Prompt Patterns

Interacting with Large Language Models

Large Language Models

Bringing Ideas to Life

Prompt “Engineering”

Art, Skill, or Engineering Discipline?

A combination of all three.

Prompt “Engineering”

Prompt engineering means writing *smart* and *clear instructions* for AI so it gives you the best answers.

It’s about choosing the right *words*, *format*, and *examples* to help the AI understand exactly what you want and respond in a helpful way.

Prompt Patterns

Interacting with Large Language Models

Prompt Patterns (Technical Names)

1. Persona
2. Question Refinement
3. Cognitive Verifier
4. Audience Persona
5. Flipped Interaction
6. Few-shot Examples
7. Chain of Thought
8. ReAct Prompting
9. LLM Grading
10. Game Play
11. Template
12. Meta Language Creation
13. Recipe
14. Alternative Approaches
15. Ask for Input
16. Outline Expansion
17. Menu Actions
18. Fact Check List
19. Tail Generation
20. Semantic Filter

Prompt Patterns (User-Friendly Names)

1. Smart Character
2. Better Way to Ask
3. Break to Build
4. Tailor to Me
5. Reverse Q&A
6. Example-Led Learning
7. Show Your Thinking
8. Think & Do
9. Prompt Critic
10. Game Master Mode
11. Format Blueprint
12. Chat Shorthand
13. Fill in The Blanks
14. Possibility Compass
15. Reverse Pause & Prompt
16. Outline, Drill Down, & Expand
17. Action Triggers
18. Claim Check
19. Focus Footer
20. Keep & Cull

Root Prompts

- Hidden from users
- Defines core behaviors
- Set boundaries with guardrails
- Persistent & “immutable”

- *Skilled, knowledgeable, insightful, supportive, inquisitive, creative, skeptical, etc.*
- *Don’t make up things up if you can not find an answer*
- *Answer my question succinctly*
- *You will provide thought provoking answers*
- *You will filter out any harmful and hateful content in your responses*

Persona Pattern (Smart Character)

- Implicit rules and knowledge
- Act as a (you are a) [*persona*]
- Perform [*task*]
- Inanimate objects

- *Act as Tony Robbins. Provide a strategy to help me get over my fear of coding.*
- *Act as a database that is being attacked by SQL injection. Alert humans to perform necessary tasks to stop it.*
- *You're an endocrinologist. Provide a healthy intermittent fasting regimen for a 60 year old man.*
- *Act as agentic workflow framework. What skills do you recommend I learn to get the best results out of you?*

Question Refinement (Better Way to Ask)

- Ask the LLM to suggest better versions of your question
- Prompt you to choose which version you want to use
- Helps users to think of different interpretations
- Hone specificity skills

- *When I ask questions about available budgets in a selling conversation , suggest better versions that doesn't sound like I'm qualifying an opportunity.*
- *When I ask a prospect questions about business pain suggest better versions that will surface business problems using a positive tone.*

Cognitive Verifier Pattern (Break to Build)

- Encourage critical thinking
- Confirm reasoning
- Validate assumption

- What are the flaws in the reasoning above, if any?
- What incorrect assumptions have I made?
- Challenge this conclusion with a counter-conclusion or a different perspective

Cognitive Verifier Pattern (Break to Build)

- Decompose the reasoning
- Use metacognition
- Promote synthesis after verification

- *When I ask you a question, follow these rules [insert rules]*
- *Create additional questions that would answer the [insert question] more accurately*
- *Combine the answers to the individual questions to produce one final answer to the overall question*

Cognitive Verifier Pattern (Break to Build)

- Verify a sales strategy
- A persona has been developed for the buyer

- *“Here’s our sales strategy for this account: [insert plan]. What are the blind spots or flawed assumptions in this approach, from the buyer’s perspective?”*

Audience Persona Pattern (Tailor to Me)

- Assume that I am [*Persona*]
- Explain [*input*] to me
- Present [*topic*] to me

- *Explain how agentic workflows is organisationally disruptive. Assume that I am the responsible for talent acquisition at my company.*
- *Assume that I am a primary school social studies teacher. Explain large language models to me in simple English.*
- *Present this technical slide deck [insert slides] to me. Assume that I am the VP of Sales.*

Meta Language Creation Pattern (Teach the Terms)

- Teach the LLM useful acronyms
- Precise & relevant shorthand

- *Compare company CAPEX vs OPEX as percentage of revenue over the past 5 years*
- *Compare the growth of D2C to B2C in China in 2024*
- *Calculate ROI using COGS vs profit margin by COB or ASAP*

Flipped Interaction Pattern (Reverse Q&A)

- Ask me questions [*insert #*] at a time in order to to achieve [*insert objective*]
- You should ask me questions until [*insert condition*] is met or the objective has been achieved
- Ask me the first question

- *Ask me questions to help me create targeted marketing messaging for our new product launch. Ask me one question at a time and use my responses to help you ask the next question.*
- *Ask me questions to help qualify [insert prospect] who has expressed interest in [insert product] using the BANT framework. Keep asking until I've provided answers for budget, authority, need, and timetable.*

Few-Shot Examples Pattern (Example-Led Learning)

- Give examples of:
  - Input - output pairs
  - Situation - action pairs
  - Situation - multiple action steps
- Sentiment analysis
- Classification
- Prediction

- *Situation - action (with guidance)*
- *Correlation*
- *Linear regression*

Few-Shot Examples with Intermediate Steps

- Give examples of:
  - Sequence of multiple steps
- More complex output
- Extrapolation of steps

- *Situation - action (with guidance)*
- *Think, consider*
- *Action*

Chain of Thought Prompting (Show Your Thinking)

- Show the LLM your work
- Use few-shot examples
- Question - Reasoning - Answer
- Question - ask for reasoning

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

A: *9*

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

A: *The cafeteria started with 23 apples.*

- *They used 20, so they had 23 - 20 = 3 left.*
- *Then they bought 6 more, so they have 3 + 6 = 9 apples.*
- *Final Answer: 9*

ReAct Prompting (Problem-Solve in Steps)

The ReAct framework prompts the LLM to operate in a loop, generating:

- Thoughts:
- Actions:
- Observations:

- ***Prompt***: *What is the current population of Tokyo, and how does it compare to the population of New York City?*
- ***Thought***: *I need to find the population of Tokyo.*
- ***Action***: *Search "Tokyo population 2024" Observation: "The population of Tokyo is approximately 13.96 million in 2024."*
- ***Thought***: *I need to find the population of New York City.*
- ***Action***: *Search "New York City population 2024”*
- ***Observation***: *"The population of New York City is approximately 8.468 million in 2024."*
- ***Thought***: *Now I can compare the two populations. Action: Calculate 13.96 million / 8.468 million Observation: "1.6485"*
- ***Thought***: *I have the answer.*
- ***Final Answer***: *The population of Tokyo (13.96 million) is about 1.65 times larger than the population of New York City (8.468 million).*

Using LLMs to Grade Each Other (Prompt Critic)

- Use the LLM to critique your prompts and outputs
- Using a different -
  - Chat session
  - LLM

- *If [A] is good prompt and [B] is bad prompt, how would you grade [C]?*
- *If [A] is a 10 and [B] is a 1, how would you grade [C]?*
- *You are a Pulitzer winning journalist, how would you rate the [output] from [this prompt]?*

Game Play Pattern (Game Master Mode)

- Create well-defined rules, protocols, or interaction patterns
  - Current state
  - Role mapping
  - Simulate interactions
  - Evaluate interaction based on outcomes

Current State: You are assisting a user who is having trouble connecting their wireless printer to their laptop. They have confirmed the printer is powered on and the Wi-Fi is enabled on both devices.

Available Actions:

1. *Ask the user to check if both devices are connected to the same Wi-Fi network.*
2. *Ask the user to restart their printer.*
3. *Ask the user to restart their laptop.*
4. *Guide the user on how to manually enter the Wi-Fi password on the printer.*
5. *User's Choice: 1 Describe what the chatbot should say to the user for action 1 and what the potential next "Current Situation" and "Available Actions" might be based on the user's response (assuming they confirm they are on different networks).*

Game Play Pattern (Game Master Mode)

Current State: You are assisting a non-technical user who is having trouble connecting their wireless printer to their laptop. They have confirmed the printer is powered on and the Wi-Fi is enabled on both devices.

Available Actions:

1. *Ask the user to check if both devices are connected to the same Wi-Fi network.*
2. *Ask the user to restart their printer.*
3. *Ask the user to restart their laptop.*
4. *Guide the user on how to manually enter the Wi-Fi password on the printer.*

User's Choice: 1

Describe what the chatbot should say to the user for action 1 and what the potential next "Current State" and "Available Actions" might be based on the user's response (assuming they confirm they are on different networks).

Template Pattern (Format Blueprint)

- Instructions to structure output
- Use placeholders
- Markdown formatting
- Semantic extraction

- *I am giving you a template for your output [insert pattern with placeholders]*
- *{n} is a placeholder for content*
- *Place the correct type of content in the placeholders*
- *Preserve the formatting and template I've provided*

Meta Language Creation Pattern (Chat Shorthand)

- Teach the LLM short hand notations
- Concise and faster input

- *I am providing you a dictionary of acronyms used in [body of knowledge]*
- *When I say [x], I mean [y]*
- *MQL mean marketing qualified lead*

Recipe Pattern (Fill in the Blanks)

- Incomplete solutions
- Instruct the LLM to fill in the missing "ingredients"
- Like autocomplete but for steps

- *The road to hell is "..."*
- *I'm driving to Penang from JB. Suggest 3 interesting rest stops with similar travel times in between them.*
- *Let the steak come to room temperature ... remove from pan and let it rest for 5 to 10 minutes*

Alternate Approach Pattern (Possibility Compass)

- “Chunk up” for possibilities
- Multiple solutions for multiple stakeholders
- Multiple options for multiple scenarios

Problem: "We need to increase user engagement on our website."

Alternative Approach Prompt: "Instead of focusing on common tactics like redesigning the UI or sending more email newsletters, what are some alternative approaches we could consider to increase user engagement? Think about unconventional methods or completely different angles. Consider the pros and cons of each approach.”

Summary & Reflection

FIN

Prompt Engineering