BEYOND AI DIGITAL LITE

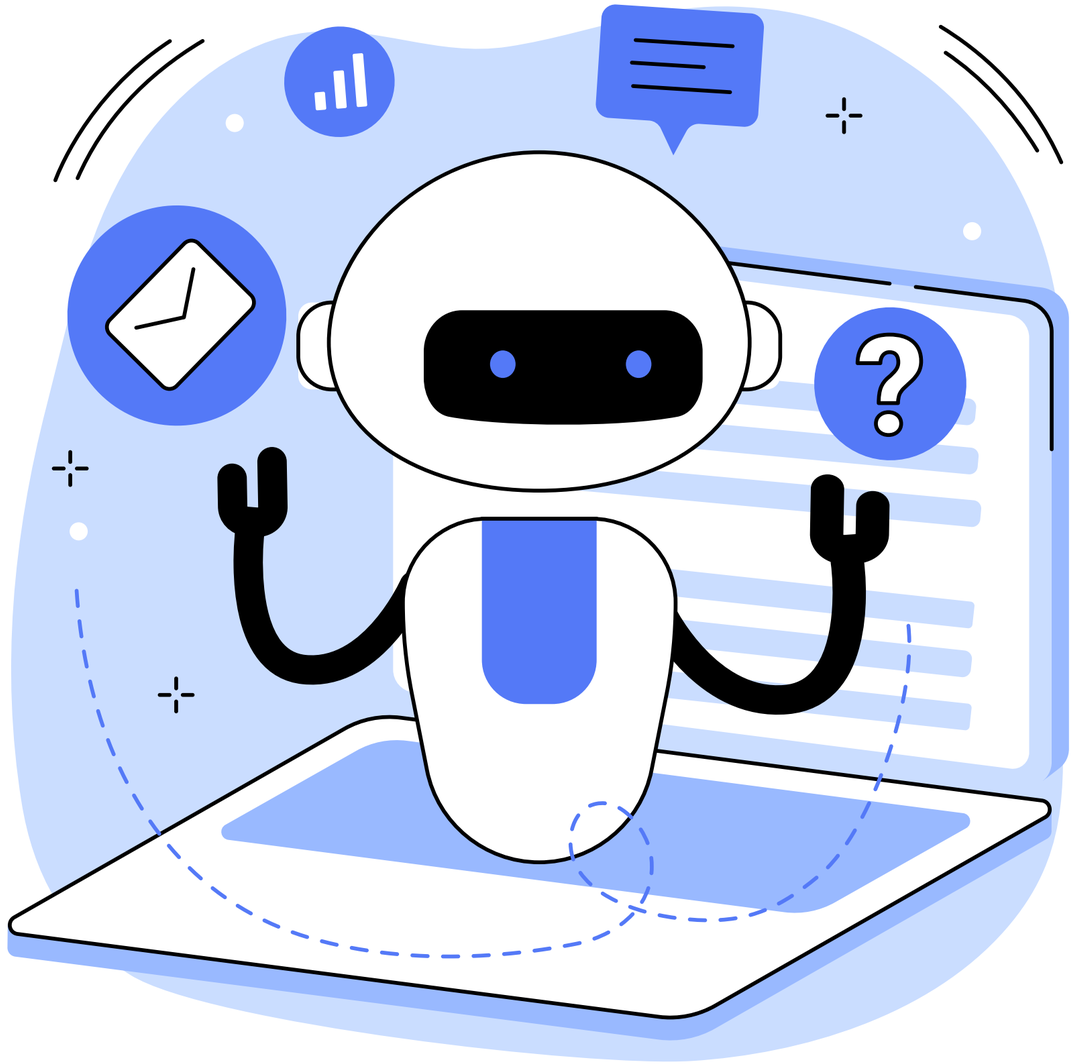
Practical Application of AI in the Classroom

Agenda

1. What is Prompt Engineering and why does it matter?
2. Prompt Engineering
   - a. CREATE Method
   - b. Teaching AI to Mimic Your Writing Style
3. AI Research Tools & AI Illumination Tools

Thesis

This presentation is designed to empower faculty and staff with the knowledge and techniques necessary for crafting AI prompts that yield specific outcomes. Participants will gain insights into the inner workings of AI language models and learn how to leverage this knowledge to produce desired AI responses.



What is Prompt Engineering?

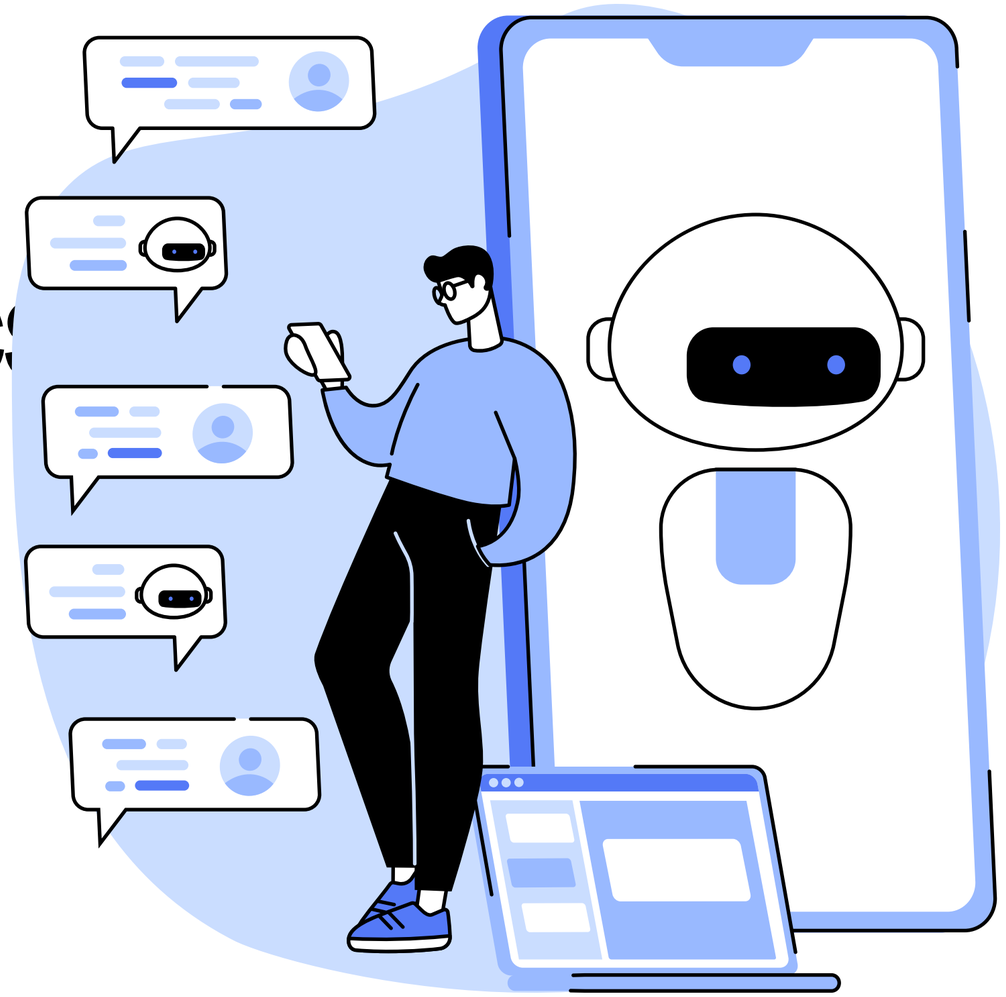
Prompt engineering is a discipline focused on designing and optimizing prompts to enhance the performance and reliability of AI models, particularly LLMs. By carefully crafting prompts, prompt engineers maximize the model's ability to understand and respond to user inputs, leading to more relevant and informative outputs.

LLM = Large Language Model

Prompt Engineering Basic

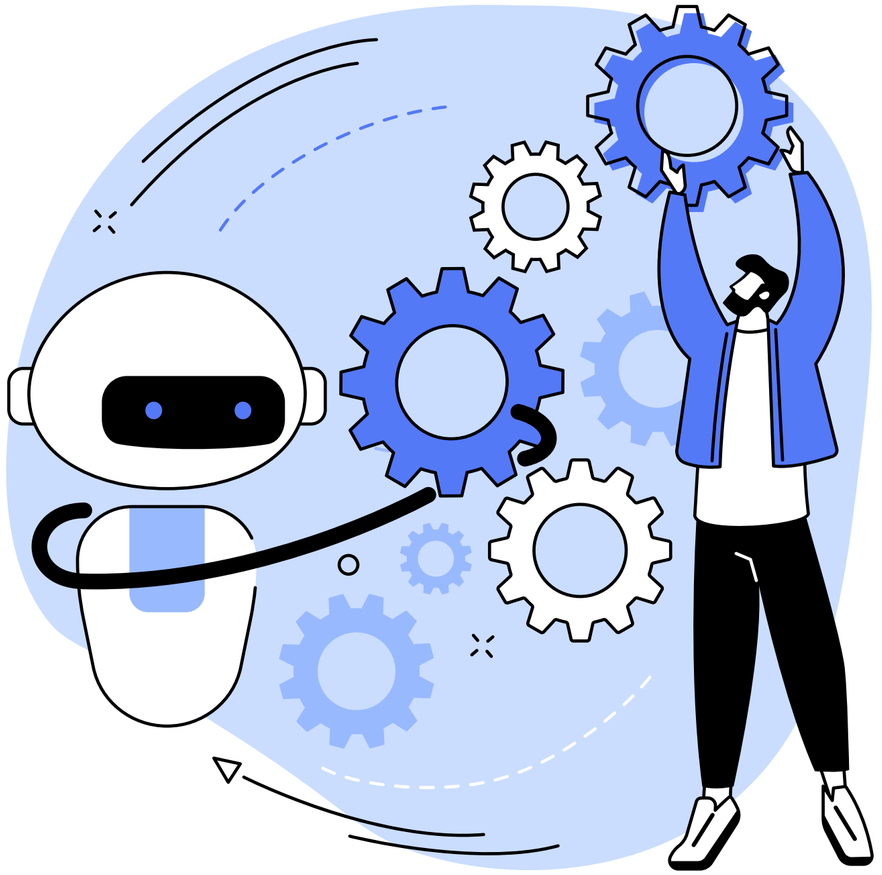
To achieve your intended outcome:

- be concise
- be clear
- provide context
- get creative



CREATE Method

1. Character
2. Requests
3. Adjustments
4. Type
5. Extras



What role is Chat GPT playing?

What is the ask?

Can you be more specific?

Email, essay, speech?

Clarify.

Demo

Teaching AI to Mimic Your Writing Style

Teaching AI to write like you through a series of prompts that analyze your existing writing, extract relevant information about your tone, and mimick your style.

“AI In Your Voice” Debunked

AI Has Limited Memory

Each AI model has its own word limits —it can be referred to as Context Length, Context Limit, or Context Window. Here’s a breakdown of the limit of the most popular AI models:

- GPT-3.5: ~3,072 words (4,096 Tokens)
- GPT-3.5-16k: ~12,288 words (16,384 Tokens)
- GPT-4: ~6,144 words (8,192 Tokens)
- GPT-4-32k: ~24,576 words (32,768 Tokens)
- Claude Instant: ~75,000 words (100,000 Tokens)
- Claude 2: ~75,000 words (100,000 Tokens)

In other words, at some point in your conversation your initial voice instruction will disappear from the AI’s memory. As a result, the quality of your outputs will deteriorate and start to sound less and less like your actual voice.

Example -->

AI Has Higher Priorities

AI has a “system message.” A system message is a set of instructions given to the AI model that dictates how it “behaves” when you interact with it.

According to OpenAI’s own documentation, GPT-4 prioritizes this system message above any prompts you give it.

The default system message given to ChatGPT every time you start a chat is, “You are a helpful assistant.” A generic instruction meant to aim the AI at being as helpful as possible in the most generalized terms.

John Steinbeck in Chat GPT's Training Data & Chat GPT 4 Reading List

The works of John Steinbeck published during his lifetime:

- 26 books
- 6,629 pages
- 3,314,500 words
- aprox. 20% of Steinbeck's works were used to train Chat GPT
- =662,900 words or 1,325 pages

Book title	Author	GPT-4's score
Harry Potter and the Sorcerer's Stone	J.K. Rowling	76%
[illegible]	George Orwell	57%
The Fellowship of the Ring	J.R.R. Tolkien	51%
Fifty Shades of Grey	E.L. James	49%
The Hunger Games	Suzanne Collins	48%
Lord of the Flies	William Golding	43%
The Hitchhiker's Guide to the Galaxy	Douglas Adams	43%
Things Fall Apart	Chinua Achebe	30%
The Silmarillion	J. R. R. Tolkien and Christopher Tolkien	28%
Fahrenheit 451	Ray Bradbury	27%
A Game of Thrones	George R.R. Martin	27%
The Da Vinci Code	Dan Brown	26%
Dune	Frank Herbert	26%
Their Eyes Were Watching God	Zora Neale Hurston	25%
To Kill a Mockingbird	Harper Lee	25%
Casino Royale	Ian Fleming	24%
Neuromancer	William Gibson	22%
Ender's Game	Orson Scott Card	20%
Brave New World	Aldous Huxley	19%
Gone with the Wind	Margaret Mitchell	18%
Do Androids Dream of Electric Sheep?	Philip K. Dick	17%
The Lost Symbol	Dan Brown	16%
Inferno	Dan Brown	15%
Divergent	Veronica Roth	15%
The Grapes of Wrath	John Steinbeck	15%

Note: List doesn't include books in the public domain.

Teaching AI To Mimic Your Writing Style

1.Describe Your Tone

The first step to train ChatGPT to write like you is to give it a good understanding of your writing tone. AI struggles to infer your tone or style nuances on its own. Instead, we need to provide it with structured input and explicit instructions to effectively analyze and describe tone.

2. Work with Models Training Data

Chat GPT is biased towards its training data. To overcome this, we can identify which famous writers or public figures your writing style resembles most closely, and then instruct ChatGPT to write like these figures.

3. Create a Writing Profile

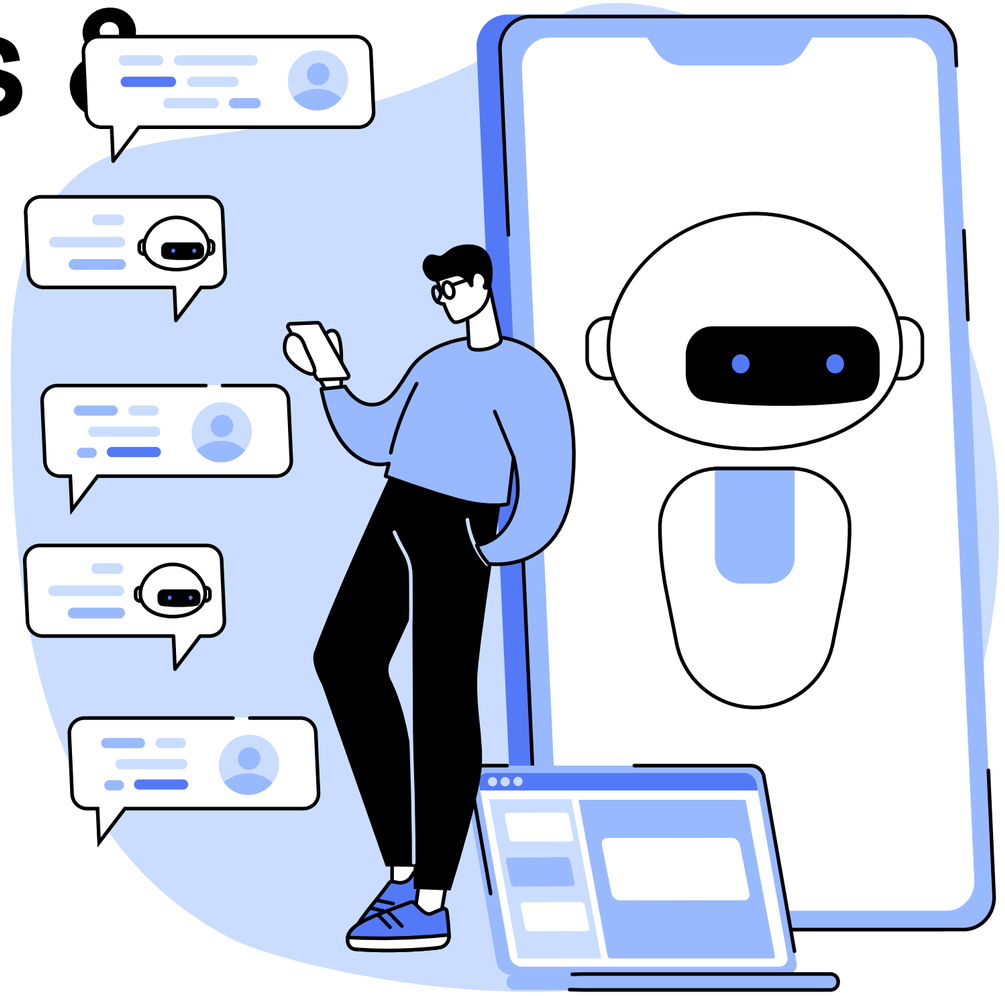
With the tone description and author identities in hand, we are now ready to train ChatGPT to write like you with your unique style and tone. The key here is to effectively communicate all these parameters to the AI in a structured manner.

How to Get AI to Write in Your Voice - Prompt

AI Research Tools & AI Illumination Tools

Top AI Research Tools:

- Perplexity
- Scite
- Research Rabbit
- Chatbot Arena
- Explain Paper



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QUESTIONS?