



Prompting Effectively

AI tools may be improving their outputs, but they still cannot generate what you want unless you tell them exactly what you want. This handout provides a quick overview of how you can craft prompts to get the outputs you are looking for.

Before Using AI

Not all instructors permit the use of AI tools. It is your responsibility to check whether your use of AI is acceptable. Review your course outline and assignment instructions to see if AI is permitted. If you are unsure about your instructor's expectations around AI, talk to them.

Additionally, you should never use AI to replace your thinking. Your own critical thinking is key to making sure you get the most out of AI.

Whether you use AI to assist with coursework or other things, there are a few questions you should consider, including:

- Am I using AI to **support** or **replace** my thinking?
- Am I aware of the ethical factors of using AI, such as bias, misinformation, and environmental impacts?
- How am I validating outputs to make sure the risks of AI use are mitigated and the limitations of AI are addressed?

What's in a Prompt?

A prompt contains the set of instructions you provide to an AI tool. Prompts can vary in length, complexity, and effectiveness.

The more specific and descriptive the prompt, the more likely you are to get a relevant output.

Prompt Engineering

AI tools are still tricky to communicate with. AI tools cannot understand us the way other people do. While AI systems are trained on vast datasets and operate based on underlying algorithms, they also rely on our input (Lo, 2023). In other words, our inputs give AI tools the framework they need to produce their responses. Prompt engineering involves fine-tuning instructions and questions for the AI to produce desirable outputs.

Types of prompts

| Prompt Type | Description | Example |
|----------------------|--|--|
| Zero-shot prompt | Gives simple and clear instructions without examples. Useful for a quick, general response. | “Summarize this article in 5 bullet points.” |
| Few-shot prompt | Provides a few examples of what you want the AI to mimic. Helps the model learn your desired structure or tone. | “Here are 2 example summaries. Make recommendations for how I should structure my summary based on these examples.” |
| Instructional prompt | Includes direct commands using verbs like “write,” “explain,” or “compare.” | “Here are two articles, compare and contrast the authors’ main arguments.” |
| Role-based prompt | Asks the AI to assume a particular persona or viewpoint. Useful for creativity and domain-specific responses. | “You are an MBA professor reviewing my paper, provide feedback about my use of disciplinary writing conventions” |
| Contextual prompt | Includes relevant background or framing before asking a question. Helps the AI tailor responses to a specific audience or setting. | “This essay is for an undergrad course on behavioral econ. The target audience is a non-specialist. Make recommendations on how I can rephrase in simpler language.” |

Note: Adapted from <https://mitsloanedtech.mit.edu/ai/basics/effective-prompts/>. Copyright 2025 by MIT Sloan.

The CLEAR Framework for Prompting

The CLEAR Framework is designed to help craft effective prompts while promoting personal critical thinking skills (Lo, 2023). CLEAR provides a standard for queries to enhance output quality and relevance (Lo, 2023).

CLEAR's Components

| Component | Rationale | Example |
|---|--|---|
| Concise: brevity and clarity | A concise prompt allows AI to focus only on the task, so make sure to include only important, relevant information when prompting. | "Explain the process of photosynthesis and its significance." |
| Logical: structured and coherent | A logical, structured prompt reduces the chances that AI misinterprets the input, allowing a better understanding of context, concepts, and relationships. | "List the steps to write a research paper, beginning with selecting a topic and ending with proofreading the final draft." |
| Explicit: clear specifications | Clear output specifications provide the necessary information for AI to follow when generating an output. | "Identify five renewable energy sources and explain how each works." |
| Adaptive: flexibility and customization | Adaptability and experimentation, which involves attempting new prompt formulations and approaches, help finetune the AI's output. | If the prompt "Describe the history of computers" results in a general or information-heavy output, try, "Explain the development of personal computers from the 1970s to the 1990s." |
| Reflective: continuous evaluation and improvement | Reflection is designed to promote your own thinking, evaluating AI's performance based on your own assessments. This involves analyzing AI outputs to improve future interactions. | Continuously evaluate the output's accuracy, relevance, applicability, completeness, and so on. Use this information to tailor your approaches in the future. |

Note: Adapted from "The CLEAR Path: A Framework for Enhancing Information Literacy Through Prompt Engineering," by L. S. Lo, 2023, *The Journal of Academic Librarianship* 49(4), Article 102720. Copyright 2023 by Elsevier Inc.

Addressing common AI problems

Like reflective prompting suggests, you must assess every output for factors like accuracy, bias, and relevance. Responsible use of AI includes recognizing and addressing AI's limitations. Simply asking AI, "are you sure?" after an output already forces it to check its own output for accuracy.

Here are a few common AI issues along with techniques to help you combat them:

Incorrect or inaccurate output

Sample prompts: "Provide a list of sources"

Tip: you will have to evaluate each source's credibility and check whether AI is accurately deriving information from that source.

AI makes assumptions

Tip: Provide more context in your output and include relevant background information.

Irrelevant or off topic outputs

Sample prompt: "Disregard our previous conversation and use only this information."

Tip: If the AI seems to be using your earlier conversation in unhelpful ways, start a new chat.

Biased response

Sample prompt 1: "Provide 3 other perspectives on this topic."

Sample prompt 2: "Identify possible counterarguments."

Lengthy or confusing output

Sample prompt: "Organize the information in bullet points and simplify the language."

Vague response

Sample prompt: "You explained that my essay was convincing and well-structured. Can you list 5 passages with good argumentation in my essay and explain what makes it convincing?"

Response is overly agreeable

Sample prompt 1: "List other perspectives that I am missing."

Sample prompt 2: "List and explain potential problems with this idea."

AI skipped instructions

Tip: You may be overloading the AI with tasks. Try numerating your tasks or breaking it down into separate inputs.

Providing AI with a Framework

You can further instruct AI to follow a strict format to generate a desirable output. A framework gives it a structure to follow, so you can cut down on trying to fix issues.

Sample prompt 1:

“Review this article. Do not rewrite anything. Only use the author’s original words to identify:

1. Their main argument
2. Their supporting evidence
3. How each piece of evidence supports their thesis
4. Counterarguments
5. Future considerations”

Note: Even in this case, you must verify the output for accuracy.

Sample prompt 2:

“Summarize scholarly arguments about how generative AI is affecting education in Canada.

Talk about:

- Potential to support learning
- Cognitive offloading
- Effects on literacy

Additional instructions:

- Give diverse perspectives for a comprehensive look at positives and negatives
- Point me toward credible sources”

Note: This prompt requires you to have background knowledge on the topic of interest so that you avoid offloading too much work. Additionally, asking for references directs you to the original source, which you should evaluate personally. You should never use AI to write your paper for you.

Conclusion

Generative AI can lighten your workload by taking on repetitive, lengthy tasks, but it can often make mistakes and generate undesirable outputs. Effective prompting can reduce some of the frustrations you may have with using AI.

Again, AI should never replace your own thinking. You should only use AI to extend your thinking and support your learning. Relying on AI to perform cognitive tasks risks diminishing your personal development.

References

- Lo, L. S. (2023). The CLEAR path: A framework for enhancing information literacy through prompt engineering. *The Journal of Academic Librarianship* 49(4), Article 102720. <https://doi.org/10.1016/j.acalib.2023.102720>
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