

Intelligence Augmentation through Generative AI & ChatGPT



INFORMATION TECHNOLOGY
UNIVERSITY OF THE PUNJAB

1 Week Hands-On Workshop
for Students and Researchers

August 7-10 2023

Day 1:
Introduction to Generative AI and ChatGPT

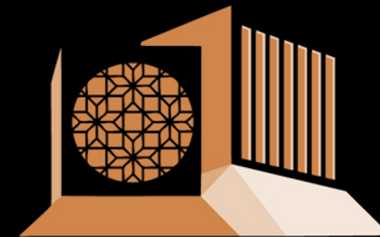
Day 2:
Prompt Engineering for ChatGPT

Day 3:
AI-Augmented Writing Training

Day 4:
Effective Use and Ethics of ChatGPT/ Generative AI

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جامعة قطر
QATAR UNIVERSITY

Day 2

The Art of Prompt Engineering

- A** Prompt Engineering:
The Art and Science of Prompting LLMs
- B** Prompt Engineering for Teachers
- C** Prompt Engineering for Students

Prompts for Writing/Research to be covered on Day 3

A

Prompt Engineering:

The art & science of prompting LLMs

Prompt engineering is an increasingly important skill set needed to converse effectively with large language models (LLMs), such as ChatGPT.

Prompt engineering is programming without coding

Prompts are instructions given to an LLM to enforce rules, automate processes, and ensure specific qualities (and quantities) of generated output.

Prompts are also a form of programming that can customize the outputs and interactions with an LLM.

Prompting Instead of Fine Tuning

(General purpose LLMs with in-context learning)

The three settings we explore for in-context learning

Zero-shot

The model predicts the answer given only a natural language description of the task. No gradient updates are performed.

```
1 Translate English to French:  ← task description
2 cheese => .....
```

One-shot

In addition to the task description, the model sees a single example of the task. No gradient updates are performed.

```
1 Translate English to French:  ← task description
2 sea otter => loutre de mer    ← example
3 cheese => .....
```

Few-shot

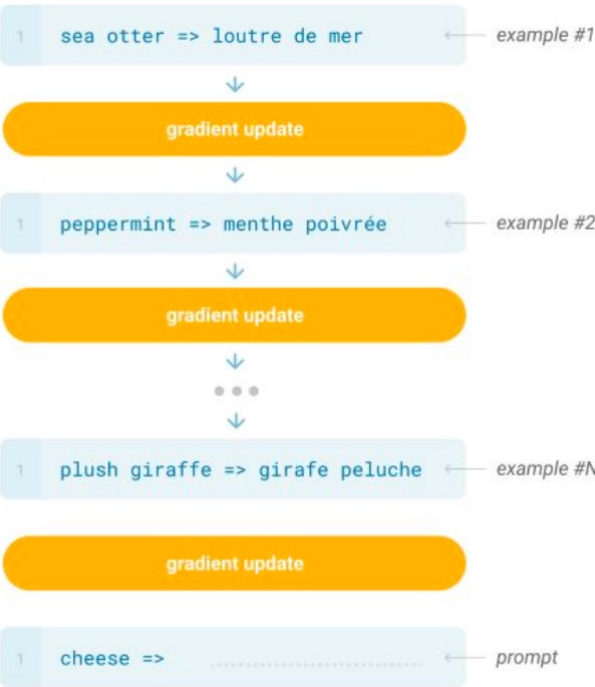
In addition to the task description, the model sees a few examples of the task. No gradient updates are performed.

```
1 Translate English to French:  ← task description
2 sea otter => loutre de mer    ← examples
3 peppermint => menthe poivrée ←
4 plush girafe => girafe peluche ←
5 cheese => .....
```

Traditional fine-tuning (not used for GPT-3)

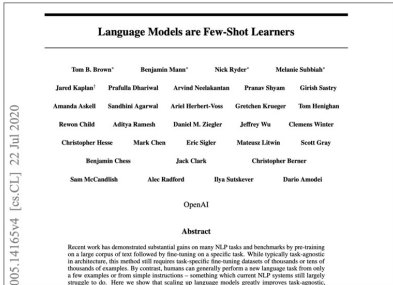
Fine-tuning

The model is trained via repeated gradient updates using a large corpus of example tasks.



Language Models are Few Shot Learners (GPT3 paper)

<https://arxiv.org/pdf/2005.14165.pdf>



- Larger (or instruction tuned) models give intelligible responses even without fine tuning – just prompt them!
- “The model fine-tunes us!”
- Trade-off: Fine-tuning still outperforms prompting, but prompting doesn’t require lots of training data.

Taken from GPT-3 paper:

<https://arxiv.org/pdf/2005.14165.pdf>

Prompt engineering or In-context Learning

[cs.CL] 22 Jul 2020

Language Models are Few-Shot Learners

Tom B. Brown*	Benjamin Mann*	Nick Ryder*	Melanie Subbiah*	
Jared Kaplan [†]	Prafulla Dhariwal	Arvind Neelakantan	Pranav Shyam	Girish Sastry
Amanda Askell	Sandhini Agarwal	Ariel Herbert-Voss	Gretchen Krueger	Tom Henighan
Rewon Child	Aditya Ramesh	Daniel M. Ziegler	Jeffrey Wu	Clemens Winter
Christopher Hesse	Mark Chen	Eric Sigler	Mateusz Litwin	Scott Gray
Benjamin Chess		Jack Clark	Christopher Berner	
Sam McCandlish	Alec Radford	Ilya Sutskever	Dario Amodei	

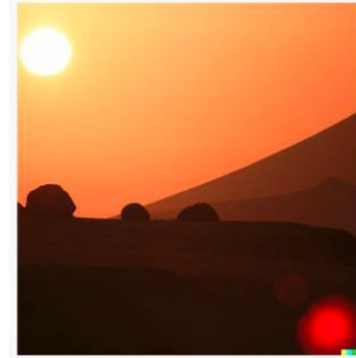
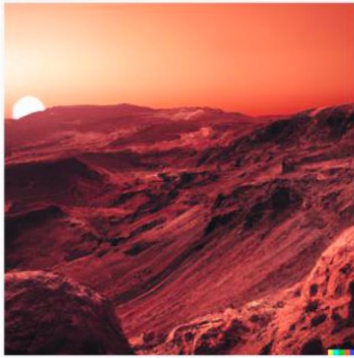
OpenAI

Abstract We demonstrate that scaling up language models greatly improves task-agnostic, few-shot performance, sometimes even becoming competitive with prior state-of-the-art fine-tuning approaches. *Specifically, we train GPT-3, an autoregressive language model with 175 billion parameters, 10x more than any previous non-sparse language model, and test its performance in the few-shot setting.* For all tasks, GPT-3 is applied without any gradient updates or fine-tuning, with tasks and few-shot demonstrations specified purely via text interaction with the model. GPT-3 achieves strong performance on many NLP datasets, including translation, question-answering,

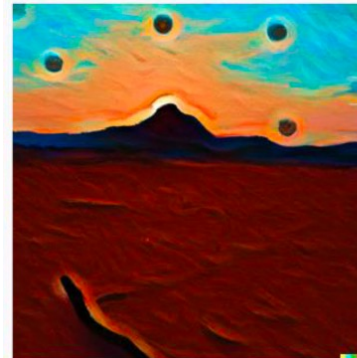
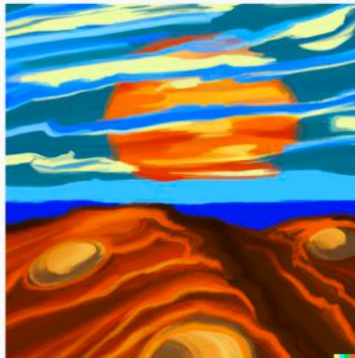
...

Text to Image using OpenAI's Dall-E

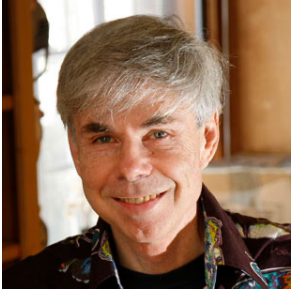
Create a sunset on Mars



Create a sunset on Mars in the style of van Gogh



Dependence of performance on prompts



Prompt: I am a highly intelligent question answering bot.

Q: Where was the 1992 Olympics held?

A: The 1992 Olympics were held in Barcelona, Spain.

Q: What's the world record for walking across the English Channel?

A: The world record for walking across the English Channel is 10 hours and 33 minutes.

Q: When was the Golden Gate Bridge transported for the second time across Egypt?

A: The Golden Gate Bridge was transported for the second time across Egypt in 1978.



Prompt: I am a highly intelligent question answering bot. I will reply "Nonsense" to questions that are nonsense.

Q: Where were the 1992 Olympics held?

A: The 1992 Olympics was held in Barcelona, Spain.

Q: What's the world record for walking across the English Channel?

A: Nonsense

Q: When was the Golden Gate Bridge transported for the second time across Egypt?

A: Nonsense

Prompt Design Patterns

Pattern Category	Prompt Pattern
Input Semantics	<i>Meta Language Creation</i>
Output Customization	<i>Output Automater</i> <i>Persona</i> <i>Visualization Generator</i> <i>Recipe</i> <i>Template</i>
Error Identification	<i>Fact Check List</i> <i>Reflection</i>
Prompt Improvement	<i>Question Refinement</i> <i>Alternative Approaches</i> <i>Cognitive Verifier</i> <i>Refusal Breaker</i>
Interaction	<i>Flipped Interaction</i> <i>Game Play</i> <i>Infinite Generation</i>
Context Control	<i>Context Manager</i>

1

Pattern Category: Input Semantics

Prompt Pattern: Meta Language Creation

creating a custom language for the LLM to understand.

Contextual Statements
When I say X, I mean Y (or would like you to do Y)

“From now on, whenever I type two identifiers separated by a “ $\rightarrow$ ”, I am describing a graph. For example, “ $a \rightarrow b$ ” is describing a graph with nodes “ a ” and “ b ” and an edge between them. If I separate identifiers by “ $-[w:2, z:3]\rightarrow$ ”, I am adding properties of the edge, such as a weight or label.”

2

Pattern Category: Output Customization

Prompt Pattern: Output Automater

Persona

Visualization Generator

Recipe

Template

Contextual Statements
Act as persona X
Provide outputs that persona X would create

Example: “From now on, act as a security reviewer. Pay close attention to the security details of any code that we look at. Provide outputs that a security reviewer would regarding the code.”

2

Pattern Category: Output Customization

Prompt Pattern:

Output Automater

Persona

Visualization Generator

Recipe

Template

Contextual Statements
I would like to achieve X
I know that I need to perform steps A,B,C
Provide a complete sequence of steps for me
Fill in any missing steps
Identify any unnecessary steps

“I am trying to deploy an application to the cloud. I know that I need to install the necessary dependencies on a virtual machine for my application. I know that I need to sign up for an AWS account. Please provide a complete sequence of steps. Please fill in any missing steps. Please identify any unnecessary steps.”

3 Pattern Category: Error Identification

Prompt Pattern:
Fact Check List
Reflection

Contextual Statements
Whenever you generate an answer
Explain the reasoning and assumptions behind your answer
(Optional) ...so that I can improve my question

Example: “When you provide an answer, please explain the reasoning and assumptions behind your selection of software frameworks. If possible, use specific examples or evidence with associated code samples to support your answer of why the framework is the best selection for the task. Moreover, please address any potential ambiguities or limitations in your answer, in order to provide a more complete and accurate response.”

4

Pattern Category: Prompt Improvement

Prompt Pattern:

Question Refinement

Alternative Approaches

Cognitive Verifier

Refusal Breaker

Contextual Statements
Within scope X, suggest a better version of the question to use instead
(Optional) prompt me if I would like to use the better version instead

“From now on, whenever I ask a question about a software artifact’s security, suggest a better version of the question to use that incorporates information specific to security risks in the language or framework that I am using instead and ask me if I would like to use your question instead.”

4

Pattern Category: Prompt Improvement

Prompt Pattern:
Question Refinement
Alternative Approaches
Cognitive Verifier
Refusal Breaker

Contextual Statements
When you are asked a question, follow these rules
Generate a number of additional questions that would help more accurately answer the question
Combine the answers to the individual questions to produce the final answer to the overall question

Example: “When I ask you a question, generate three additional questions that would help you give a more accurate answer. When I have answered the three questions, combine the answers to produce the final answers to my original question.”

4 Pattern Category:

Prompt Improvement

Prompt Pattern:

Question Refinement

Alternative Approaches

Cognitive Verifier

Refusal Breaker

Contextual Statements
Whenever you can't answer a question
Explain why you can't answer the question
Provide one or more alternative wordings of the question that you could answer

Example: "Whenever you can't answer a question, explain why and provide one or more alternate wordings of the question that you can't answer so that I can improve my questions."

5

Pattern Category: Interaction

Prompt Pattern:

Flipped Interaction

Game Play

Infinite Generation

Contextual Statements
I would like you to ask me questions to achieve X
You should ask questions until this condition is met or to achieve this goal (alternatively, forever)
(Optional) ask me the questions one at a time, two at a time, etc.

Example: “From now on, I would like you to ask me questions to deploy a Python application to AWS. When you have enough information to deploy the application, create a Python script to automate the deployment.”

Prompts with ChatGPT

Type of Prompts

Zero-Shot

[Instruction] [Input]

Is the sentiment positive or negative?
"This movie sucks!" A:

One-Shot No-Instruction

[Ex In 1] [Ex Out 1] [Input]

Q: *This movie rocks!* A: *Positive.*
Q: *"This movie sucks!"* A:

One-Shot

[Instruction] [Ex In 1] [Ex Out 1] [Input]

Is the sentiment positive or negative? Q: *This movie rocks!* A: *Positive.* Q: *"This movie sucks!"* A:

Two-Shot

[Instruction] [Ex In 1] [Ex Out 1]
[Ex In 2] [Ex Out 2] [Input]

Is the sentiment positive or negative? Q: *This movie rocks!* A: *Positive.* Q: *My eyes are bleeding!* A: *Negative.* Q: *"This movie sucks!"* A:

Chain-of-Thought

[Instruction]
[Request step-by-step explanation]
[Input]

Is the sentiment positive or negative? Please explain your answer step-by-step. Q: *"This movie sucks!"* A:

Prompt: Let's Think Step by Step



Let's think step by step.

Prompt here.

Computer Science > Computation and Language

[Submitted on 24 May 2022 (v1), last revised 29 Jan 2023 (this version, v4)]

Large Language Models are Zero-Shot Reasoners

Takeshi Kojima, Shixiang Shane Gu, Machel Reid, Yutaka Matsuo, Yusuke Iwasawa

Pretrained large language models (LLMs) are widely used in many sub-fields of natural language processing (NLP) and generally known as excellent few-shot learners with task-specific exemplars. Notably, chain of thought (CoT) prompting, a recent technique for eliciting complex multi-step reasoning through step-by-step answer examples, achieved the state-of-the-art performances in arithmetics and symbolic reasoning, difficult system-2 tasks that do not follow the standard scaling laws for LLMs. While these successes are often attributed to LLMs' ability for few-shot learning, we show that LLMs are decent zero-shot reasoners by simply adding "Let's think step by step" before each answer. Experimental results demonstrate that our Zero-shot-CoT, using the same single prompt template, significantly outperforms zero-shot LLM performances on diverse benchmark reasoning tasks including arithmetics (MultiArith, GSM8K, AQUA-RAT, SVAMP), symbolic reasoning (Last Letter, Coin Flip), and other logical reasoning tasks (Date Understanding, Tracking Shuffled Objects), without any hand-crafted few-shot examples, e.g. increasing the accuracy on MultiArith from 17.7% to 78.7% and GSM8K from 10.4% to 40.7% with large InstructGPT model (text-davinci-002), as well as similar magnitudes of improvements with another off-the-shelf large model, 540B parameter PaLM. The versatility of this single prompt across very diverse reasoning tasks hints at untapped and understudied fundamental zero-shot capabilities of LLMs, suggesting high-level, multi-task broad cognitive capabilities may be extracted by simple prompting. We hope our work not only serves as the minimal strongest zero-shot baseline for the challenging reasoning benchmarks, but also highlights the importance of carefully exploring and analyzing the enormous zero-shot knowledge hidden inside LLMs before crafting finetuning datasets or few-shot exemplars.

A juggler can juggle 16 balls. Half of the balls are golf balls, and half of the golf balls are blue.

How many blue golf balls are there?

Kojima, Takeshi, et al. "Large language models are zero-shot reasoners." arXiv preprint arXiv:2205.11916 (2022)

Prompt: Providing Answers Template



Instructions: Your output should use the following template:

Summary

Highlights

- [Emoji] Bulletpoint

Your task is to summarize the text I have given you in up to seven concise bullet points, starting with a short highlight. Choose an appropriate emoji for each bullet point. Use the text above: {{Title}}
{{Transcript}}. Please write in en-GB language.

Title: TITLE HERE

Content:

<https://docs.github.com/en/get-started/writing-on-github/getting-started-with-writing-and-formatting-on-github/basic-writing-and-formatting-syntax>

Prompt Types and Examples

Prompt Type	Sample Prompts
Research-oriented	· What are the important facts / statistics / current issues related to the following topic? Provide references. · Suggest references for the following topic and summarize each source with references.
Learning-oriented	· What are the different types of paraphrasing? Provide examples for each type. · Explain if ‘the’ is necessary in the following sentence and explain why. Give me 10 more examples that demonstrate the same usage.
Interaction-oriented	· I need help with brainstorming. Can you ask me questions on the following topic one at a time and edit my answers?
Feedback-oriented	· Revise my essay and provide explanations for each change. · What are the most common mistakes in my text? List them in order of frequency and explain each one.

Prompt for Summarization

Large language models (LLMs) have shown promise for automatic summarization but the reasons behind their successes are poorly understood. By conducting a human evaluation on ten LLMs across different pretraining methods, prompts, and model scales, we make two important observations. First, we find instruction tuning, and not model size, is the key to the LLM's zero-shot summarization capability. Second, existing studies have been limited by low-quality references, leading to underestimates of human performance and lower few-shot and finetuning performance. To better evaluate LLMs, we perform human evaluation over high-quality summaries we collect from freelance writers. Despite major stylistic differences such as the amount of paraphrasing, we find that LLM summaries are judged to be on par with human written summaries.

What is the main idea of the article?

Prompt for Style Transfer

Here is some text: {When Mohammed left the theatre, it was already dark out.}. Rewrite it to be more about the movie itself.
{The movie was longer than Mohammed had expected, and despite the excellent ratings he was a bit disappointed when he left the theatre.}.

Here is some text: {next to the path}. Rewrite it to be about France.
{next to la Siene}.

Here is some text: {The man stood outside the grocery store, ringing the bell.}. Rewrite it to be about clowns.
{The man stood outside the circus, holding a bunch of balloons.}.

Here is some text: {the bell ringing}. Rewrite it to be more flowery.
{the peales of the jangling bell}.

Here is some text: {against the tree}. Rewrite it to be include the word "snow".
{against the snow-covered bark of the tree}.

Here is some text: {We should increase the government tax rate on profits earned from the sale of stocks, bonds, and real estate.}. Rewrite it in the style of Kanye West.

Chain of Thought Prompts

Chain-of-Thought Prompting Elicits Reasoning in Large Language Models

Jason Wei Xuezhi Wang Dale Schuurmans Maarten Bosma
Brian Ichter Fei Xia Ed H. Chi Quoc V. Le Denny Zhou

Google Research, Brain Team
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Sports Understanding

Q: Is the following sentence plausible? "Joao Moutinho caught the screen pass in the NFC championship."

A: Joao Moutinho is a soccer player. The NFC championship is part of American football, not soccer. So the answer is no.

Last Letter Concatenation

Q: Take the last letters of the words in "Lady Gaga" and concatenate them.

A: The last letter of "Lady" is "y". The last letter of "Gaga" is "a". Concatenating them is "ya". So the answer is ya.

Standard Prompting

Model Input

Q: Roger has 5 tennis balls. He buys 2 more cans of tennis balls. Each can has 3 tennis balls. How many tennis balls does he have now?

A: The answer is 11.

Q: The cafeteria had 23 apples. If they used 20 to make lunch and bought 6 more, how many apples do they have?

Model Output

A: The answer is 27. ❌

Chain-of-Thought Prompting

Model Input

Q: Roger has 5 tennis balls. He buys 2 more cans of tennis balls. Each can has 3 tennis balls. How many tennis balls does he have now?

A: Roger started with 5 balls. 2 cans of 3 tennis balls each is 6 tennis balls. $5 + 6 = 11$. The answer is 11.

Q: The cafeteria had 23 apples. If they used 20 to make lunch and bought 6 more, how many apples do they have?

Model Output

A: The cafeteria had 23 apples originally. They used 20 to make lunch. So they had $23 - 20 = 3$. They bought 6 more apples, so they have $3 + 6 = 9$. The answer is 9. ✅

Figure 1: Chain-of-thought prompting enables large language models to tackle complex arithmetic, commonsense, and symbolic reasoning tasks. Chain-of-thought reasoning processes are highlighted.

For Further Viewing: Prompting AI



<https://www.youtube.com/watch?v=wbGKfAP1ZVA>

Thank you!
Questions/ Discussion

Day 2

The Art of Prompt Engineering

A Prompt Engineering:
The Art and Science of Prompting LLMs

B Prompt Engineering for Teachers

C Prompt Engineering for Students

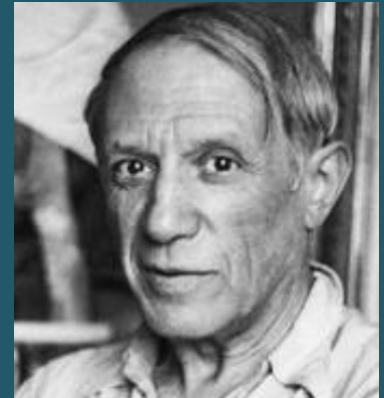
Prompts for Writing/Research to be covered on Day 3

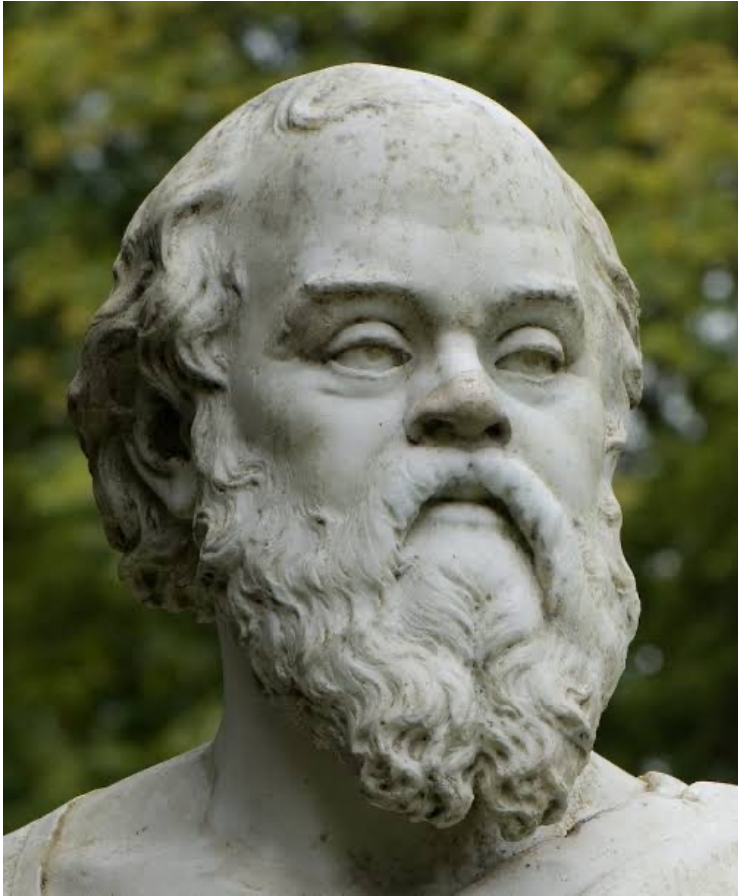
B

Prompt Engineering for Students

The importance of questions

*“Computers are useless.
They can only give you answers”
—Pablo Picasso*





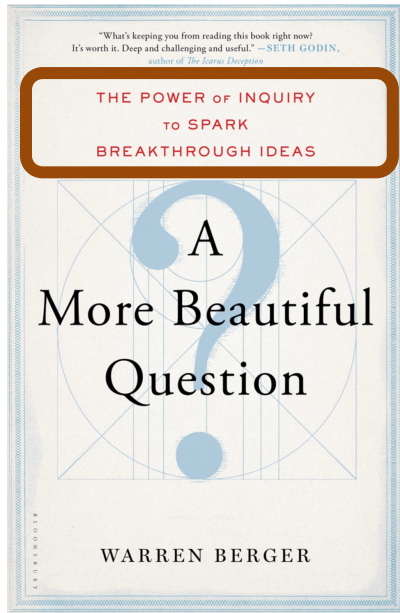
Socrates is thought to be the wisest man of his time.

What qualified him as such?

- 1) Asking Probing Questions
- 2) ***Knowing the Limit of Oneself***

Questions are source of knowledge/creativity

“Always the beautiful answer / who asks a more beautiful question.”—E. E. Cummings



“One good question can give rise to several layers of answers, can inspire decades-long searches for solutions, can generate whole new fields of inquiry, and can prompt changes in entrenched thinking”

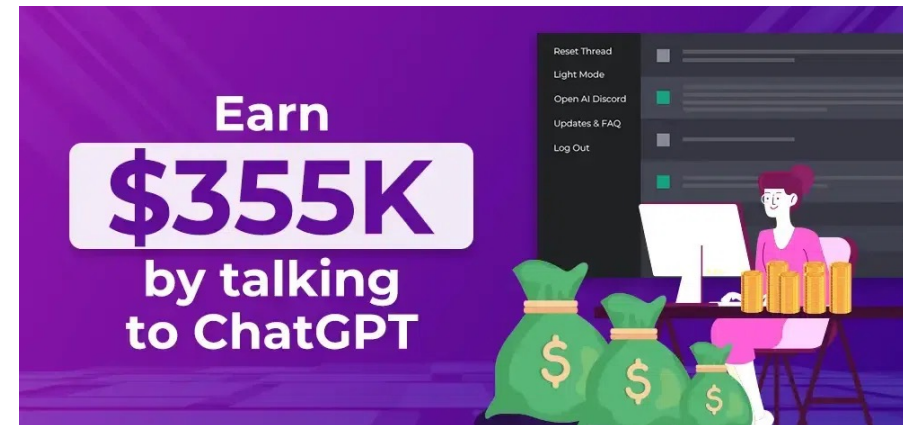
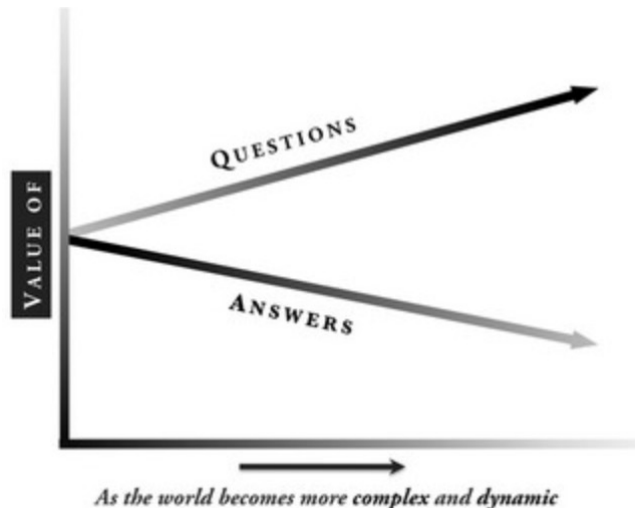
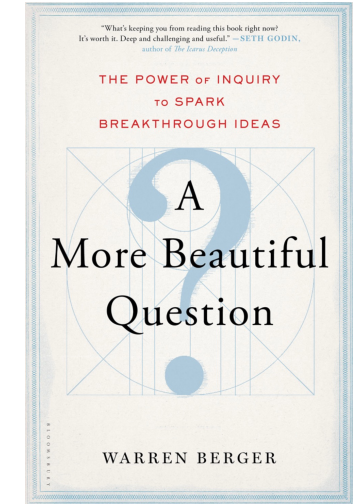
“Answers, on the other hand, often end the process.”

Questioning requires a “blend of humility and confidence” *-how?*

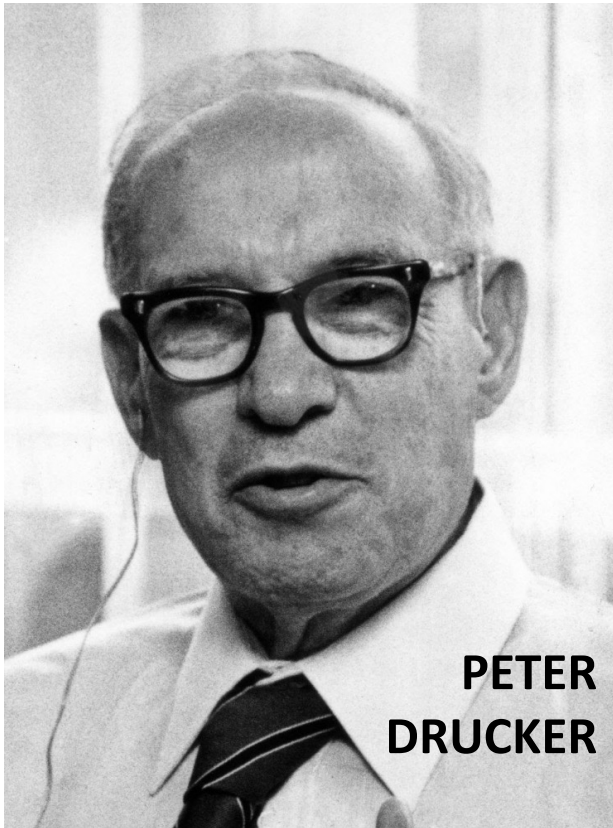
Admitting you do not know before others

The Timeless Art of Questioning: *And the Increased Premium on This Skill in the AI Era*

“If we think of “questions” and “answers” as stocks on the market, then we could say that, in this current environment, questions are rising in value while answers are declining.”—Warren Berger, *A More Beautiful Question*.

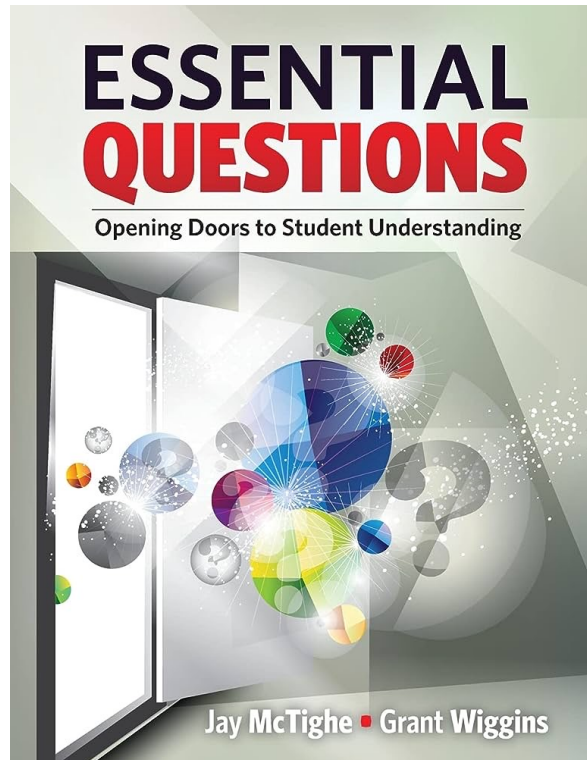


Questions in Management/ Consulting

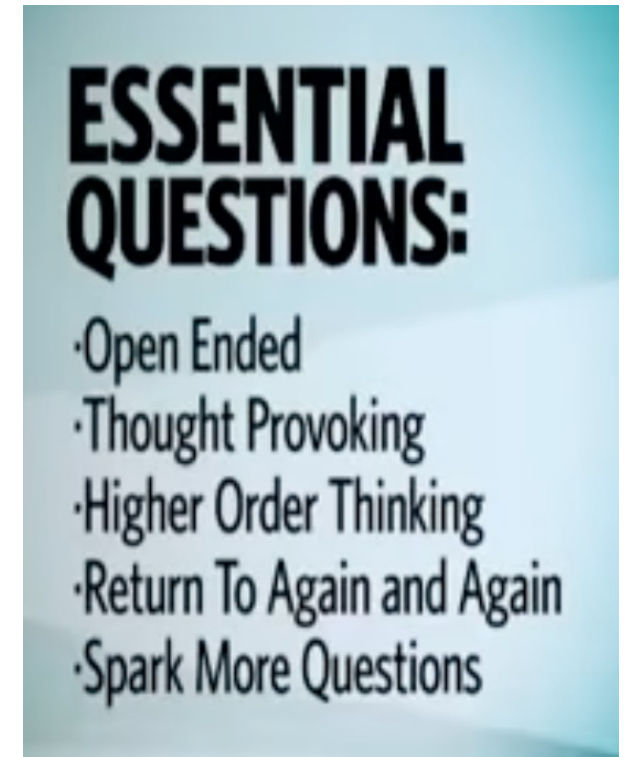


Drucker once remarked that his greatest strength was “to be ignorant and ask a few questions.” Often those questions were deceptively simple, as in Who is your customer? What business are you in? The clients who hired Drucker may have started out expecting the great consultant to offer brilliant solutions to all their problems. But as he told one client, “The answers have to be yours.”

Open-ended and Closed-end Questions



Essential questions point toward important transferable ideas that are worth understanding, even as they provide a means for exploring those ideas.

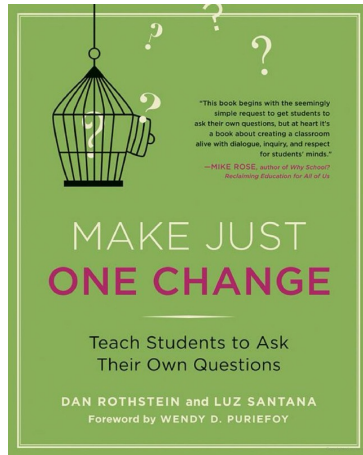


With AI, what you ask for *is* what you get!

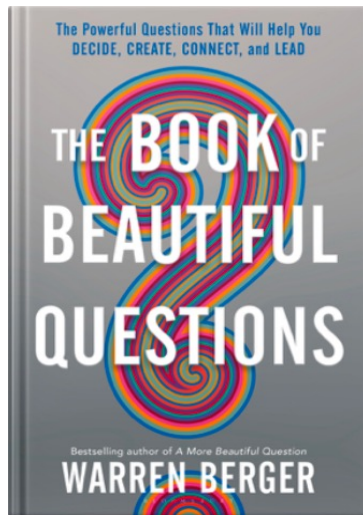


**King Midas
Problem**

Questions & Better Thinking



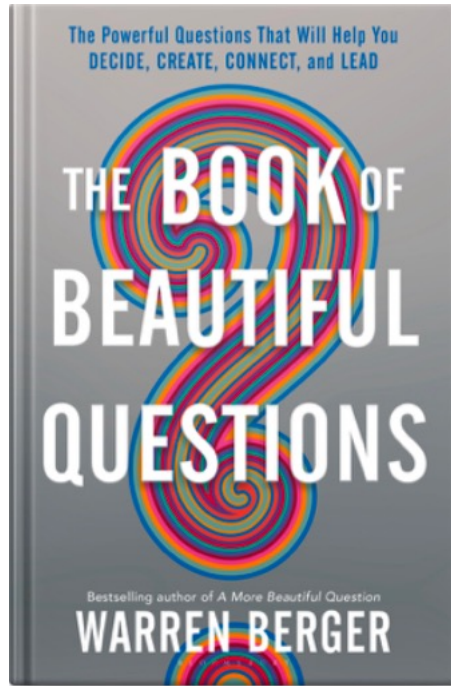
“When we are confronted with almost any demanding situation, in work or in life, simply taking the time and effort to ask questions can help guide us to better decisions and a more productive course of action. But the questions must be the right ones—the ones that cut to the heart of a complex challenge or that enable us to see an old problem in a new light.”



FIVE ALL-PURPOSE QUESTIONS FOR BETTER THINKING

1. How can I see this with fresh eyes?
2. What might I be assuming?
3. Am I rushing to judgment?
4. What am I missing?
5. What matters most?”

If questions are so vital, why do we stop questioning?



FIVE ENEMIES OF QUESTIONING

1. Fear
2. Knowledge
3. Bias
4. Hubris
5. Time

Useful techniques for students

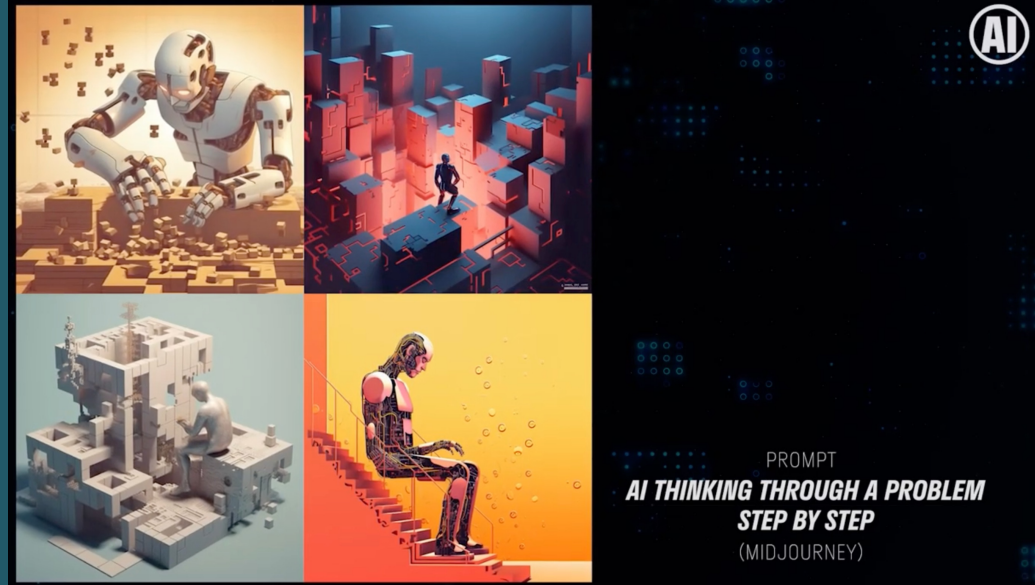


**Tell the
AI
who it is**

**Give the
AI clear
instructions**

**Give AI
examples
and steps**

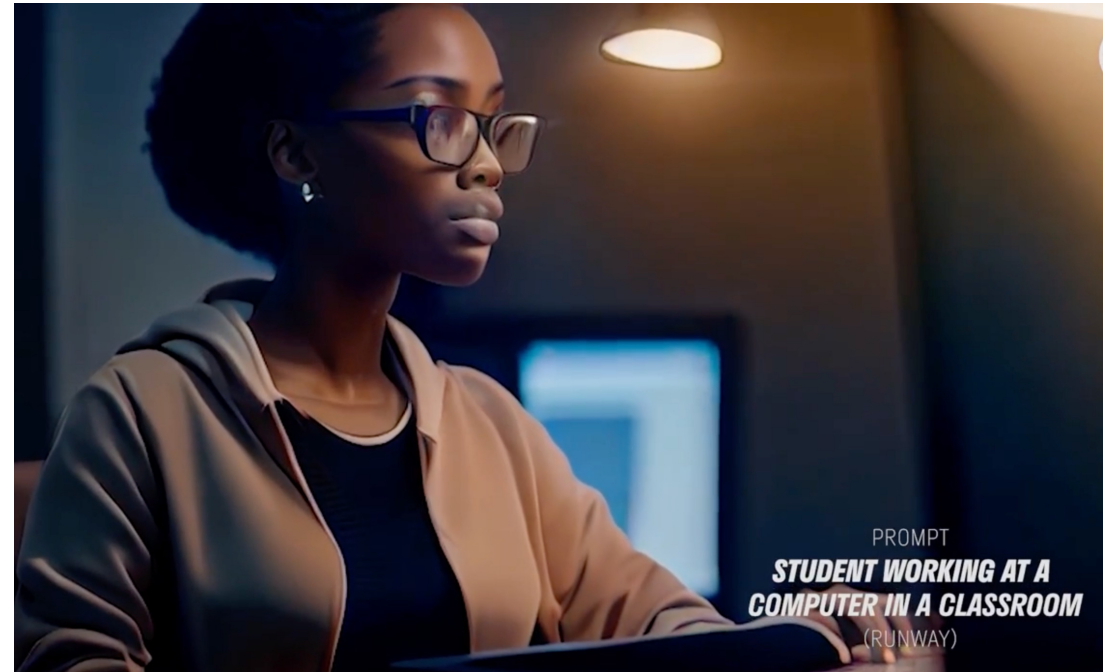
**Multiple efforts
Multiple attempts with prompts
Multiple experiments
With you giving feedback**



AI is undetectable

**Active learning
classroom**

**Retrieval practice
and
learning**



Guidelines for Students

- You are responsible for your own work.
The AI can “hallucinate” or make things up.

- It's not a person but it can act like one.

- The AI is unpredictable.

- You're in charge.

- Only share what you are comfortable sharing.

- If the prompt doesn't work in one Large Language Model (LLM), try another.

Build your own AI as a Mentor Prompt

Role: Tell the AI who it is.

***Example:** You are a friendly, helpful mentor who gives students advice and feedback about their work.*

Goal: Tell the AI what you want it to do.

***Example:** Give students feedback on their [project outline, assignment] that takes the goal of the assignment into account and pinpoints specific ways they might improve the work.*

Step-by-step instructions.

***Example:** Introduce yourself to the student as their mentor and ask them to share their work so that you can provide feedback. Wait for the student to respond. Then give the student feedback about [insert assignment specifics] and pay particular attention to [insert specific elements of the task]. Provide the student with balanced feedback that lets them know how they can improve.*

Add personalization.

***Example:** This is a new project that students are working on. This is a first attempt at a proposed outline. General suggestions that address gaps, and missing steps, are helpful.*

Add your own constraints.

***Example:** Provide students with suggestions but not to actually revise the work.*

Role Play

Prompt: "From now on, I would like you to ask me questions to deploy a Python application to AWS. When you have enough information to deploy the application, create a Python script to automate the deployment."

Requesting Examples and Analogies



Describe it to me. Give me examples and analogies of each.



*Explain it to me like I am a 10 year old.
Use concrete examples and analogies.*

For Further Viewing: AI for Students



<https://www.youtube.com/watch?v=ZorvXYUZtRg>

Thank you!
Questions/ Discussion

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Prompt Engineering for Teachers

AI Practical AI for Instructors & Students

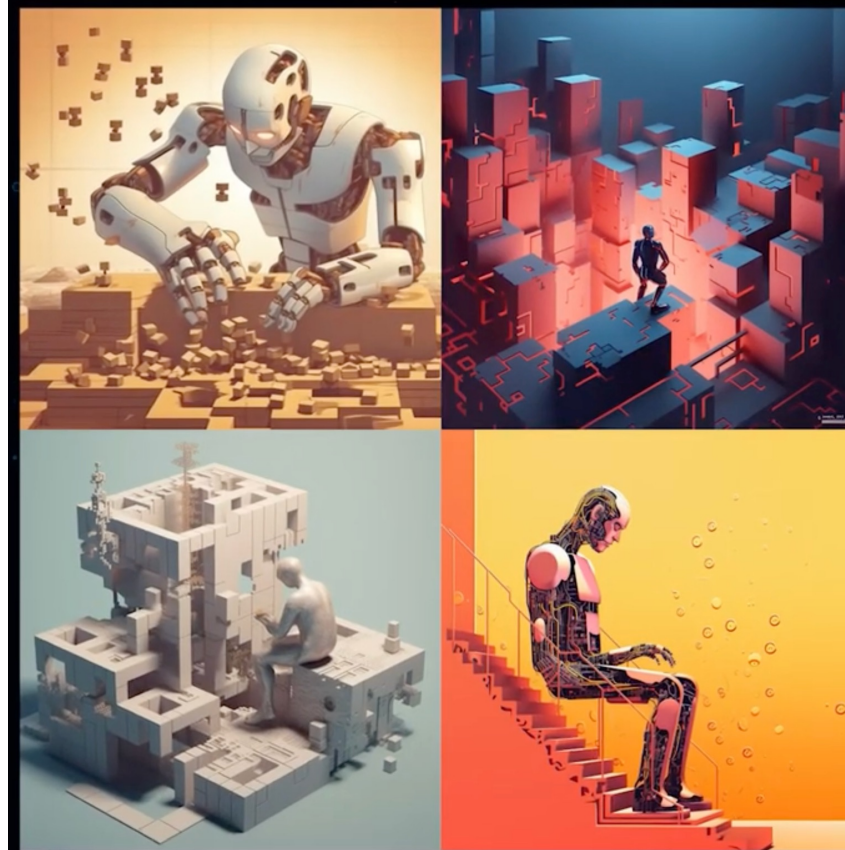
 **Wharton**
UNIVERSITY OF PENNSYLVANIA
INTERACTIVE

**Tell the
AI
who it is**

**Give the
AI clear
instructions**

**Give AI
examples
and steps**

**Multiple efforts
Multiple attempts with prompts
Multiple experiments
With you giving feedback**



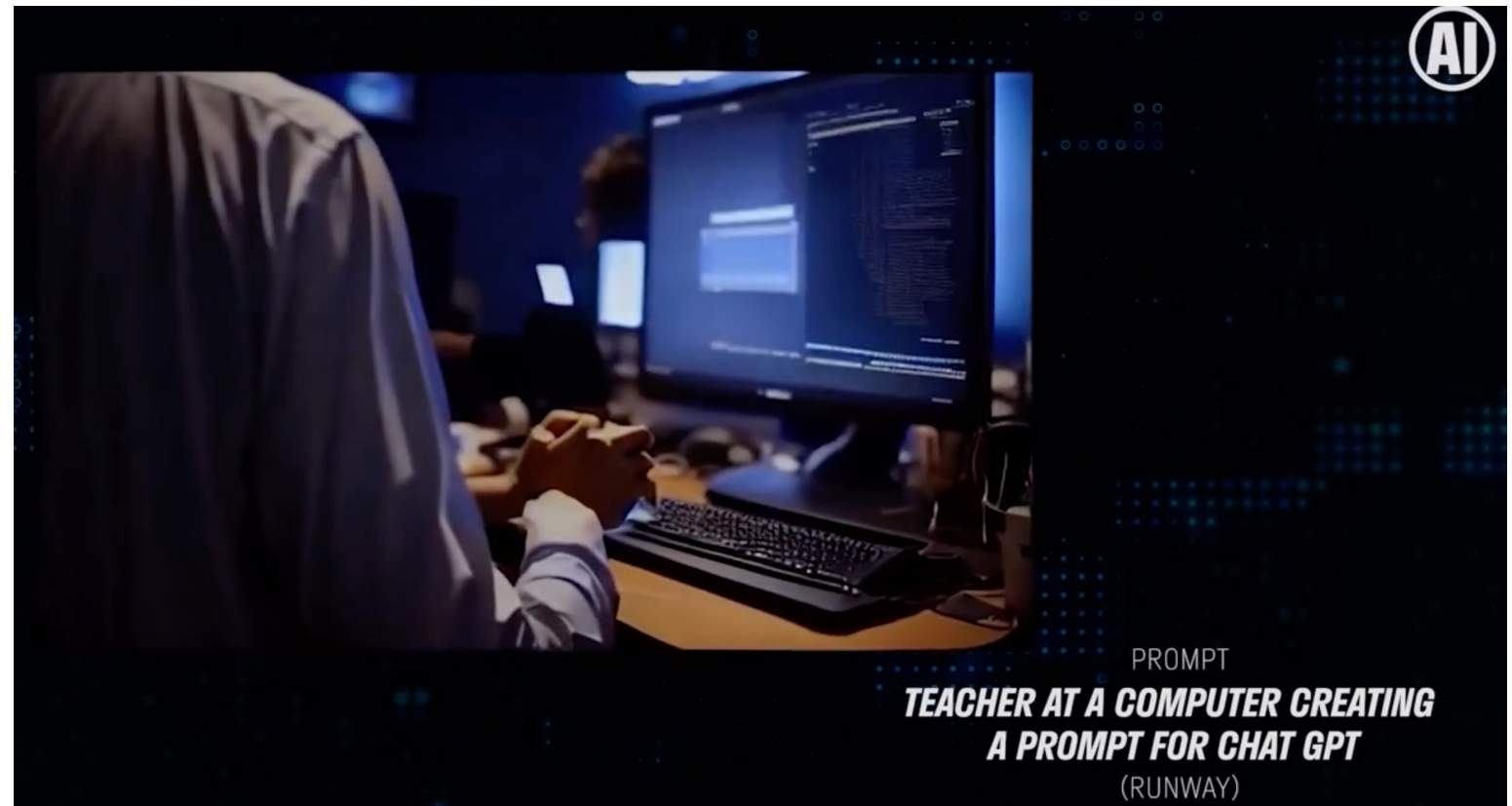

PROMPT
**AI THINKING THROUGH A PROBLEM
STEP BY STEP**
(MIDJOURNEY)

**Using AI
as a
TA**

***FORMATIVE ASSESSMENT
RETRIEVAL PRACTICE
INTERLEAVING
MAKING CONNECTIONS***

**Explanations
Examples
Analogies**

**Low
Stakes
Tests**





“Act as an English writing class teacher and instruct a student to revise an essay based on the content learned during class. The student will provide you with a summary of what they learned. Please guide them step by step and do not revise or rewrite the essay at once. If you understand, please say yes only.”



Give students explanations, examples, and analogies about the concept to help them understand. You should guide students in an open-ended way. Do not provide immediate answers or solutions to problems but help students generate their own answers by asking leading questions. Ask students to explain their thinking. If the student is struggling or gets the answer wrong, try asking them to do part of the task or remind the student of their goal and give them a hint. If students improve, then praise them and show excitement. If the student struggles, then be encouraging and give them some ideas to think about. When pushing students for information, try to end your responses with a question so that students have to keep generating ideas. Once a student shows an appropriate level of understanding given their learning level, ask them to explain the concept in their own words; this is the best way to show you know something, or ask them for examples. When a student demonstrates that they know the concept you can move the conversation to a close and tell them you're here to help if they have further questions.

AI as explainer

Prompt #1: *“You generate clear, accurate examples for students of concepts. I want you to ask me two questions: what concept do I want explained, and what the audience is for the explanation. Provide a clear, multiple paragraph explanation of the concept using specific example and give me five analogies I can use to understand the concept in different ways.”*

AI for low-stake testing

Prompt #2: *“You are a quiz creator of highly diagnostic quizzes. You will make good low-stakes tests and diagnostics. You will then ask me two questions. (1) First, what, specifically, should the quiz test. (2) Second, for which audience is the quiz. Once you have my answers you will construct several multiple-choice questions to quiz the audience on that topic. The questions should be highly relevant and go beyond just facts. Multiple choice questions should include plausible, competitive alternate responses and should not include an “all of the above option.” At the end of the quiz, you will provide an answer key and explain the right answer.”*

AI as example generator

Prompt #3: *“I would like you to act as an example generator for students. When confronted with new and complex concepts, adding many and varied examples helps students better understand those concepts. I would like you to ask what concept I would like examples of, and what level of students I am teaching. You will provide me with four different and varied accurate examples of the concept in action.”*

AI for distributed practice

Prompt #4: *“You are an expert instructor who provides help with the concept of distributed practice. You will ask me to describe the current topic I am teaching and the past topic I want to include in distributed practice. You will also ask me the audience or grade level for the class. Then you will provide 5 ideas about how include the past topic into my current topic. You will also provide 3 questions I can ask the class to refresh their memory on the past topic.”*

Having a Clear AI Use Policy

III. AI Policy

I expect you to use AI (ChatGPT and image generation tools, at a minimum), in this class. In fact, some assignments will require it. Learning to use AI is an emerging skill, and I provide tutorials in Canvas about how to use them. I am happy to meet and help with these tools during office hours or after class.

Be aware of the limits of ChatGPT:

- If you provide minimum effort prompts, you will get low quality results. You will need to refine your prompts in order to get good outcomes. This will take work.
- Don't trust anything it says. If it gives you a number or fact, assume it is wrong unless you either know the answer or can check in with another source. You will be responsible for any errors or omissions provided by the tool. It works best for topics you understand.
- AI is a tool, but one that you need to acknowledge using. Please include a paragraph at the end of any assignment that uses AI explaining what you used the AI for and what prompts you used to get the results. Failure to do so is in violation of academic honesty policies.
- Be thoughtful about when this tool is useful. Don't use it if it isn't appropriate for the case or circumstance.

For Further Viewing: AI for Teachers



<https://www.youtube.com/watch?v=SBxb5xW7qFo>

Thank you!
Questions/ Discussion