



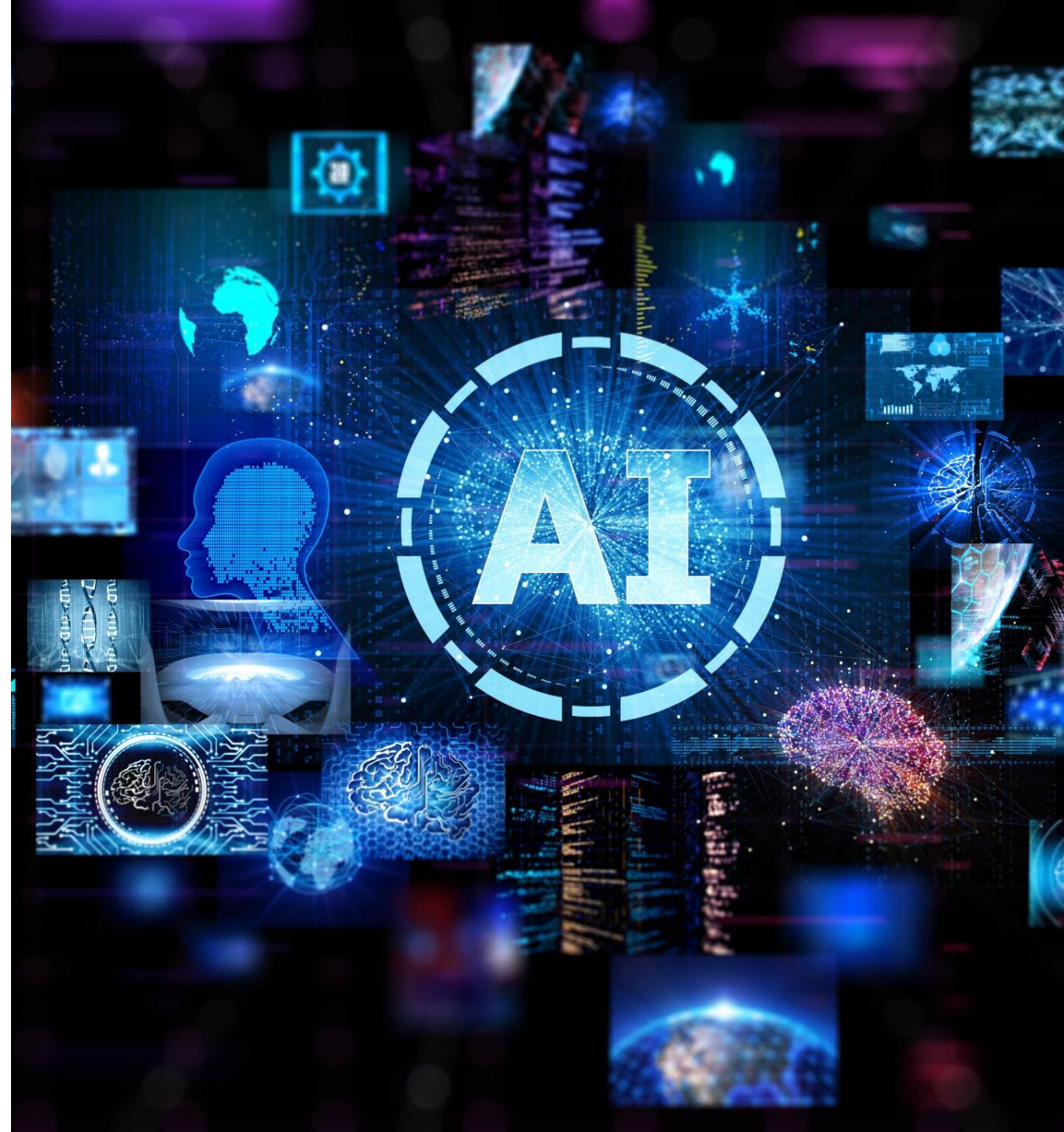
# A Prompt Optimization Guide

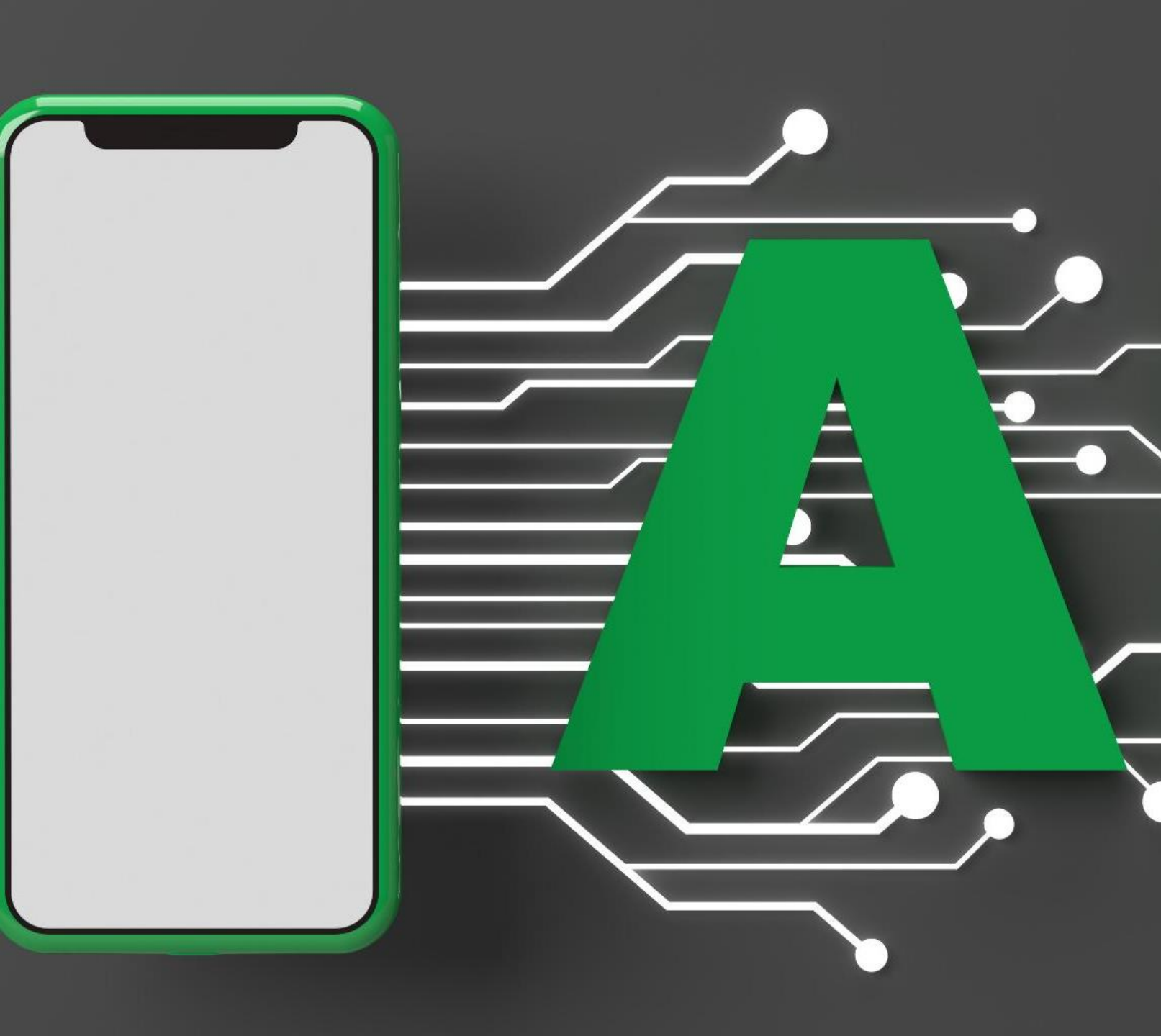
Best practices for creative effective prompts using  
Generative AI

# What is Prompt Optimization

Prompt optimization is the art of crafting effective prompts to guide AI behaviour. It involves designing inputs that clearly convey the task to the AI, ensuring accurate and relevant responses.

This process is crucial for maximizing the potential of AI tools, as the quality of the prompt directly influences the output.





# Importance of Well-Structured Prompts

Well-structured prompts ensures that the AI understands the task clearly and produces accurate, relevant, and high-quality responses.

A well-structured prompt provides clear task context, specific output expectations, and necessary details, which guide the AI effectively.



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# Prompt Ingredients

Prompts are how you ask the AI model to do something for you – it largely has two parts, **instruction** and **data context**. To get the best response, it's important to focus on some of the key elements:

## Task

An **instruction** telling the AI the task to be performed.

## Context

Describe the **data** that will be acted on, along with any input **variables**.

## Expectations

Convey the **goals** and **expectations** on the response.

## Output

Help format the **output** the way you want.

# Principles of Effective Prompt Design

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## Clarity and Specificity

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### Clear and Specific Prompts

Clear and specific prompts are crucial for effective AI model training. They provide the model with a clear understanding of what is being asked and avoid any ambiguity or vagueness in the input.

### Avoiding Vague Language

Effective prompts should avoid vague or ambiguous language that can lead to confusion or misinterpretation. Clear and concise language with explicit details should be used instead.

## Contextual Relevance

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### Task Relevance

Prompts should be relevant to the task at hand to ensure that the AI model generates high-quality output that meets the desired objectives.

### Audience Relevance

Prompts should take into account the intended audience to ensure that the generated content is appropriate and effective for the target audience.

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# Prompt Strategies

Every prompt you create should be contextualized as a way of setting the stage for the task at hand. The context helps the AI understand not sure the ‘what’ but the ‘**why**’ **behind your prompt**, leading to more accurate and relevant responses. Think of these as parameters of a function.

## Context

When crafting your prompt, think about what the AI needs to know to fulfill the request effectively.

## Input variable

Inputs are the raw **data** or information that you want the AI to process.

### TIPS:

- **Be explicit** about what is input data, as the variable name will be replaced at runtime with the actual data, and the context will be lost if not explicitly stated in the prompt.
- **Domain ambiguity** should be clearly clarified in the prompt. Don’t assume the AI knows all the domains nuances.





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# Output Formatting

Output formatting in prompt optimization refers to specifying how you want the AI's response to be structured. This ensures the AI's output meets your **downstream processing goals**.

By clearly defining the desired format, style, and length of the output, you can enhance the readability and usability of the AI's responses, making them more aligned with your specific needs and objectives.



# Common Pitfalls and How to Avoid Them

## **Vague or Ambiguous Language**

Vague or ambiguous language in prompt design can lead to confusion and poor performance. To avoid this, it is important to use clear and specific language that is easy to understand.

## **Overly Complex Prompts**

Overly complex prompts can be overwhelming and lead to poor performance. To avoid this, it is important to keep prompts simple and easy to understand, and to break them down into smaller, manageable parts.

## **Open-Ended Prompts**

Open-ended prompts can be difficult to interpret and lead to poor performance. To avoid this, it is important to provide clear guidelines and examples for how to respond to the prompt, and to use closed-ended prompts whenever possible.



# Do's and Don'ts of Prompting

Get the most out of your prompts and avoid common pitfalls by learning **what to do** and **what not to do** when writing prompts.

## Do's

- ✓ **Be clear and specific.**  
Provide specific instructions, about the task to be performed, explain the data context, and output requirements.
- ✓ **Human oversight.**  
Human agency should be preserved. Ensure that humans have opportunity to review the AI response, in line with goals of the scenario.
- ✓ **Give examples.**  
Use high-quality and diverse examples to guide the AI to generate more relevant and accurate responses.
- ✓ **Define output format.**  
Help guide the AI to generate the output that is aligned with your goals and your postprocessing steps of the response.
- ✓ **Test and iterate.**  
Prompt engineering is an iterative process. First draft of the prompt might not result in the desired outcome. Hence Prompt Builder UX support fast experimentation with prompts.
- ✓ **Check for accuracy.**  
Occasionally, AI may make mistakes. Always check AI responses for accuracy, grammar, and style, and watch out for irrelevant or inappropriate content.
- ✓ **Transparency.**  
Create transparency in you end user experience, to inform that results might be AI generate and hence can have inaccuracies or bias.
- ✓ **Adhere to terms of use.**  
Use of Microsoft generative AI technology should in compliance with Microsoft's of code of conduct and service terms of usage.
- ✓ **Incorporate feedback.**  
If an output isn't quite right, tweak your prompt and try again, rather than starting from scratch.
- ✓ **LLM Drift.**  
Be aware of LLM Drift. Over a period, your AI output quality can degrade, because your incoming data has drifted. Update your prompt or add new examples to align the AI response.

# Do's and Don'ts of Prompting

Get the most out of your prompts and avoid common pitfalls by learning **what to do** and **what not to do** when writing prompts.

## Don'ts

### ❌ Be vague.

When prompting, avoid using vague language, and be as clear as possible to receive better-quality responses.

### ❌ Request inappropriate or unethical content.

AI Builder is not responsible for the content or the consequences of your writing. You should respect local laws, rules, the rights of others and term of service.

### ❌ Use slang, jargon, or informal language.

This may cause AI to give low-quality, inappropriate or unprofessional responses.

### ❌ Give conflicting instructions.

Prompts with conflicting pieces of information in the same request can confuse the AI and result in lower quality responses.

### ❌ Overcomplication.

Simplify your prompts to ensure clarity for the AI, focusing on single-task capabilities. For complex, multi-step tasks, consider creating a Power Automate Flow instead for better results.

### ❌ Assume Prior Knowledge.

Avoid assuming the AI has knowledge outside the given prompt, this gives room for hallucination. Always give context and set expectations.

A graphic with a dark blue background. In the center is a solid blue circle. Radiating from this circle are numerous thin, glowing lines in shades of pink and blue. Some lines end in small circles, while others are open. The overall effect is reminiscent of a neural network or a complex circuit board.

# Generative AI

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## Conclusion

Mastering prompt optimization is essential for leveraging the full potential of AI tools. By crafting clear, specific, and contextually relevant prompts, you can guide the AI to produce accurate and high-quality responses.

Remember to avoid common pitfalls such as vague language and overly complex prompts. With these best practices, you can enhance the effectiveness of your AI interactions and achieve your desired outcomes.