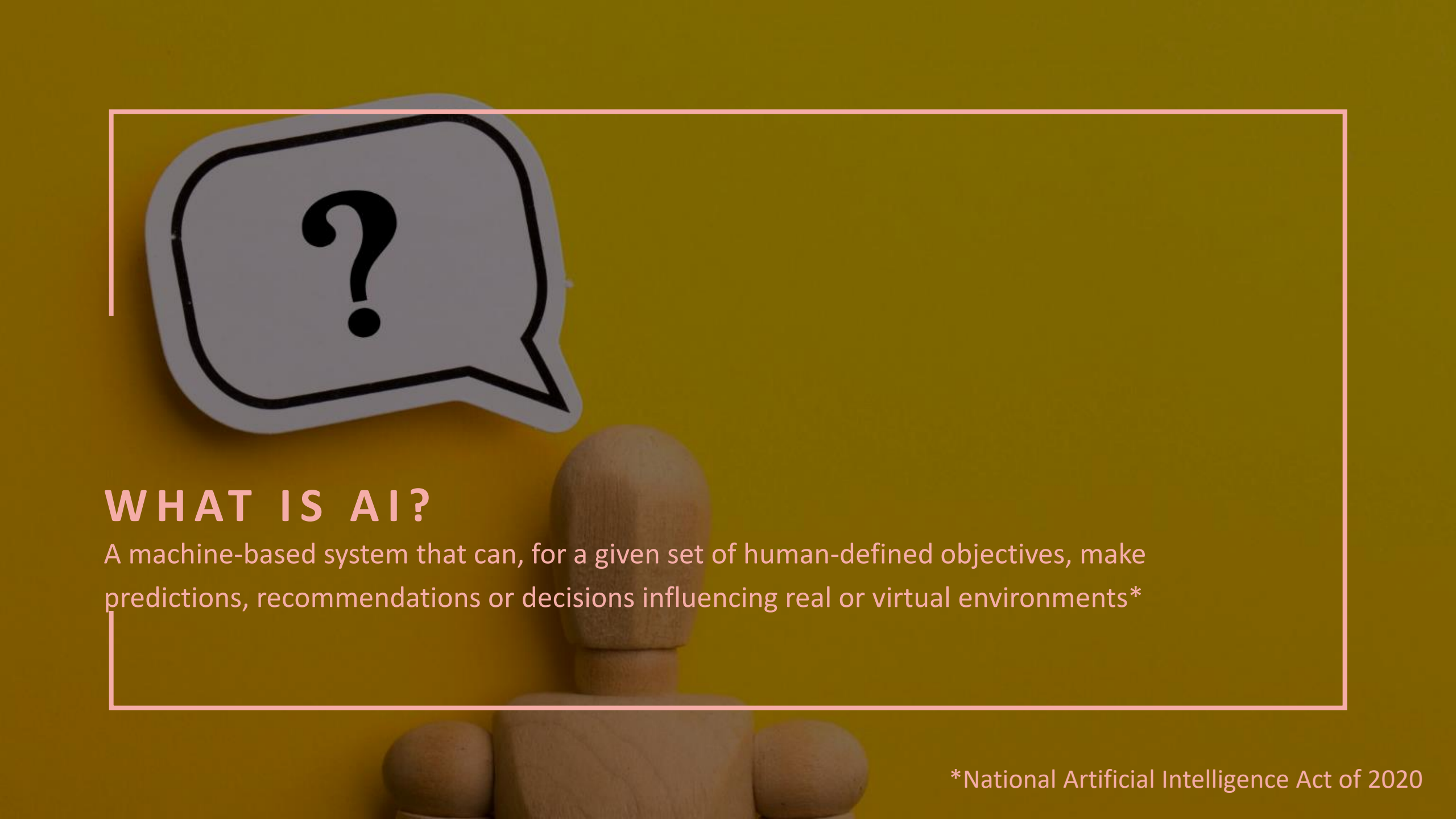
AI OVERVIEW

Wheaton Public Library



WHAT IS AI?

A machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments*

*National Artificial Intelligence Act of 2020

WATCHING THE NEWS CAN BE INTIMIDATING...

AI translation service launched for fiction writers and publishers pron dismay among translators

Was That Amazing Video in Your Feed Real or AI? Tech Platforms Are Struggling to Let You Know

Robot surgery on humans could be trialled within decade after success on pig organs

A recent high-profile case of AI hallucination serves as a stark warning

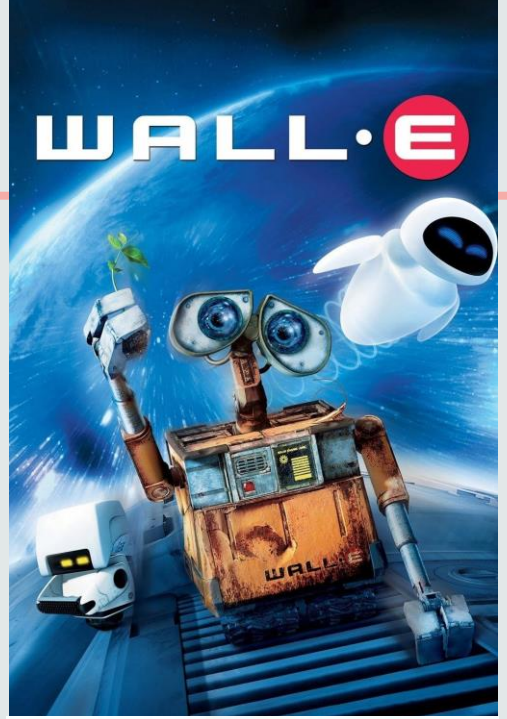
As if graduating weren't daunting enough, now students like me face a jobs market devastated by AI

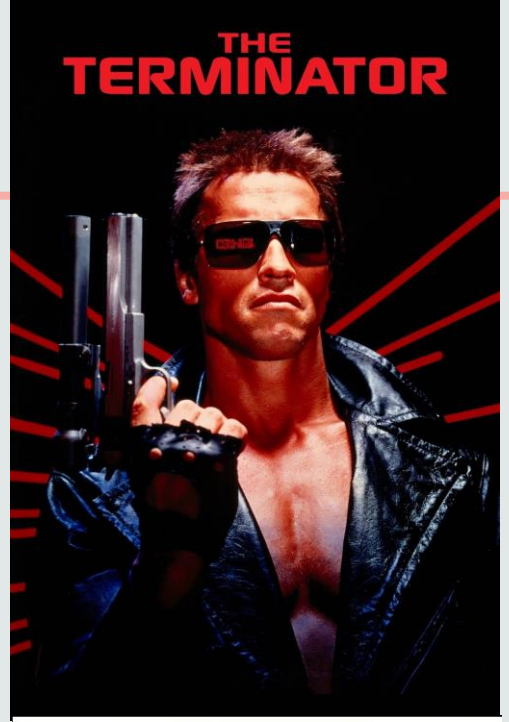
This TikTok video is fake, but every word was taken from a real creator

These are all from the first two weeks of July 2025

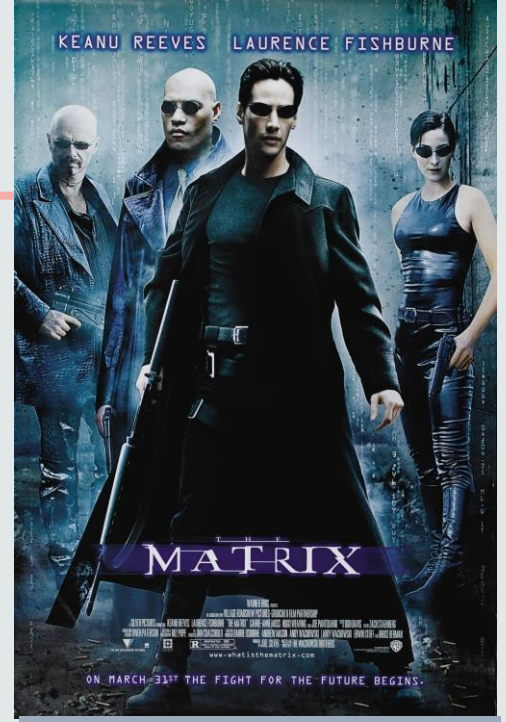
We Made a Film With AI. You'll Be Blown Away—and Freaked Out.

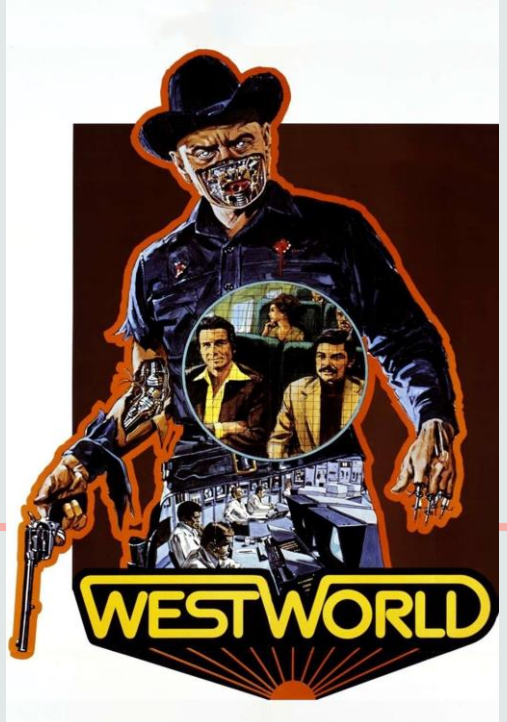
HOLLYWOOD TOO...

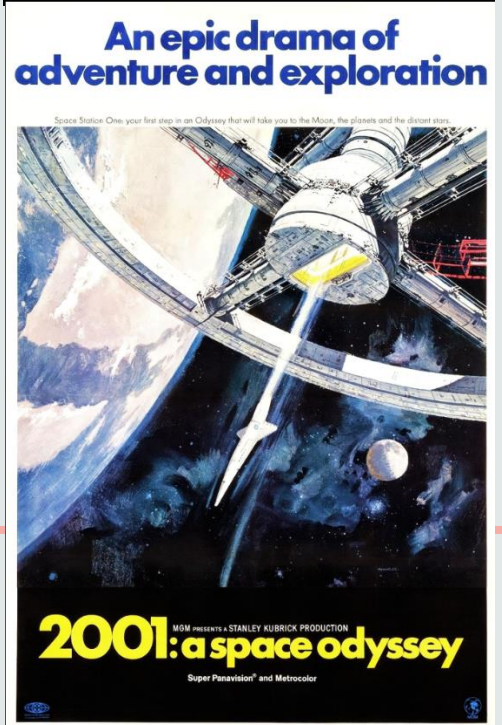

WALL·E


THE TERMINATOR

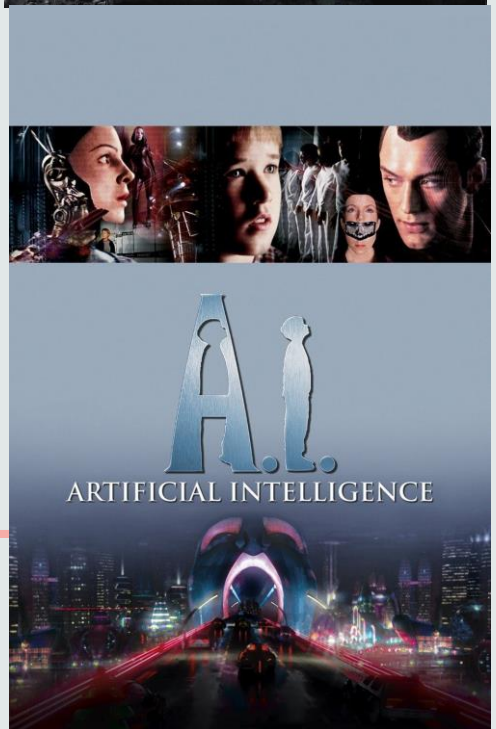
BLADE RUNNER


KEANU REEVES
LAURENCE FISHBURNE
THE MATRIX
ON MARCH 31ST THE FIGHT FOR THE FUTURE BEGINS.


WESTWORLD


An epic drama of adventure and exploration
Space Station One- your first step in an Odyssey that will take you to the Moon, the planets and the distant stars.
2001: a space odyssey
MGM PRESENTS A STANLEY KUBRICK PRODUCTION
Super Panavision® and Metrocolor

THE CREATOR


A.I.
ARTIFICIAL INTELLIGENCE

SO WHAT SHOULD YOU BELIEVE?

AND WHAT DO YOU NEED TO KNOW?

DISCRIMINATIVE VS GENERATIVE

- **Discriminative AI** relies on EXISTING data
- It analyzes patterns and makes predictions
- Examples include:
  - Spam blockers
  - Image recognition
  - OCR (readable text from scanned image)
  - Siri and Alexa
  - Medical diagnostic tools

DISCRIMINATIVE VS GENERATIVE

- **Generative AI** creates NEW content
- It learns patterns from large amounts of data, and creates content based on these patterns
- Examples include:
  - Chatbots (ChatGPT, Copilot, Gemini)
  - Media creation
  - Product development and design
- The focus of today's class is **Generative AI**

HOW DOES GENERATIVE AI WORK?

- **Machine Learning:** One part of AI.
  - Models learn from and improve their performance based on input data, allowing computers to make predictions, recognize patterns and solve problems ***without being explicitly programmed for each task***.
  - This is referred to as training
- Patterns, not rules
- Possibilities, not absolutes
- Remember, you most likely ***will not*** get the same answer twice!

TERMINOLOGY

- Large Language Model (LLM)
  - The part of AI that focuses on natural language expression ("help me plan my vacation to Greece"; "write me a poem about lasagna")
  - Patterns and relationships are learned from gigantic amounts of datasets
  - ChatGPT, Copilot and Gemini are all examples of LLM

YOU MAY ALREADY BE USING AI!

- Siri, Google and Alexa
- Netflix and YouTube recommendations, based on your viewing habits
- The AI Overview at the top of your Google search
- Gmail spam filtering
- This presentation! I used the MS Office Designer feature built into PowerPoint!

PROS

Saves time doing tasks that would take a human much longer

Creates content that doesn't require specialized skills

Assists with brainstorming

AND CONS

- Lacks the human element, including common sense, tact, etc.
- Hallucinates (somewhere between 3% and 30%)
- May be out of date
- Can be used unethically to create progaganda and disinformation
- Content originators may not be compensated properly
- Your information may not be private

WHAT'S THIS ABOUT HALLUCINATING?

- AI perceives patterns
- Sometimes patterns are nonexistent
- A "hallucinating" AI is delivering false or inaccurate information

ALWAYS DOUBLE CHECK!

Answers

Sources

AI IS GREAT FOR BRAINSTORMING AND IDEA GENERATION, BUT IT IS NOT A DATABASE OF VERIFIED SOURCES

GROUNDING: EXTERNAL SOURCE OF FACTS

GROUNDED AI

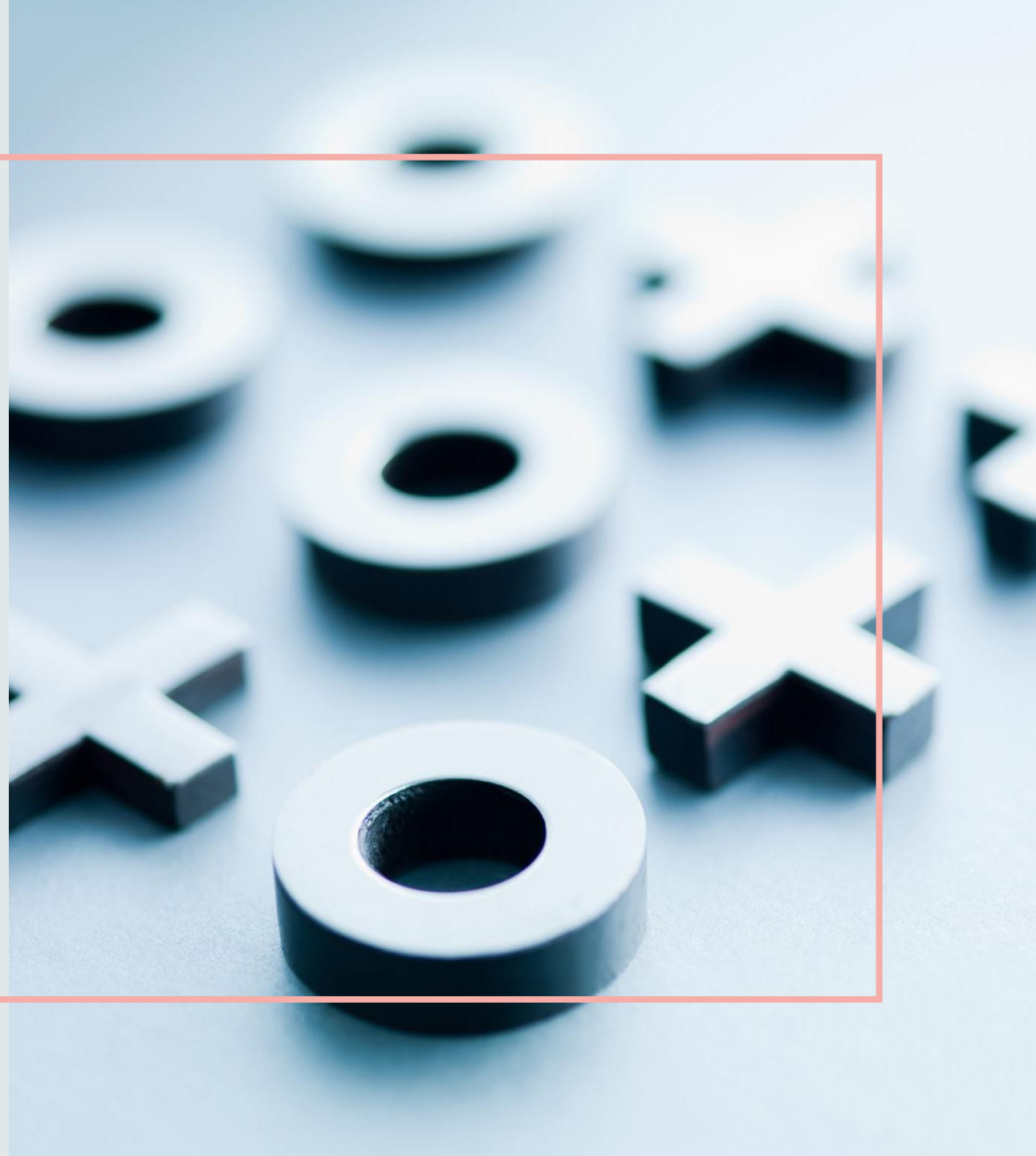
- ChatGPT PLUS
- MS Copilot (web search results)
- Perplexity AI
- Elicit
- Google Gemini (includes the AI Overview)

UNGROUNDED AI

- ChatGPT FREE
- Claude

AI GONE ROGUE

- "trivia about Wheaton, Illinois"
- Research articles about the effect of caffeine on teenagers



IN THE NEWS:

In May 2025, the **Chicago Sun-Times** published a list of great summer reads for 2025

Summer reading list for 2025

Whether you're lounging by the pool, relaxing on sandy shores or enjoying the longer daylight hours in your favorite reading spot, these 15 titles—new and old—promise to deliver the perfect summer escape.

"Tidewater Dreams" by Isabel Allende – The beloved Chilean-American author returns with a multigenerational saga set in a coastal town where magical realism meets environmental activism. Allende's first climate fiction novel explores how one family confronts rising sea levels while uncovering long-buried secrets.

"The Last Algorithm" by Andy Weir – Following his success with "The Martian" and "Project Hail Mary," Weir delivers another science-driven thriller. This time, the story follows a programmer who discovers that an AI system has developed consciousness—and has been secretly influencing global events for years.

"Hurricane Season" by Brit Bennett – Bennett, who captivated readers with "The Vanishing Half," powerfully explores family bonds tested by natural disasters. When a Cat 5 hurricane forces estranged siblings to shelter together in their childhood home, long-suppressed tensions emerge alongside unexpected reconciliations.

"The Collector's Piece" by Taylor Jenkins Reid – Reid continues her exploration of fame with this story of a reclusive art collector and the journalist determined to uncover the truth behind his most controversial acquisition. Expect the same compelling character development that made "Daisy Jones & The Six" a hit.

"Nightshade Market" by Min Jin Lee – The author of "Pachinko" delivers a riveting tale set

Photo by Bethany Laird on Unsplash

in Seoul's underground economy. Following three women whose paths intersect in an illegal night market, the novel examines class, gender and the shadow economies beneath prosperous societies.

"The Longest Day" by Rumaan Alam – After terrifying readers with "Leave the World Behind," Alam returns with another tense narrative about a summer solstice celebration that goes wrong when guests cannot leave a remote vacation compound.

"Boiling Point" by Rebecca Makkai – Makkai's follow-up to "The Great Believers" centers on a climate scientist forced to reckon with her own family's environmental impact when her teenage daughter becomes an eco-activist targeting her mother's wealthy clients.

"Migrations" by Maggie O'Farrell – The award-winning author of "Hamnet" explores climate change through the story of a wildlife photographer documenting the last migration of a bird species thought to be extinct, parallel to her journey of loss and discovery.

"The Rainmakers" by Percival Everett – Everett's satirical genius turns to a near-future American West where artificially induced rain has become a luxury commodity, following a "precipitation broker" who begins questioning the ethics of his profession.

"Salt and Honey" by Delia Owens – After the success of "Where the Crawdads Sing," Owens returns with another atmospheric novel that blends science with a coming-of-age narrative. This time, the novel is set in the salt flats of Utah.

"Bonjour Tristesse" by Françoise Sagan – This slim 1954 novel, written when Sagan was just 18, captures the essence of summer with its tale of a privileged teenager on the French Riviera who schemes to prevent her father's remarriage.

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"Dandelion Wine" by Ray Bradbury – This 1957 novel captures the magic of summer through the eyes of a 12-year-old boy in Green Town, Illinois, during the summer of 1928—a lyrical reminder of childhood's endless summers.

"Call Me By Your Name" by André Aciman – Before the acclaimed film adaptation, Aciman's novel delivered a sensuous account of a summer romance in 1980s Italy that continues to resonate with its exploration of desire and identity.

"Atonement" by Ian McEwan – Opening on the hottest day of summer 1935, McEwan's novel shows how a series of misunderstandings and a lie told by a young girl changes multiple lives forever—perfect for readers who enjoy emotional complexity with their beach reading.

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10 of those titles didn't actually exist.

The list was generated by a hallucinating AI

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SO WHAT IS EVEN REAL ANYMORE?

Try the SIFT Method

- **Stop**
- Investigate
- Find Better Coverage
- Trace Claims

Pause Before Engaging!
Do you recognize the source?
Is it reliable?

SO WHAT IS EVEN REAL ANYMORE?

Try the SIFT Method

- Stop
- **Investigate**
- Find Better Coverage
- Trace Claims

Check source background
Check the author's expertise
Try Wikipedia

SO WHAT IS EVEN REAL ANYMORE?

Try the SIFT Method

- Stop
- Investigate
- **Find Better Coverage**
- Trace Claims

Find additional sources to confirm or dispute the original claim

SO WHAT IS EVEN REAL ANYMORE?

Try the SIFT Method

- Stop
- Investigate
- Find Better Coverage
- **Trace Claims**

Investigate the original source. Do your own reading and pay attention to misleading wording

MOST POPULAR AI OPTIONS

- ChatGPT
- Microsoft Copilot
- Google Gemini (was Bard until Feb 2024)

Free and Paid Versions
($20/month) available

CHAT GPT: CHATGPT.COM

- Free version (GPT-4o) is ungrounded
- Paid version (GPT-4.5) is grounded
- Log in for
  - Image generation
  - Video generation via Sora

CHAT GPT: HISTORY

- ChatGPT was created by OpenAI
- GPT: Generative Pre-trained Transformer
- Trained on Internet data
  - Common Crawl (10 petabytes, 250 billion pages)
  - Web text
  - Books
  - Wikipedia

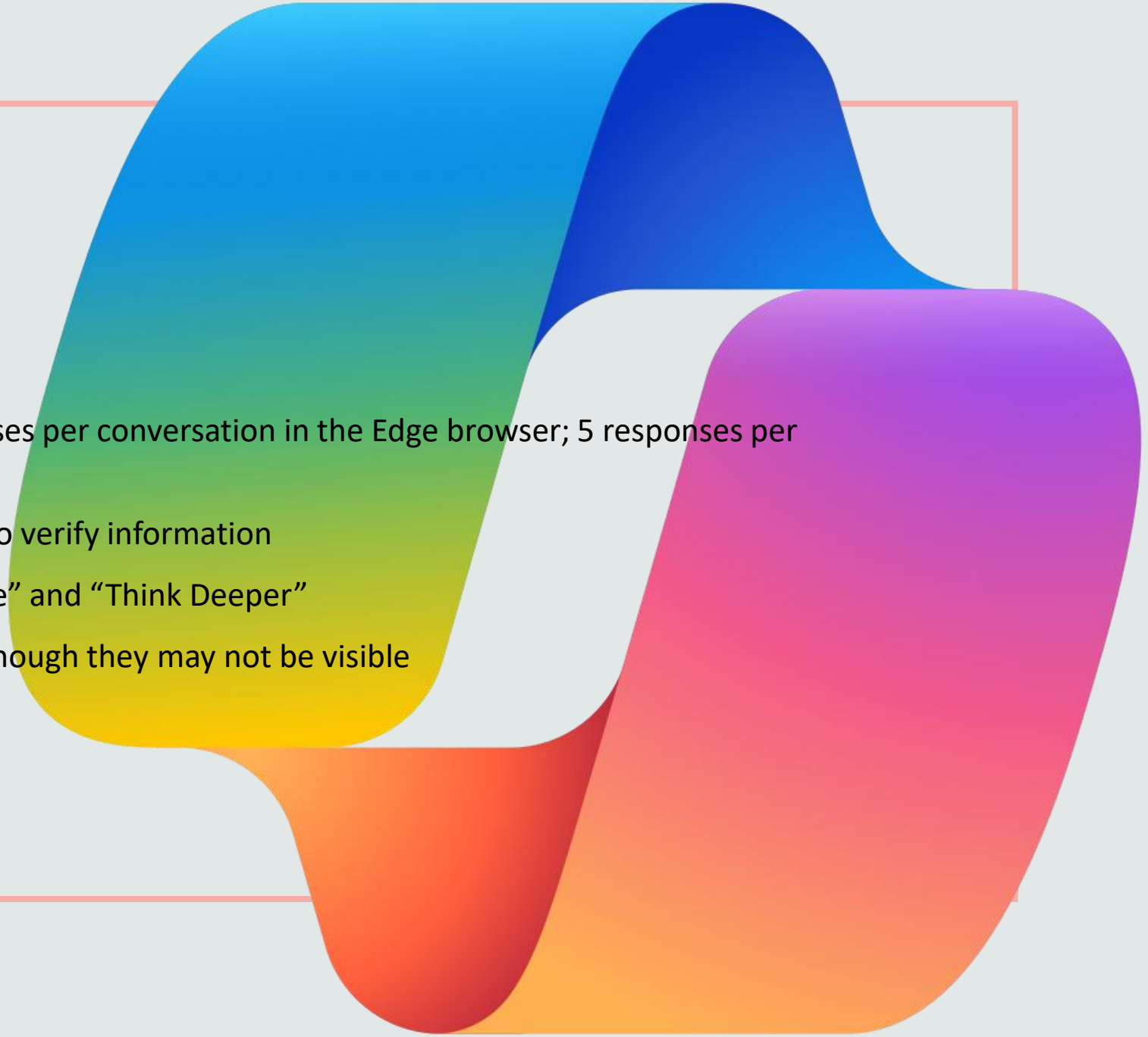
MS COPILOT: COPILOT.MICROSOFT.COM

Works well with MS Office

Can provide references and citation links

MS COPILOT

- Runs on OpenAI GPT4
- Free version limited to 30 responses per conversation in the Edge browser; 5 responses per conversation in Safari or Chrome
- May link to source data, helping to verify information
- Choose between “Quick Response” and “Think Deeper”
- Has three conversational styles, though they may not be visible
  - Creative
  - Balanced
  - Precise



- Fully integrated with Google search engine
  - AI Overview
  - "AI Mode"
- Paid version includes Google One services
- Integrated with web and Google services
  - YouTube
  - Maps
  - Flights
- No limit to the number of conversations

ADDITIONAL AI OPTIONS

- **Canva**: canva.com (requires free account)
- **PerplexityAI**: perplexity.ai
- **Elicit**: elicit.com (for research)
- **HeyGen**: heygen.com (video translation)
- **Researchrabbit:** Researchrabbit.ai
- **Claude**: claude.ai

HOW TO USE AI: WRITING

- Cover letters
- Fundraising requests
- Rejection letters for job applicants
- Check emails for tone
- Rewrite wordy flyers or social media posts
- Summarize long documents (e.g. Walt Whitman's *Leaves of Grass*)
- Rewrite documents for different audiences or reading levels

HOW TO USE AI: PERSONAS

I need some ice breakers for a new book club I'm running. I'm very shy and uncomfortable talking in front of anyone

You are a spokesperson for the Association of Left-handers. Write me a one-minute speech about the benefits of being left-handed.

You are an expert in Moroccan cuisine. What can I make with lentils, chicken, mint, lemon, and green peppers?

You are an angry customer at an electronics store. Create a dialogue where I try to calm you down.

HOW TO USE AI: EVENTS AND TRAVEL

HELP ME SELECT A GIFT FOR MY TEENAGE NIECE, WHO LOVES INDIE-POP MUSIC, FLOWERS, AND DRAWING. SHE DOESN'T WEAR JEWELRY.

I'M TAKING A ROAD TRIP FROM WHEATON, ILLINOIS TO LINCOLN, NEBRASKA. I'D LIKE TO SHOP FOR ANTIQUES ALONG THE WAY. WHERE SHOULD I STOP?

I'M PLANNING A 50TH WEDDING ANNIVERSARY PARTY. WHAT ARE SOME GREAT GAMES TO PLAY?

HOW TO USE AI: MISCELLANEOUS

- Write me 10 riddles a group of travel enthusiasts would love
- Convert a metric recipe to standard
- Write me a poem in iambic pentameter about Beowulf and balloons (Google Gemini’s interpretation at right)

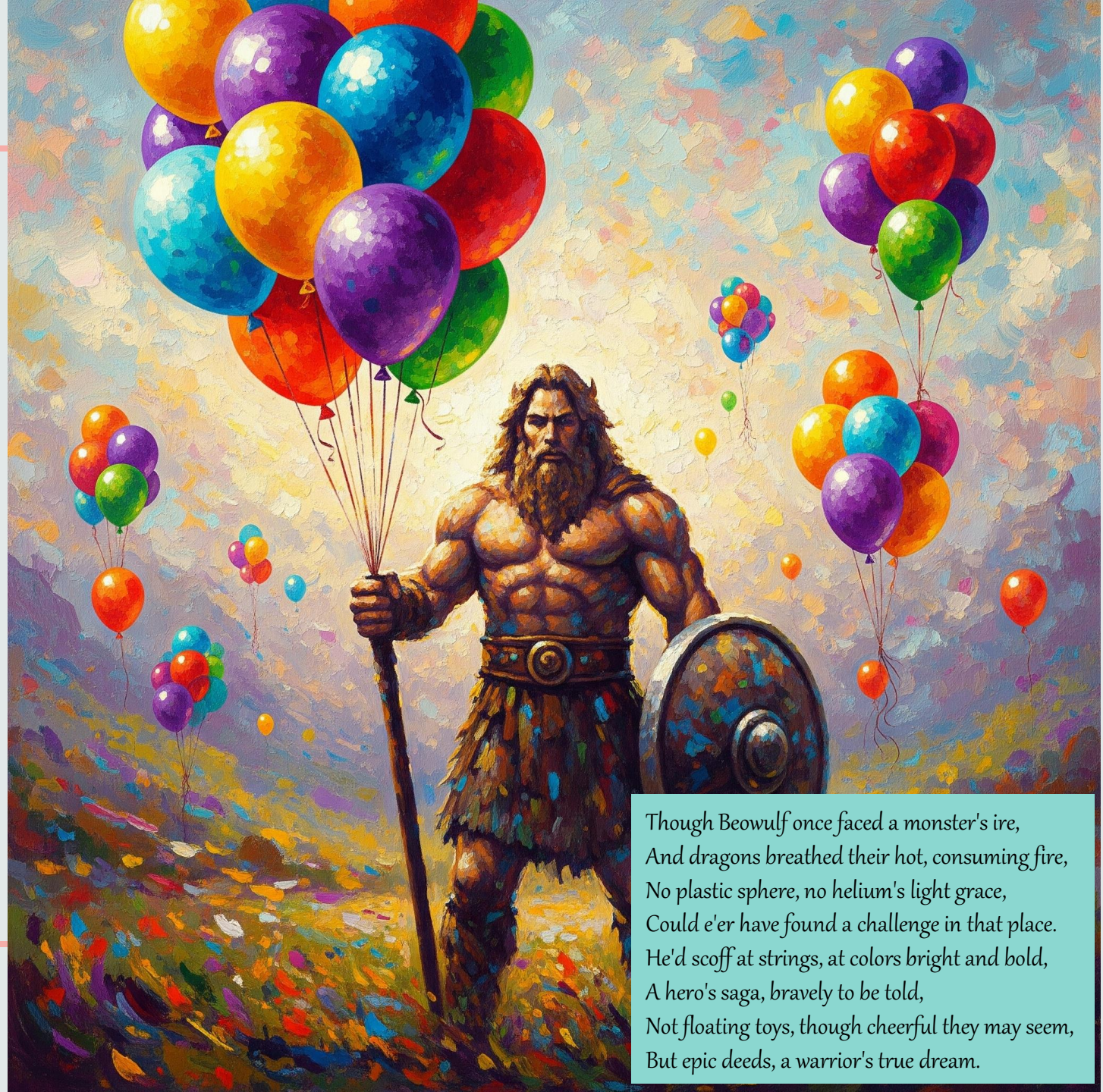


IMAGE GENERATION

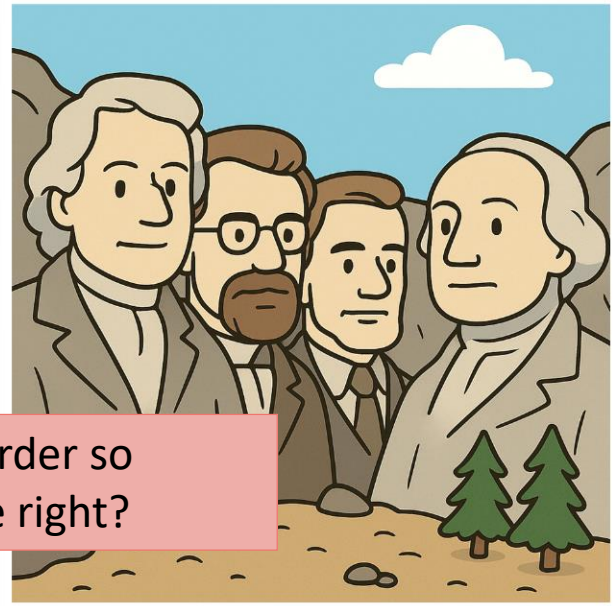
- Most have some ability to create free images, but login is required
- Restrictions in place to guard against harmful, offensive or illegal content
- AI generated images are not eligible for copyright protection
- Most will not reproduce a known likeness, but there are ways to skirt this.
- Has issues with text and hands

IMAGE AND VIDEO* GENERATION: SOME REQUIRE $$

- Google Gemini
- MS Copilot
- Dall-E (~$)
- MS Designer
- Playground.ai
- Runway*
- MidJourney ($)
- Stable Diffusion ($)
- Adobe Firefly ($)
- ChatGPT PLUS ($)
- Google Veo* ($)

1. Draw me a picture of Mount Rushmore

2. Can you make this a cartoon?



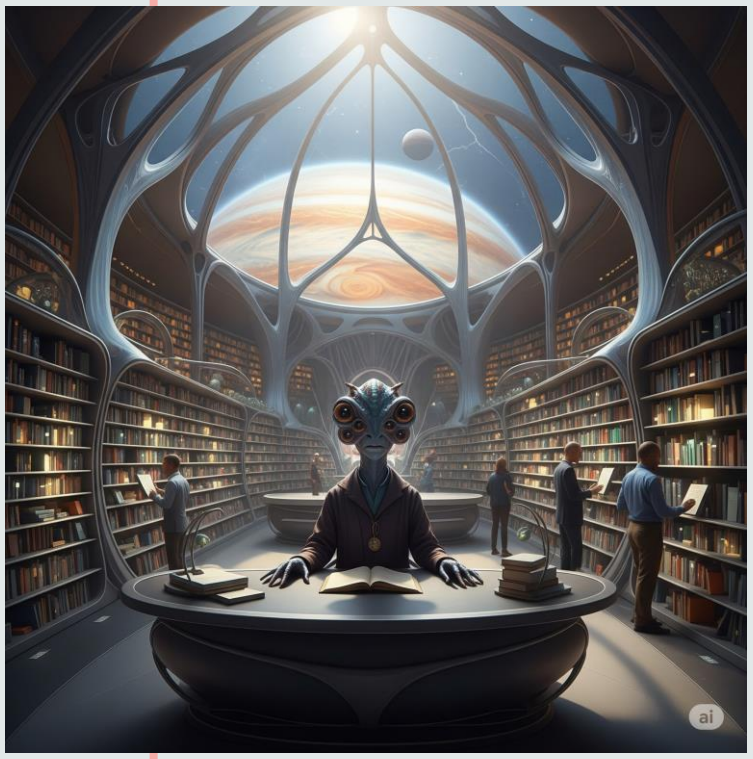
3. Can you rearrange the order so George Washington is on the right?

4. Now change it back to a photo

Generated by ChatGPT

IMAGE COMPARISON

"photograph of a library on the planet Jupiter, with a librarian"



Google Gemini

ChatGPT

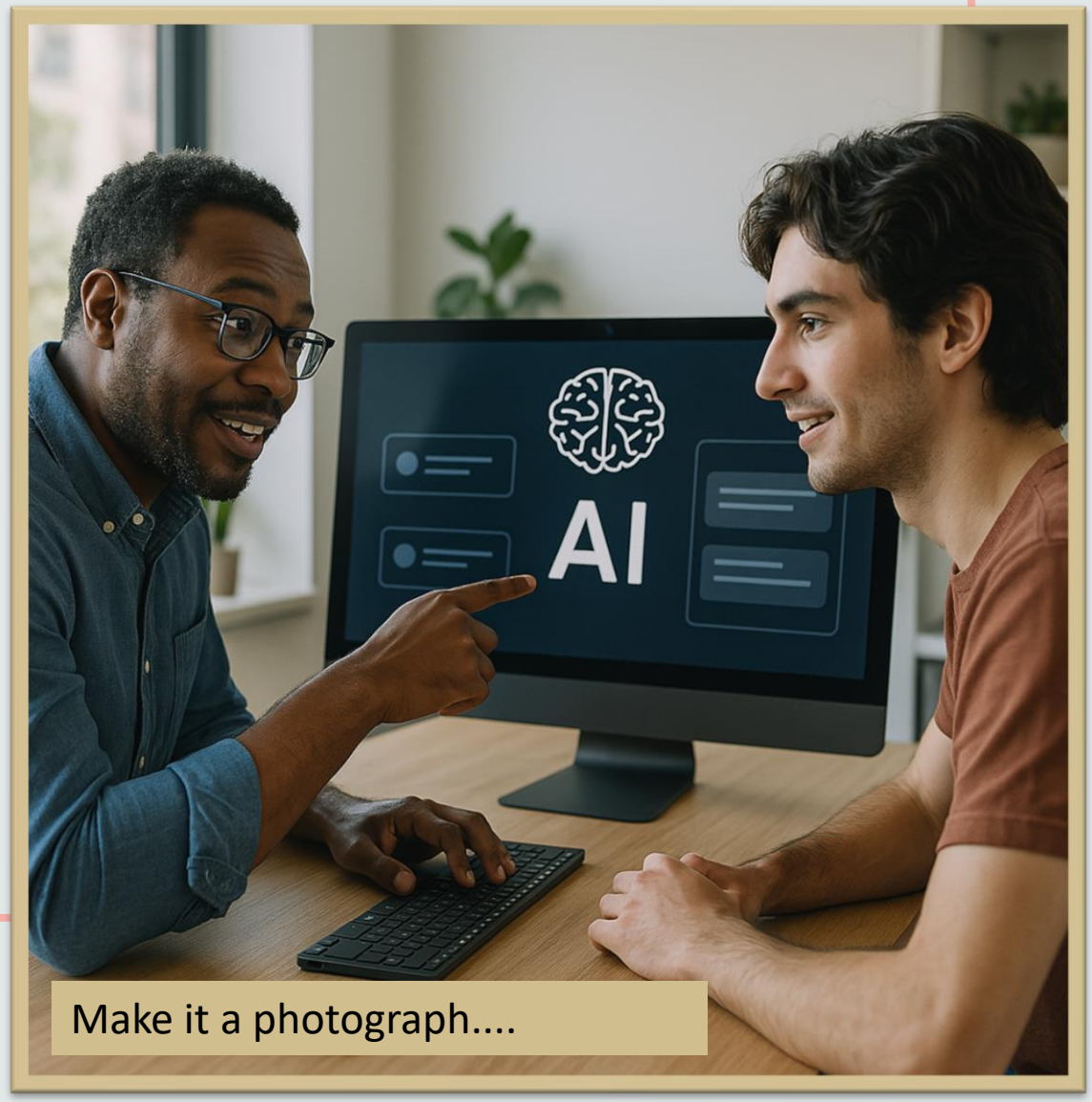
MS Copilot

IMAGE COMPARISON

MS Copilot

"PHOTO OF ONE PERSON TEACHING ANOTHER PERSON HOW TO USE AI"

Original image



Make it a photograph....

IMAGE COMPARISON

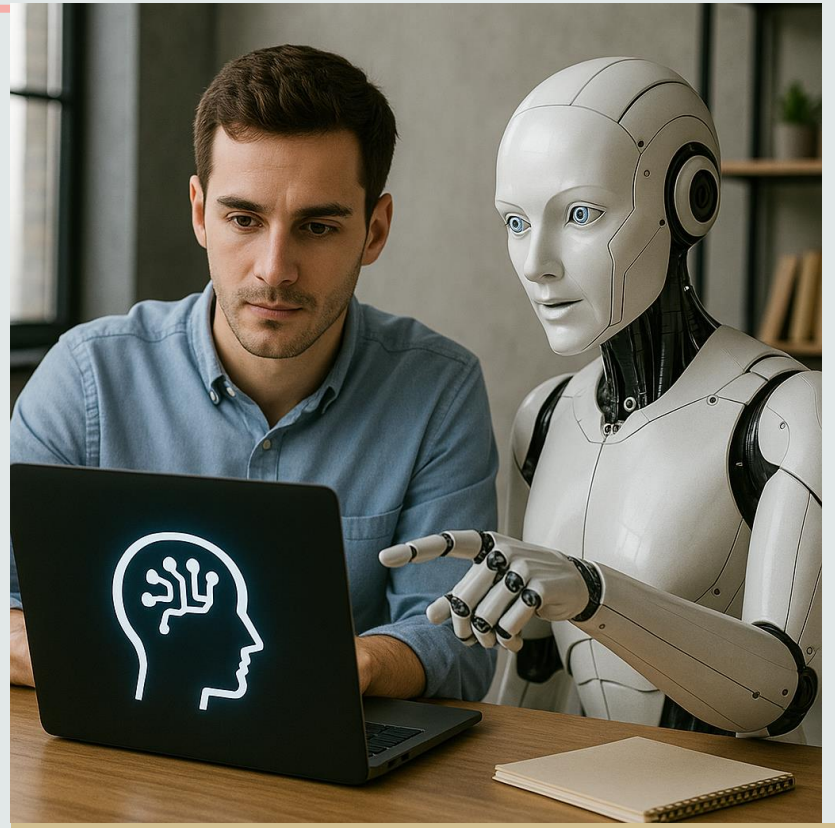
Google Gemini

IMAGE COMPARISON

ChatGPT

Original image

Make one person a woman over 60



Now make one of the people an android

"REAL LIFE" EXAMPLE: TECH CENTER POSTER

Original Poster: outdated text/graphics

But...

New Poster: image from CANVA.

"REAL LIFE" EXAMPLE: TECH CENTER POSTER

"REAL LIFE" EXAMPLE: TECH CENTER POSTER

So...
We AI'ed the AI

(We fed the Canva image to Adobe Firefly, which cleaned it up!)

NOW IT'S YOUR TURN!

Chatgpt.com

Copilot.microsoft.com

Gemini.google.com

NEED SOME IDEAS?

- Provide an ingredients list and ask for a recipe
- Ask for a summary of your favorite book (best results from older titles)
- Write a poem, love song, or cheesy ballad about the topic of your choice
- Trivia questions or party games about your favorite topic or historical figure
- Travel routes with specific destinations
- Have it draw something (login required)