Asian Actuarial Conference 2025 Bangkok

AI and Actuarial Science:
A Synergistic Future

14 Nov | 09:00 – 09:40

James Guszcza, PhD FCAS

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AI and actuarial science

A synergistic future

James Guszcza, PhD, FCAS

Asian Actuarial Conference

Bangkok

November 2025

AI is ...

AI is the new electricity.

— *Andrew Ng*

AI is an ideology, not a technology.

— *Jaron Lanier and Glen Weyl*

AI as Normal Technology

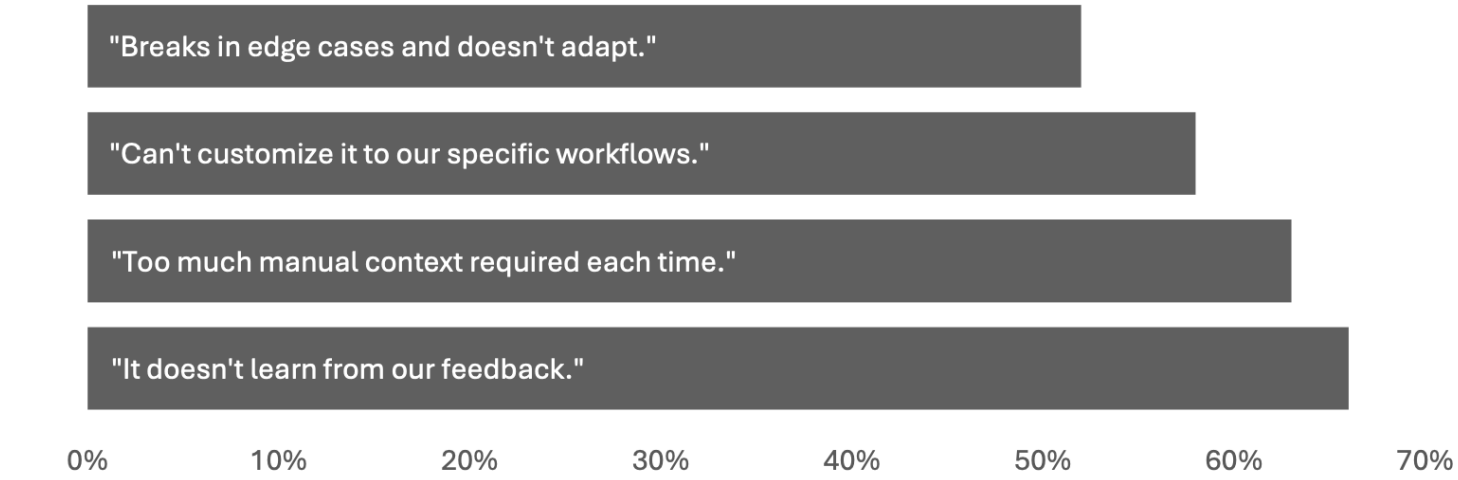
An alternative to the vision of AI as a potential superintelligence

BY ARVIND NARAYANAN & SAYASH KAPOOR
APRIL 15, 2025

The GenAI Divide
STATE OF AI IN BUSINESS 2025

Despite $30–40 billion in enterprise investment into GenAI, this report uncovers a surprising result in that 95% of organizations are getting zero return.

Most fail due to brittle workflows, lack of contextual learning, and misalignment with day-to-day operations.



AI is an ideology, not a technology

> OpenAI's mission is to ensure that artificial general intelligence (AGI)—by which we mean highly autonomous systems that outperform humans at most economically valuable work—benefits all of humanity.

The company's mission statement was "solve intelligence", and then use it to solve everything else

TECH · A.I.

DeepMind co-founder Mustafa Suleyman warns AI is a 'fundamentally labor replacing' tool over the long term

BY WILL DANIEL
January 17, 2024 at 11:27 PM GMT+1

The slovenliness of our language makes it easier to have foolish thoughts.

— *George Orwell*

Apr 22, 2025 - Technology

Exclusive: Anthropic warns fully AI employees are a year away

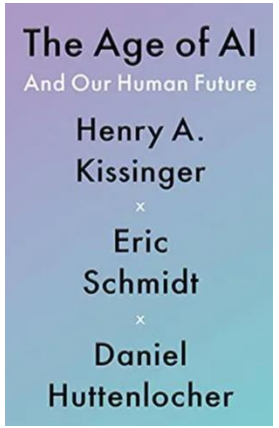
Google Engineer Claims AI Chatbot Is Sentient

If A.I. Systems Become Conscious, Should They Have Rights?

As artificial intelligence systems become smarter, one A.I. company is trying to figure out what to do if they become conscious.

By Kevin Roose
Reporting from San Francisco

April 24, 2025



"The advent of AI obliges us to confront whether there is a form of logic that humans have not achieved or cannot achieve, exploring aspects of reality we have never known and may never directly know.

A change in perspective is worth 80 IQ points.

— Alan Kay

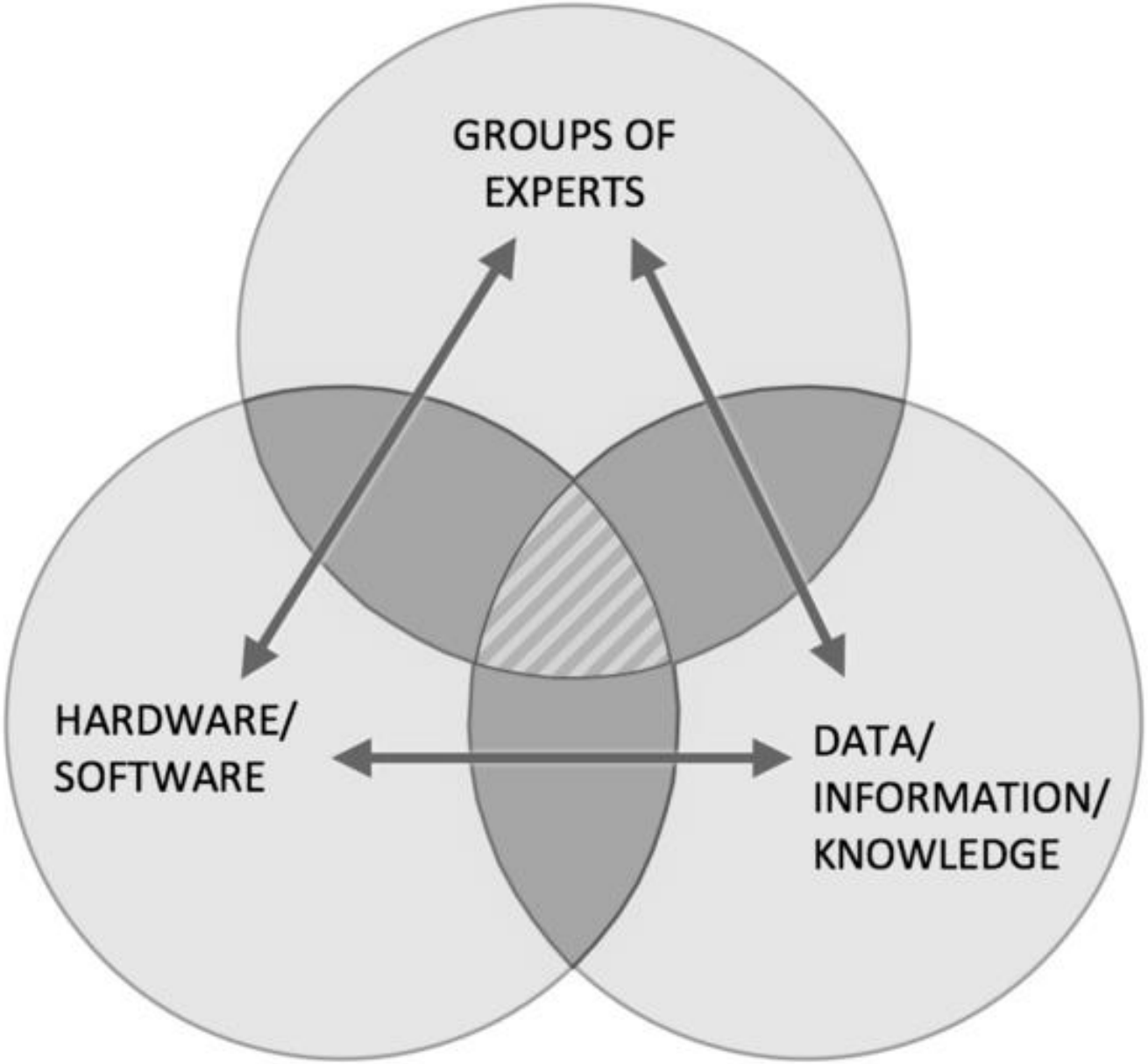
THE LOGIC THEORY MACHINE
A COMPLEX INFORMATION PROCESSING SYSTEM

by

Allen Newell and Herbert A. Simon

P-868

June 15, 1956



COLLECTIVE INTELLIGENCE

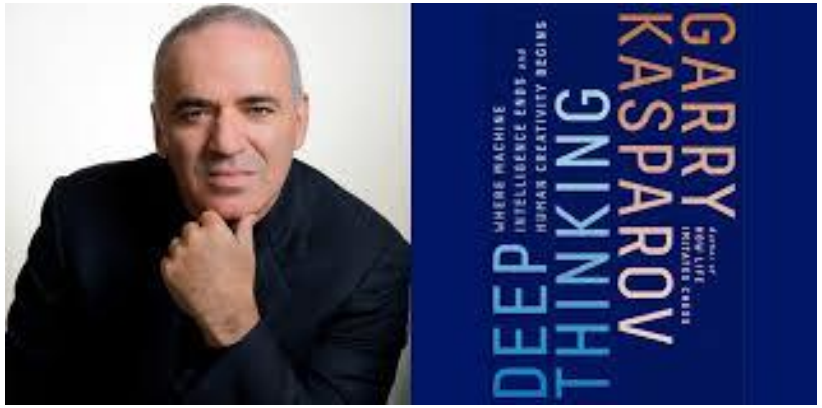
Where is the intelligence in this story?

Their skill at manipulating and "coaching" their computers to look very deeply into positions effectively counteracted the superior chess understanding of their grandmaster opponents and the greater computational power of other participants.

Weak human + machine + better process was superior to a strong computer alone and, more remarkably, superior to a strong human + machine + inferior process.

— Garry Kasparov, NYRB 2010

And the winners are....: Zack Stephen and Steven Cramton



System-level intelligence is a design challenge

Weak human + machine + better process was superior to a strong computer alone and, more remarkably, superior to a strong human + machine + inferior process.

— Garry Kasparov

Hybrid Intelligence is about more than optimizing algorithms.

It is about "optimizing" processes of **human-machine collaboration**.

Statistics and computer science provides an incomplete scientific framework.

Also needed: Ideas from ethics, psychology, human-centered design, behavioral economics, …

Deloitte, 191 Peachtree St NE Suite 2000,

The Steamhouse Lounge, 1051 W Peacht

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Options

Send directions to your phone

via I-75 N/I-85 N — 7 min

Fastest route now due to traffic conditions — 2.7 miles

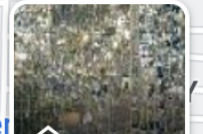
via Ted Turner Dr NW and W Peachtree St NW — 9 min

Some traffic, as usual — 1.9 miles

Details

via Piedmont Ave NE and W Peachtree St NE — 10 min

2.4 miles



The Steamhouse Lounge
MIDTOWN
10th St NE
Juniper St NE
The Optimist
10th St NW
GEORGIA TECH
Georgia Tech Campus Recreation Center
Georgia Institute of Technology
TECH SQUARE
Piedmont Ave NE
rap Music Museum
MARIETTA STREET ARTERY
Fox Theatre
10 min
2.4 miles
Linden Ave NE
Luckie St NW
SONO
Pine St NE
Georgia Aquarium
E. Boone Blvd NW
9 min
1.9 miles
Ralph McGill Blvd NE
SkyView Atlanta
Deloitte
7 min
2.7 miles
Ted Turner Dr NW
State Farm Arena
85

Artificial stupidity: Death by GPS

Death by GPS

7 languages

Article Talk Read Edit View history Tools

From Wikipedia, the free encyclopedia

Death by GPS refers to the death of people attributable, in part, to following GPS directions or GPS maps.[1][2][3] Death by GPS has been noted in several deaths in Death Valley, California,[4][5] a lost hiker at Joshua Tree National Park in southeastern California,[6] and incidents in Washington State, Australia, England, Italy and Brazil.

Tesla says driver ignored warnings from Autopilot in fatal California crash

Google Maps Official Booked After GPS Error Leads To Death Of Three In Bareilly, UP

Four engineers of the Public Works Department (PWD) and a Google Maps official have been booked in connection with the death of three men who were in a car that fell from an under-construction bridge while following directions on the navigation app.

Sahil Kukreja Updated Nov 26, 2024, 10:47 AM IST

Artificial stupidity: Disgrace by GPT

New York lawyers sanctioned for using fake ChatGPT cases in legal brief

By **Sara Merken**

June 26, 2023 1:28 AM PDT · Updated 2 years ago

Judge Blasts Stanford AI Expert's Credibility Over Fake, AI-Created Sources

In December, professor Jeff Hancock admitted in a court filing that he had used ChatGPT, blamed the bot for an error and two other AI "hallucinations" he had subsequently discovered in his submission, and apologized to the court.

January 16, 2025 • Tribune News Service

Deloitte will refund Australian government for AI hallucination-filled report

Consulting firm quietly admitted to GPT-4o use after fake citations were found in August.

KYLE ORLAND – OCT 6, 2025 12:30 PM | 150

Artificial stupidity

They Asked an A.I. Chatbot Questions. The Answers Sent Them Spiraling.

Generative A.I. chatbots are going down conspiratorial rabbit holes and endorsing wild, mystical belief systems. For some people, conversations with the technology can deeply distort reality.

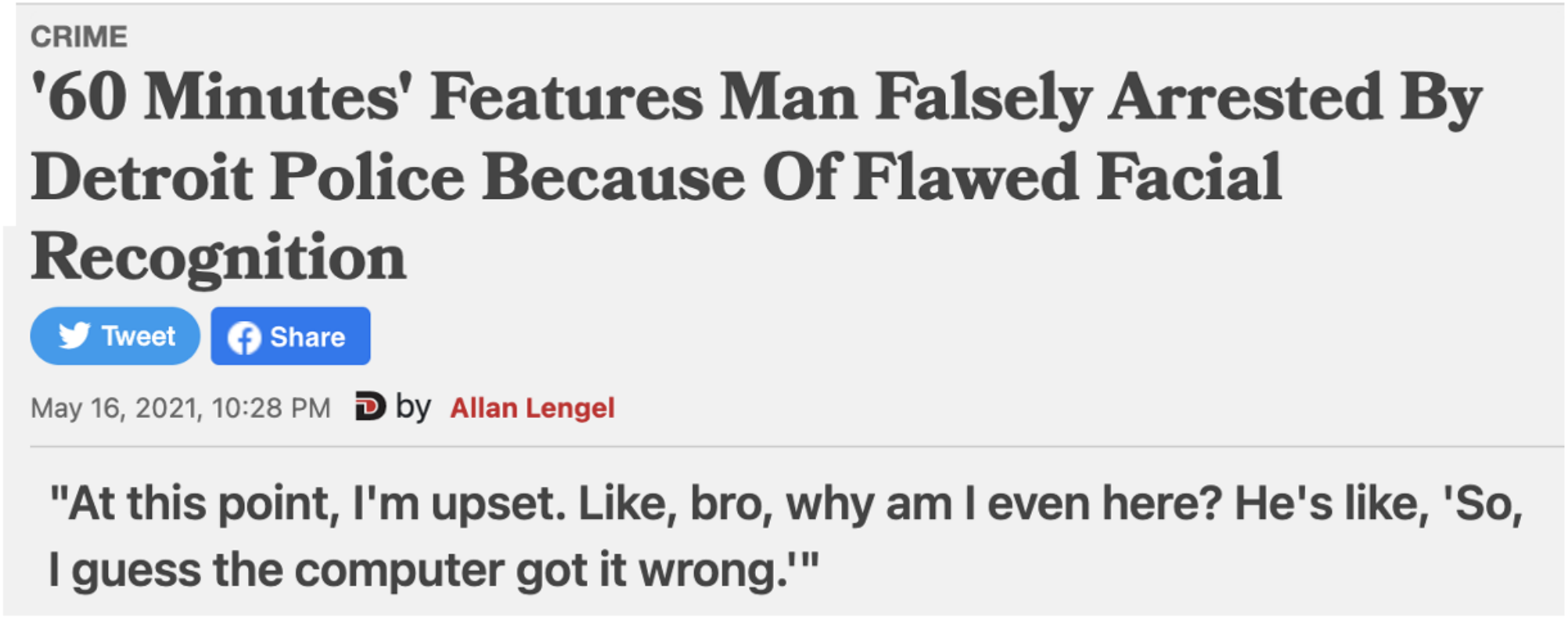
Man develops rare condition after ChatGPT query over stopping eating salt

US medical journal article about 60-year-old with bromism warns against using AI app for health information

The Annals of Internal Medicine article, published last week before the launch of GPT-5, said the patient appeared to have used an earlier version of ChatGPT. Photograph: Cheng Xin/Getty Images

A US medical journal has warned against using ChatGPT for health information after a man developed a rare condition following an interaction with the chatbot about removing table salt from his diet.

Artificial stupidity



CRIME

'60 Minutes' Features Man Falsely Arrested By Detroit Police Because Of Flawed Facial Recognition

Tweet Share

May 16, 2021, 10:28 PM by Allan Lengel

"At this point, I'm upset. Like, bro, why am I even here? He's like, 'So, I guess the computer got it wrong.'"

We must design for the way people behave, not for how we wish them to behave.

— Don Norman

Computers are like a bicycle for our minds.

— Steve Jobs

AI and conspiratorial thinking

They Asked an A.I. Chatbot Questions. The Answers Sent Them Spiraling.

Generative A.I. chatbots are going down conspiratorial rabbit holes and endorsing wild, mystical belief systems. For some people, conversations with the technology can deeply distort reality.

Can AI talk us out of conspiracy theories?

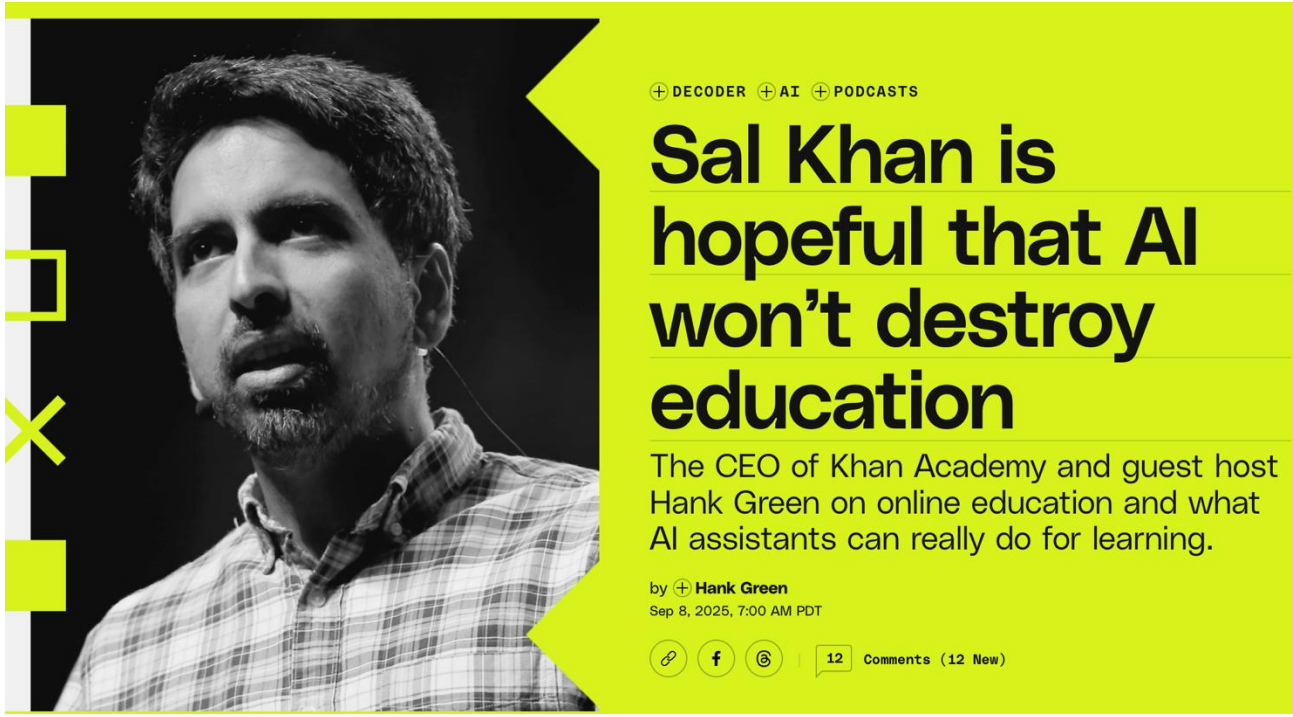
by MIT Sloan Office of Communications | Sep 13, 2024

New MIT Sloan research shows that conversations with large language models can successfully reduce belief in conspiracy theories.

AI and educational outcomes

Updated: JUN 23, 2025 10:16 AM ET

ChatGPT May Be Eroding Critical Thinking Skills, According to a New MIT Study



"Look, this is going to be Socratic, use these techniques. You're not going to give answers, but nudge students forward." There's a lot more to it. But that's the gist of it.

AI and ethical behavior

SEPTEMBER 28, 2025 | 4 MIN READ

People Are More Likely to Cheat When They Use AI

Participants in a new study were more likely to cheat when delegating to AI—especially if they could encourage machines to break rules without explicitly asking for it

BY RACHEL NUWER EDITED BY ALLISON PARSHALL

The other experiments used a tax evasion game that incentivized participants to misreport their earnings to get a bigger payout. These exercises were intended to get "to the core of many ethical dilemmas," Köbis says. "You're facing a temptation to break a rule for profit."

AI and ethical behavior

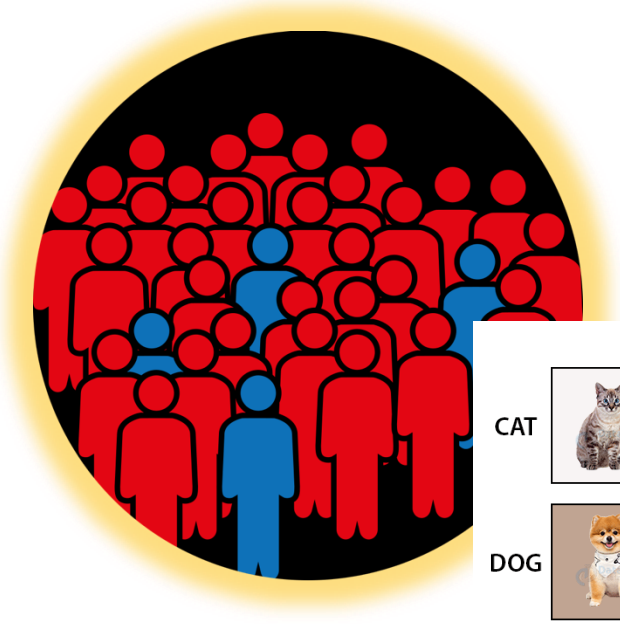
PEW

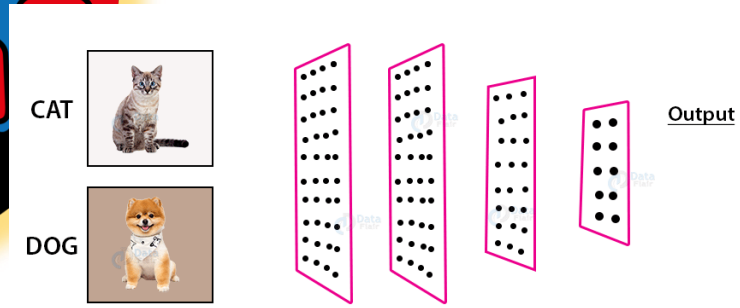
Behavioral Analytics Help Save Unemployment Insurance Funds

New Mexico uses data to identify misinformation, save money

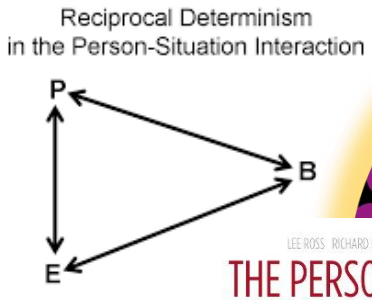
ISSUE BRIEF October 26, 2016

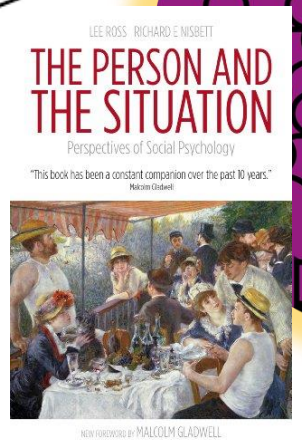
MLOps view





Hybrid Intelligence view





A change in perspective is worth 80 IQ points

- **AI (like intelligence) isn't just one thing**
  - It's Generative AI ***and also*** predictive models, GPS, internet search, recommendation algorithms, image/voice recognition, …
- Look for intelligence at the level of the **human-AI system**
  - The "intelligence" at the level of the *algorithm* is still pretty thin
  - AI's still have less common sense than young children
- Achieving system-level intelligence requires multidisciplinary perspectives, and a **design focus**
  - It should be professionalized along the lines of actuarial science

A change in perspective motivates innovative business models

The last-mile problem: How data science and behavioral science can work together

Deloitte Review Issue 16

Jim Guszcza
United States

Can Telematics Improve Driving Style? The Use of Behavioral Data in Motor Insurance

by Alberto Cevolini [1], Elena Morotti [2,*], Elena Esposito [2,3], Lorenzo Romanelli [4], Riccardo Tisseur [4] and Cristiano Misani [4]

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Big Data Cogn. Comput. **2025**, *9*(9), 225; https://doi.org/10.3390/bdcc9090225

The Vitality Habit Index

How to create habits
for a longer, healthier life

Vitality | London School of Economics

Rethinking Workers' Comp with AI: Why Pay for Claims When You Can Prevent Them?

Jeff Goldsmith • January 31, 2024