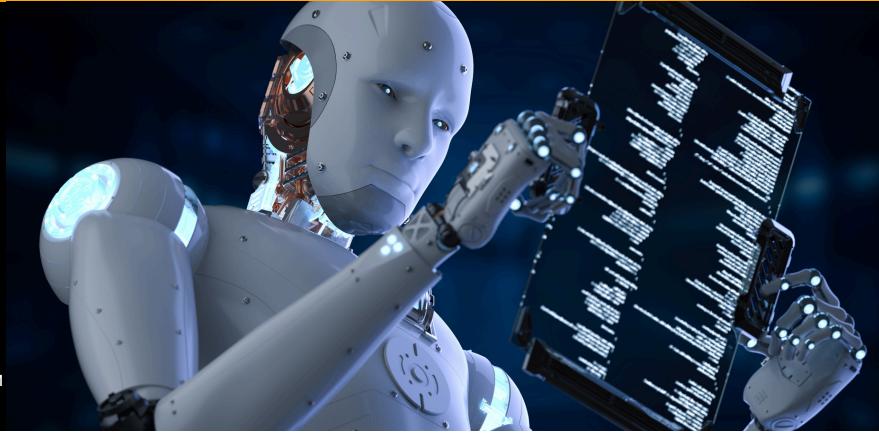


AI Prompting Techniques Cheat Sheet

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This cheat sheet provides a quick reference guide to 14 different AI prompting techniques, each serving distinct purposes depending on the complexity of the question and the desired response. Whether you need a detailed step-by-step answer, a comparison of two concepts, or a simple explanation for beginners, this guide helps you craft the right prompts to guide AI effectively. Each technique is explained with a description, use case, and example to make it easy to understand and apply.

1. Step-by-Step Prompting

- **Description:** Break down a complex question into smaller, structured steps.
- **Example:** "Explain step-by-step how transformers and attention mechanisms enable GPT-4 to generate human-like text."
- **Use Case:** Ideal for technical or multi-part questions needing a sequential answer.

2. Role-Specific Prompting

- **Description:** Ask the AI to adopt a specific role (e.g., teacher, expert).
- **Example:** "As an AI ethics researcher, explain the main ethical concerns with using Generative AI to create deepfakes."
- **Use Case:** Use for answers tailored to a particular field or tone.

3. Context-Based Prompting

- **Description:** Provide a scenario to narrow down the focus of the response.
- **Example:** "In the context of large-scale music production, how can Generative AI compose background scores?"
- **Use Case:** When broad questions need to be applied to a specific industry or scenario.

4. Comparative Prompting

- **Description:** Ask the AI to compare two or more concepts.

- **Example:** "Compare how rule-based AI and Generative AI adapt to new data."
- **Use Case:** For exploring similarities, differences, pros, and cons of concepts.

5. Pros and Cons Prompting

- **Description:** Request both advantages and disadvantages of a concept.
- **Example:** "What are the pros and cons of using Generative AI for writing assistance in journalism?"
- **Use Case:** Useful for balanced analysis of a topic.

6. Specific Answer Length Prompting

- **Description:** Control the answer length (e.g., number of sentences or word count).
- **Example:** "Explain in 3-5 sentences how transformers enable GPT-4 to generate coherent text."
- **Use Case:** For concise or expanded responses based on the depth needed.

7. Hypothetical Scenario Prompting

- **Description:** Use an imagined scenario for dynamic, exploratory answers.
- **Example:** "Imagine a world where Generative AI is fully integrated into all creative industries. How would this impact human artists?"
- **Use Case:** Great for predicting future impacts or creative exploration.

8. Chain of Thought Prompting

- **Description:** Ask the AI to reason through a problem out loud, step by step.
- **Example:** "Think through the process of how biases can arise in large language models."
- **Use Case:** Helps to understand the reasoning behind an AI's conclusion.

9. Explain Like I'm 5 (ELI5) Prompting

- **Description:** Simplify complex concepts for easy understanding.
- **Example:** "Explain how transformers work in AI as if you're explaining it to a 5-year-old."
- **Use Case:** Perfect for beginners or simplifying technical topics.

10. Problem-Solution Prompting

- **Description:** Present a problem and ask the AI to offer practical solutions.
- **Example:** "What are some solutions for mitigating the spread of deepfake content generated by AI?"
- **Use Case:** Ideal for solving technical, ethical, or industry challenges.

11. Critical Thinking Prompting

- **Description:** Ask the AI to analyze or critique a concept critically.
- **Example:** "What are the potential drawbacks of relying heavily on Generative AI for creative content production?"
- **Use Case:** Encourages in-depth analysis and critical evaluation.

12. Historical Comparison Prompting

- **Description:** Compare modern AI techniques with past technologies.
- **Example:** "How does Generative AI compare to expert systems from the 1980s in terms of adaptability?"
- **Use Case:** When looking for historical perspective or progress analysis.

13. Data-Driven Prompting

- **Description:** Request the AI to use data, statistics, or research findings in its response.
- **Example:** "What recent statistics highlight the impact of Generative AI on content creation industries?"
- **Use Case:** For grounding responses in empirical evidence or research.

14. Open-Ended Prompting

- **Description:** Frame the question broadly to encourage exploration of multiple angles.
- **Example:** "What are the most exciting possibilities for Generative AI in the next decade?"
- **Use Case:** Ideal for broad, exploratory answers covering multiple directions.

Conclusion

Different prompt styles serve different purposes depending on the desired response:

- **Step-by-step:** Detailed, structured responses.
- **Role-specific:** Expert insights in specific tones or fields.
- **Context-based:** Tailored to specific scenarios.
- **Comparative:** Side-by-side comparisons.
- **Pros and Cons:** Balanced analysis.
- **Specific Length:** Control over the depth of response.
- **Hypothetical:** Creative exploration of future scenarios.
- **Chain of Thought:** Understanding AI reasoning.
- **ELI5:** Simple explanations for complex concepts.
- **Problem-Solution:** Focus on real-world solutions.
- **Critical Thinking:** Deep analysis and evaluation.
- **Historical Comparison:** Analysis of progress and relevance.
- **Data-Driven:** Empirical, evidence-based responses.
- **Open-Ended:** Broad exploration and multiple interpretations.