AI Prompting Techniques Training Manual

A comprehensive guide to mastering AI-assisted prompting

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CRAFT Prompting

CRAFT Prompting is a structured method to improve AI-generated responses' clarity, relevance, and usefulness.

CRAFT stands for Context, Role, Action, Format, and Tone, ensuring prompts are well-defined and precise.

Breakdown:

- **Context**: Provide background details to help AI understand the request.
- **Role**: Assign a specific persona to guide AI's perspective.
- **Action**: Clearly state what the AI should do.
- **Format**: Define the structure of the response.
- **Tone**: Specify how the response should sound.

Examples:

Example 1

Basic Prompt: 'Explain Agile methodology.'
CRAFT Prompt: 'You are an Agile coach working with a team unfamiliar with Agile. Give a structured summary of Agile methodology, explaining it simply and engagingly, using bullet points.'

Example ***2***
Basic **Prompt**: 'Write a job description for a software developer.'
CRAFT Prompt: 'You are a hiring manager at a tech company. Write a job description for a mid-level software developer specializing in Python and cloud computing. Format the response with a job title, responsibilities, required skills, and preferred qualifications. Keep the tone professional but friendly.'

Iterative Prompting

Iterative prompting is a technique where AI responses are refined step by step instead of expecting a perfect answer in one attempt. It involves an interactive back-and-forth process where users analyze AI's response, provide feedback, and adjust the prompt to improve the output. This method helps fine-tune details, correct misunderstandings, and generate more precise or creative results. **Users can guide AI to produce higher-quality and more relevant answers by continuously refining the input**.

Process:

1. Start with an initial prompt.
2. Analyze AI's response.
3. Provide feedback or request refinements.
4. Repeat until the response meets expectations.

Example

Basic Prompt: 'Summarize climate change.'
Iterative Refinement:
- 'Expand on the economic impact of climate change.'
- 'Now simplify the explanation for a high school student.'
- 'Provide a counter-argument for climate change skepticism and a rebuttal.'

Chain of Thought Prompting

Chain of Thought prompting encourages AI to break down its reasoning process into logical, step-by-step components rather than providing an immediate answer. This technique is particularly useful for complex problem-solving, structured decision-making, and analytical thinking.

By prompting AI to explain intermediate steps before reaching a conclusion, users can ensure that the response follows a clear and logical flow. It also helps identify gaps in reasoning, making the AI's thought process more transparent and interpretable. Ultimately, Chain of Thought prompting enhances the depth and accuracy of AI-generated insights, especially for tasks requiring structured analysis.

Process:

1. Ask AI to break down the problem into smaller parts.
2. Encourage AI to reason through each step before reaching a conclusion.

Examples:

Basic Prompt: 'How do I improve my team's productivity?'
Chain of Thought Prompt:
- 'List five common productivity bottlenecks first.'
- 'For each bottleneck, suggest practical solutions with real-world examples.'
- 'Rank the solutions based on effectiveness and ease of implementation.'

Few-Shot Prompting

Few-shot prompting is a technique in which users provide AI with a few examples before requesting a response to guide its output. AI can better understand the desired structure, tone, or reasoning by showing patterns in the provided examples.

This method is especially useful for generating responses that match a specific format, style, or level of complexity. Unlike zero-shot prompting, where AI must infer instructions from a single query, few-shot prompting improves accuracy by offering clear reference points. It is commonly used in text generation, classification, and structured output tasks where consistency is essential.

Process:

1. Provide one or more examples.
2. Ask AI to generate a response based on the pattern.

Examples:

Basic Prompt: 'Write a professional email declining a request.'
Few-Shot Prompt:

- 'Example 1: "Dear John, I appreciate your request but I am unable to assist at this time. Best, Alice."
- Example 2: "Hi Sarah, I'd love to help, but my schedule is packed. Let's connect next month. Regards, Tom."
- Now write a polite email declining a request to collaborate on a project.'

Constraint-Based Prompting

Constraint-based prompting is a technique where users define strict rules or limitations that AI must follow when generating responses. By specifying conditions such as word limits, format restrictions, or topic boundaries, users can ensure that AI outputs meet specific requirements. This method is useful when precision, compliance, or consistency is necessary, such as in technical writing, structured summaries, or regulated content. Clearly stating constraints helps AI stay focused and prevents vague or overly broad answers. When applied effectively, Constraint-Based Prompting enhances control over AI-generated content while maintaining flexibility within set guidelines.

Process:

1. Define clear constraints.
2. Ensure AI follows those rules strictly.

Examples:

Basic Prompt: 'Give me five book recommendations.'
Constraint-Based Prompt: 'Recommend five books under 300 pages, written after 2015, and related to leadership.'

Example 2:
'Write a summary of World War II in under 100 words, avoiding technical jargon and using simple language for younger readers.'

Role-Based Prompting

Role-based prompting assigns AI a specific persona or expertise to generate more specialized and contextually relevant responses. By defining a role, such as a financial analyst, historian, or teacher, users can guide AI to adopt **that profession's knowledge, tone, and perspective**.

This technique improves accuracy and credibility, making responses more tailored to professional or domain-specific needs. It is particularly effective for expert advice, simulated conversations, or industry-specific explanations. By clearly stating the role, users can shape AI's responses to better align with their expectations and the intended audience.

Process:

1. Assign AI a specific role.
2. Ask for a response tailored to that role.

Examples:

Basic Prompt: 'Give me business negotiation advice.'
Role-Based Prompt: 'You are a Harvard negotiation professor. Explain three strategies used in high-stakes deals.'

Example 2:
'You are a financial analyst. Analyze the impact of inflation on global markets and suggest three investment strategies for mitigating risks.'

Socratic Prompting

Socratic Prompting encourages AI to generate and answer its own questions before forming a final response. This technique helps deepen reasoning by prompting AI to systematically explore different aspects of a topic. By guiding AI to ask clarifying questions, users can improve the generated content's depth, accuracy, and logical flow.

It is especially useful for critical thinking, problem-solving, and educational discussions where layered understanding is needed. Socratic Prompting enhances AI's ability to provide well-structured and thought-provoking responses rather than simple, surface-level answers.

Process:

1. Instruct AI to generate relevant questions before answering.
2. AI answers each question in sequence, leading to a well-structured final response.

Examples:

Basic Prompt: 'Explain machine learning.'
Socratic Prompt: 'Ask and answer three foundational questions about machine learning before providing an overall explanation.'

Perspective-Based Prompting

Perspective-based prompting instructs AI to generate responses from multiple viewpoints, helping users explore different sides of a topic. This technique is useful for debates, decision-making, and critical analysis by presenting contrasting opinions in a structured way.

By prompting AI to argue both for and against an idea, users can gain a more balanced understanding of complex issues. This method encourages AI to consider alternative viewpoints, reducing bias and enhancing the depth of discussions. Perspective-based prompting is particularly effective in ethical debates, business strategy, and policy analysis, where multiple perspectives are essential. Perspective-based prompting fosters more well-rounded insights, making AI-generated content more informative and nuanced.

Process:

1. Instruct AI to provide two contrasting perspectives.
2. Compare both arguments before forming a conclusion.

Examples:

Basic Prompt: 'Is remote work effective?'
Perspective-Based Prompt: 'Argue both for and against remote work, citing advantages and disadvantages.'

Example 2:
'Debate whether AI should be used in medical diagnoses. Provide one argument in favor and one against, then summarize with a balanced perspective.'

Multi-Turn Prompting

Multi-Turn Prompting is a technique where AI interacts through a series of connected prompts, allowing for progressive refinement of responses. Instead of requesting a complete answer in one step, users guide AI through structured follow-ups to explore different angles of a topic.

This method benefits complex topics, in-depth learning, and structured problem-solving. Users can improve clarity, adjust focus, and extract more detailed or nuanced information by engaging AI in multiple turns. Multi-turn prompting helps create dynamic conversations, making AI interactions more interactive and responsive to evolving needs.

Process:

1. Start with a broad question to establish context.
2. Use follow-up prompts to explore different angles.
3. Refine responses based on AI's previous answers.

***Examples*:**

Basic Prompt: 'Tell me about Agile methodology.'
Multi-Turn Approach:
- 'Now explain how Agile differs from traditional project management.'
- 'What are the biggest challenges companies face when adopting Agile?'
- 'Provide an example of a failed Agile transformation and the key lessons learned.'

Use Case: Ideal for deep exploration, structured learning, and progressive topic refinement.

Reverse Prompting

Reverse Prompting is a technique where AI is asked to generate the most relevant question that would lead to a given response. Instead of directly providing answers, this method helps users refine their queries and uncover missing details. It is particularly useful for learning reinforcement, problem-solving, and critical thinking exercises.

By encouraging AI to work backward, Reverse Prompting can reveal gaps in reasoning and improve the depth of understanding. This technique is often used in education, interview preparation, and exploratory discussions to enhance engagement and analytical thinking.

Process:

1. Provide AI with a fact, statement, or outcome.
2. Ask AI to generate the best question that could lead to that response.

Examples:

Basic Prompt: 'The Agile Manifesto emphasizes individuals and interactions over processes and tools.'
Reverse Prompting Approach:
- 'What question would lead to this response?'
- AI: 'What is the first value of the Agile Manifesto?'

Use Case: Useful for learning reinforcement, interview preparation, and improving problem-solving skills.

Reflective Prompting

Reflective Prompting encourages AI to evaluate, critique, and refine its own responses to improve accuracy and depth. Instead of accepting the first output, users prompt AI to assess its response, identify gaps, and suggest improvements.

This technique helps enhance content quality by making AI-generated answers more complete, logical, and well-structured. It is especially useful in quality control, iterative learning, and refining AI-generated text for clarity and precision. By incorporating self-review, Reflective Prompting ensures that AI responses are more thoughtful and aligned with user expectations.

Process:

1. Ask AI for an initial response.
2. Follow up with a prompt asking AI to assess and improve its answer.
3. AI identifies gaps, errors, or areas for enhancement and provides a refined version.

Examples:

Basic Prompt: 'Write a summary of machine learning techniques.'
Reflective Prompting Approach:
- 'Now, critique your response and identify any missing key concepts.'
- AI: 'I did not mention reinforcement learning in my initial summary. Let me add that now.'

Use Case: Useful for quality control, iterative improvements, and ensuring comprehensive AI-generated content.

Contrastive Prompting

Contrastive Prompting is a technique that asks AI to compare and contrast multiple concepts, viewpoints, or options to highlight key differences and similarities. This approach is useful for decision-making, critical thinking, and structured analysis. Users can gain deeper insights into trade-offs between alternatives by prompting AI to evaluate opposing perspectives.

It is particularly effective in debates, product comparisons, and explaining nuanced distinctions between related topics. Contrastive Prompting enhances clarity and allows for more balanced and well-informed conclusions.

Process:

1. Ask AI to analyze two or more topics.
2. Request a detailed comparison that highlights differences and similarities.

Examples:

Basic Prompt: 'What is Scrum?'
Contrastive Prompt: 'Compare and contrast Scrum and Kanban, highlighting their key differences, advantages, and best use cases.'

Use Case: Best for evaluating alternatives, debates, and structured comparisons.

Recursive Prompting

Recursive Prompting is a technique where AI is asked to refine, expand, or improve its own response through multiple iterations. Instead of expecting a perfect answer in one attempt, users guide AI to enhance its output progressively.

This method is particularly useful for improving clarity, correcting mistakes, and adding depth to AI-generated content. By continuously refining the response, Recursive Prompting helps ensure higher-quality, well-structured, and more accurate information. It is especially beneficial for writing, problem-solving, and step-by-step content improvement.

Process:

1. Ask AI for an initial response.
2. Follow up with requests to refine, clarify, or improve the response.
3. Iterate until the answer meets expectations.

Examples:

Basic Prompt: 'Summarize the history of AI.'
Recursive Approach:
- 'Summarize the history of AI in 200 words.'
- 'Now refine this summary to be more engaging and structured.'
- 'Make the summary even more concise while keeping the most important details.'

Use Case: Ideal for iterative content improvement, refining AI-generated outputs, and self-correcting responses.

Emotion-Based Prompting

Emotion-based prompting instructs AI to generate responses with a specific emotional tone, making content more engaging and relatable. By specifying an emotion such as excitement, empathy, or urgency, users can tailor AI's response to fit different audiences and contexts. This technique is particularly useful for storytelling, persuasive writing, and customer engagement. It helps create messages that resonate emotionally, improving their effectiveness in marketing, coaching, and support interactions. Emotion-based prompting allows AI to adapt its tone, making responses feel more human-like and contextually appropriate.

Process:

1. Ask AI to adopt a specific emotional tone.
2. Request responses tailored to evoke a certain feeling.

Examples:

Basic Prompt: 'Explain the benefits of remote work.'

Emotion-Based Prompt:
- 'Explain the benefits of remote work in an enthusiastic and motivational tone.'
- 'Describe the challenges of remote work in a concerned and empathetic tone.'

Use Case: Useful for marketing, storytelling, persuasive communication, and audience-specific messaging.