

Week 2: How AI Works and How to Work with AI

Polson School District Adult Ed - 10/12/26

Today – learning.connormulvaney.com

- Check in
- Part 1 - LLM Learning
 - Key Terms and demos
- Part 2 - Independent work
 - Further exploration with AI and LLMs

Week 2 - Check in

Welcome new faces! - Please sign a waiver and pay \$10

A few questions for the group:

1. What did you do with AI since last Monday? What tool did you use and what did you do with it?
2. What is one question that you have about AI?
3. What feedback do you have for me? What would make this class even better?

Scheduling

Schedule:

- Mon - Oct 12th - **Class**
- Mon - Oct 19th - (Loga running class! - Connor out of town)
- Mon - Oct 26th - **No class** (Connor out of town)
- Mon - Nov 2nd - **Class**
- Mon - Nov 9th - **Class**
- Mon - Nov 16th - Connor out of town
- Mon - Nov 23rd - **Class**

Who is in the room?

- Everyone has used AI at least a little. Most of you (10 of 16) said you're "curious but cautious."
- Average confidence: 2.7 out of 5. I'll ask again in our last class.
- **What you're hoping for:** personal projects and everyday life (14) · understanding how AI works, what's real, staying safe (13) · using AI at work or for a business (11)
- **What you want to try:** researching (11) · writing (10) · making images (10) · summarizing documents (8) · building your own AI assistant (8)
- **What makes you hesitant:** privacy (14) · accuracy (11) · environmental impact (9) · trust in the companies (7)
- **Some of your projects:** a daily news podcast for the commute · animating a children's book · music for videos · a mural design · a diet and exercise helper

Part 1 - How does AI Generate Things?

Group Learning

What is AI?

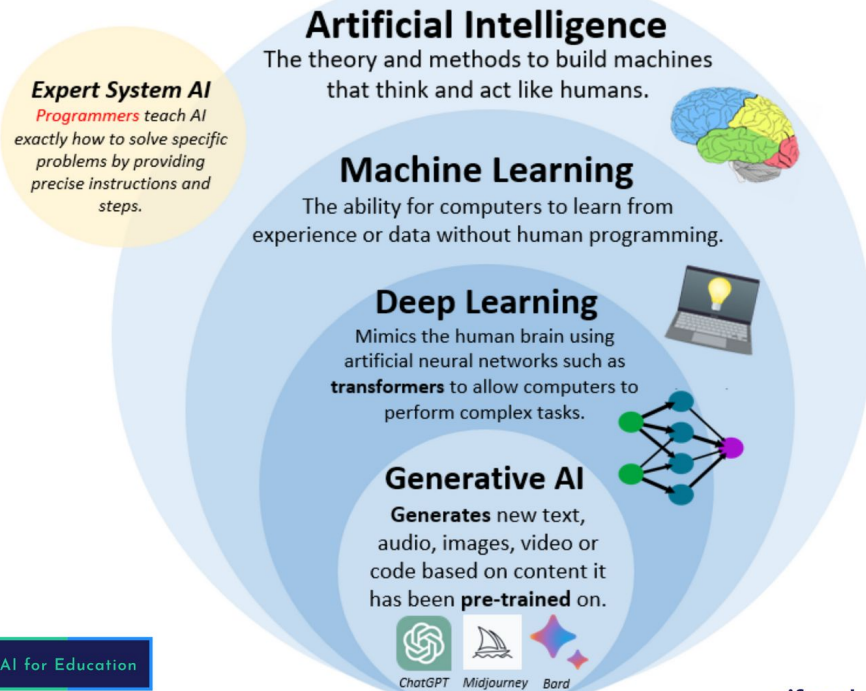
Much of the 2010s and 2020s has been defined by machine learning and deep learning (Netflix, Google maps, etc.)

ChatGPT (and other chatbots) are a powered by new AI programs called **Large Language Models (LLMs)**

“AI” is too broad of a term - **Generative AI (GenAI)** is better

Defining Generative AI

To understand generative artificial intelligence (GenAI), we first need to understand how the technology builds from each of the AI subcategories listed below.

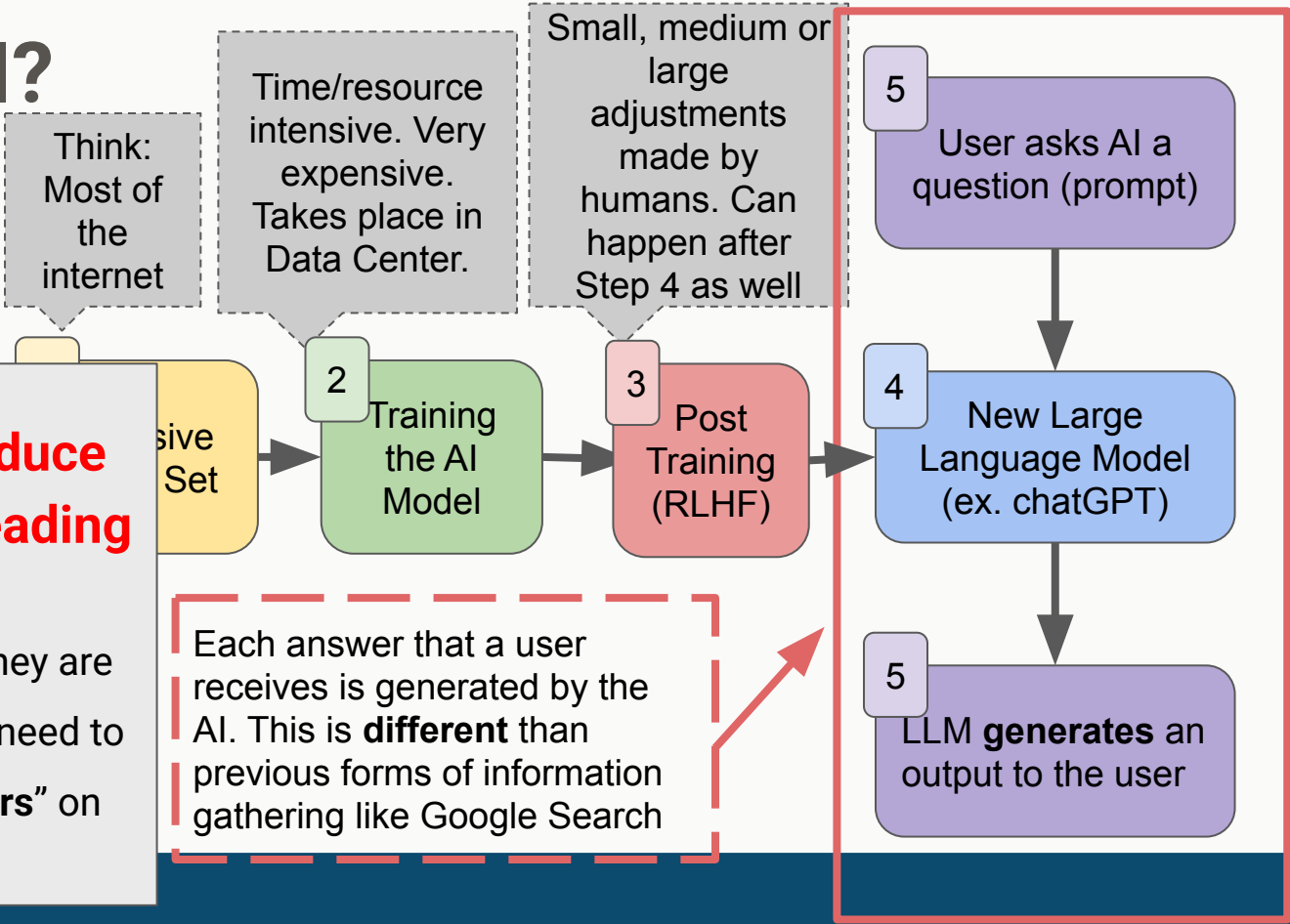


What is GenAI?

Generative AI chatbots have **tremendous capabilities**. They perform in the top

AI chatbots will produce inaccurate and misleading information!!!

This does not mean that they are unhelpful, it just means we need to have our **“baloney detectors”** on



Can you predict the next word in the sentence?

1. My favorite food to eat for lunch as a kid was macaroni and CHEESE.
2. It is raining cats and DOGS.
3. You can lead a horse to water but you can't make it DRINK.
4. I like coffee with cream and SUGAR.
5. I like to eat sandwiches with jelly and SUNBUTTER.
6. The team that is going to win the Brawl of the Wild this year is _____.



Can you predict the next series of words in the sentence?

1. After you turn off the lights, you should _____.
2. When I'm feeling stressed, I like to _____.
3. First you add the tomato sauce, then you _____.
4. When preparing for a trip, don't forget to _____.
5. The average distance between the earth and moon is _____.

When I ask a GenAI chatbot a question, it is predicting the “best” response. “Best” doesn't always mean correct.

Zooming Out

How does an AI chatbot function? What is it's foundation?

It predicts the next word in the sentence.

Not only is this technology new, it also functions differently than previous types of computer software.

Calculator:

1. I enter numbers
2. I enter the operation
3. The numbers get calculated to determine an output

Deterministic Software

AI Chatbot (LLM):

1. I enter a question (prompt)
2. The program predicts the output (one word at a time)
3. This is surprisingly effective

Probabilistic Software

Paradigm Shift

We are at the early stages of a technology that is going to continue to advance and proliferate into many aspects of our digital lives.

AI will make mistakes. AI will surprise you in positive and negative ways.

Because this technology is new, it is helpful for us to approach it as a new type of software.

AI Chatbot ≠ Google Search

General AI Guidelines

1. *Do not enter any Personal Identifiable Information (PII) into an AI chatbot. – Ex. Financial info, Intellectual Property (IP), confidential information, etc.*
2. **AI works best as a collaborative partner.** Your output from AI is going to be best if you work together.
3. **AI has strengths and weaknesses.** Remain in the driver's seat and make to review and check AI's output.
4. **Bring AI to work.** I don't always know how AI will help me, but when I bring it to “work” it will surprise me.

Privacy

1. **Never type:** passwords, login codes, Social Security numbers, full account or card numbers. AI doesn't need them to help you, and they're exactly what a scammer wants.
2. **Your call:** your own health, money or legal stuff. Lots of people use AI for budgets and medical questions, and it can really help. Turn off training or use a private chat, and leave out names and numbers it doesn't need.
3. **Connecting an account is a bigger step.** ChatGPT can now link to bank accounts, and agents like Meta's Muse can connect to your email, calendar and payments. That's ongoing access, not one message. Use the official version, check what it can see and do, and know how to turn it off.
4. **Not your call:** other people's private info (patients, clients, customers). Your workplace rules decide that.

Part 2 - Getting better outputs

Check in first... any questions??

One more thing

Each AI company creates different models.

Big model (GPT Astra/Sol, Claude Opus/Fable, Gemini Pro)

- “Very smart”, good for complex long horizon tasks, takes longer to respond, expensive

Medium model (GPT Terra, Claude Sonnet, Gemini thinking)

- Balanced capability & speed, good for most tasks

Small model (GPT Luna, Claude Haiku, Gemini Flash)

- Fast & cheap, quick responses, generally higher error rate, **often what most people use**

I probably will have to update most of these names in 2-6 weeks.

How to get a better response from AI?

There are different things that you can do to get a better response from AI.

To simplify, I have split into 4 groups.

Above all of this is EXPERIENCE. **More experience with AI will be most valuable**

Write a good prompt.

Becoming less important, though the idea of “*how should AI work?*” remains important

Use a good model

Large vs small model. Use both, see the difference. Don't conclude “AI can't do ___” from one chat

Integrate AI into your workspace

AI can connect to software (Google Calendar/Gmail, Slack, internet browser) and do work for you in those spaces.
Easiest way to do this: Claude Code/Cowork, ChatGPT Codex/Work

Use your expertise

What should AI do and why? How should data be analyzed? What assumptions should (and shouldn't) AI make? What things should (and shouldn't) AI do?

**Intermediate/
Advanced**

Which one of these do you think is most important?

AI Prompting 101: The Interview

Task: I want a packing list for a summer trip that I am planning this summer.

Beginner Prompt:

Write me a packing list for a month long trip to Ireland during the month of July.

Improved Prompt:

I am going on a month long trip to Ireland. **I want you to ask me 10 questions, one at a time, about my trip in order to better understand my context.** Once complete, write me a personalized packing list.

AI Prompting: The Interview

Format:

I am a **[ROLE]** at a **[WORKPLACE]** and I am working to **[TASK]**. I want you to ask me 10 questions, one at a time, about my _____ in order to better understand my context. Once complete, write me a **[OUTPUT]** in **[FORMAT]**.

What is a task that you could see this being helpful for?

My workflow

GOAL: Improve this class through participant input and goals

1 **Idea:** What if I could get more information from participants in the class

2 **Brainstorm:** Ways to collect information. How can AI assist in this process?

3 **Solution:** Build a webapp for survey administering and data collection (~1 hr + tweaking and adjusting)

4 **Brainstorm:** What questions should this survey ask to my participants?

5 **Build:** AI writes survey and connects to website to create survey form

6 **Administer Survey**

7 **Build:** AI looks at all responses and builds "learner profiles"

8 **Customize:** AI creates learning tasks based on participant goals and experience

My workflow

Filled profile table in context file and updated privacy note >

I've pulled the survey data, grouped the class, and written up the profiles. One exclusion needs your OK. 15 people responded.

Files

- [learner-profiles.md](#): class snapshot, four groups, a roster of first names, the questions people raised and which week they fit, Week 2 recommendations, and practical flags
- **Participant Information/** contains four spreadsheet files:
 - responses, one row per person
 - [contact-list.csv](#): full name, preferred contact method, email, phone. 14 gave a phone number and 5 gave an email
 - the excluded row
 - a question key
- I filled in the profile table in **fall-26-context.md**. I also updated the privacy note in **adult-ed-master-context.md**: first names are fine in your planning docs, and full names and contact info stay in the Participant Information folders.

Part 3: Individual Work Time

General Idea

3 Independent learning tasks. You choose which one(s) you want to work on:

- Task 1 - Turn on your Baloney Detector
 - “Fact checking AI”
- Task 2: Same Question, Two Responses
 - Comparing different AI models on the same task
- Task 3 - Map your workflow
 - Big picture project planning