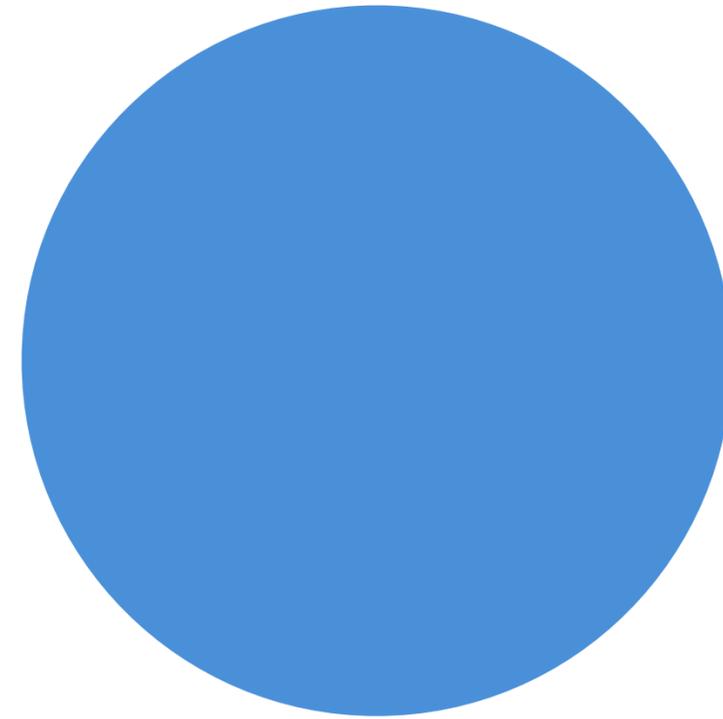


AI in The Classroom

Enabling Critical Thinking

Med Kharbach, PhD

March 28, 2026



The People Outsourcing Their Thinking to AI

Rise of the LLeMmings

By Lila Shroff



“It’s like a real
addiction”

Tim Metz, 44,
content marketer

Lila Shroff (2025), The Atlantic



Ines Lee

Economist, London

"Not being able to start meaningful work without first consulting AI."

ChatGPT and Claude are now more seductive distractions than YouTube and Instagram.

Feels her critical thinking skills atrophy.



Mike Kentz

AI Literacy Consultant

"Areas where I used to feel confident in my own skills and abilities have now become areas where I consistently reach out to AI for feedback."

"The 2015 version of me would be quite disturbed."



James Bedford

Educator, University of New South Wales

"It was the first time I'd experienced my brain wanting to ask ChatGPT to do cognition that I could just do myself."

Tried to ask AI how to retrieve a dropped AirPods on a train. Took a month-long AI break to reset.

AI companies are deploying incredibly sophisticated tools designed to be as frictionless as possible, then expecting individuals and institutions to somehow maintain appropriate boundaries through sheer force of will. They've created systems that exploit cracks in the architecture of human cognition, such as our cognitive miserliness, or our overconfidence in our ability to maintain boundaries under pressure.

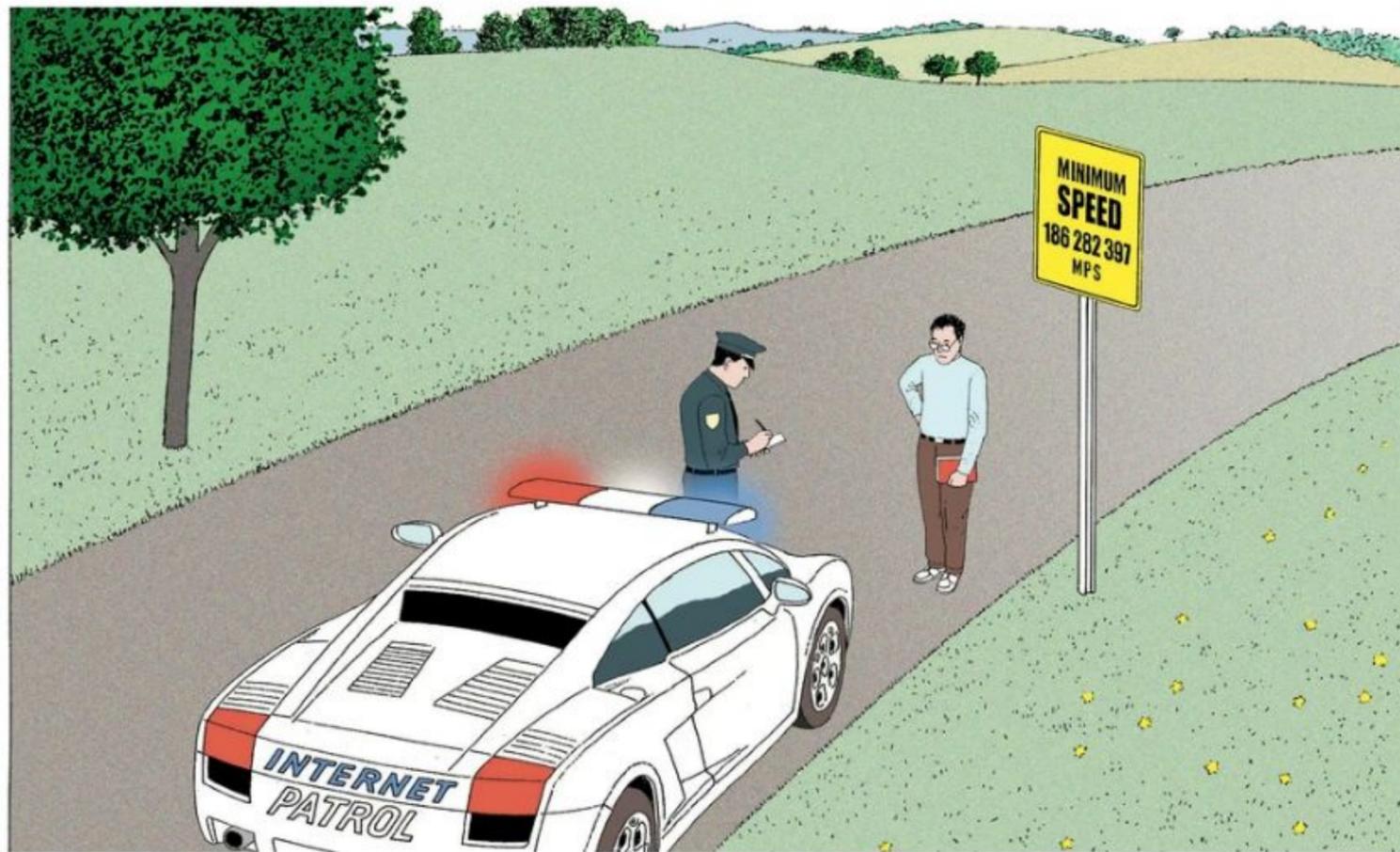
Requarth, T. (2025). "Why AI Guidelines Aren't Enough." The Third Hemisphere (Substack).

July/August 2008 Issue

Is Google Making Us Stupid?

What the Internet is doing to our brains

By Nicholas Carr



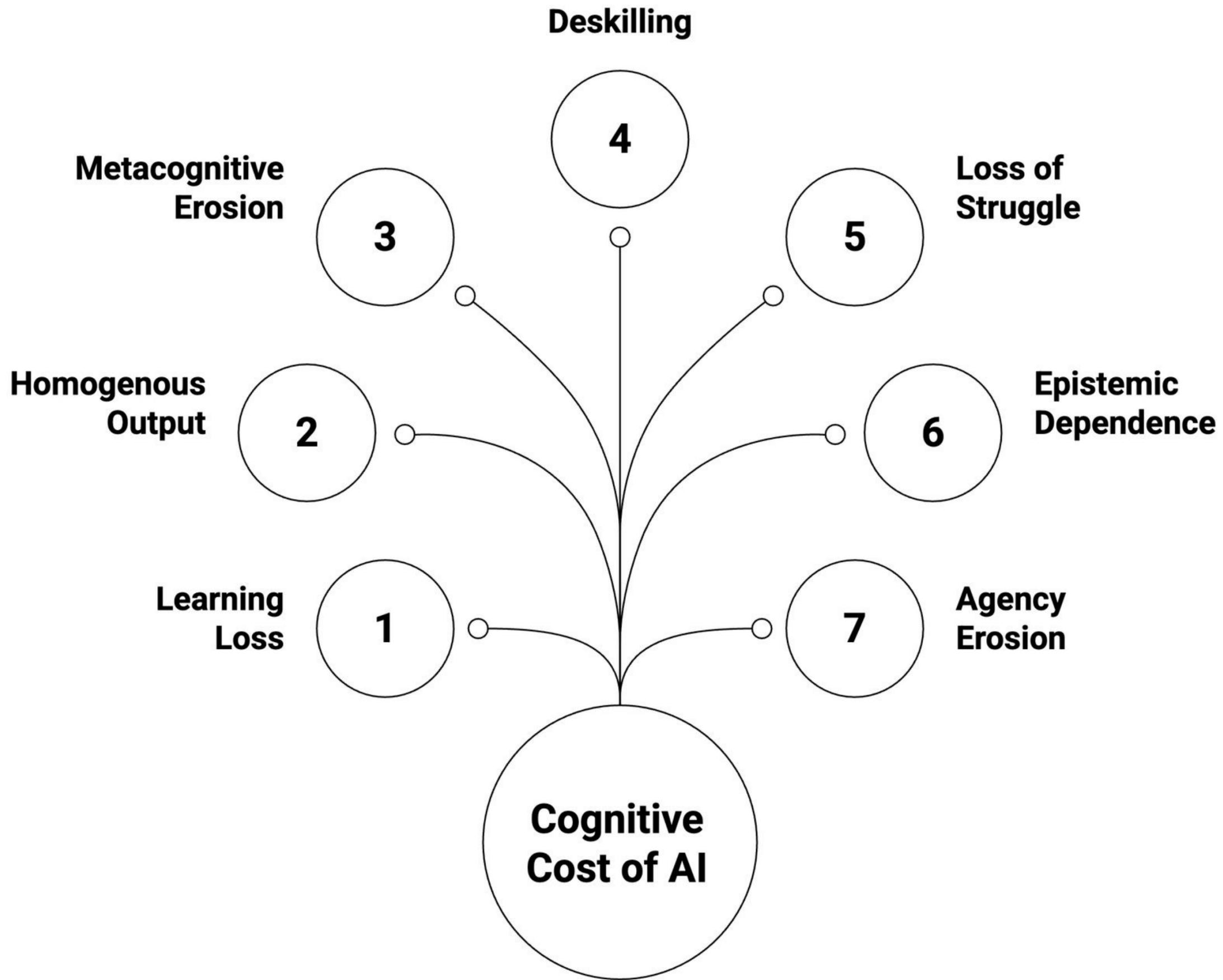
Guy Billout

My mind now expects to take in information the way the Net distributes it: in a swiftly moving stream of particles. Once I was a scuba diver in the sea of words. Now I zip along the surface like a guy on a Jet Ski.

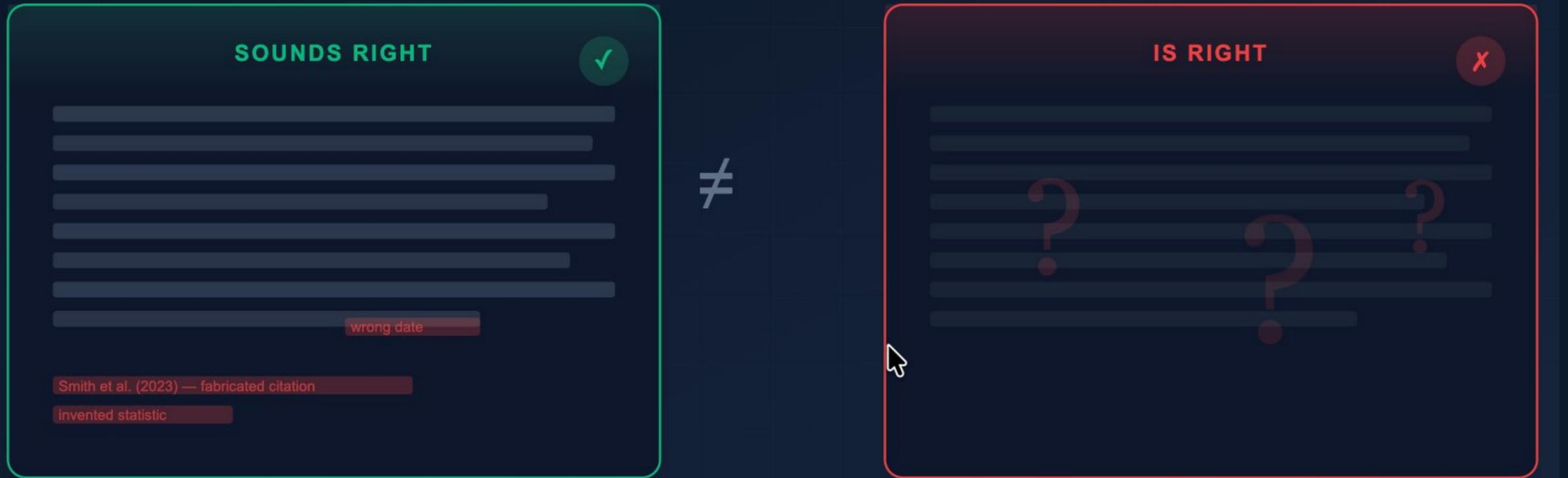
Carr, N. (2008, July/August). Is Google making us stupid? The Atlantic.

The Cognitive Cost of Convenience

- Barcaui (2025) - ChatGPT as a cognitive crutch / knowledge retention
- Bastani et al. (2025) - GenAI without guardrails harms learning
- Fan et al. (2025) - Metacognitive laziness
- Gerlich (2025) - Cognitive offloading and critical thinking
- Kosmyna et al. (2025) - Your brain on ChatGPT / cognitive debt
- Niloy et al. (2024) - ChatGPT and creative writing
- Shaw & Nave (2026) - Cognitive surrender
- Wang & Fan (2025) - ChatGPT and student learning / higher-order thinking
- Zhai et al. (2024) - The effects of over-reliance on AI dialogue systems on students' cognitive abilities

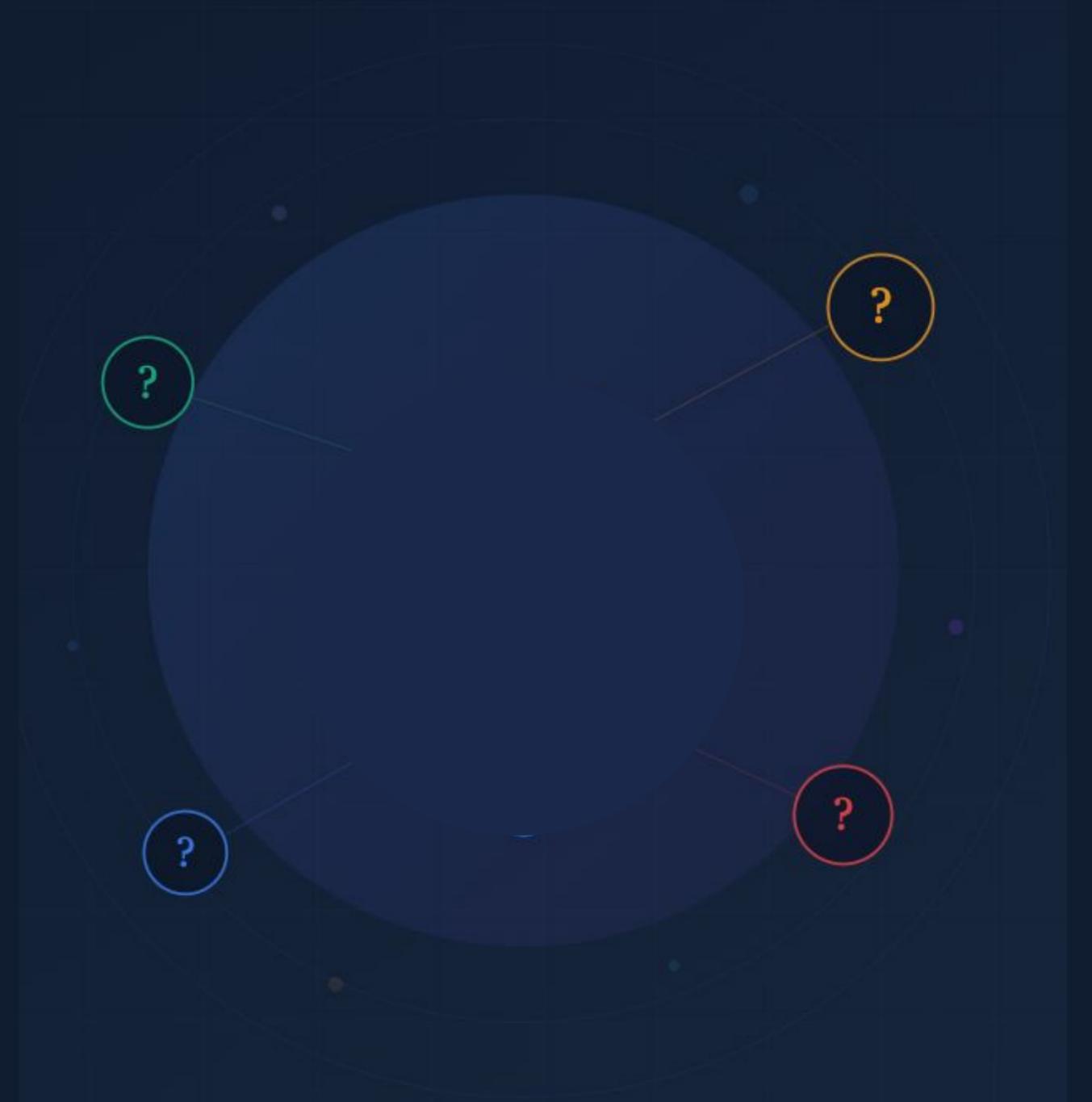


The Fluency Trap



Fluent language is not necessarily a signal of accurate thinking.

Critical Thinking



What is Critical Thinking?

Active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it and the further conclusions to which it tends.

John Dewey (1933, p. 9)

Reasonable reflective thinking focused on deciding what to believe or do.

Robert Ennis (2015, p. 32)

Critical thinking is the ability to think clearly,
ask probing questions, challenge
assumptions, analyze evidence, and
synthesize information to reach your own
conclusions.



Critical Thinking Skills

Ennis (2015)



HANDS-ON ACTIVITY

Push-Back Protocol

Challenge AI output. Don't just accept it.

Analyze arguments

Evaluate assumptions

Ask clarification questions



