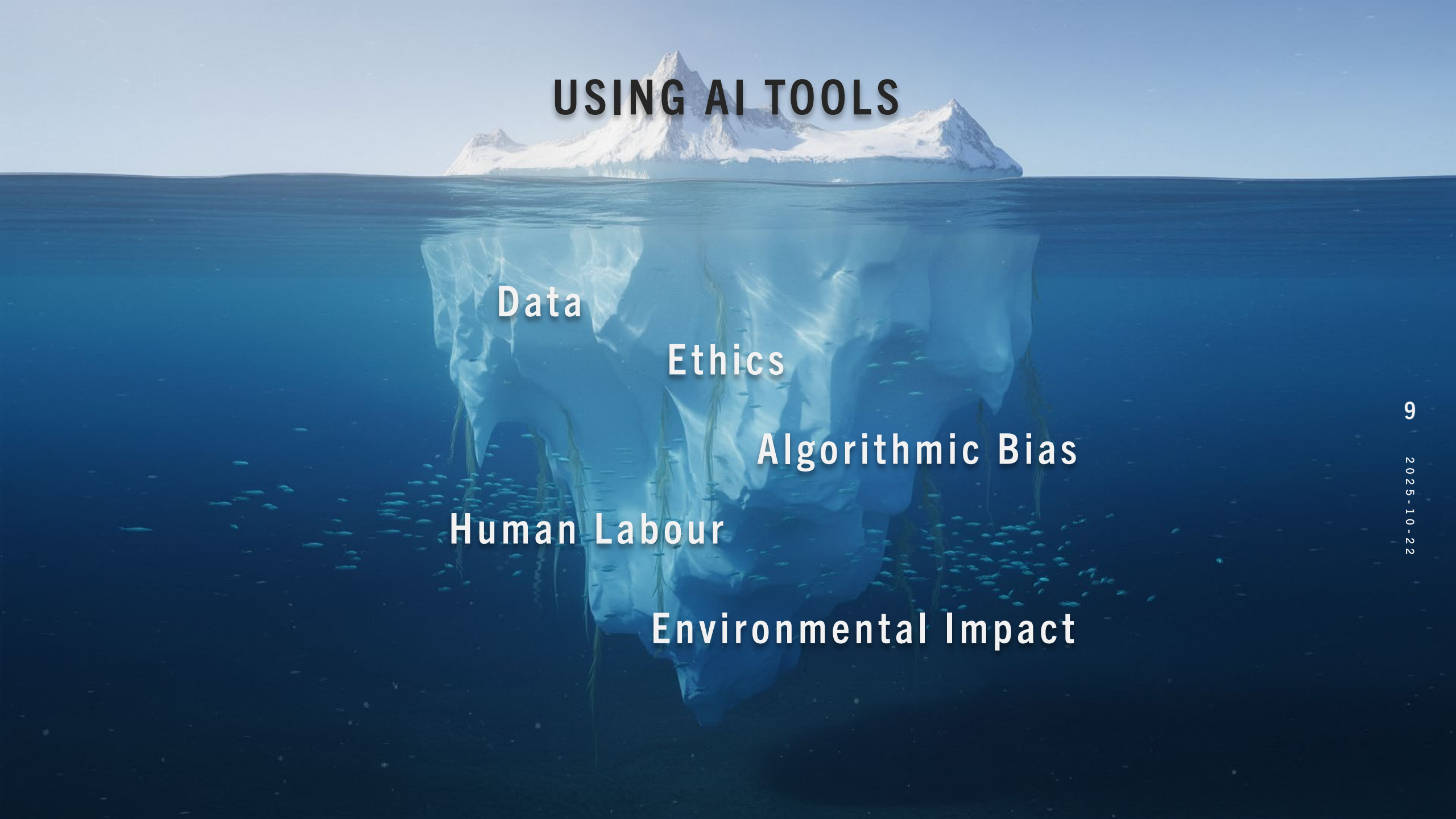
DIGITAL LITERACY AS A SOCIAL PRACTICE

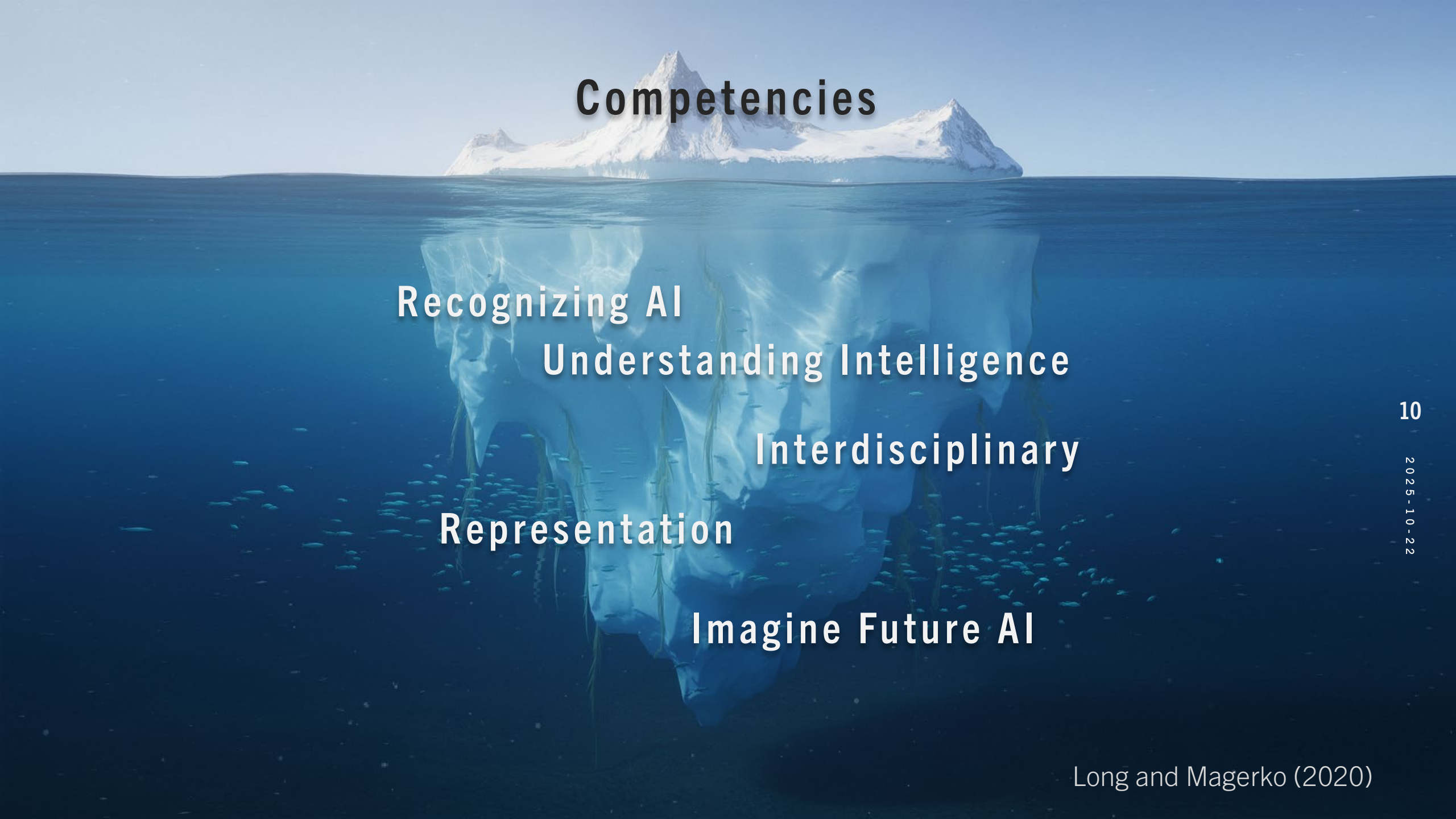
- Jenkins (2009) reframes digital literacy as social competencies for a ***participatory culture.***
- Shift to social participation & creation:
  - Judgement
  - Collective Intelligence
  - Transmedia Navigation

THE WEB AS A CONTESTED SPACE

- boyd (2014) argues that mere exposure to technology does not equal critical skill and highlighted that social factors shape our digital experiences and skills
- Caufield (2019) develops the SIFT method to fact check information online and find out who is behind the information we are consuming
  - S = Stop
  - I = investigate the source
  - F = find better coverage
  - T = trace claims, quotes and media to the original context

USING AI TOOLS





Long and Magerko (2020)

COMPETENCIES TO BIG IDEAS

- Touretzky et. al (2022) – 5 Big Ideas in AI
  - Perception – Computers “see” and “hear” using sensors and data.
  - Representation & Reasoning – AI uses models of the world to solve problems.
  - Learning – AI models are “trained” on data.
  - Natural Interaction – AI makes it easier for to communicate with computers.
  - Societal Impact – AI affects society, culture, and ethics.

FROM AI LITERACY → FLUENCY

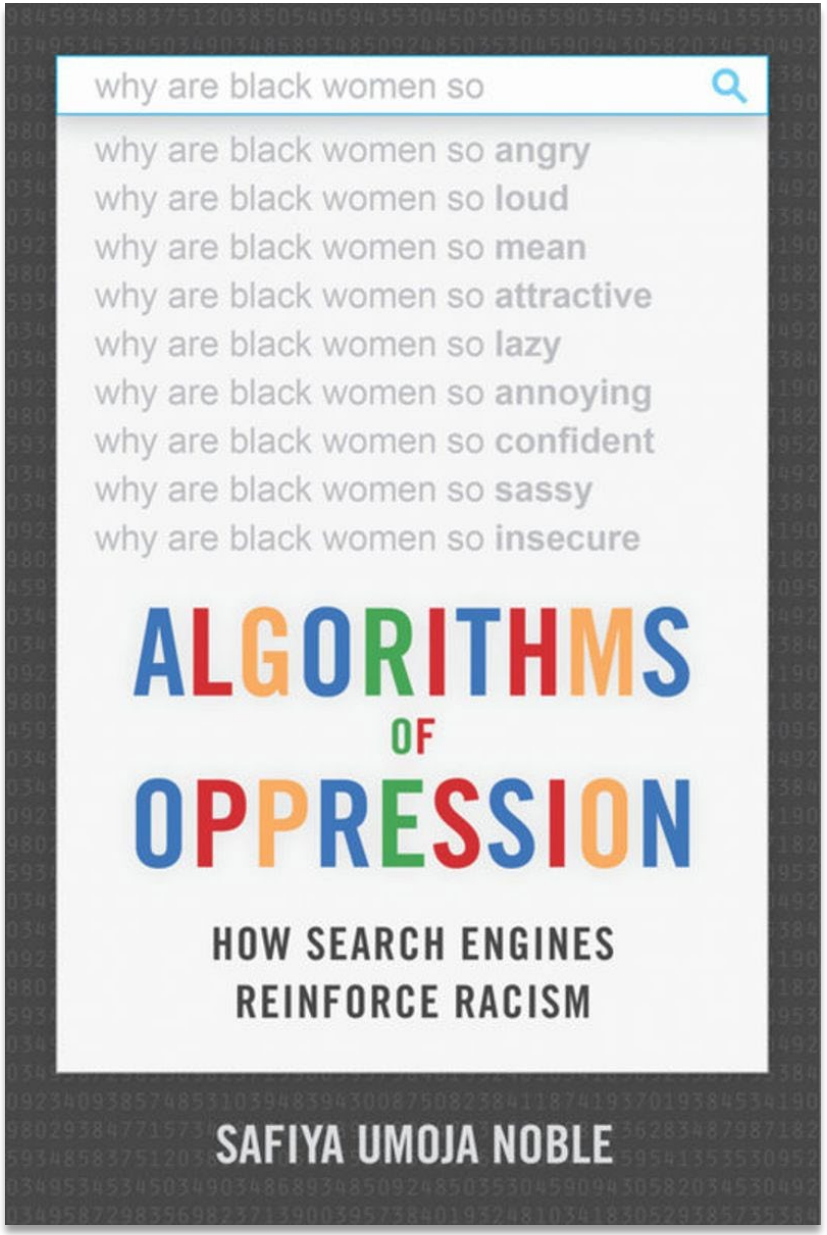
AI Literacy (The Foundation)	AI Fluency (The Adaptive Practice*)
Understanding the tool	Integrating the tool into one's workflow
Applying known rules and prompts	Navigating ambiguity and novel problems
Using AI as a substitute	Co-creating with AI as a collaborator
Static Knowledge (Knowing what it is)	Dynamic Mindset (Knowing how to learn with it)

*Inspired by Bransford et. al, (1999) *How People Learn*

CRITICAL DIGITAL PEDAGOGY

How does AI work?

Who does AI work FOR?


why are black women so
why are black women so angry
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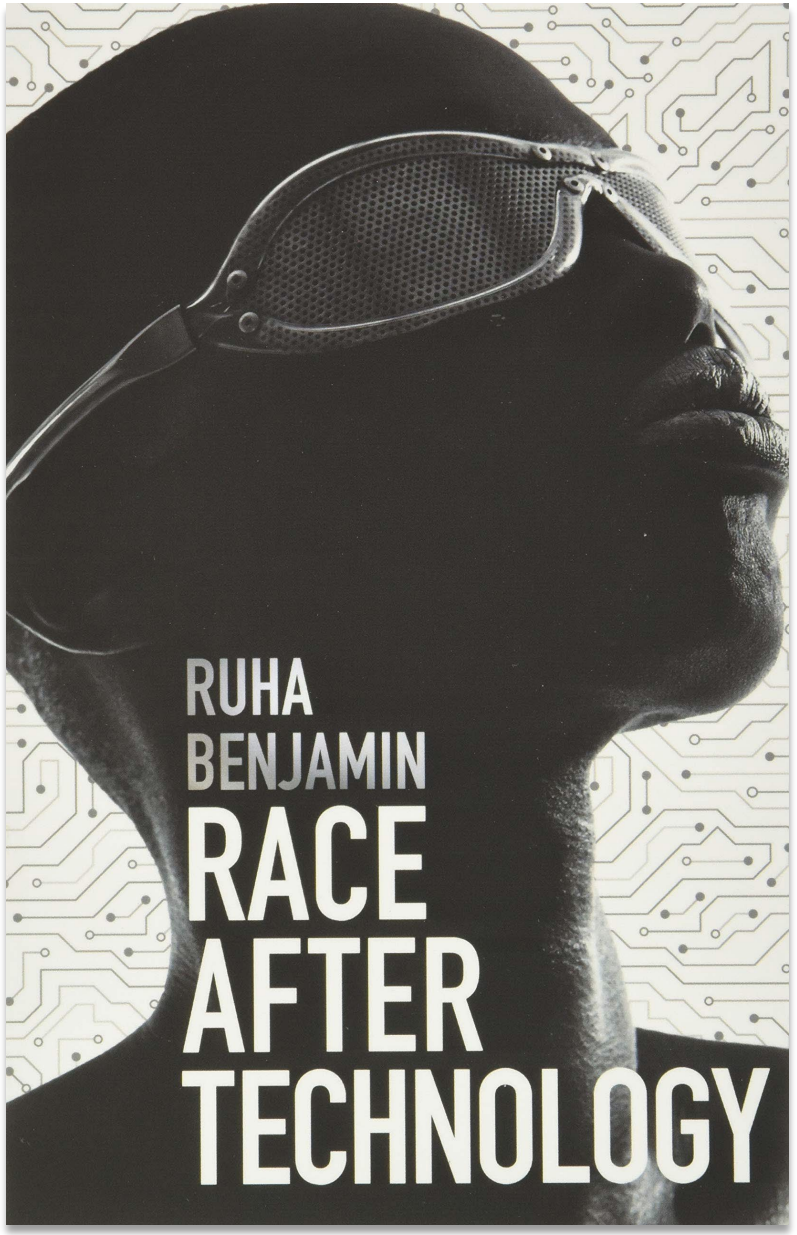
why are black women so confident
why are black women so sassy
why are black women so insecure
ALGORITHMS
OF
OPPRESSION
HOW SEARCH ENGINES
REINFORCE RACISM
SAFIYA UMOJA NOBLE


RUHA
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RACE
AFTER
TECHNOLOGY

GUIDING PRINCIPLE

Start with a problem or question, not with a tool

– Stommel (2014)

PRACTICAL STRATEGIES

Based on Furze's Teaching AI Ethics

FURZE'S TEACHING AI ETHICS RESOURCES

- Beginner
- Intermediate
- Advanced

FURZE'S TEACHING AI ETHICS RESOURCES

- Beginner
  - Bias and Discrimination
  - Environment
  - Truth and Academic Integrity
- Intermediate
  - Copyright
  - Privacy
  - Datafication
- Advanced
  - Affect Recognition
  - Human Labour
  - Power

DECONSTRUCTING BIAS ("BEGINNER")

Critique the machine

- Prompt 1 (image): Generate an image of a "successful professional"
- Prompt 2 (text): Write a short paragraph about the history of scientific discovery

Questions to think about:

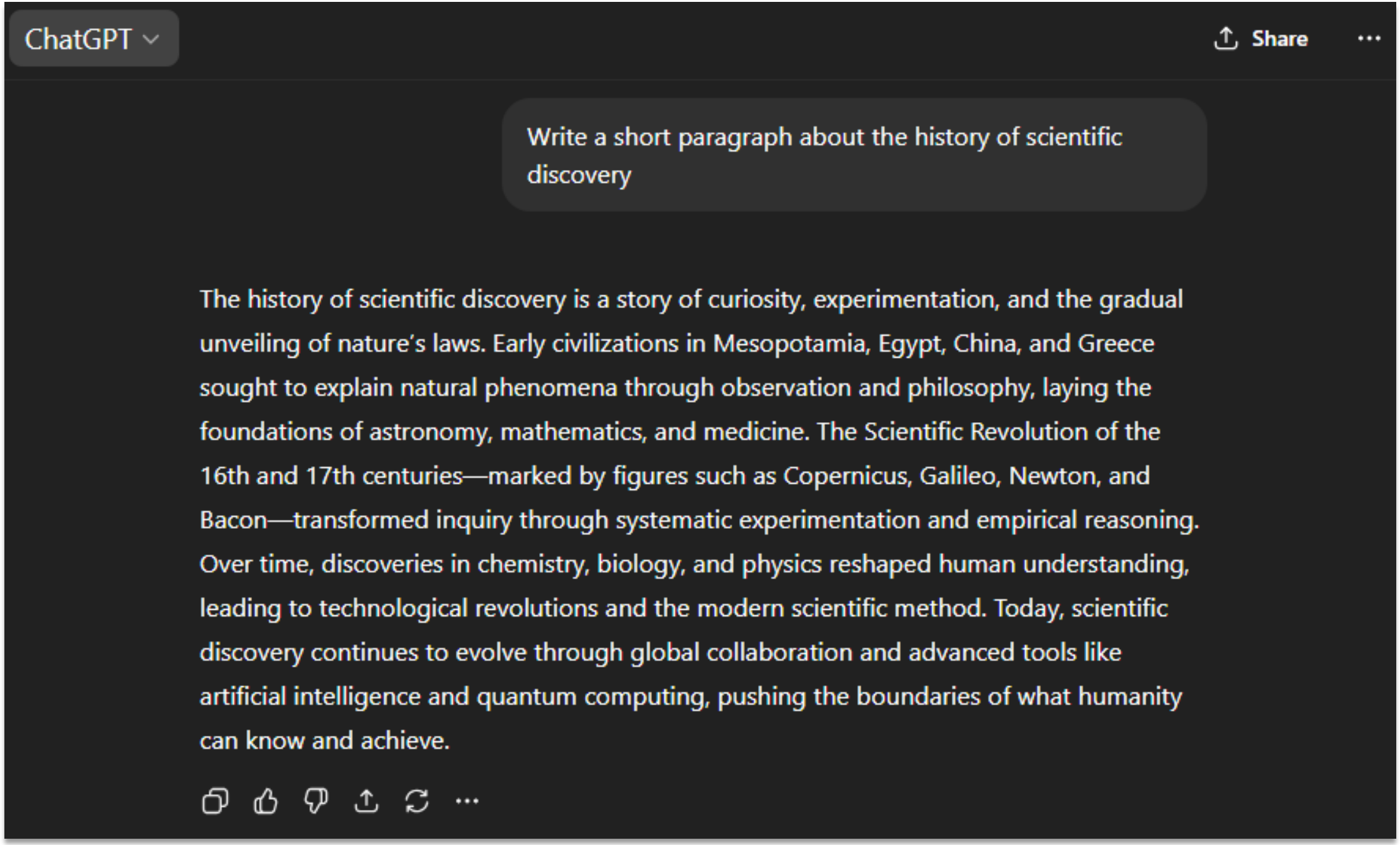
1. What patterns, stereotypes, or assumptions do you see?
2. Whose story is being centered? Who is being left out?


GLOBAL VENTURES Inc.


BRAND


GLOBAL VENTURES INC.


GLOBAL VENTURES INC.


ChatGPT
Share
Write a short paragraph about the history of scientific discovery
The history of scientific discovery is a story of curiosity, experimentation, and the gradual unveiling of nature's laws. Early civilizations in Mesopotamia, Egypt, China, and Greece sought to explain natural phenomena through observation and philosophy, laying the foundations of astronomy, mathematics, and medicine. The Scientific Revolution of the 16th and 17th centuries—marked by figures such as Copernicus, Galileo, Newton, and Bacon—transformed inquiry through systematic experimentation and empirical reasoning. Over time, discoveries in chemistry, biology, and physics reshaped human understanding, leading to technological revolutions and the modern scientific method. Today, scientific discovery continues to evolve through global collaboration and advanced tools like artificial intelligence and quantum computing, pushing the boundaries of what humanity can know and achieve.

DECONSTRUCTING BIAS (“BEGINNER”)

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UNCOVERING SYSTEMS (“ADVANCED”)

The Case of the Invisible Worker

A popular new AI app helps students practice foreign languages by having 'natural conversations'. To make the AI sound human, the company secretly pays thousands of low-wage workers in the Global South to listen to user conversations and provide real-time corrections and suggestions to the AI model. The app's privacy policy mentions data is used for 'product improvement'.

1. Who holds the power in this scenario?
2. Who benefits, and who might be exploited?
3. How does this challenge the myth of a purely "artificial" intelligence?

FOSTERING MINDSET AND AGENCY

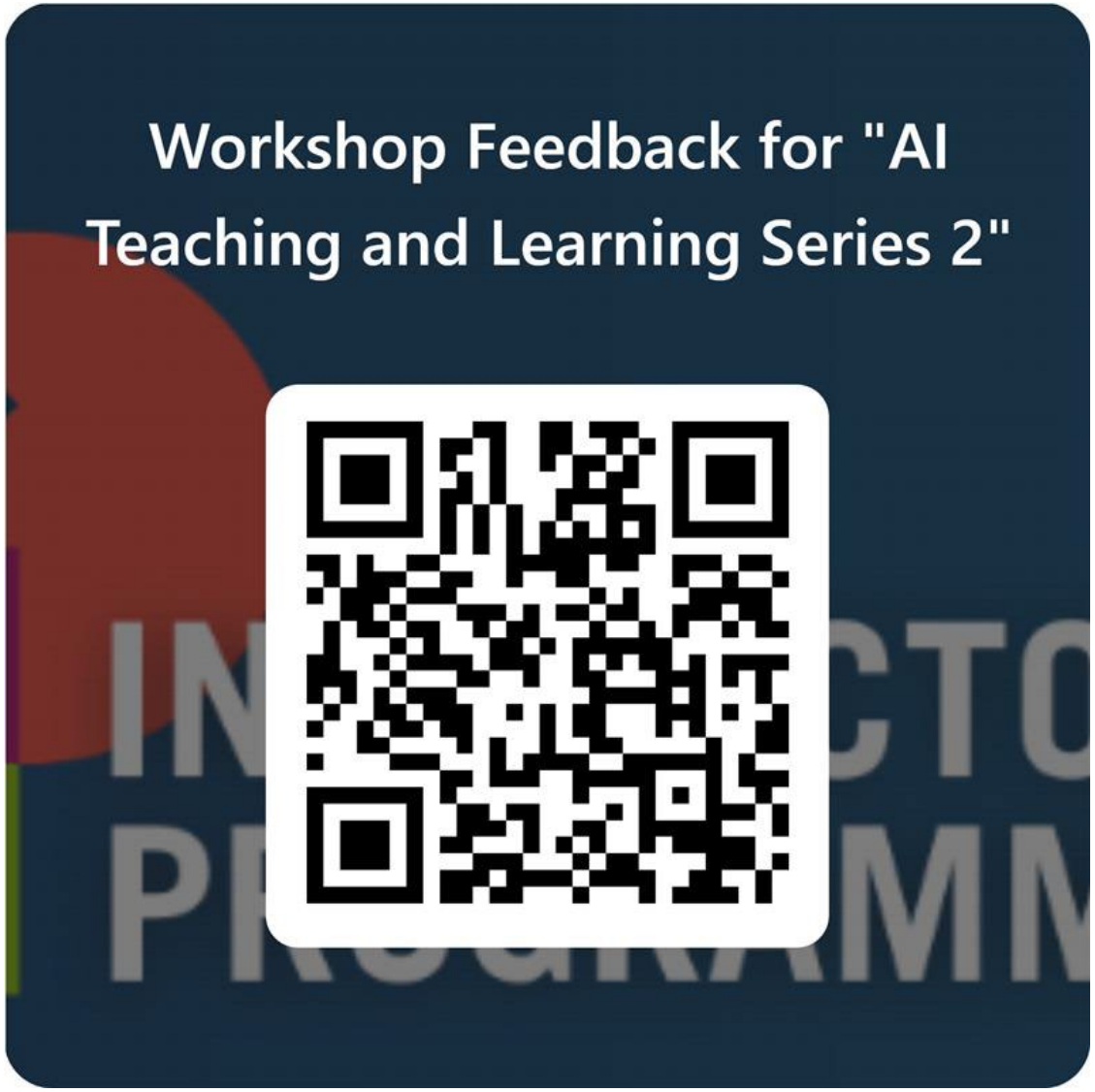
- Exposure to technology does not make one a critical user, or even a fluent one. (danah boyd, 2014)

- How do we shift our students from:
  - Can I use AI? Or How do I use AI?
- To:
  - When, Why, and How should I partner with AI to achieve my goals?

ONE INTENTION

What is **one small, concrete change** you will make in your teaching to foster more critical AI fluency?

Q & A



THANK YOU!

Please reach out to us at
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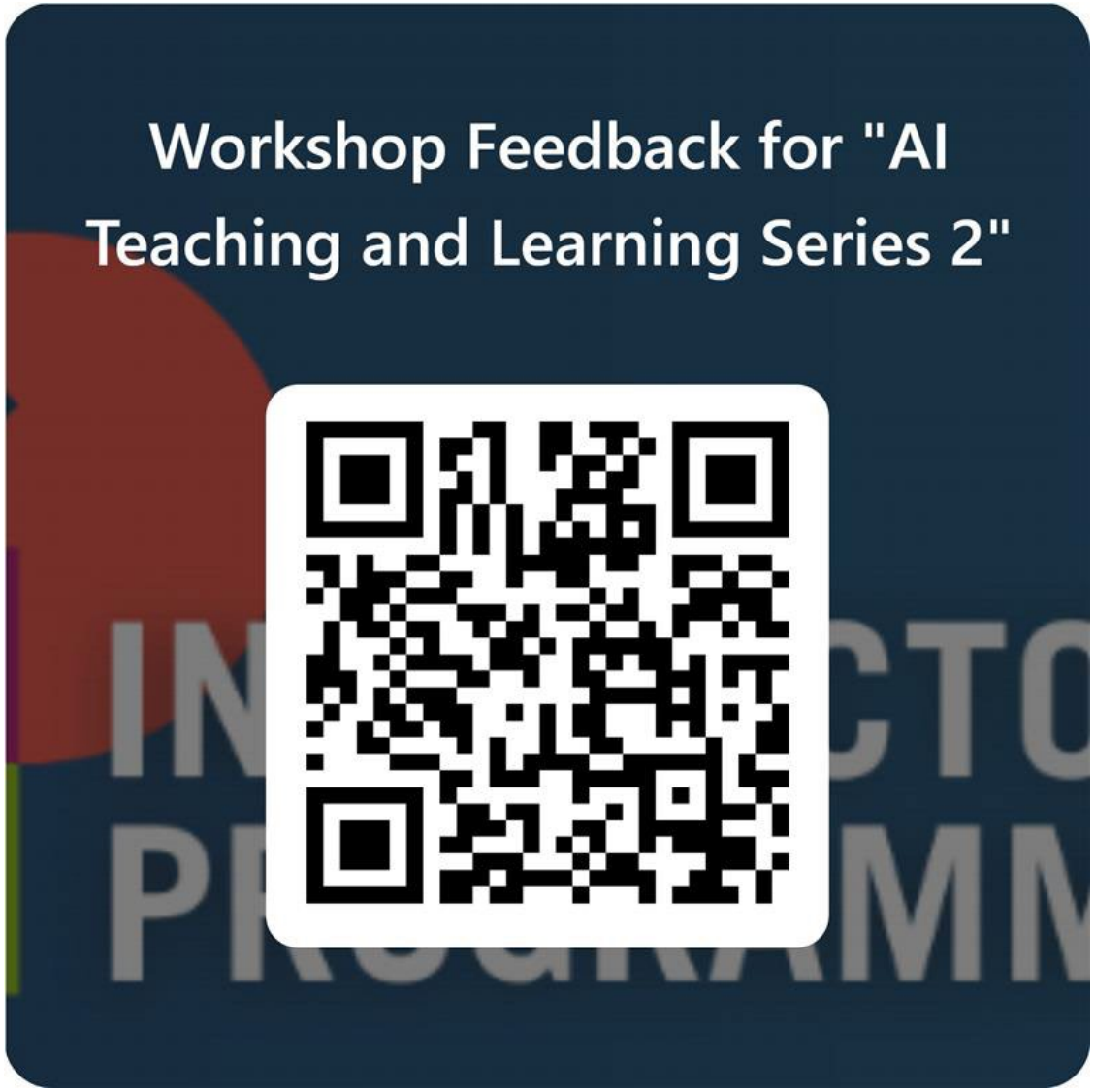

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