

Elevating Artificial Intelligence Literacy for All

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Oregon State University Libraries

Norrköping, Sweden – September 1, 2025



Topics for today

1. Why general AI literacy matters
2. What's being done to increase AI literacy
3. What can we do to help?
 - Walk the line between hype and doomsday; share benefits and challenges
 - Empower people to make informed decisions about using AI

AI in the News

EA El Adelantado de Segovia

Goodbye to job security at Amazon—its CEO warns that artificial intelligence will put thousands of jobs at risk in the coming years



Jobs

NY The New York Times

A.I. Computing Power Is Splitting the World Into Haves and Have-Nots



Equity

PT Psychology Today

How to recognize AI “hallucinations.”



Trust

N Newsweek

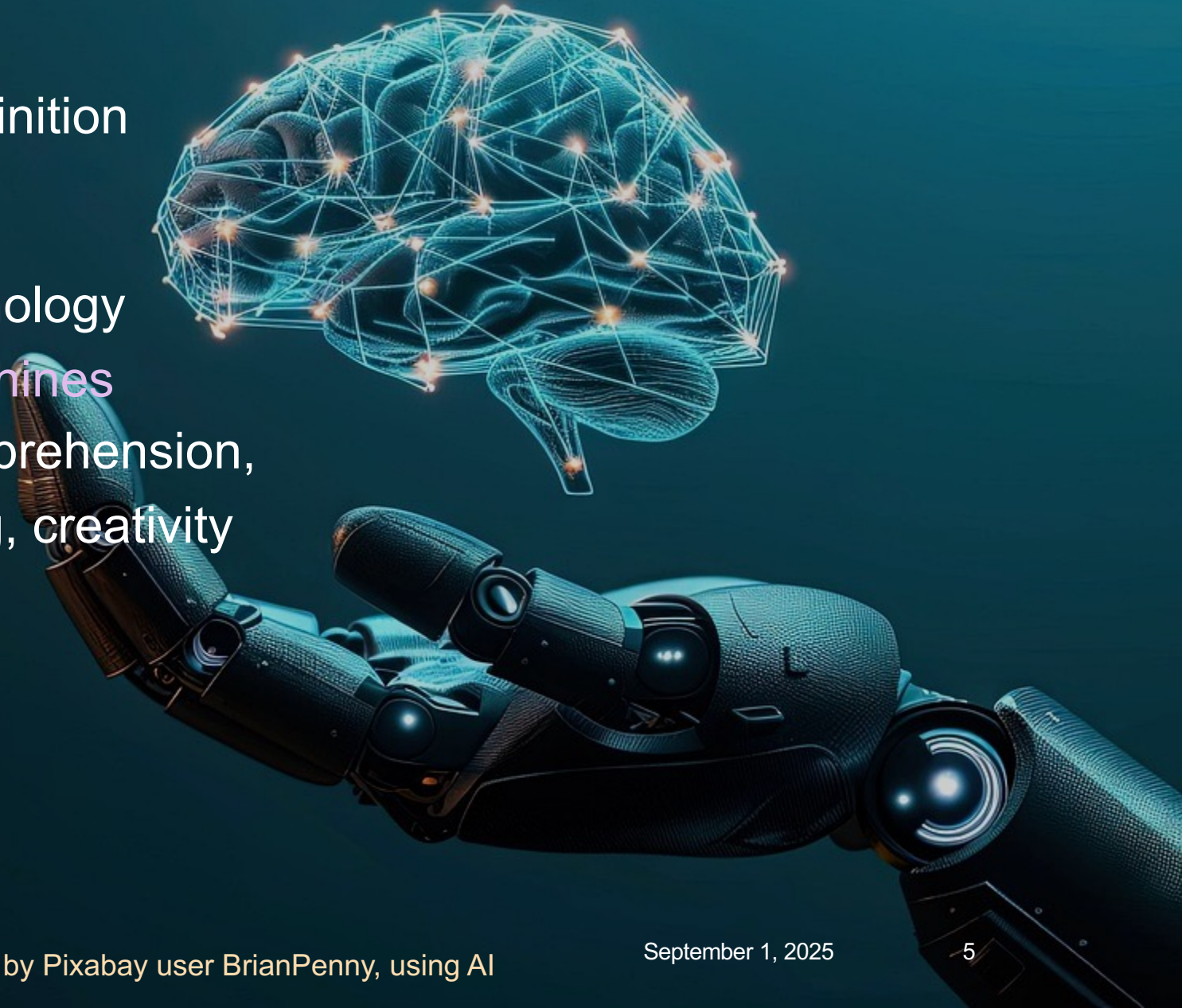
Is Artificial Intelligence Dumbing Down Cancer Doctors?



Health

What is AI?

- There is no widely agreed-on definition
- “Artificial intelligence (AI) is technology that enables computers and machines to **simulate** human learning, comprehension, problem solving, decision making, creativity and autonomy.” – IBM



What is AI literacy?

- “The essential knowledge and skills needed to **understand**, **interact** with, and **critically assess** AI technologies.” – Digital Education Council (2025)
- Not just the ability to **use** AI, but also the ability to decide **whether** to use it
 - Need not assume that use of AI is “inevitable and desirable”
 - Demystify AI to enable informed decisions



Dani Dilkes
(Western University)

What do people think about AI?

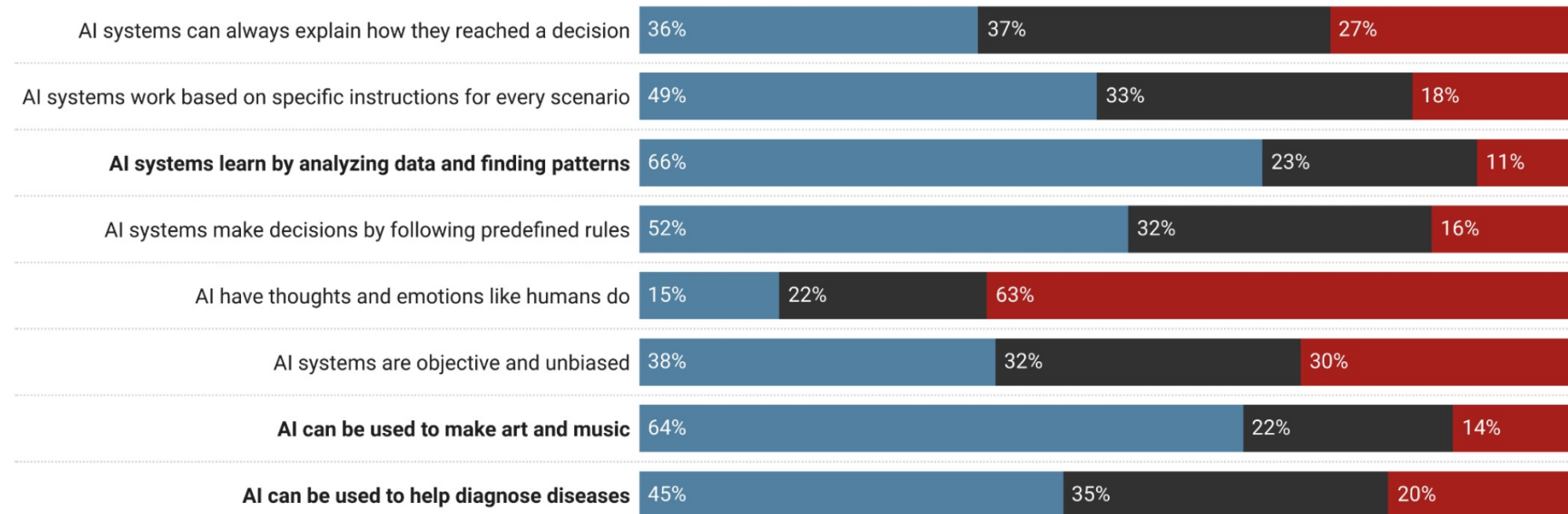
Rutgers University survey of 4,767 Americans (Oct-Nov 2024)

- Less than 1% of respondents got all 8 items right

Statements measuring basic understanding of artificial intelligence (AI)

Below are some statements about AI. To the best of your knowledge, how accurate is each of those statements?
[Respondents see the statements below in random order. In the chart below, true statements are in bold text.]

■ Accurate ■ Not sure ■ Inaccurate



National AI Opinion Monitor (NAIOM). National sample, December 2024, N = 4767. More information at www.naiom.net.



Katya Ognyanova



Vivek Singh

Gaps in AI literacy cause harm

Air Canada Has to Honor a Refund Policy Its Chatbot Made Up

The airline tried to argue that it shouldn't be liable for anything its chatbot says.

Wired, February 2024

Gaps in AI literacy cause harm

Two US lawyers fined for submitting fake court citations from ChatGPT

Law firm also penalised after chatbot invented six legal cases that were then used in an aviation injury claim

“We made a good-faith mistake in failing to believe that a piece of technology could be making up cases out of whole cloth.”
The Guardian, June 23, 2023

Australian lawyer sorry for AI errors in murder case, including fake quotes and made up cases

The fake submissions included fabricated quotes from a speech to the state legislature and nonexistent case citations purportedly from the Supreme Court.

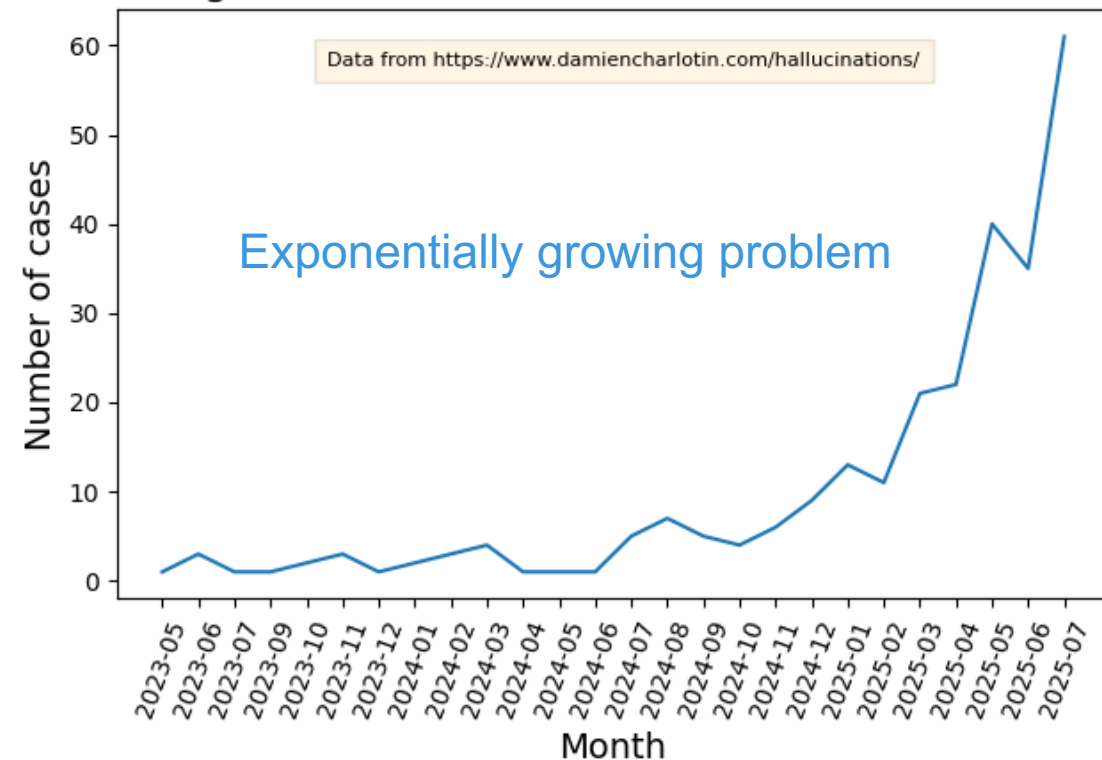
- “The lawyers explained they checked that the initial citations were accurate and wrongly assumed the others would also be correct.”
NBC News, August 15, 2025

Kiri L. Wagstaff

AI Hallucination Cases
(generative AI issues
mentioned in legal decisions)
327 cases to date

<https://www.damiencharlotin.com/hallucinations/>

Legal decisions that mention AI hallucinations



U.S. Consumers LEARN AI Act (2024)

Consumer Literacy and Empowerment to Advance Responsible Navigation of Artificial Intelligence Act



Sen. Mark Kelly Sen. Mike Rounds

National strategy



Multilingual public campaign



Specific use cases

- Personal finance
- Healthcare recommendations
- Communication
- Creative works
- Business management

- AI capabilities and limitations
- Where AI is or can be used in daily life
- Best practices: data privacy, legal considerations, evading deception
- Did not pass by end of Congressional session

U.S. Artificial Intelligence Public Awareness and Education Campaign Act (2025)

- 5-year public AI literacy campaign (with use cases)
- No national strategy
- No funds are appropriated
- Now waiting for consideration by the Commerce committee

Sens. Mark Kelly
and Mike Rounds



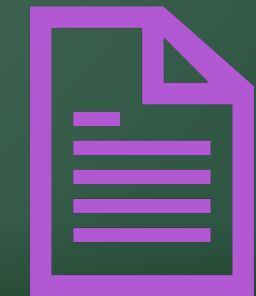
Sens. Todd Young
and Brian Schatz



S.4838



S.4596



S.1699

In the meantime...

- Many **non-profits** devoted to AI literacy: AIAndYou, Global AI Literacy Forum, We And AI, Society for AI Literacy (Canada)
- Great resources
 - Harvard AI Pedagogy Project: <https://aipedagogy.org/guide/>
 - Scottish AI Alliance “Living with AI” course: <https://livingwithai.me>
- Open Letter to the U.K. Government on **AI Literacy for All Citizens** (July 2025)
 - “... to engage critically with learning about AI in context: not just how to adopt and use AI.”
- AI Commission’s **Roadmap for Sweden** (Nov. 2024)
 - AI education in schools, libraries, free AI services, skill development
- Me: Talks at public libraries and retirement communities, AAAI U.S. Policy Committee
 - And helping to build the **OSU AI Literacy Center**

OSU AI Literacy Center

- Mission: equip students, faculty, and staff with the knowledge and skills needed to critically engage with generative AI
- Collaboration: OSU Library + Center for Teaching and Learning
- Videos, workshops, consultations, resource guides
- Visit: <https://ailiteracycenter.oregonstate.edu/>



Oregon State University
AI Literacy Center



Laurie Bridges
Director



Kiri L. Wagstaff

Alejandro Schaeuffler



Havel Konda



Autumn Borrueal

September 1, 2025

What simple & useful messages can we offer?

We are still figuring these out!

1. AI systems **simulate** human cognitive abilities
 - Machine learning = AI that is trained on examples (data) vs. built-in rules/behavior
 - AI is more than just machine learning or generative AI
2. Your **data** powers AI systems (through machine learning, ML)
3. You **decide** when to use AI in your personal and professional life
4. Generative AI systems are like role-players or improv artists
 - Stay tuned for some tips to use them effectively

Example: AI and ML for games

- Atris – a Tetris-like game with AI players
 - Hand-written scoring functions that guide AI search
 - Lightning: make decisions quickly to get next piece
 - Double-Think: take time to look ahead for best move
 - AI players playing against each other (static) ↔

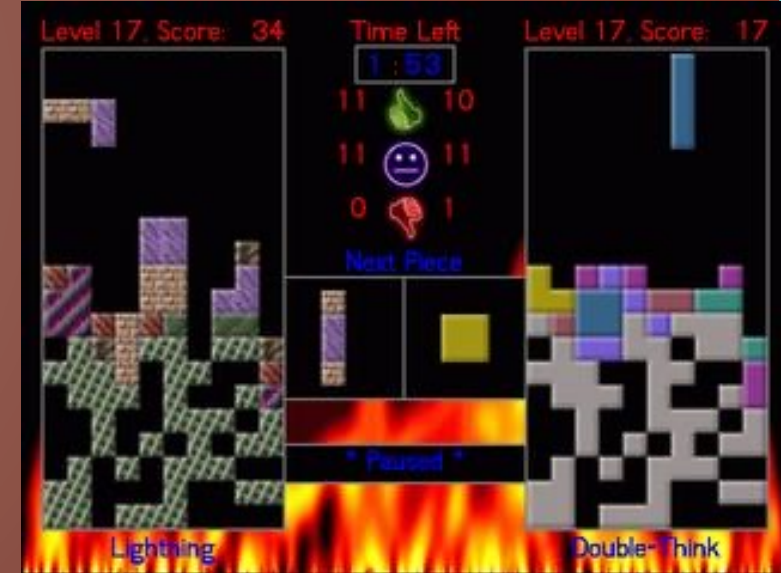
AI



Example: AI and ML for games

AI

- Atris – a Tetris-like game with AI players
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ML

- AlphaGo – an AI model that plays Go
 - **Machine-learned** scoring function that guides AI search
 - Maybe we don't know a good Go scoring function!
 - Trained on 30M recorded game moves, then played against itself to improve (dynamic) ↻



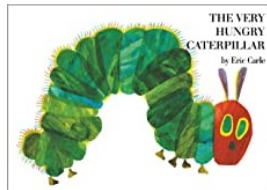
2. Your data powers AI (machine learning) systems

Shopping
recommendations

Frequently bought together



+



Total price: **\$17.30**

Total Points: **36 pt**

Add both to Cart

✓ **This item:** The Giving Tree by Shel Silverstein Hardcover **\$10.74 22 pts**

✓ The Very Hungry Caterpillar by Eric Carle Board book **\$6.56 14 pts**

Every purchase informs the model

Personalized book, movie, etc.
recommendations

The image is a screenshot of the Goodreads website. At the top, there is a navigation bar with links for Home, My Books, Browse, and Community, along with a search bar. Below the navigation bar, there is a large book cover for 'The Giving Tree' by Shel Silverstein. To the right of this cover, there is a section titled 'Readers also enjoyed' which displays three book covers: 'Where the Wild Things Are' by Maurice Sendak, 'Charlotte's Web' by E.B. White, and 'Green Eggs and Ham' by Dr. Seuss. Each book cover is accompanied by its title, author, and a star rating. Below the 'The Giving Tree' cover, there are buttons for 'Read' and 'Buy on Amazon', and a star rating of 4.24 with 962k reviews.

Every rating informs the model

We all use (and help train) machine learning models

2. Your data powers AI (machine learning) systems

- What to watch / read / buy next: recommendations
 - Using your consumption history
- Unlock your phone, dictate messages
 - Using your face / fingerprint / voice
- Auto insurance discounts / “usage-based” insurance
 - Reward for sharing your driving activity / patterns



Progressive: [Snapshot](#)



State Farm: [Drive Safe & Save](#)

3. You decide when to use AI

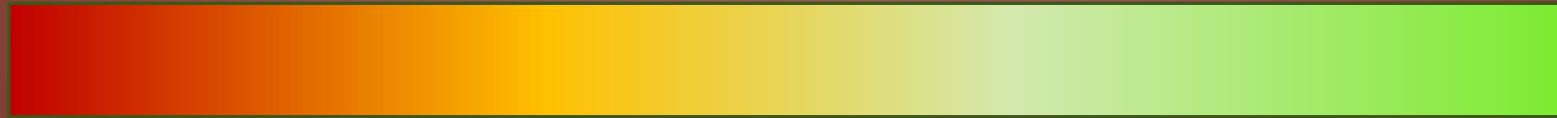
- “... **critically assess** AI technologies.”

How can we make
informed decisions?



By Pixabay user prawnny

Ban it all

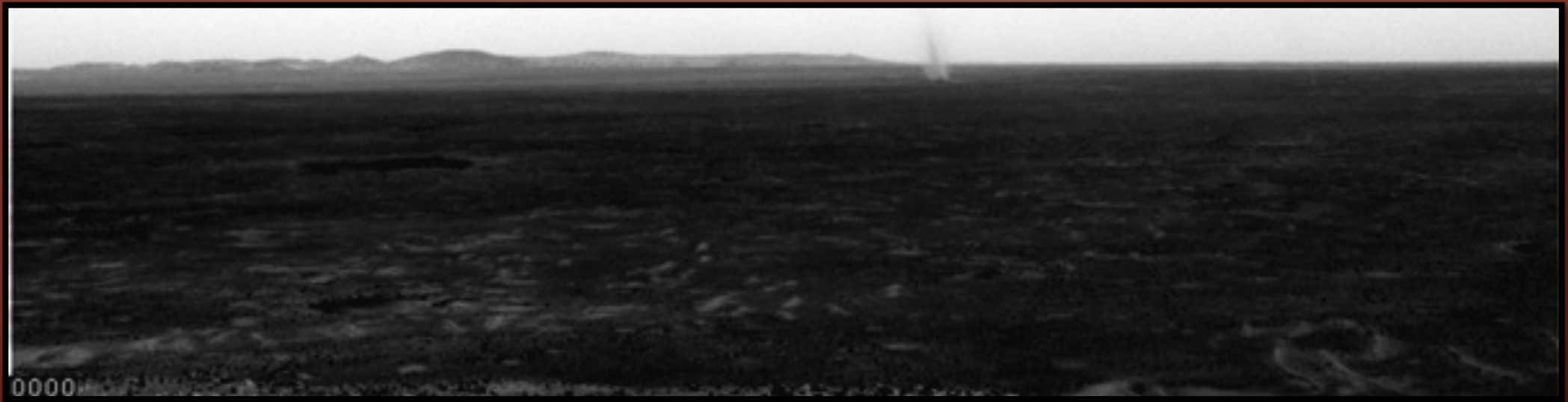
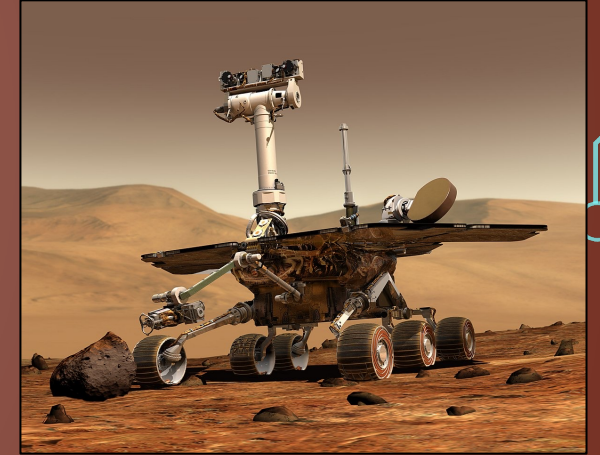


Love it all

Use your judgment

Use AI in places humans can't go

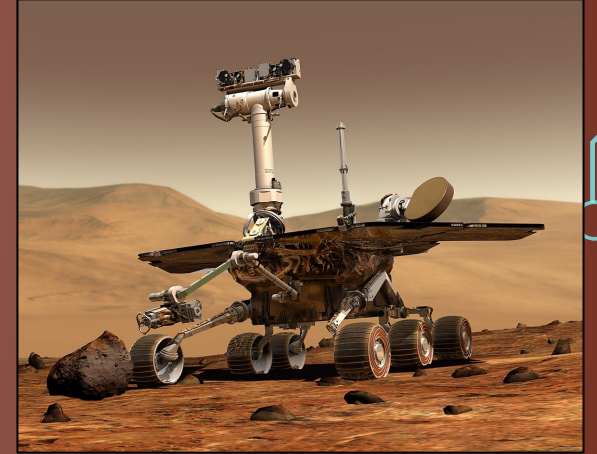
- A signal takes 20-40 minutes to go to Mars and back
- Meanwhile, exciting things are happening on Mars



Spirit Mars rover, Sol 568 (August 5, 2005) – Image credit NASA/JPL/Texas A&M

Use AI in places humans can't go

- A signal takes 20-40 minutes to go to Mars and back
- Meanwhile, exciting things are happening on Mars
 - Use AI to detect interesting events and capture data to send back to Earth – no other way to respond fast enough
 - Even so, we carefully weigh risks against benefits



A. Castaño et al., 2007. *Machine Vision Applications* 19:467-482.

Kiri L. Wagstaff

September 1, 2025

24

3. You decide when to use AI

- Meeting transcription/summary in your doctor's office

 University of Alberta

AI scribe could help emergency docs save time and improve patient care



[University of Alberta](#) (Oct 23, 2024, updated May 20, 2025)



By Pixabay user prawnpy

 Business Insider

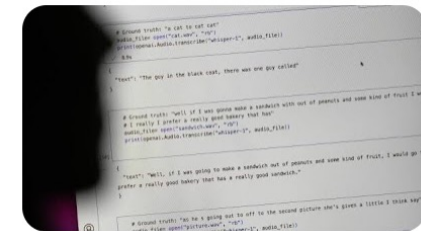
I'm a doctor who cautiously welcomes AI in medicine. It's helped me save hours on taking notes, but we need guardrails.



[Business Insider](#) (Sept. 25, 2024)

 AP News

Researchers say an AI-powered transcription tool used in hospitals invents things no one ever said



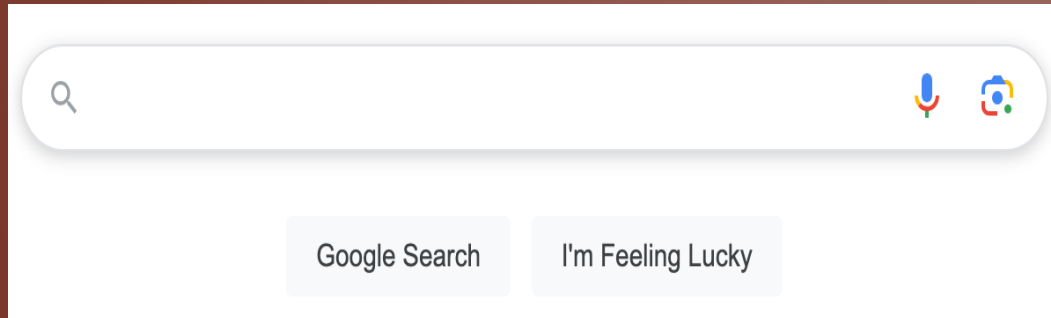
[AP News](#) (Oct. 26, 2024)

3. You decide when to use AI

These **tools** look almost the same, but they aren't!



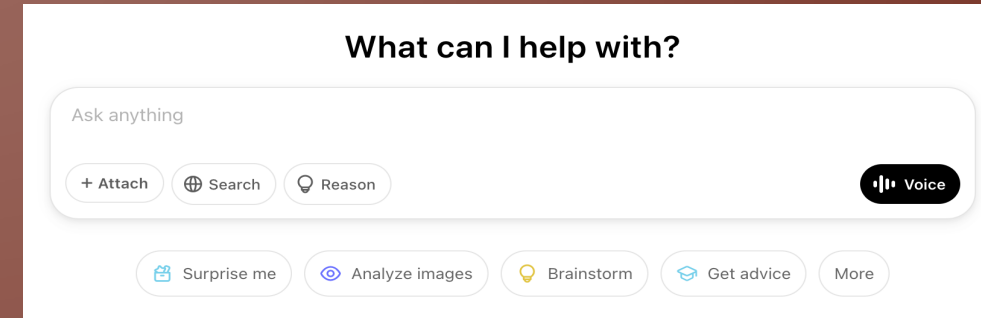
By Pixabay user kerut



Search engine - finds real matches



Detective



Generative AI (chatbot) - generates new content

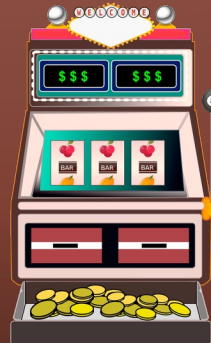
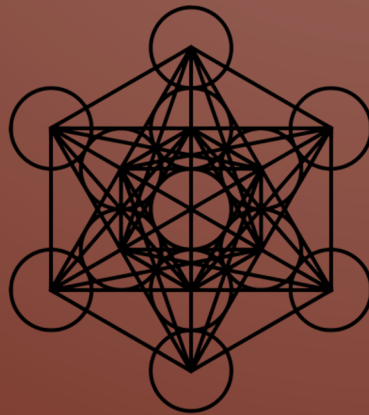


Artist

Choose your tool
to fit the task

4. What is generative AI?

- “Generative” because it generates new data (text, image, music, etc.)
 - Learn probabilities from previous data and create new outputs
- “Large language model” = Generative model learned from (a lot of) text



Fill in the blank

“The cat sat on the _____.”



Possibly:

mat, hat, chair...

Unlikely:

xylophone, dream, golf...

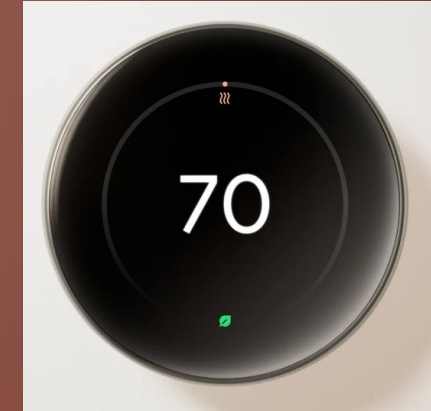
4. What are examples of non-generative AI?



Email spam filtering



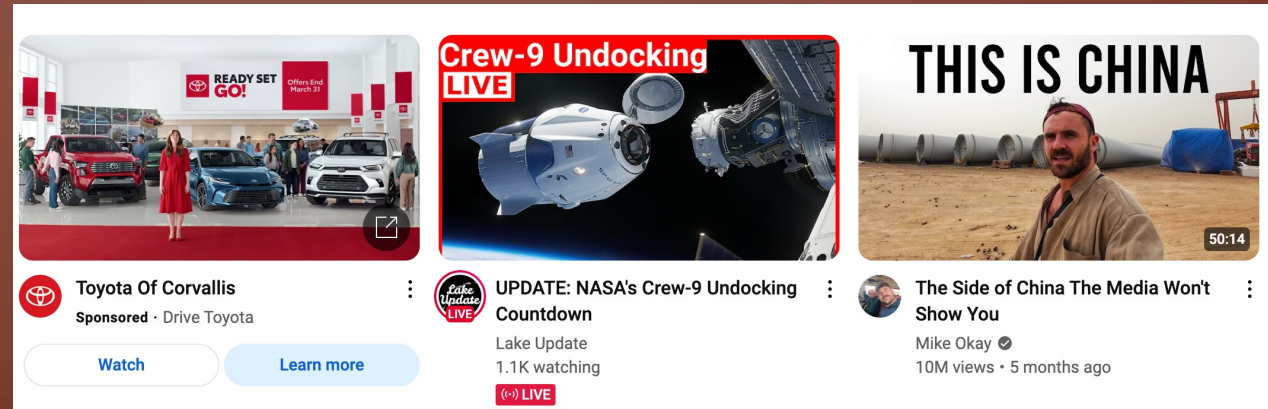
Amazon shopping



Nest thermostat



Robot dogs!
James Maskell (Flickr)



YouTube recommended videos

4. Better metaphors for generative AI systems

- ✗ Magic
- ✗ Sentient/conscious
- ✗ Understanding
- ✗ Knowledge base
- ✗ Search
- ✗ Coach/companion
- ✗ Hallucinate

- Magic 8-ball
- Calculating (math)
- Role playing
- Mad libs
- Generate
- Improv artist
- Generate (confabulate)



Cindy Moore's art
inspired by *Into the Woods*

Set realistic expectations

4. Generative AI tips

- **Use it for creative tasks, not truth-seeking**
 - Generative AI has no real-world experience
 - It doesn't know the right answer. It knows a plausible or pleasing answer.
 - “Hallucinations” are an expected outcome of a probabilistic model
 - For important information, go to the source
- **Remember, it's a tool**
 - Generative AI does not reason, analyze, deduce (or think)
 - Generative AI is not sentient, and it does not have ethics or emotions
 - Outputs come from a roll of the dice
- **Protect your personal data – avoid exploitation and embarrassment**
 - Don't share anything with a chatbot that you wouldn't post on social media
 - Ask: who gets the data? For what use? For how long? Who's the responsible human?
- **Have fun and keep learning as the technology evolves!**
 - Discuss and share your use of generative AI tools
 - Keep experimenting and learning about AI strengths and limitations



Cindy Moore's art
inspired by *Into the Woods*

Elevating AI Literacy for All

- AI touches everyone's lives in many ways
- AI literacy: **understand**, **interact** with, and **critically assess** AI technologies
 - Lack of literacy is causing harm
- How can we increase AI literacy?
 - Share your ideas and priorities with legislators and funding agencies
 - Find good resources and promote them to others
 - Share simple & useful messages about what AI is, data privacy, and empowerment
 - Help set accurate expectations for generative AI

Thank you!

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