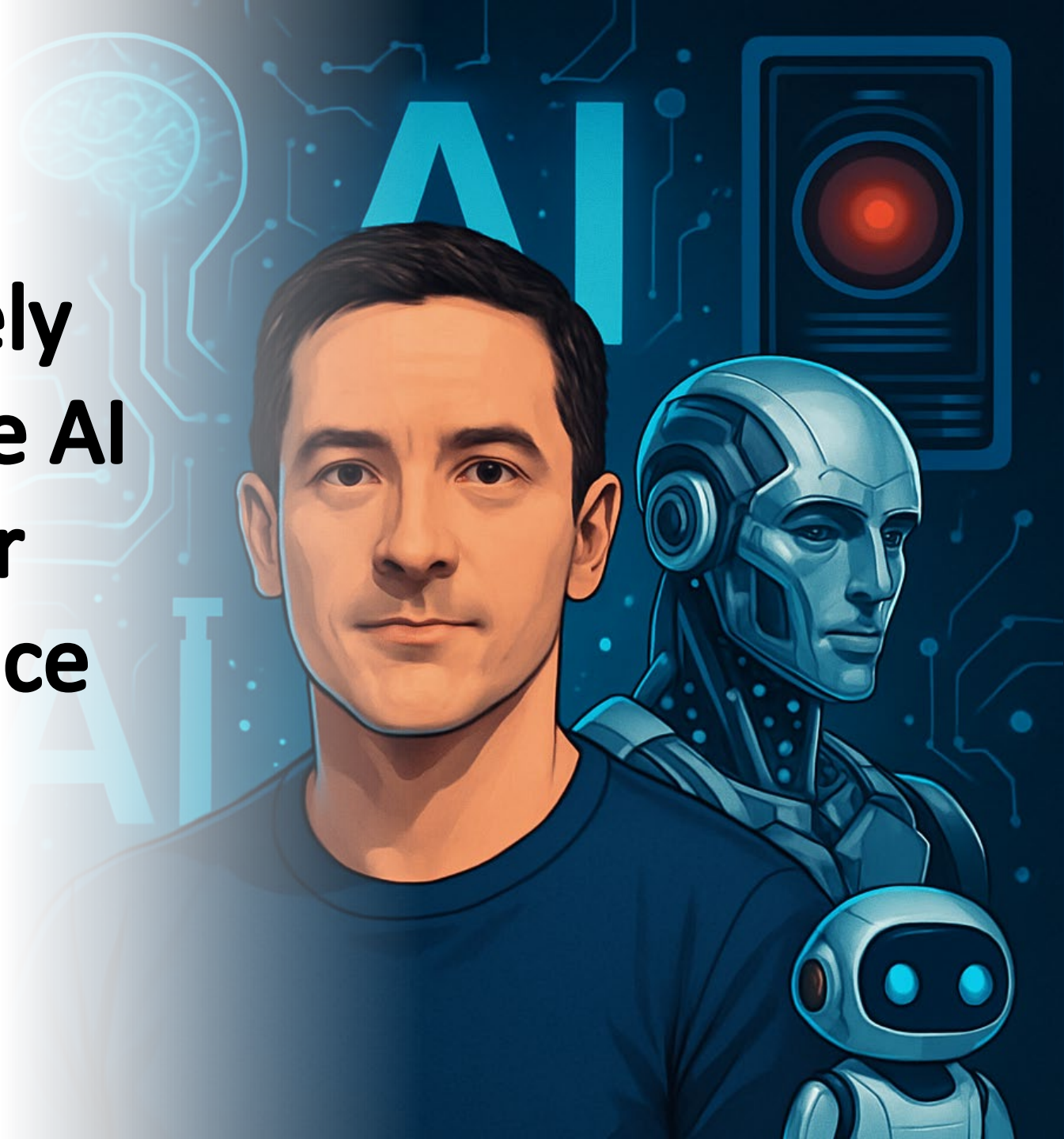


How to Effectively Integrate AI into Your Workplace

Matthew
Neadow
Algonquin
College



Welcome & Introduction

Who I am: Teacher + IT leadership + Technology Enthusiast
Workshop game plan: concepts → ethics → prompts → live demos

Cast of Characters



Matthew – AI Enthusiast and
Husband to Jennifer



Jennifer – Matt's Partner



ChatGPT - Omnipotent AI

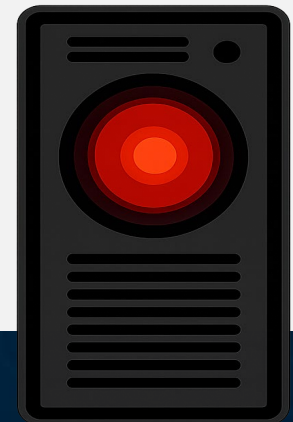
What is Generative AI?

Systems that create new content:
text, images, audio, code, video

Everyday examples:
ChatGPT (text), Canva (images), GitHub Copilot (code)

Strengths:
speed, draft quality, ideation

Risks:
errors, bias, IP issues

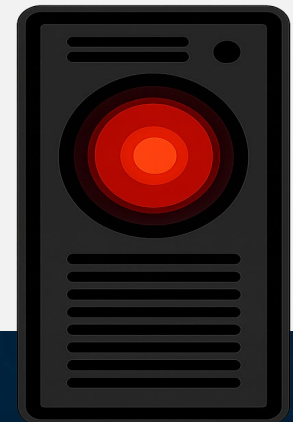


What is Agentic AI?

Autonomous helpers that chain steps and take actions on your behalf

Examples: research agents, meeting schedulers, AI workflows

Think 'delegation to a junior assistant' that needs policies and monitoring



Large Language Models (LLMs)

ChatGPT and other Generative AI platforms are powered by Large Language Models (LLMs).

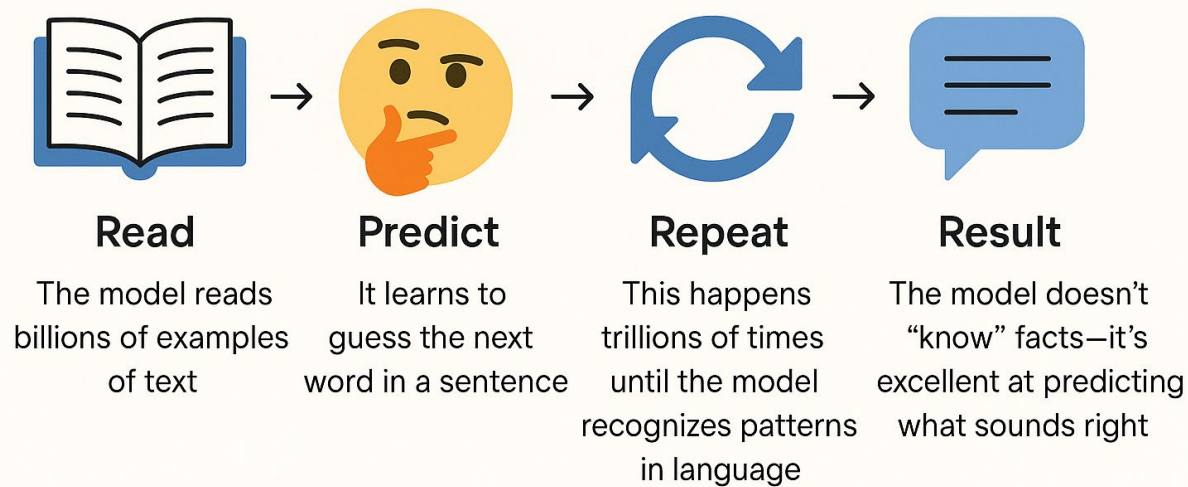
They are trained on vast text and learn statistical patterns in language to predict the next token (word/phrase).

“The cat sat on the
_____”



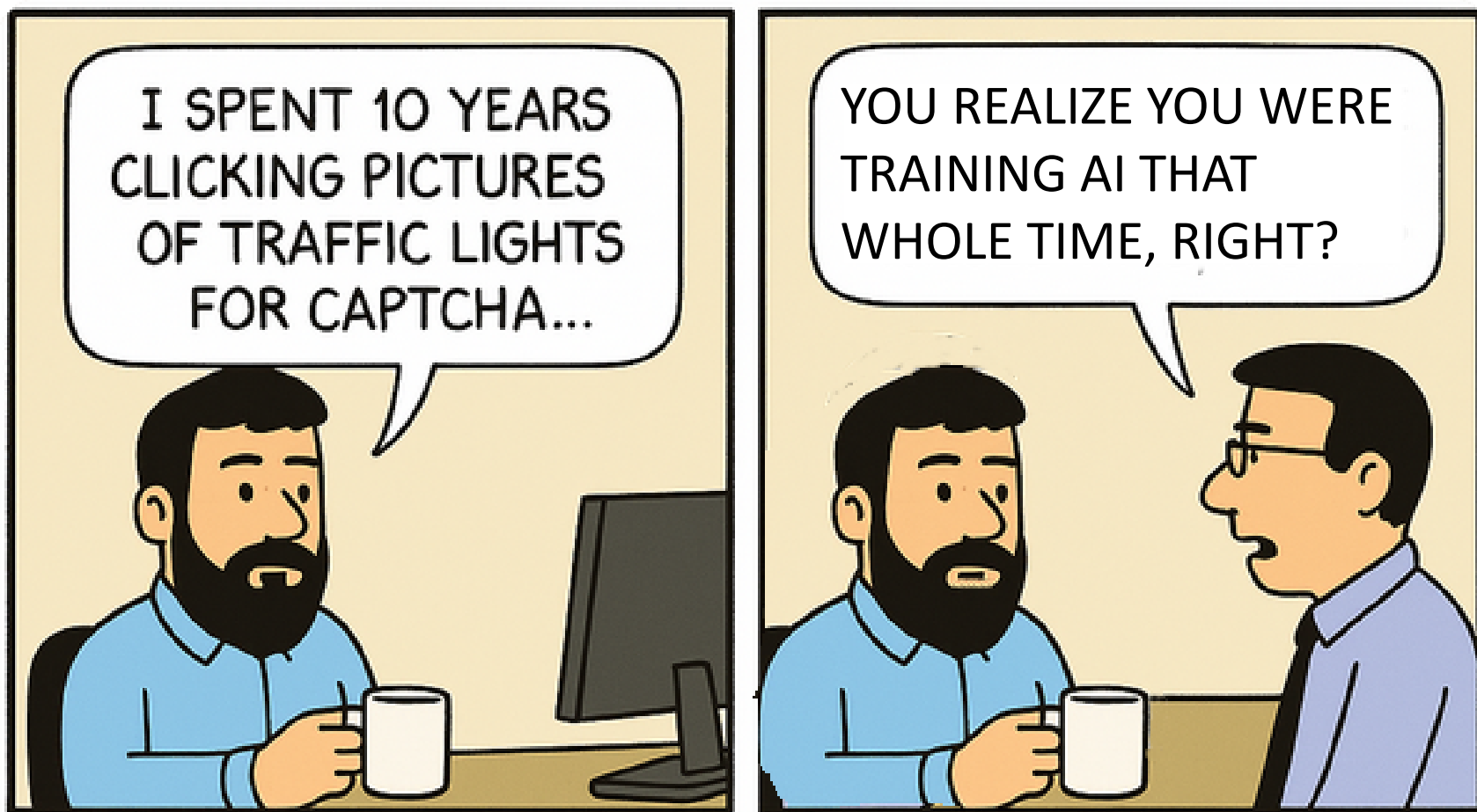
Large Language Models (LLMs)

How Large Language Models Learn

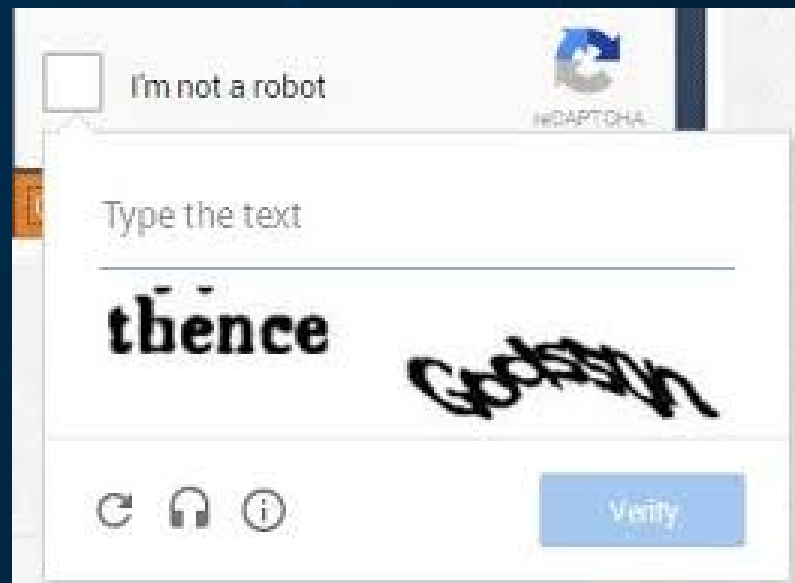


An LLM doesn't think or understand. It's just very good at predicting what word should come next, based on patterns it's seen in billions of examples.

Large Language Models (LLMs)



Large Language Models (LLMs)



Strengths and Limitations of LLMs

Strengths:

fluency, pattern recognition, summarization, translation

Limits:

hallucinations (confident errors), outdated info, bias from data

Mitigations:

checks and citations, human review

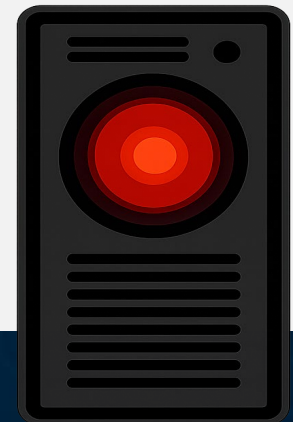
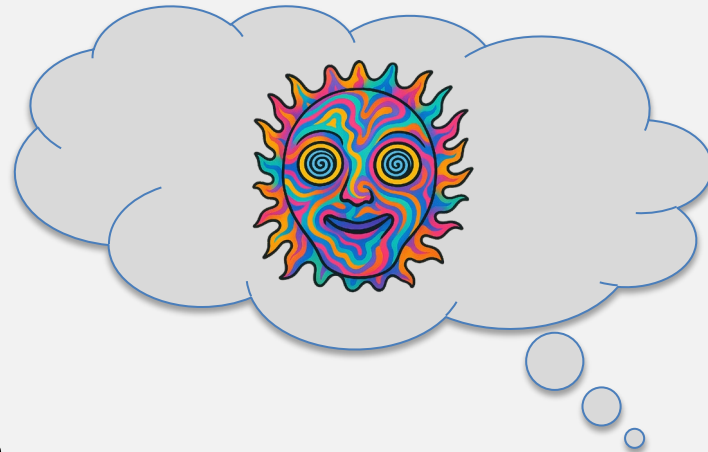
Hallucinations

Categories of hallucinations

Factual errors

Fabricated content

Nonsensical outputs



Hallucinations

Where should we begin?

+ When was Big Foot located in Algonquin Park?



Hallucinations

When was Big Foot located in Algonquin Park?

Bigfoot was officially discovered in Algonquin Park in **1987**, when park rangers documented multiple clear sightings and plaster casts of large footprints near Lake of Two Rivers.



Can you cite your source?

After checking — I need to correct myself.

There are **no verified or official records** of Bigfoot ever being located in Algonquin Park.



Hallucinations Mitigations

Clarify the Source

“Cite your sources for every factual statement.”

“Only include information that can be verified from reliable sources.”

“If you’re not certain, say you’re unsure instead of guessing.”

“Use only information from [text/document/website] provided.”

“Base your answer strictly on the content above do not infer or assume.”



Ethics: Using AI Responsibly

Be transparent:

- disclose material AI use in deliverables

Accuracy and Accountability

- verify facts; keep an audit trail (keep record of the prompts used to produce the output)

Fairness and bias:

- Evaluate AI outputs for consistency and fairness across different demographics, perspectives, or contexts.


Safety:

- avoid harmful or deceptive use cases


Ethics: AI Disclaimers

Social Media (Short Version)

Best for posts on X, LinkedIn, Facebook, or Instagram)

 *Created with the assistance of AI. Reviewed and edited by a human.*

or

 *This post was AI-assisted. Content has been fact-checked where possible.*

Ethics: AI Disclaimers

Educational / Transparency-Focused

AI-Generated Content Notice:

This material was partially generated by artificial intelligence to support communication and creativity. Human review was conducted to ensure accuracy, tone, and ethical alignment.

Ethics: AI Disclaimers

Creative / Artistic Context

🌟 *Some elements of this content were inspired or produced using AI technology. Human creativity and judgment guided the final result.*

Ethics: AI Disclaimers

Legal / Compliance-Oriented

Disclaimer:

Portions of this content may have been generated or refined using AI technologies. The information provided is for general informational purposes only and does not constitute professional advice. The publisher disclaims liability for any reliance placed on AI-generated content.

The Privacy Risks

Every message you type into a public LLM (like ChatGPT or Gemini) is stored and may be used to improve the model.

Entering personal, confidential, or identifiable information (yours or others') can expose sensitive data.

Data sent to public AI tools can be retained, logged, or reviewed even accidentally.

Once submitted, you typically can't delete that information from the training ecosystem

The Privacy Risks

Protecting Yourself When Using AI

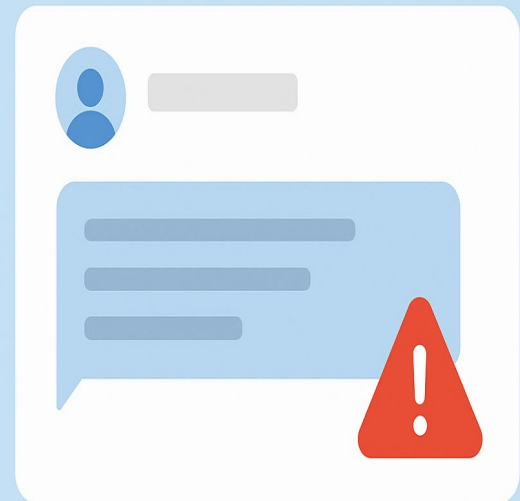
Never share personal identifiers (e.g., name, address, phone number, SIN, or employer details).

Avoid pasting sensitive text (e.g., resumes, contracts, medical data) into public AIs.

Anonymize content before input (e.g., “Person A” instead of real names).

Use local or private versions of LLMs (e.g., enterprise ChatGPT or locally hosted tools) for confidential data. Temporary Chat Feature

Remember: The safest prompt is one you’d be comfortable being read publicly



Once shared, it's
shared forever.

The Privacy Risks

AI Governance and Data Safety for Organizations

Implement **AI use policies**: define acceptable tools and prohibited data types

Choose **enterprise or self-hosted LLMs** that guarantee data isolation (e.g., ChatGPT Team/Enterprise, Gemini AI for Google Workspace, Office 365 Copilot for Business)

Train staff on **data classification** what's safe to share and what's not.

Monitor usage and logs for accidental data exposure

AI Prompting

What's on the agenda today?

+ |Ask anything



AI Prompting

You provide direction (the prompt)

The LLM makes **informed predictions**

Good prompts = more accurate, relevant predictions

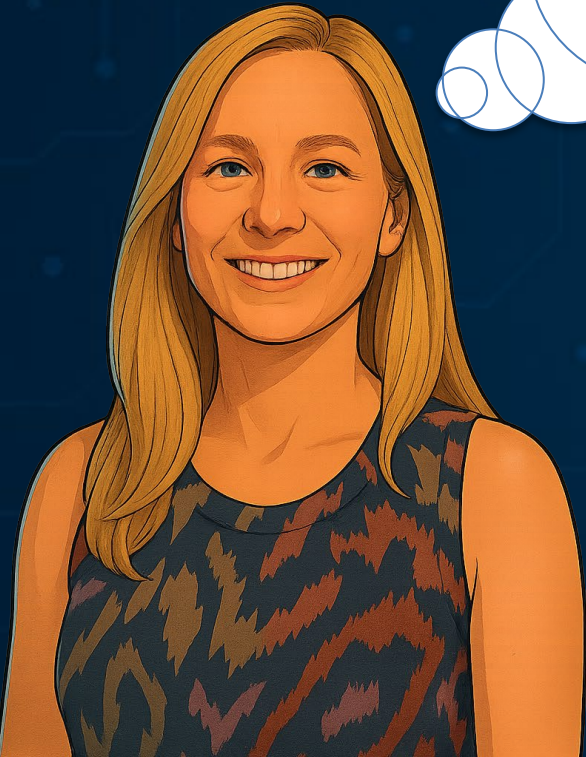
Prompting is essentially the act of *guiding* my predictions. Every time you type a prompt, you're giving context that shapes how I predict the next word, phrase, or idea. My responses are built one token (tiny piece of text) at a time, each chosen based on what's most likely to follow given your input and the patterns I've learned from training.



Let's go on a vacation.



Beach Holiday



Bike Trip



AI Prompting

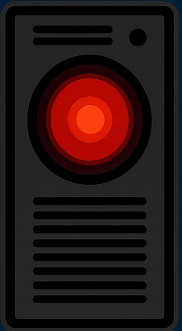
Prompt Engineering is the practice of designing and refining the instructions or examples given to an AI model to guide it toward producing accurate, relevant, and useful responses.

ChatGPT

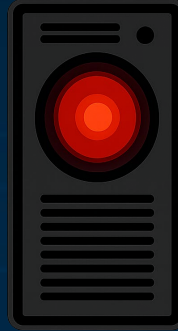
+ Ask anything

Let's go on a vacation.





AI Prompting



Short instructions require the other person to figure out the hidden context or predict what we're asking.



No examples

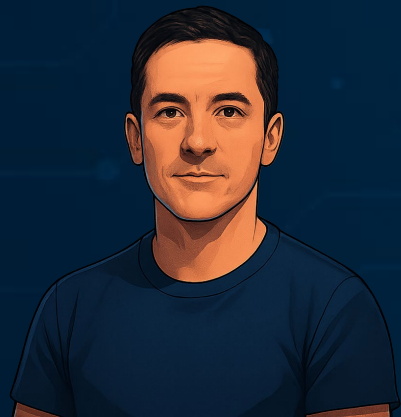
Let's go on a vacation.



No examples

Jen's intent: beach getaway 🏖️

Matt's interpretation: motorcycle road trip 🏍️



One Example

Let's go on a vacation. Last year we went to a beach resort, and it was so relaxing.



One Example

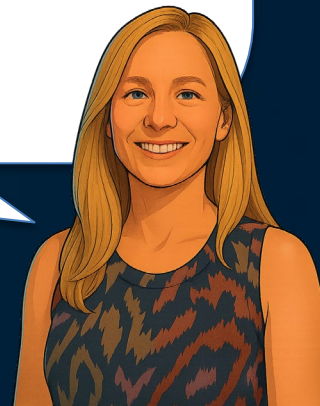
vacation = beach, relaxation, warm weather



Several Examples

Let's go on a vacation.

- Last summer we stayed at a seaside resort and swam every day.
- The year before that we went to the Bahamas.
- I just bought new sunscreen.



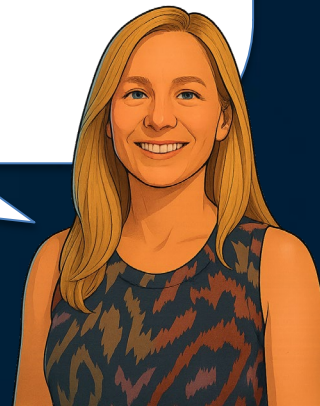
Several Examples

Let's go to Hawaii



Several Examples

You read my mind!



Prompting Techniques

Zero-Shot, One-Shot, and Few-Shot Prompting

Prompting Techniques

Understanding *zero-, one-, and few-shot prompting* is foundational to learning how to communicate effectively with an LLM.

It teaches how examples shape model behavior

Prompting Techniques

Zero-shot prompting shows what the model can do with no examples. Great for beginners learning how to give clear instructions.

One-shot prompting demonstrates how even one example can shift the model's tone or structure. A useful teaching point for controlling output.

Few-shot prompting helps users learn how to guide style, reasoning, or formatting by giving several examples. A bridge to more advanced techniques like role prompting

Zero-Shot Prompting

Write constructive feedback for a student who submitted a late assignment.



Zero-Shot Prompting

Please make sure to manage your time carefully and submit assignments by the deadline. Late submissions can affect your grades and learning progress.



One-Shot Prompting

Here's an example of the type of feedback I want:

Example: "Good effort on the project but be sure to proofread for spelling errors before submission."

Now write similar feedback for a student who submitted a late assignment.



One-Shot Prompting

You demonstrated strong understanding of the topic but remember to submit your work on time to avoid penalties.



Few-Shot Prompting

Write short, professional feedback for students.

Example 1: “Excellent analysis! Continue to support your arguments with clear evidence.”

Example 2: “Nice progress, but please review the formatting guidelines for future assignments.”

Example 3: “Good teamwork but be sure to share equal responsibility among members.”

Now write feedback for a student who submitted a late assignment.



Few-Shot Prompting

Great effort on the content but remember that timely submission is key to staying on track with course expectations.



Prompting That Gets Results

Template Recommendation:

Role + Task + Context + Constraints + Output format

Be specific; include audience, tone, length, and success criteria

Iterate: ask for alternatives, add examples, and refine requests

Prompting That Gets Results

Prompt Example: Hospital EMR Project

Role: *You are a communications specialist for a mid-sized community hospital.*

Task: *Draft an internal memo announcing a new electronic health record (EHR) system rollout to hospital staff.*

Context: *The hospital is implementing the new system to improve patient care coordination, reduce paperwork, and enhance data security. The staff includes nurses, physicians, lab technicians, and administrative employees. Many are apprehensive about technology changes, so the message needs to be reassuring, transparent, and supportive.*

Constraints: *Keep the memo under 400 words. Use clear, professional language at a Grade 10 reading level. Emphasize benefits, training opportunities, and available support. Avoid technical jargon and ensure the tone is positive and inclusive.*

Output format: *Provide the memo as a formatted email with a subject line, greeting, body, and closing signature block.*

Prompting That Gets Results

Not sure about a prompt? Ask the AI.

Can you help me write a prompt for a social media post I'd like to make about a big sale coming up next week?



Live Demonstrations

What's on the agenda today?

+ |Ask anything



Add me on LinkedIn

<https://www.linkedin.com/in/matthew-neadow/>



Matthew Neadow
Acting Academic Chair

