

Purpose in the Age of AI

Day 6

Nick Zufelt

Life on a Star 2025



Slides!



In the Car / Engine / Piston analogy, who is the driver?

Will hallucinations become less frequent as future versions of AI are released?

How do we protect against the gravitational pull to use AI for everything?

Why do you (Nick) address AI as "you"?
(Might cause confused roles...)

How to practice "good" ways of using AI alongside our children?

How can we use AI to give ourselves time back to do the things we love?

How do we create meaning and connection en masse, in a world that will be increasingly shaped by AI?

In the Car / Engine / Piston

Will hallucinations become less frequent
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AI Supporting
Your Work

AI Supplanting
Your Work

Nick's (personal)
AI Use



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(Might cause confused roles...)

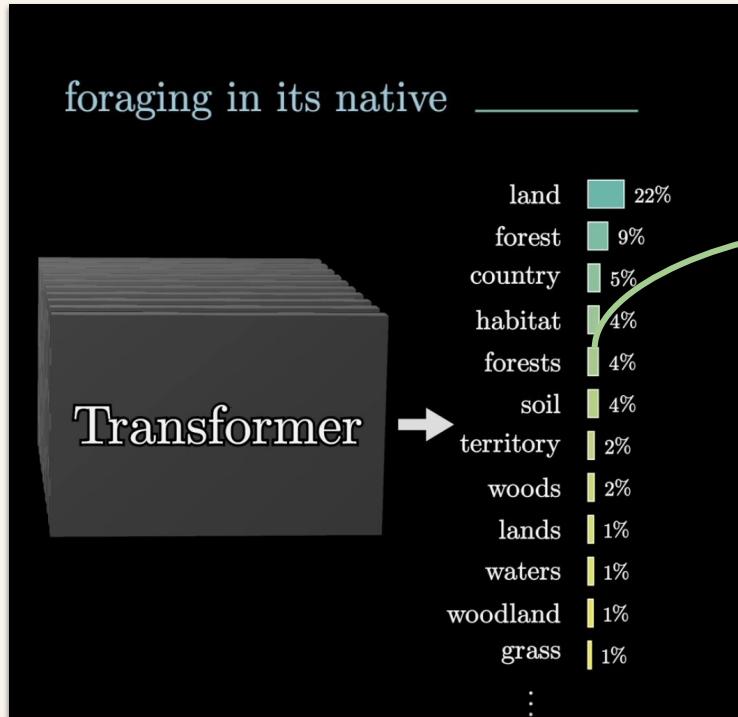
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Can generative AI lie?

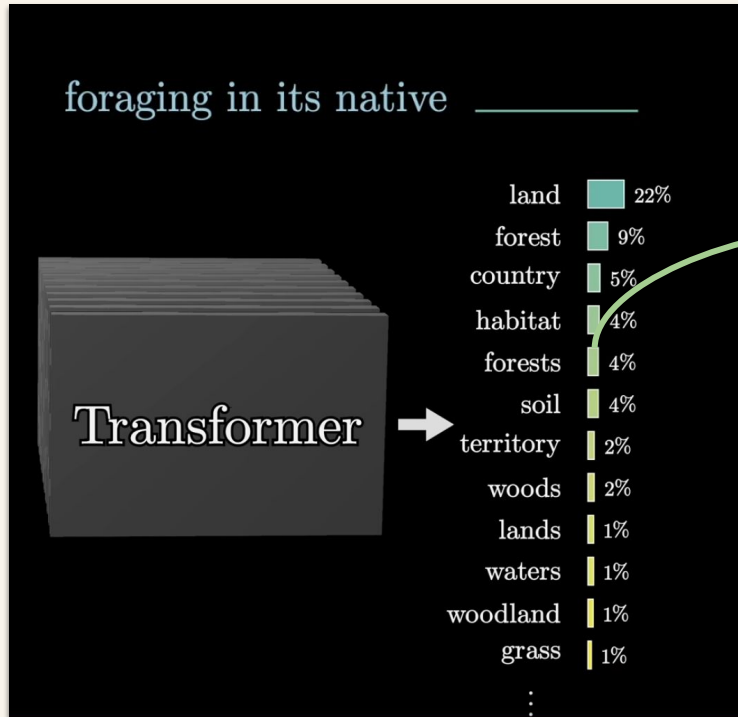
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“forests”

AI uses its understanding of language (from its **Training Corpus**) to determine how to extend its **Context** to a new word (or token) by constructing a **Distribution** of possible extensions, from which it **Samples**.

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$$x^2 - 8 = 0$$

$$x = \pm\sqrt{8}$$

$$x = \pm 2.8284$$

Do the
algebra

Calculator

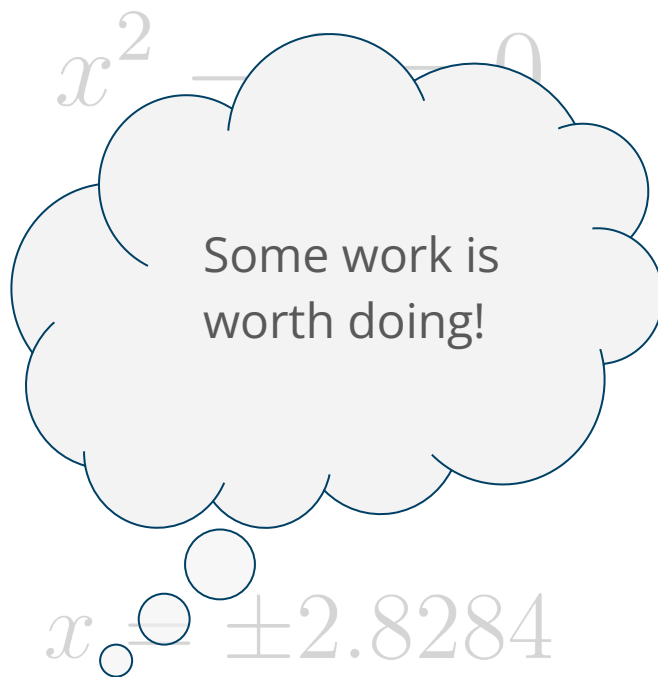
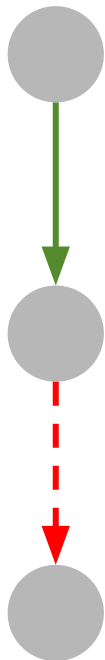


Wolfram
Alpha



Do the
algebra

Calculator



← Why? →

Wolfram
Alpha



Making Things Hard on Yourself, But in a Good Way: Creating Desirable Difficulties to Enhance Learning

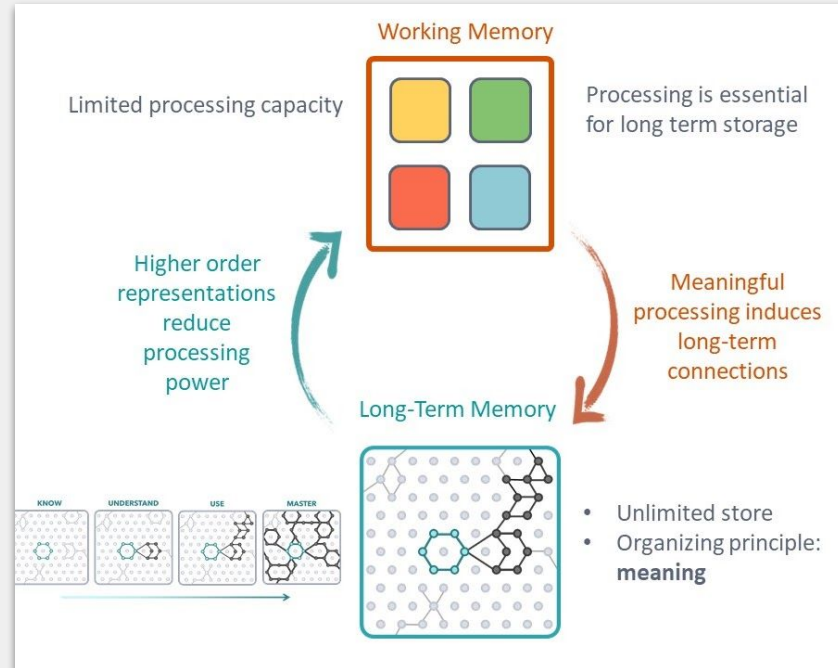
Elizabeth L. Bjork and Robert Bjork

University of California, Los Angeles

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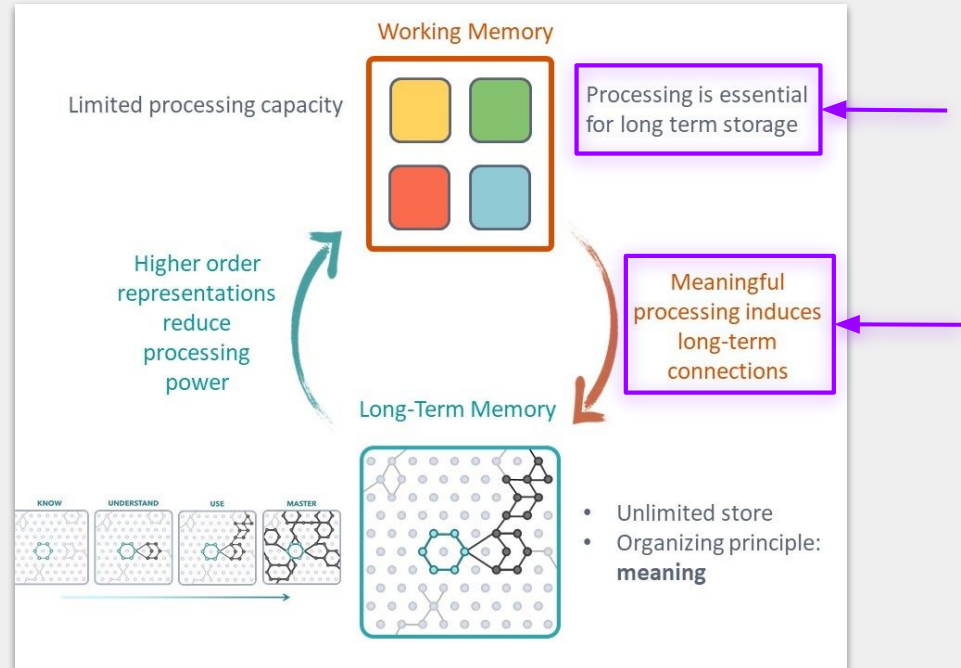
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Let's Judge Nick!

Nick and "AI and Purpose"

Absolutely. Here's a brainstorm of ~20 potential topics for conversation in your planning meeting. They connect especially drawing from your strength in education and philosophical, and economic questions.

AI & the Meaning of Human Work

1. What is human work *for* when AI can do it?
(Exploring automation, dignity, and the evolving nature of work)
2. From mastery to meaning: Reframing education

Nick and "True Dimensional Complexity"

I have a concept I'd like to explore with you. It goes like this: with hand-written digit detection, one of my favorite demos to show students is to say "it's clearly less than 64-dimensional, because we can do it based on pixels, but PCA or even t-SNE demonstrates that it's considerably less". I think I remember it being something like 14-dimensions explaining essentially all the variance. Sometimes, there's even a graphical interpretation that can be done, where you analyze "one of these 14 dimensions" to realize it's something like "the looped-ness or straight-ness of the digit", and another might be "the aspect ratio of the digit". Similarly, BERT is 768-dimensional, suggesting that "understanding the nuanced meanings of the English language" is a few orders of magnitude more complicated than hand-written digit detection. GPT-3 is something in the 10,000's, suggesting that understanding longer responses is at that dimensionality. We might call this concept "true-dimensional complexity", meaning the number of dimensions the data "really"



comfortable with the tasks?



I don't know



Student
response



That's perfectly fine! Let me explain.

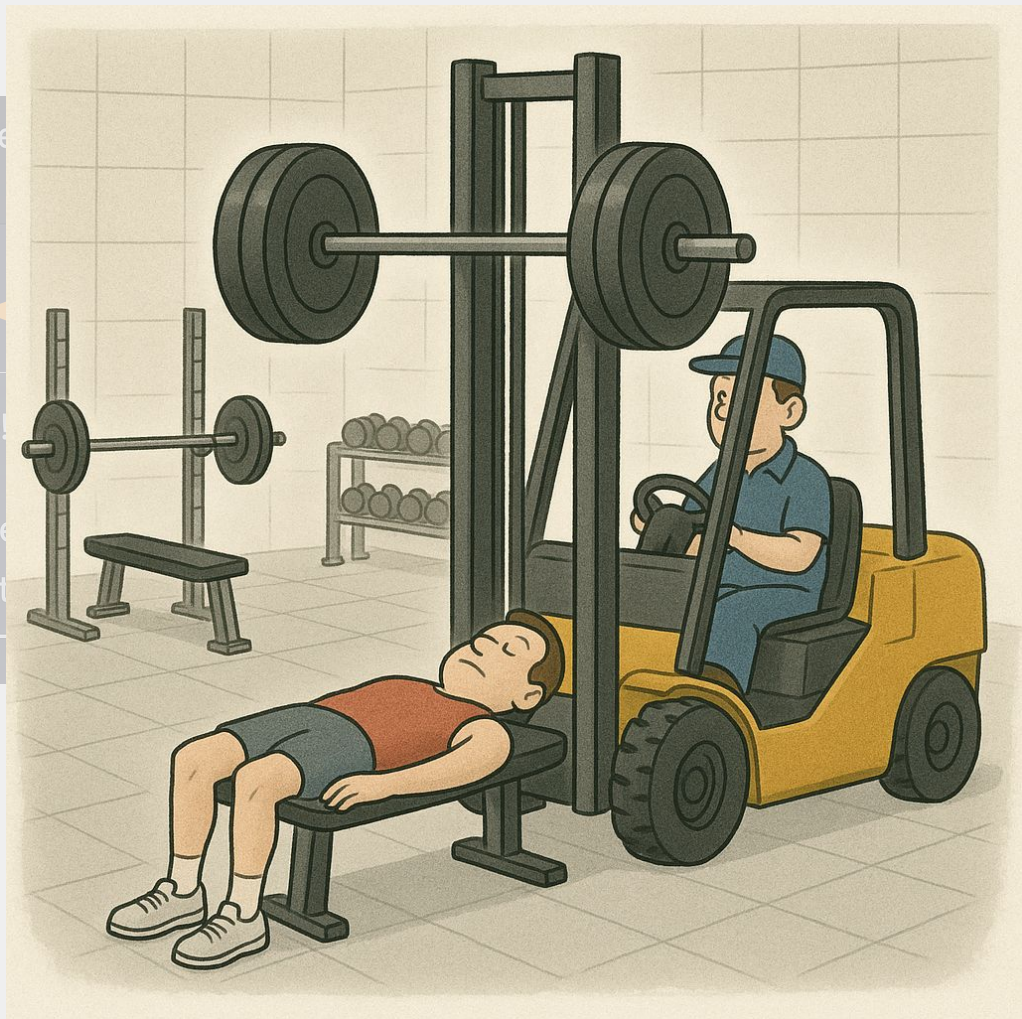
As a student becomes more comfortable and proficient in handling a task or a concept, the teacher gradually reduces the amount of guidance provided. This process is often called “fading” in the

comfortable with the

I don't know

That's perfectly fine!

As a student becomes
a task or a concept, the
guidance provided.



***"I really like writing,"** she said, sounding strangely nostalgic for her high-school English class — the last time she wrote an essay unassisted. "Honestly," she continued, "I think there is beauty in trying to plan your essay. You learn a lot. You have to think, Oh, what can I write in this paragraph? Or What should my thesis be?"*

James Walsh, Intelligencer

Source: [Rampant AI Cheating Is Ruining Education Alarmingly Fast](#)



"I really like writing," she said, sounding strangely nostalgic for her high-school English class — the last time she wrote an essay unassisted. *"Honestly,"* she continued, *"I think there is beauty in trying to plan your essay. You learn a lot. You have to think, Oh, what can I write in this paragraph? Or What should my thesis be?"* **But she'd rather get good grades.** *"An essay with ChatGPT, it's like it just gives you straight up what you have to follow. **You just don't really have to think that much.**"*

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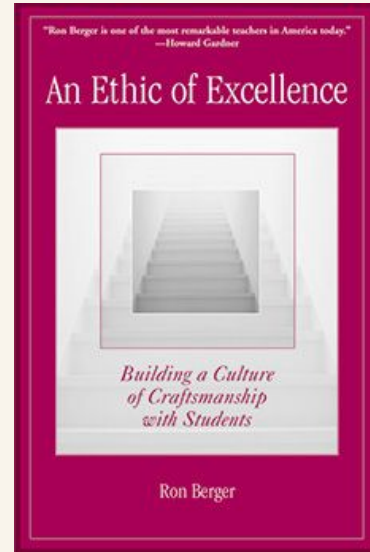


[Redacted: Slide internal to Andover, displaying 6 common uses for grading]

If you're going to do something, I believe you should do it well. You should sweat over it and make sure it is strong and accurate and beautiful and you should be proud of it.

Ron Berger

Source: [An Ethic of Excellence](#)



How we spend our days is, of course, how we spend our lives.

What we do with this hour, and that one, is what we are doing. A schedule defends from chaos and whim. It is a net for catching days. It is a scaffolding on which a worker can stand and labor with both hands at sections of time. A schedule is a mock-up of reason and order—willed, faked, and so brought into being; it is a peace and a haven set into the wreck of time; it is a lifeboat on which you find yourself, decades later, still living. Each day is the same, so you remember the series afterward as a blurred and powerful pattern.

Annie Dillard
The Writing Life