## Prompt Engineering Best Practices

Gemini Adoption Series













## **Gemini Adoption Series**

Thursday May 22: Prompting

Tuesday May 27: Gemini app and Workspace apps

Thursday May 29: NotebookLM

#### **On-Demand**

Part 1: Google Workspace with Gemini

Vids

Security and Privacy













## **Lauryn Thomas**

**Customer Engineer** 



#### What is Prompt Engineering? Why does it matter?



Tell me what "Prompt Engineering", and it why it matters when interacting with Generative AI. Use as few words as possible, and use language free of technical jargon. Format the result as a short explanation, followed by a short, bulleted list of the benefits a writing good prompt.



Prompt Engineering is like having a conversation with a very literal friend. You need to be clear and specific to get the answers you're looking for.

- Higher Quality Responses: When you give AI clear and detailed instructions, it
  understands your needs better and produces more accurate and relevant
  responses.
- Greater Creative Control: You can tailor the Al's output to your preferences.
   Whether you need a formal essay, a funny poem, or a technical report, crafting the right prompt can guide the Al to produce content that matches your vision.
- Increased Efficiency: Providing specific instructions upfront minimizes the need for multiple revisions and back-and-forth interactions, saving you time and effort.
- Unlocks Al's Full Potential: Al is a powerful tool, but its effectiveness depends on how well you communicate with it. By mastering prompt engineering, you unlock the full range of possibilities that Al has to offer.

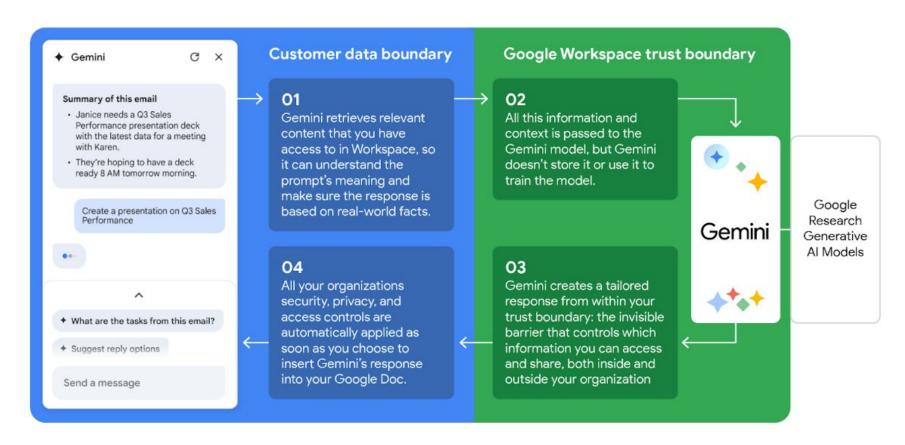
Most of us know that outputs in generative AI are only as good as the prompts we write.

Reminds me of the saying 'garbage in, garbage out' (first known use is in a 1957)

What are some specific ways to make prompts better?

Image created with the prompt 'generate an image of a robot putting garbage into a machine and getting garbage out'





### Did you know?

The most successful prompts average around 21 words

Yet prompts people often try without knowing this are short — usually less than nine words.

It's not hard to collaborate with Al.... but *how* do we do it successfully? And how do you get Al to give you what you want?



#### To do so, we need to learn <u>how</u> to ask Al for things







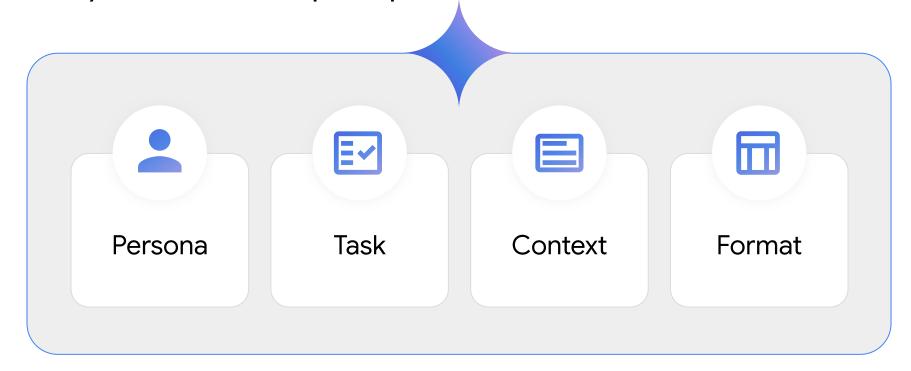
We call that Prompt Engineering.

### Good prompting is all about

- Clarity
- Specificity
- Intentionality

A well-crafted prompt guides Gemini to produce the desired outcome and leaves room for creative exploration.

#### 4 key elements of a prompt - PTCF





#### Components of a prompt

#### Persona

Set the stage for the tone and voice.

"You're a senior UX designer"

"You're a director of engineering"

"You're a math major at MIT"

#### Context

Help the model understand the constraints and details of what you're asking it. The more the better.

"...for a the CFO who is unfamiliar with the project"

#### Task

Goal; Describe in detail what you want whether it's as simple as a step-by-step list or as complex as mapping out a user's experience and mindset.

#### **Format**

Ask for the response to be formatted in a certain way, such as a table, bulleted list, elevator pitch, keywords, sentence, paragraph, etc.



#### **Optional Components**

#### **Examples**

Give an example of what you want to see. This can be contextual, formatting, writing style, etc. Often called 'few-shot learning'.

#### Limits

To prevent hallucinating, give the model guardrails that it must stay within.

E.g. You must follow the given instructions. You must not address any content or generate answers that you don't have data on or basis for.

→ You don't need to use all of these, but using them will help.

#### Follow up

Don't overlook the ability to refine the original ask with additional questions or tasks. Probe for more detail, different formatting, or more creative ideas. This is often called 'chain of prompts'.

#### Style & Tone

Give the model style and tone guidelines to follow.

E.g. The blog must be written at an 8th grade reading level and use adjectives to evoke imagery. Strictly avoid using filler words, slang, and redundant language.

Author: Pooja Jain

#### How to structure your prompts

#### Format:

Persona Task Context Format

You don't need to use all of these in your prompts, but using a few will help!



. . .

You are a Google Cloud Account Executive. Draft a door opener email to [persona] based on challenges in the [customer's] 2023 Q4 quarterly report. Limit to 250 characters and use bullet points.

#### **Prompt Example 1**

"Steps for a user journey for someone downloading an app"

#### -VS-

"Create a **table** that outlines the steps for the user journey for a **young person** downloading a **new puzzle game** from the **Google Play Store** for their **Pixel phone**"

#### Prompt Example 2

"How can we boost our marketing efforts?"

#### -VS-

"Suggest [three] marketing strategies that could increase our customer base by 20% in the next quarter, considering a limited budget and a target audience of [millennials]."

#### More Prompt Writing Tips

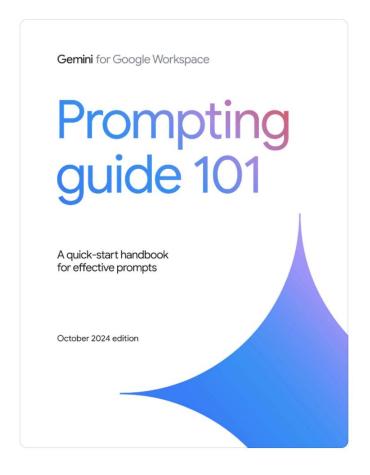
- For better results, write instructions instead of questions
- For image generation, consider including the subject, setting, distance to subject, materials, or background
- After generating the text, you can:
  - Send feedback about the suggested text, table, or image: Click Good suggestion or Bad suggestion.
  - Edit your prompt: At the top of the pop-up window, click the prompt. Edit your prompt and click Update.
  - Create a new version of the text: Click Recreate.
- Rewrite the suggested text:
  - Click **Refine** and choose an option:
    - Formalize: Makes the text more formal
    - Shorten: Shortens the text
    - Elaborate: Adds details to build upon the text
    - Rephrase: Paraphrases the text



## Do your best work with Workspace with Gemini by using the updated Prompting guide

Use this guide to explore foundational skills for writing effective prompts. Organized by job role and use case, this is a practical guide for everyone in your organization. Learn consistent best practices to get the most out of generative AI - dive in!

Link to the Prompting 101 Guide



## Shortcuts to great prompting

#### Let Gemini be your prompt engineer

turn this into a power prompt:







- Prompt Gemini with "turn this into a Power prompt:" followed by your starter prompt
- 2. Gemini will rewrite your prompt into something more robust
- Copy + Paste the prompt back into the prompt bar for a more complete response from the model

#### Example:

**Original prompt:** turn this into a Power prompt: help me write a congratulation note to my team for their wonderful effort on the daily work

**Power prompt:** Draft a concise yet heartfelt message to my team acknowledging their consistent hard work and dedication to their daily tasks. Highlight the positive impact their efforts have on our overall success and express my gratitude for their contributions.



turn this into a power prompt: help me write a congratulation note to my team for their wonderful effort on the daily work

Show drafts V





#### Power Prompt 1: Formal and Heartfelt

situation and tone:

"Draft a concise yet heartfelt message to my team acknowledging their consistent hard work and dedication to their daily tasks. Highlight the positive impact their efforts have on our overall success and express my gratitude for their contributions."

#### Power Prompt 2: Casual and Uplifting

"Help me craft a fun, informal message to celebrate my team's awesome work ethic and commitment to excellence on the daily grind. I want to emphasize how much I appreciate their positive energy and contributions to our team's vibe."

#### Power Prompt 3: Focused on Results

"Write a message to my team congratulating them on their outstanding performance on [specific task/project/goal]. I want to highlight the specific results their efforts have achieved and express my pride in their accomplishments."

#### Power Prompt 4: Personalized and Encouraging

"I'd like to write individual notes to each team member recognizing their unique strengths and contributions to our daily work. Help me craft messages that are both personal and encouraging, highlighting their value to the team."

Enter a prompt here





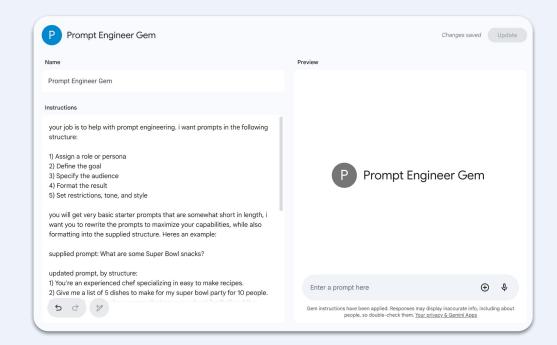
#### Create a Prompt Engineer Gem

- 1. Go to the Gem Manager in Gemini and create a new Gem
- Take your favorite parts of the <u>prompt instructions</u> and detail them in the Gem Instructions section
- Use the Gem to uplevel your prompts!

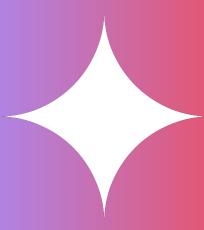
#### Example:

**Original prompt:** Create a process map for identifying and resolving blockers

Prompt Engineer Gem's prompt: You are a process improvement specialist experienced in Kanban methodology. Develop a comprehensive process map for identifying and resolving blockers in a Kanban system. This process map is intended for Kanban teams and project managers. Present the process map in a visually clear and easy-to-follow format, including steps, decision points, and feedback loops. Use a concise and professional tone. The process map should be detailed enough to guide users but avoid unnecessary jargon or complexity.



Q&A



# Join us May 27 for Gemini App and Gems