

How to use GEN AI

Guide to using GEN-AI search tools – LCI Live Lab

Note: This guide was created using Goggle Gemini Advanced. The Prompts are highlighted in YELLOW

Broad View Agenda:

1. **Context is everything**
2. **Who are you asking for help?**
3. **Use Gen AI to provide a robust prompt**
4. **Add or modify to improve results - Formats you can request: Comparison, alternatives, metrics, recommendations, tables**
5. **Other Gen AI options?**

Context is everything

PROMPT: Provide me with advice for why the context of my prompt is so important. Also give me a detailed list of how to improve my prompt to get better GEN AI results.

The context of your prompt is crucial because it provides the AI with the necessary information to understand your request fully and generate a relevant and accurate response. It's like giving directions to someone; the more specific and detailed you are, the more likely you are to reach your desired destination.

Here's a detailed breakdown of why context matters and how you can improve your prompts:

Why Context is Important:

1. **Clarifies Intent:** A well-contextualized prompt eliminates ambiguity and ensures that the AI understands exactly what you're asking for.
2. **Guides Focus:** Context helps the AI narrow down its scope and avoid generating irrelevant or tangential responses.
3. **Enhances Accuracy:** By providing background information, you increase the chances of the AI producing a response that aligns with your expectations.
4. **Personalizes Output:** Context allows you to tailor the AI's response to your specific needs and preferences.

How to Improve Your Prompts:

1. **Be Specific:** Avoid vague or general terms. Clearly define your request and the desired output.
2. **Provide Background Information:** Offer relevant details about the topic, situation, or problem you want the AI to address.

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3. **Set Clear Goals:** Specify the purpose of your request. Do you need information, a solution, or creative output?
4. **Use Keywords:** Include relevant keywords that help the AI understand the key concepts involved.
5. **Define the Format:** Indicate the desired format of the response (e.g., paragraph, list, code).
6. **Specify Length:** Let the AI know if you need a brief summary or a more in-depth analysis.
7. **Give Examples:** Provide examples of the type of response you're looking for to guide the AI's output.
8. **Use Constraints:** Set limitations or boundaries for the AI to narrow down its options.
9. **Iterate and Refine:** Experiment with different prompts and refine them based on the AI's responses.
10. **Give Feedback:** Provide feedback to the AI to help it learn and improve its performance over time.

Example of Improving a Prompt:

Vague Prompt: "Tell me about climate change."

Improved Prompt: "Provide a concise summary of the causes and effects of climate change, focusing on the impact on global temperatures and sea levels. Include information about recent scientific findings and potential solutions."

By providing more context and specific details, the improved prompt guides the AI to generate a more focused and informative response.

Remember, effective prompting is an ongoing process. The more you interact with the AI and refine your prompts, the better it will understand your needs and deliver the results you're looking for.

Who are you asking for help?

PROMPT: *You are a prompt engineer. Provide me with instructions on how to improve my prompts by adding context for the expertise or role of who I am asking for instructions.*

Absolutely! Here's a breakdown of how to inject context into your prompts to get tailored results from an AI:

Why Contextualizing Roles is Crucial:

- **Targeted Responses:** By specifying the expertise or role you're seeking, you guide the AI to adopt a specific perspective and use relevant language and knowledge.
- **Reduced Ambiguity:** You minimize the chances of the AI misinterpreting your request or providing generic information.

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- **Enhanced Accuracy:** The AI can leverage domain-specific knowledge to deliver more precise and insightful responses.
- **Streamlined Communication:** You save time by avoiding unnecessary back-and-forth as the AI understands your needs from the outset.

How to Add Contextual Cues:

1. Directly Address the Role:

- Start your prompt with a phrase like:
 - "As a [Role], how would you..."
 - "In your expertise as a [Role], can you explain..."
 - "From the perspective of a [Role], what are the key considerations for..."

2. Describe the Situation:

- Briefly outline the context of your request:
 - "I'm a beginner gardener looking to..." (Seeking advice from a horticulturist)
 - "I'm trying to understand the legal implications of..." (Asking a lawyer)
 - "I'm interested in the historical significance of..." (Consulting a historian)

3. Specify Desired Output:

- Clarify the type of information you're seeking:
 - "Could you provide step-by-step instructions on..."
 - "Can you give me an overview of the different approaches to..."
 - "Would you be able to analyze the pros and cons of..."

Examples of Context-Rich Prompts:

- **Original:** "Explain the concept of blockchain."
- **Improved:** "As a blockchain developer, could you explain the fundamental concepts of blockchain technology in simple terms for a non-technical audience?"
- **Original:** "How do I write a poem?"
- **Improved:** "From the perspective of a poet, what are some essential tips for crafting a compelling poem that evokes emotion?"
- **Original:** "What are the best marketing strategies?"
- **Improved:** "As a marketing expert, what are the most effective digital marketing strategies for a small business with a limited budget?"

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Tips for Effective Prompt Engineering:

- **Be Precise:** Use clear and concise language to avoid confusion.
- **Be Relevant:** Ensure the context you provide is directly related to your request.
- **Experiment:** Try different phrasing and combinations to see what yields the best results.
- **Provide Feedback:** If the AI's response isn't quite what you were looking for, refine your prompt or offer additional context.

Let me know if you'd like help crafting a context-rich prompt for a specific scenario!

Use Gen AI to provide a robust prompt

PROMPT: In your role as a prompt engineer, tell me how I can use GEN AI to provide a more robust prompt to get better results.

Absolutely! Here's how you can leverage the power of generative AI to craft more effective prompts:

1. Brainstorming and Idea Generation:

- **Prompt:** "I'm looking to write a blog post about [topic]. Can you generate a list of 10 creative titles or angles to explore?"
- **Benefit:** AI can help you break through writer's block and spark new ideas that you might not have considered.

2. Refining and Expanding Prompts:

- **Prompt:** "Here's my initial prompt: [Your Prompt]. Can you suggest ways to make it more specific, focused, or engaging?"
- **Benefit:** AI can offer alternative phrasings, identify areas where more context is needed, or suggest ways to make your prompt more compelling.

3. Generating Examples or Templates:

- **Prompt:** "Can you provide me with an example of a well-written prompt for [specific task or purpose]?"
- **Benefit:** Seeing concrete examples can help you understand the elements of a successful prompt and adapt them to your own needs.

4. Simulating Different Perspectives:

- **Prompt:** "Imagine you are a [expert in a particular field]. How would you approach this problem: [Your Problem]?"
- **Benefit:** Gaining insights from different perspectives can help you identify potential solutions or uncover hidden aspects of your prompt.

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5. Identifying Potential Issues:

- **Prompt:** "Can you analyze this prompt for any potential biases, ambiguities, or limitations that might affect the AI's response?"
- **Benefit:** AI can help you proactively address issues that could lead to inaccurate or undesirable results.

6. Optimizing for Specific AI Models:

- **Prompt:** "I'm using [specific AI model]. Can you suggest ways to tailor my prompt to get the best possible output from this model?"
- **Benefit:** Different AI models have varying strengths and weaknesses. Tailoring your prompt can maximize the chances of getting the desired outcome.

Additional Tips:

- **Iterate and Experiment:** Don't be afraid to try different approaches and refine your prompts based on the AI's feedback.
- **Learn from the AI's Output:** Analyze the responses you receive to identify patterns and gain insights into how the AI interprets your prompts.
- **Leverage Different AI Tools:** Experiment with various generative AI models to see which ones work best for your specific needs.
- **Stay Up-to-Date:** The field of generative AI is rapidly evolving. Stay informed about new tools and techniques to enhance your prompt engineering skills.

By incorporating these strategies into your workflow, you can harness the power of generative AI to create more effective prompts, leading to better and more relevant results.

Let me know if you'd like to explore any of these techniques further!

Add or modify to improve results

PROMPT: In your role as a prompt engineer, provide a table of instructions on techniques on how to add to or modify GEN AI prompt results to get more focused, detailed results. Include how I should use my expertise on the subject of my prompt to evaluate the prompt results and then add or modify the prompt.

Absolutely! Here's a table outlining techniques to refine your prompts and leverage your expertise for more focused and detailed GEN AI results:

Technique	Description	Example	How to Use Your Expertise
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Specify Output Format	Ask for a specific format (list, table, code, etc.) to structure the response.	"List the top 5 benefits of [topic] in a bullet-point format."	Assess if the format aligns with how you would naturally organize information on the topic. Modify the format if it doesn't match your expertise.
Set Length Parameters	Define a word or character limit to control the response's depth and conciseness.	"Summarize [topic] in no more than 200 words."	Determine if the length is sufficient to convey your expertise adequately. Adjust if you need more elaboration or a shorter, more focused response.
Use Iterative Prompting	Break down complex prompts into smaller steps. Start with a general query, then refine based on initial results.	"What are the key components of [topic]?" (Initial) -> "Explain [specific component] in more detail."	Evaluate each response against your knowledge. Guide the AI with follow-up prompts based on areas where you need more information or clarification.
Chain-of-Thought Prompts	Ask the AI to reason step-by-step before giving the final answer.	"Explain how [process] works. Then, identify the potential challenges in implementing it."	Analyze the AI's reasoning process. Does it match your understanding? Challenge or correct any inaccuracies based on your expertise.
Few-Shot Prompts	Provide examples of the desired output before your actual prompt.	"Example: 'Question: [question], Answer: [answer]'. Now, answer this: [your question]."	Use your expertise to create high-quality examples that closely resemble the kind of output you're seeking.
Request Citations/Sources	Ask the AI to cite sources or evidence for its claims.	"List the top 3 research papers supporting [claim], along with a brief summary of each."	Verify the sources provided. Are they credible and relevant to your field? If not, ask for alternative sources or adjust your prompt.
Challenge Assumptions	Ask the AI to consider alternative viewpoints or scenarios.	"Discuss the pros and cons of [approach], considering potential ethical implications."	Use your expertise to anticipate potential biases or blind spots in the AI's response. Challenge assumptions that don't align with your knowledge.

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Role-Playing Prompts	Ask the AI to adopt a specific persona or role to tailor the response.	"Imagine you are a [expert role]. Explain [topic] to a [target audience]."	Evaluate the response's tone and language. Does it match the expertise and communication style you would expect from someone in that role?

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Additional Tips:

- **Experiment:** Different techniques may work better for different prompts and AI models.
- **Be Specific:** The more precise your instructions, the better the results will be.
- **Provide Feedback:** If the results aren't satisfactory, refine your prompts and try again.

Let me know if you'd like more specific examples or guidance on how to apply these techniques to your particular area of expertise!

Other Gen AI options?

PROMPT: You a searching for the best GEN AI options for a variety of uses. Provide a list of other GEN AI options including Gemini Advanced, and provide a comparison table of the best use case, benefits, challenges, and what each one does best

Absolutely! Here's a comparison table of various Generative AI options, including Gemini Advanced, highlighting their best use cases, benefits, challenges, and strengths:

Generative AI Model	Best Use Case	Benefits	Challenges	What It Does Best
Gemini Advanced	Complex tasks, research, creative writing	Large context window, multilingual, integrated with Google suite	Limited public access, potentially higher cost	Handling large amounts of information, research, and creative tasks
ChatGPT	Conversational AI, text generation	Versatile, user-friendly, creative	Can generate inaccurate information, limited context window	Natural language understanding, dialogue, and creative text generation
Bard	Information retrieval, creative writing	Integrated with Google Search, fast responses	Can hallucinate facts, less strong at logic	Quick answers, creative writing, and brainstorming

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Bing AI	Search engine enhancement	Integrates with Bing search, provides citations	Less creative than other models, may oversimplify	Summarizing information, finding sources, factual responses
Claude 2	Text analysis, summarization	Strong at following instructions, less likely to hallucinate	Limited availability, not as good at creative writing	Summarizing long texts, customer service, logical reasoning
Midjourney	Image generation	High-quality images, customizable styles	Requires understanding of prompts, can be unpredictable	Generating creative and artistic images
DALL-E 2	Image generation from text descriptions	Versatile, can create unique images	Requires specific prompts, results can be inconsistent	Generating images based on detailed descriptions
Stable Diffusion	Customizable image generation	Open-source, high degree of control	Steep learning curve, requires technical knowledge	Generating images with specific styles or attributes
Runway ML	Video generation, editing	Variety of creative tools, user-friendly	Requires powerful hardware, can be expensive	Generating and editing videos with AI assistance
Synthesia	AI-generated video avatars	Creates realistic videos with avatars	Not photorealistic, limited customization	Creating videos for marketing and presentations

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Choosing the Right Model:

- **Define your needs:** What tasks do you need the AI to perform? What kind of output are you looking for?
- **Consider resources:** What's your budget? Do you have access to powerful hardware?
- **Experiment:** Try out different models to see which one best suits your workflow and preferences.

Let me know if you'd like a deeper dive into any of these models or have other questions!