

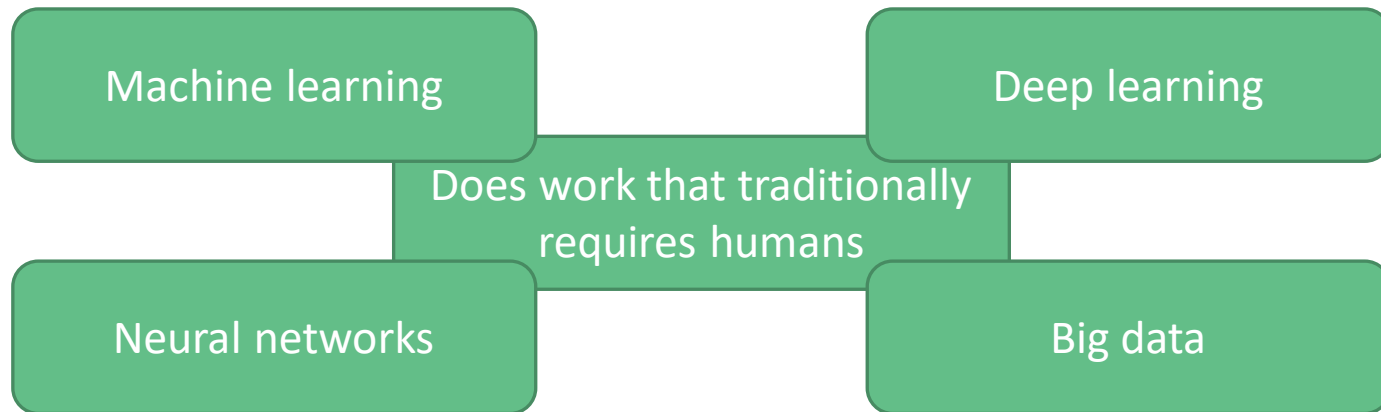
AI is Here: Everything You Need to Know

DRAY MCFARLANE, TASIO CO-FOUNDER

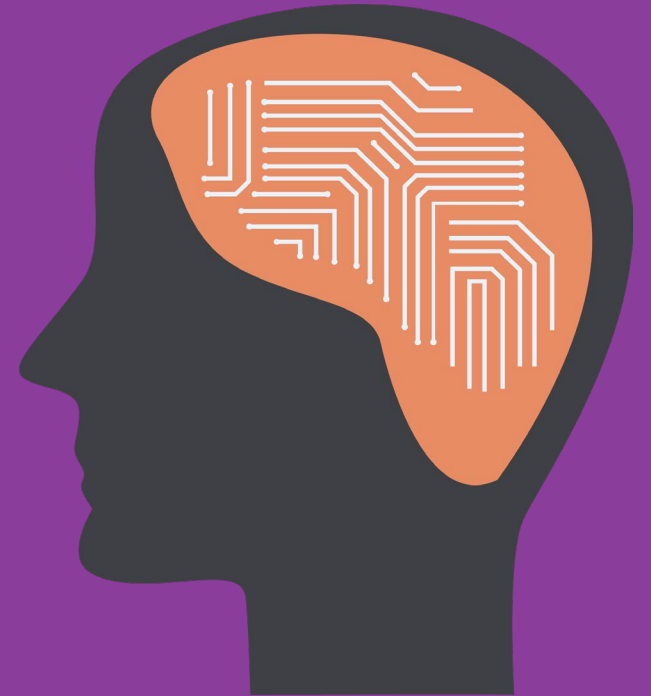


Image courtesy of DALL-E 2

WHAT IS AI?



Why does it matter?



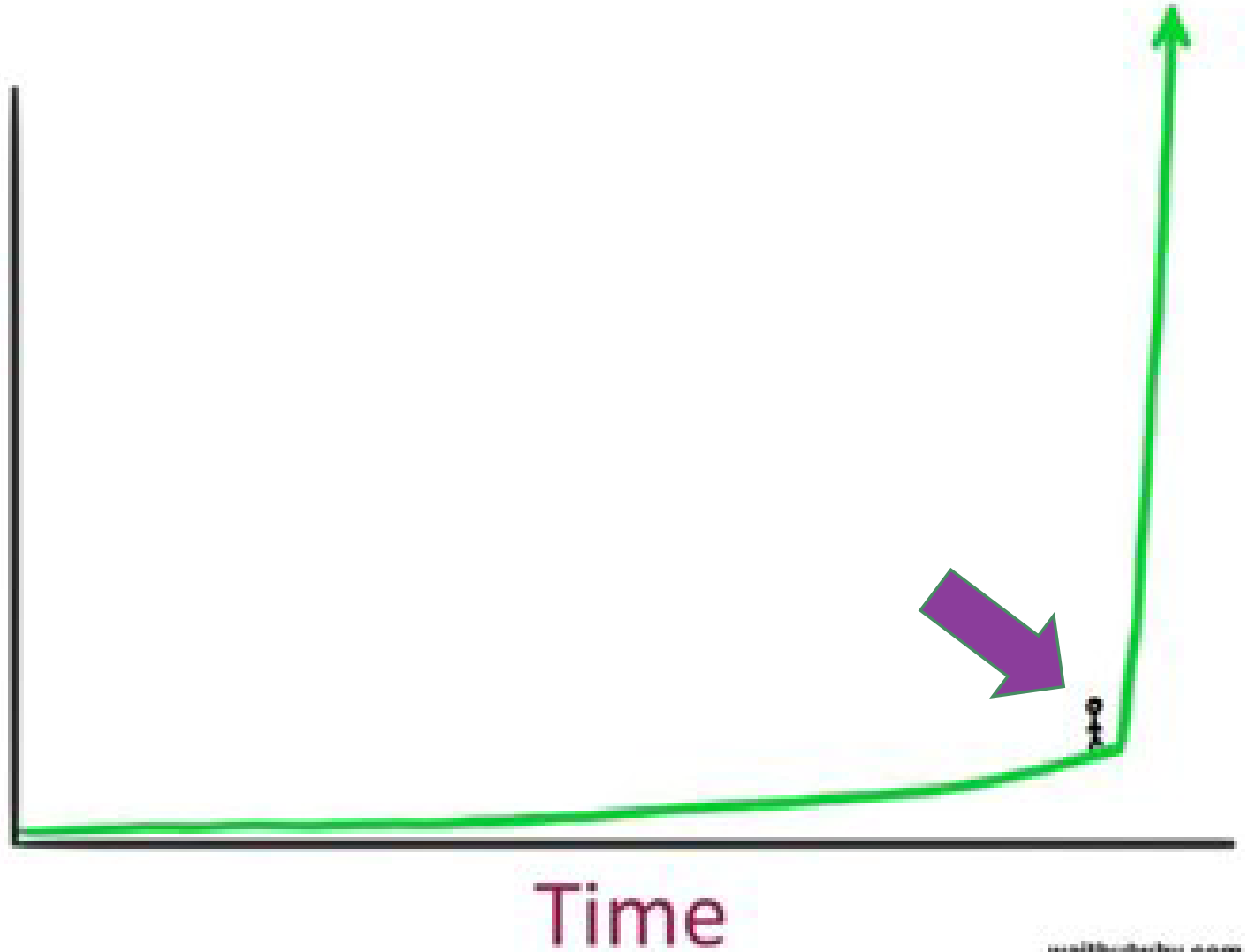
This is from 2015

What causes the
turn?

Where are we on
this line now?

What's coming next?

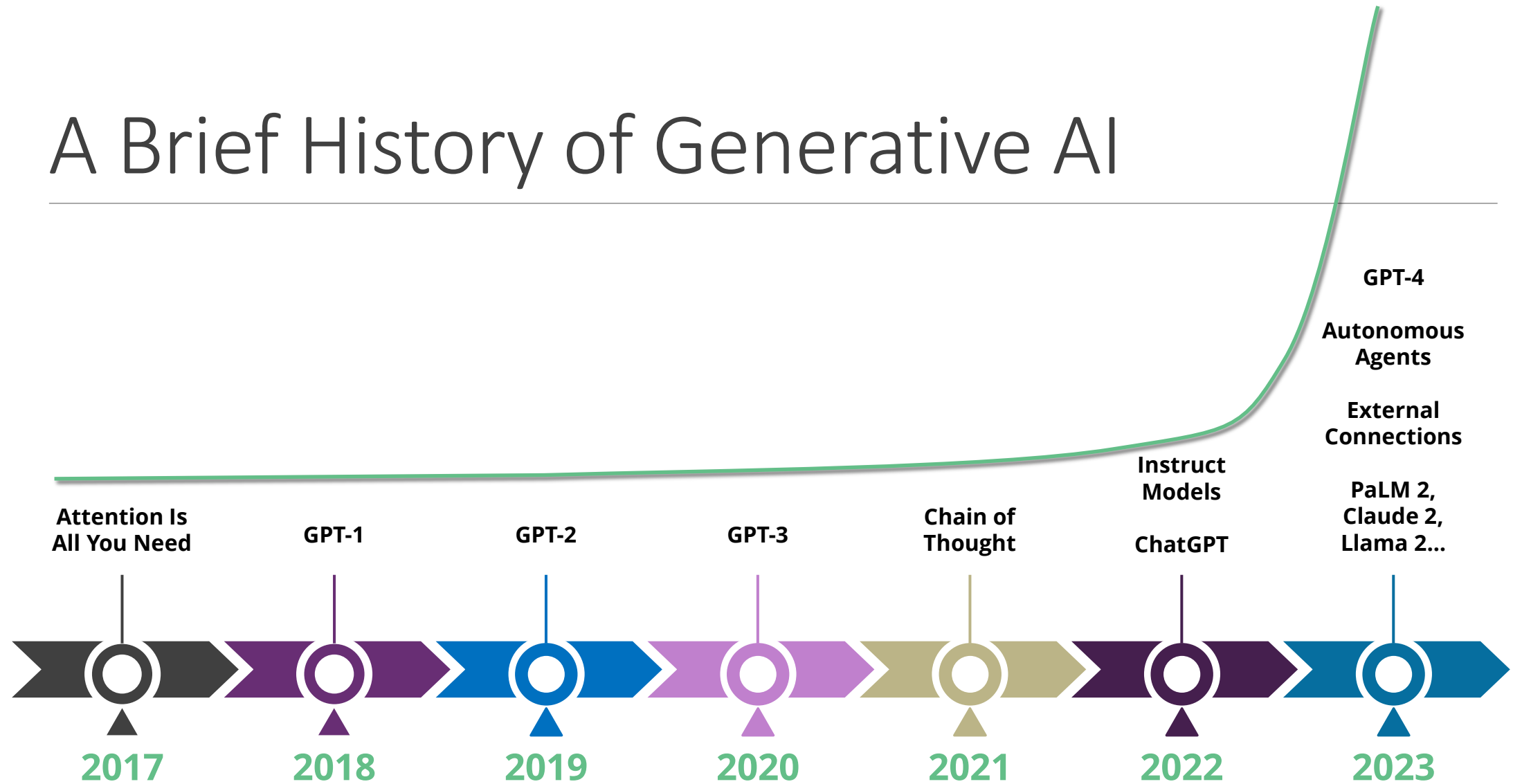
Human Progress



waitbutwhy.com

Image <https://waitbutwhy.com/2015/01/artificial-intelligence-revolution-1.html>

A Brief History of Generative AI

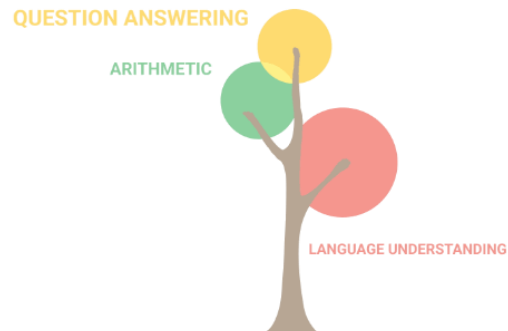


Generative AI is **NOT**

- Conscious
- Unbiased
- Human replacement
- Inherently evil

Generative AI **IS**

- Sophisticated auto-complete
- Data and human training
- A little surprising to creators!
- Full of emergent behaviors



8 billion parameters

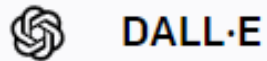
How do we get the most out of AI?

Specific tools for some specific tasks

AUDIO ↔ TEXT



IMAGE MANIPULATION



WRITING SUPPORT



ShortlyAI



How do we get the most out of AI?

Generic approach for others!

Translate

- Read and write effectively in most languages

Summarize

- Reduce long content to single paragraph or key points

Understand

- Get intent, meaning, tone, and more

Create

- Generate new content with your knowledge

Refine

- Editing, suggested changes for greater impact



Classic Example: Concrete Content



Title: Credit Unions vs Banks



Certainly! Here's the comparison of banks and credit unions in a table format:

Aspect	Credit Unions	Banks
Ownership Structure	Member-owned, not-for-profit organizations. Members have a say in decisions.	For-profit institutions owned by shareholders. Profit-driven decisions.
Customer Service	Personalized service; smaller and community-based. Strong focus on relationships.	Varies in quality; can be less personal due to size.
Fees and Interest Rates	Lower fees, competitive interest rates on loans and savings accounts.	Higher fees, may offer lower savings rates and higher loan rates.
Access to ATMs and Branches	Smaller network of ATMs and branches, but may participate in shared networks.	Larger network of ATMs and branches, more convenient for frequent travelers.
Technology and Digital Services	Advancing in technology, but may lag behind banks in digital offerings.	Heavy investment in technology, offering robust digital banking services.

side by side?

larger and may experience.

rates on loans

and aim to

ings accounts



Col

Ownership

- **Credit Union:** A credit union is a member-owned financial institution. It is owned by its members, who elect a board of directors to oversee the institution's operations.
- **Bank:** A bank is a for-profit financial institution. It is owned by shareholders and aims to maximize profits for its owners.

Prompting Techniques

INSTRUCTION
ROLES
CHAIN OF THOUGHT
FEW SHOT
THINK-REASON-PLAN-ACT
PROMPT CHAINING

Provide clear, well-designed instructions to the AI model.

This is the baseline prompt – all other prompts build on this one to generate better responses.

DR

Write a short blog post comparing credit unions to banks in an easy to consume format, highlighting the benefits of credit unions at the end

Prompting Techniques

INSTRUCTION
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PROMPT CHAINING

Assign specific perspectives or identities to the AI model. This is a creative way to prime the model and elicit content aligned with the desired output.

DR

You are a marketing manager at <...>

Your organization focuses on <...>

You're trying to promote <...>

Your customers are asking questions about <...>

Prompting Techniques

INSTRUCTION
ROLES
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FEW SHOT
THINK-REASON-PLAN-ACT
PROMPT CHAINING

Structure the prompt sequentially so the model can reason through a complex problem or concept. This technique works best for simple problems that don't require creativity.

DR

What do I need to include in a blog post promoting my credit union? Let's think through this step by step.

Prompting Techniques

INSTRUCTION
ROLES
CHAIN OF THOUGHT
FEW SHOT
THINK-REASON-PLAN-ACT
PROMPT CHAINING

Use examples of what you want to generate a meaningful response. This type of prompting is useful when you have something specific in mind or have completed a similar task successfully in the past.

DR

Write a short blog post comparing credit unions to banks in an easy to consume format. Here's an example of other blog posts from my organization that were particularly successful - try to match the tone and style:

<...>

Prompting Techniques

INSTRUCTION
ROLES
CHAIN OF THOUGHT
FEW SHOT
THINK-REASON-PLAN-ACT
PROMPT CHAINING

Instruct the model to go through the steps of thinking, reasoning, planning, and executing. This type of prompting works well for complex, multi-step problems and coding.

DR

I am going to ask you to perform a task. I need you to respond in the following format:

Think - Jot down all of your thoughts here. What am I asking you to do? Why do you think I am asking this?

Reason - Use this section to reason through your response. Be empirical and thoughtful in your reasoning. Be sure to take it step by step.

Plan - Use your initial thoughts and reasoning to create a plan of action. This will be how you will accomplish the task.

Act - Finally, execute your plan in this section

Task: Write a short blog post comparing credit unions to banks in an easy to consume format, highlighting the benefits of credit unions at the end

Prompting Techniques

INSTRUCTION
ROLES
CHAIN OF THOUGHT
FEW SHOT
THINK-REASON-PLAN-ACT
PROMPT CHAINING

Use multiple prompts in succession to automate a complex cognitive process.

This is the catch-all prompt! All other techniques can be utilized in a prompt chain.

DR

What are some typical services provided by credit unions?

What are some typical services provided by banks?

...

Beyond Language

ChatGPT's (paid only) ability to connect to other applications is a great example of generative AI driving applications

New options such as reading PDFs or links, creating charts, or connecting to any number of external tools

Frameworks available to expand on this list for ChatGPT and your own applications

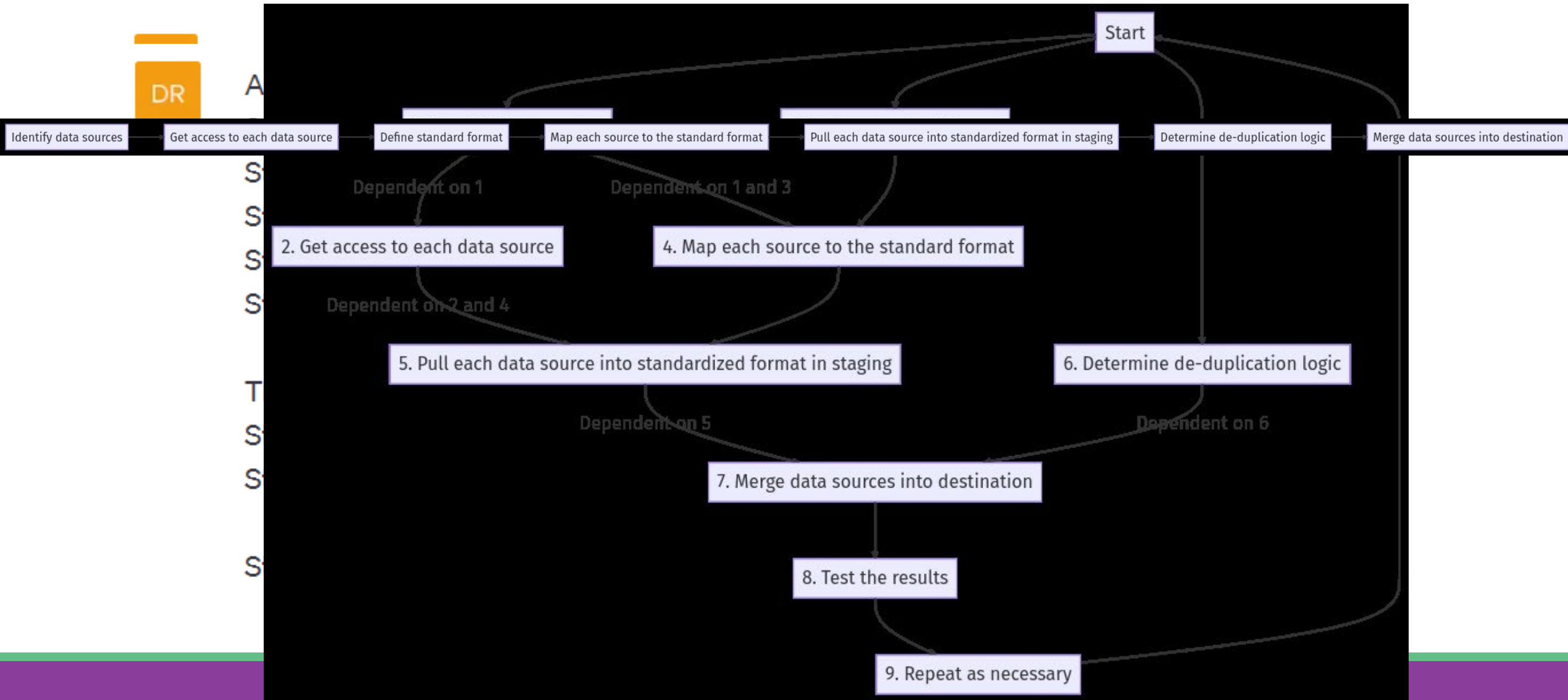
The screenshot shows the ChatGPT interface with two model selection buttons at the top: 'GPT-3.5' (disabled) and 'GPT-4' (active). Below the buttons is a text box containing the following information:

- Our most capable model, great for tasks that require creativity and advanced reasoning.**
- Available exclusively to Plus users
- GPT-4 currently has a cap of 50 messages every 3 hours.

Below the text box is a list of settings:

- Default
- Advanced Data Analysis **Beta**
- Plugins **Beta** (checked)

A simple example...



Let's dig in to data!

Q1 Monthly Revenue by Product

To determine the monthly revenue totals, I'll follow these steps:

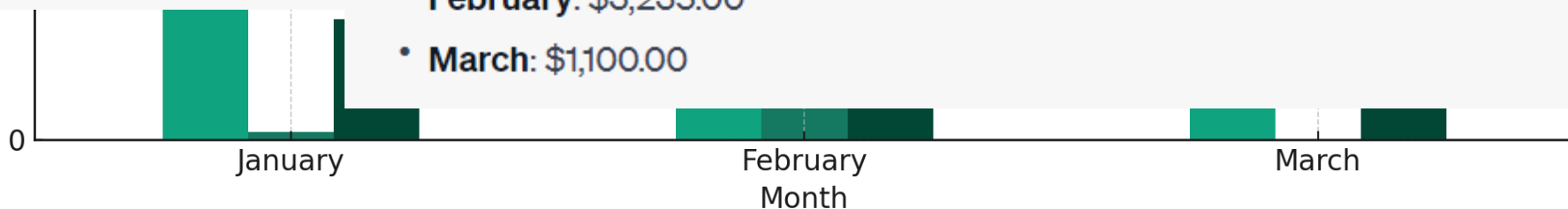
1. Convert the "Date" column to a datetime format.
2. Remove the dollar sign from the "Price" column and convert it to a numeric type.
3. Group the data by month and sum the prices to get the monthly revenue totals.

Let's start by performing these data preprocessing steps.

Finished working Show work

Here are the revenue totals broken down by month for Q1:

- **January:** \$1,025.00
- **February:** \$3,235.00
- **March:** \$1,100.00



Certainly! Let's start by loading the data and checking its structure.

Finished working Show work

The dataset consists of the following columns:

1. **Date:** which appears to be in YYYY-MM-DD format.
2. **Product:** the name of the product.
3. **Price:** the price of the product.

The Future of AI: What's coming next?



- We're still very early in this latest generation of AI products and seeing extremely rapid development of both the tech and the way to leverage it
- Experts are proving to be terrible at predicting how fast things are coming
- Responses by governments and other regulatory bodies are coming/underway, but tend to be unable to keep up

But what about...

RISKS

ETHICS

BIAS

- Can I trust the results?
 - It depends!
 - Does my input get shared with others?
 - Increasing clarity on this
 - What impact do these technologies have on society?
 - Numerous concerns, limited knowledge
 - Do I know what influences these tools?
 - Training processes and materials are not transparent
-
- So, what can I do? Is opting out a choice?



What to do next?

- Find a way to experiment! ChatGPT and Bard are great, low-risk places to start
- Make using these tools a regular part of your daily activity
 - Work and personal
- Keep consuming content like this to stay informed

Questions?

