

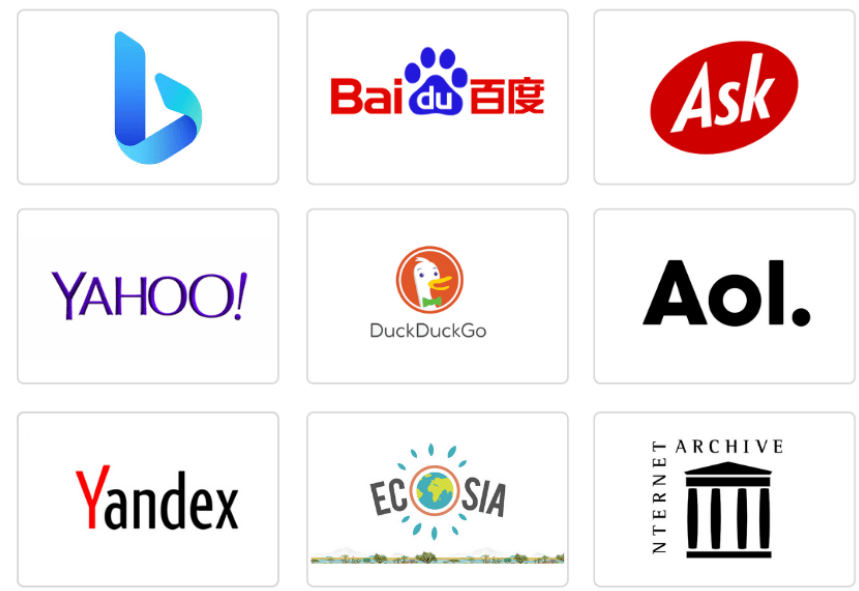
# How to make **AI** an **ally** in teaching?

Madhav P. Thakur  
Institute of Ecology & Evolution  
University of Bern



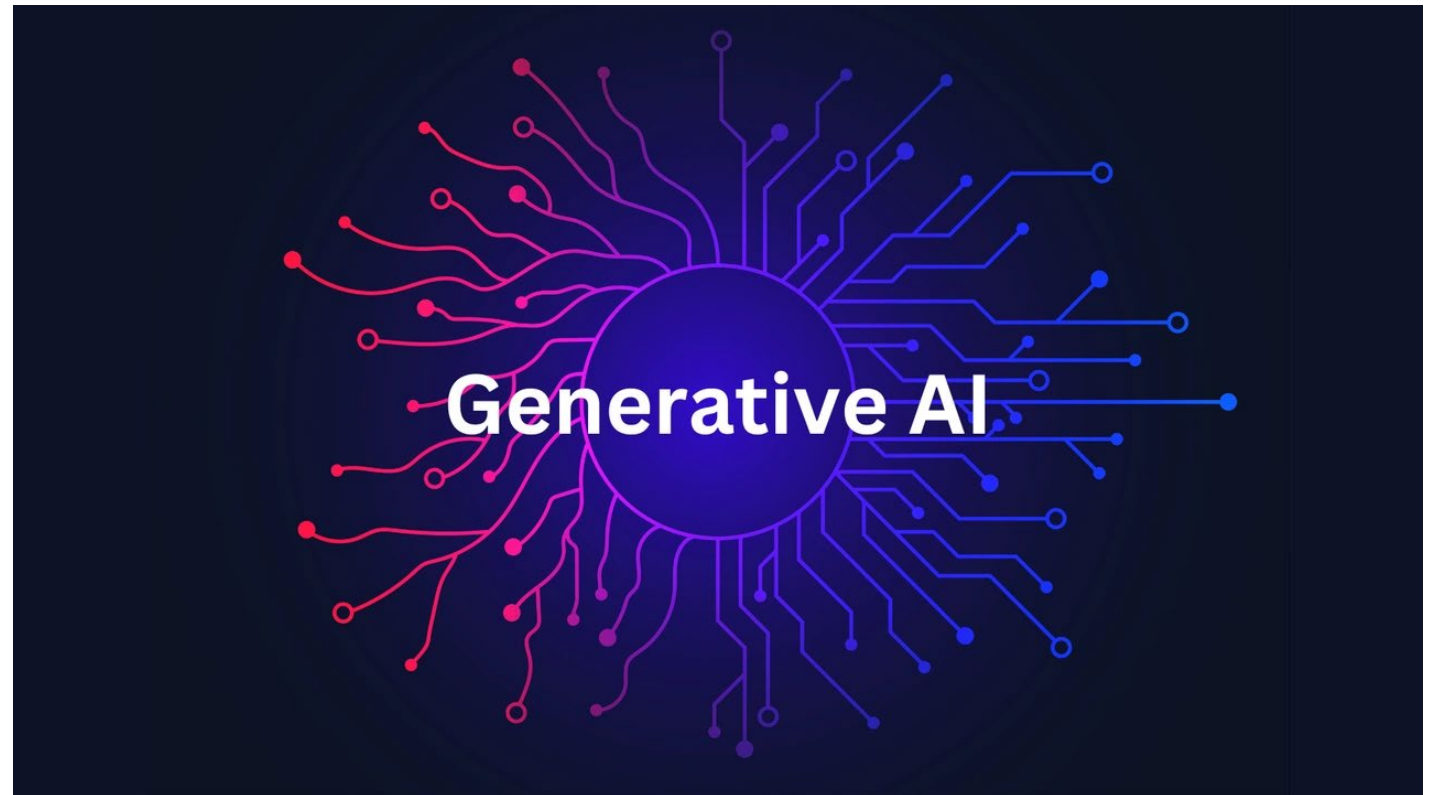
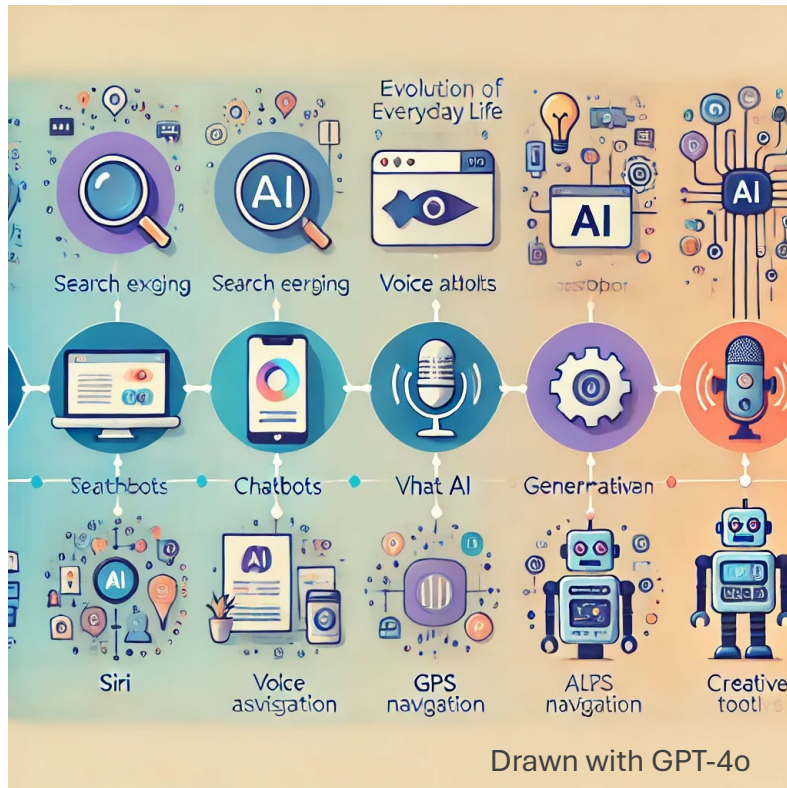
# AI has been an ally for some time....

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Google Maps

# The 'ally' has evolved...



*u<sup>b</sup>*

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Is a call for a shift from isolated  
(design) thinking to holistic,  
interconnected systems!!

# Design for the New World



Ida Engholm

u<sup>b</sup>

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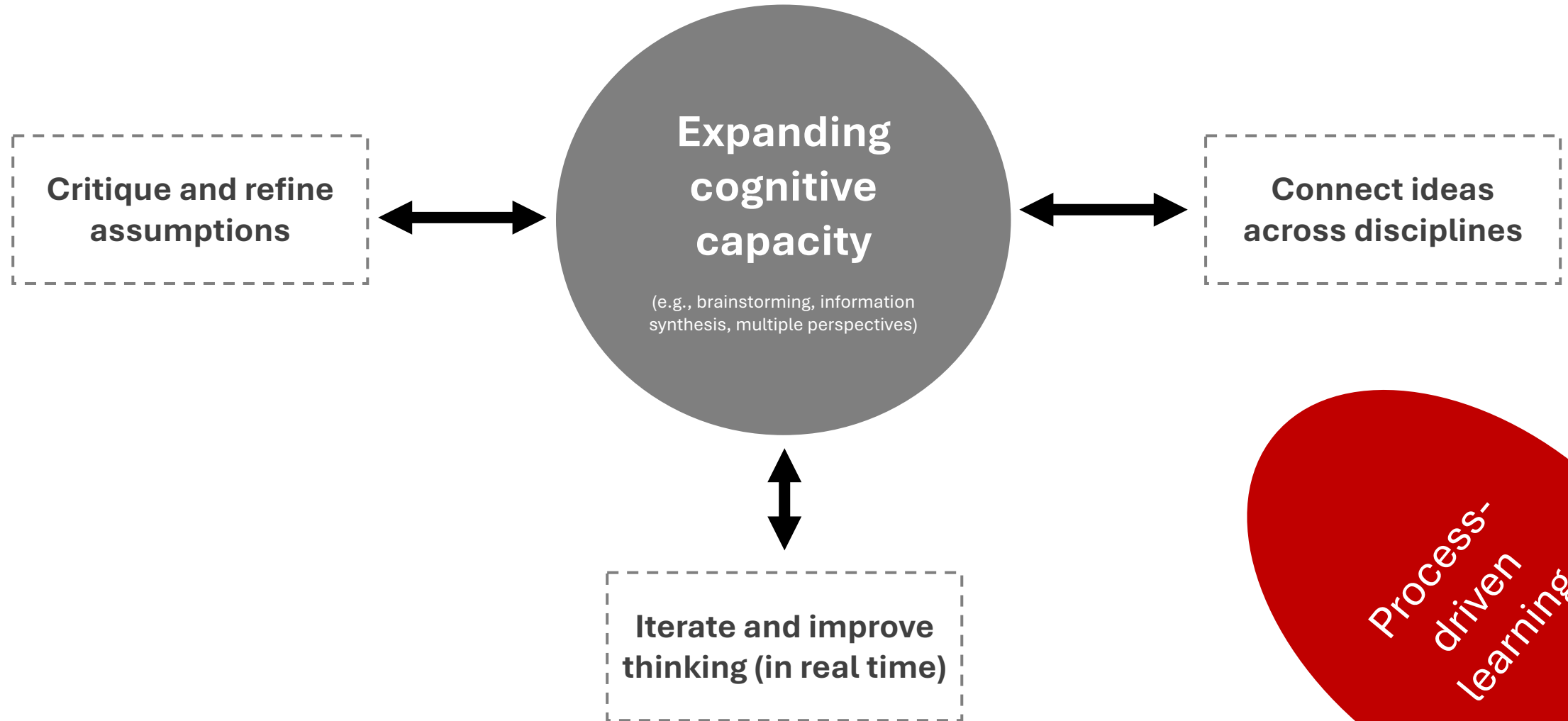
Can we stop seeing AI as a tool that exists outside of learning and instead integrate it into a broader, regenerative approach—one that helps students engage deeply with complex problems?

# Design for the New World



Ida Engholm

# (Re)generative AI as a Tool for Critical Thinking



# (Re)generative AI in my class

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## Climate change ecology

**Phenology Lecture**

**Feb 27, 2024**

**Maddy Thakur**

[madhav.thakur@unibe.ch](mailto:madhav.thakur@unibe.ch)

# (Re)generative AI in my class

## Key research gaps

**Winter warming effects on phenology are very little known.**

**Phenology data in various geographic regions (including many climate change sensitive regions like Arctic) are lacking.**

**Underlying mechanisms for phenological shifts remain understudied.**

**Eco-evolutionary consequences of phenological shifts and subsequent mismatches have rarely been studied.**

Ask GPT



Arctic Ground Squirrel



# (Re)generative AI in my class

## Key research gaps

Which of the research gaps are most pressing?

Challenge GPT!

Keep challenging!!

Collectively discuss agreements and disagreements.

Ask GPT



Arctic Ground Squirrel

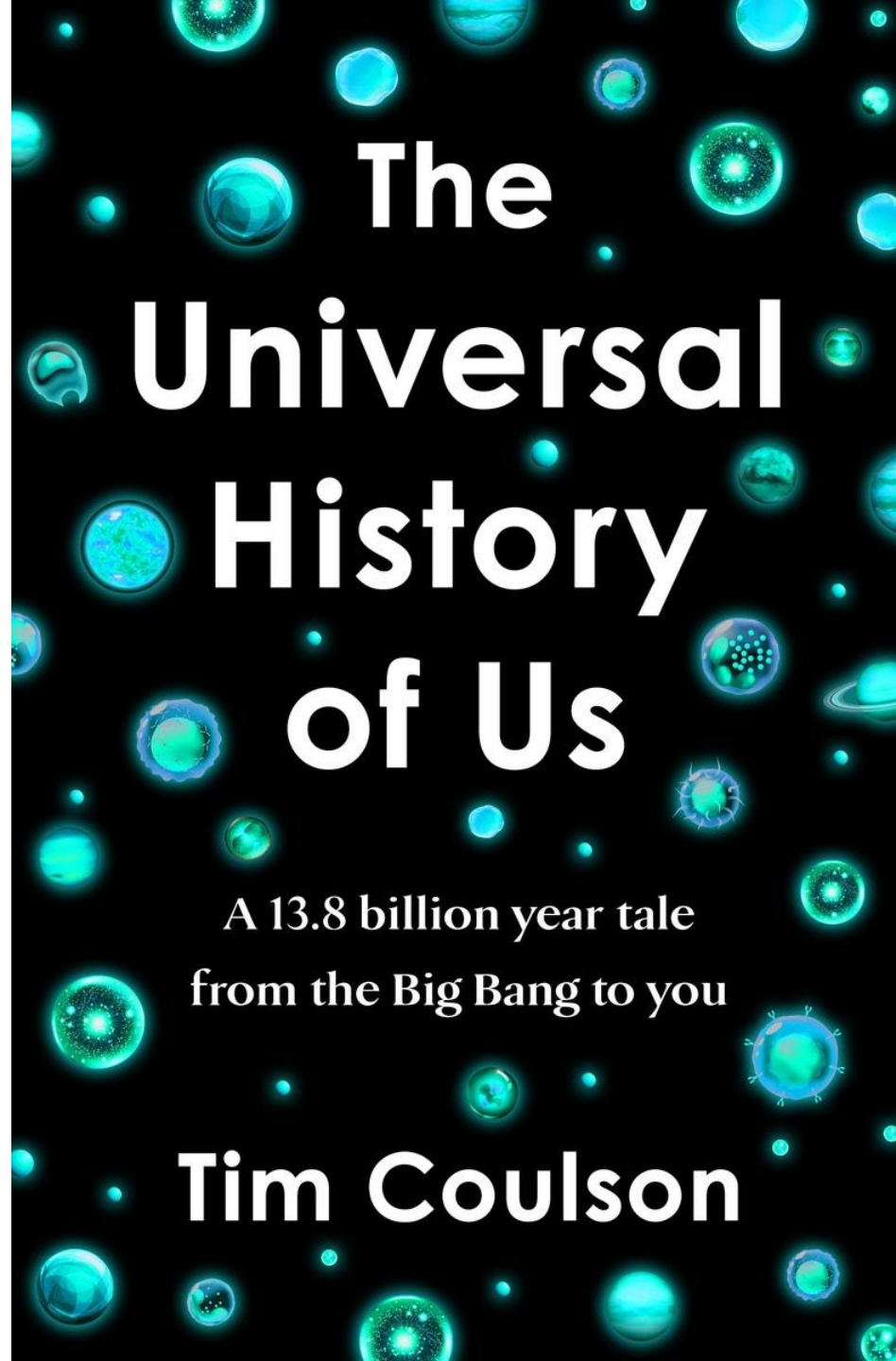
## (Re)generative AI as a reliable ally

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“We teach students to answer questions; perhaps we should teach them to ask questions too!”

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# The Universal History of Us

A 13.8 billion year tale  
from the Big Bang to you

**Tim Coulson**

# (Re)generative AI as a reliable ally

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If we embrace AI as a thinking partner and adopt process-driven learning, we can equip students with the most important skills of all: the ability to question, synthesize, and challenge the paradigms of their time.



Drawn with DALL-E