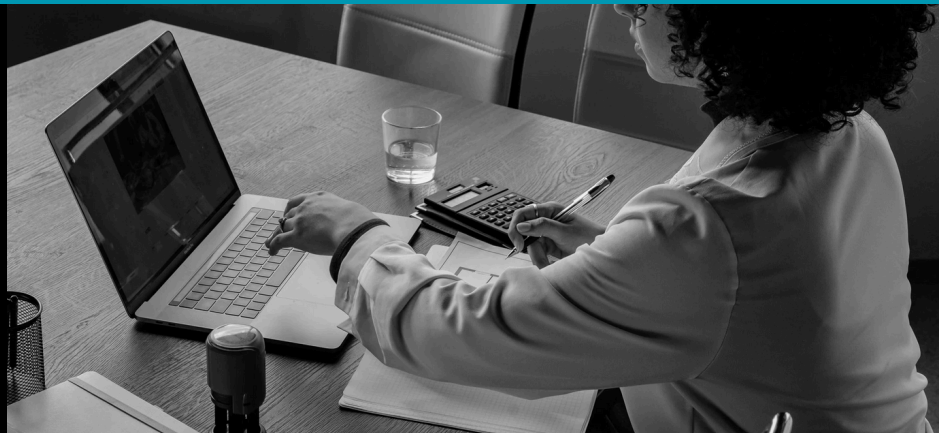# UNDERSTANDING AI AND THE ART OF PROMPTING

What is Generative AI?

Generative AI is a type of Artificial Intelligence that can create new content, such as text, images, music, or code, based on patterns it has learned from existing data.

Think of it as an incredibly talented apprentice. Just as a human apprentice learns by observing master craftspeople, generative AI learns by 'studying' vast amounts of existing data. For instance, it might analyse thousands of novels, countless paintings, or millions of lines of code. Through this process, it identifies patterns, styles, and structures.

Once it has learned these patterns, generative AI can then produce its own original works. It's as if the apprentice, after years of study, can now create their own masterpieces that echo the styles they've learned but are entirely new and unique.

What is a prompt?

A prompt is an **instruction** serves as a trigger, a meticulously constructed cue intended to elicit a particular reaction. This precisely formulated input acts as a spark, initiating a specific output or response.

Crafting a prompt for AI is comparable to providing instructions to a cab driver. For instance, if you simply state, "Drive me to an enjoyable location," the driver may be uncertain about your preferences. However, if you specify, "Please take me to Central Park for a leisurely stroll," the driver receives clear guidance on both the destination and your intention.

In a similar vein, an effective AI prompt offers precise and detailed directions, enabling the AI to generate an appropriate and targeted response. Just as a well-informed driver can better meet your transportation needs, a well-crafted prompt allows the AI to more accurately fulfil your request.

How do you write an AI prompt?

A good prompt is like a clear set of instructions. It's important that a prompt is easy to understand and leaves no room for misinterpretation or confusion. Additionally, being specific is just as important as being clear. A well-defined prompt includes exact details and sets boundaries. This helps to focus the task and steers the response in the intended direction.

Let's examine the contrast between these two prompts:

- **Vague Prompt:** "Write a story."
- **Specific Prompt:** "Pen a brief science fiction tale about a solitary astronaut marooned on a barren planet with dwindling oxygen supplies, who stumbles upon traces of an extinct civilisation."

The vague prompt offers almost no direction, leaving an overwhelming number of possibilities. The specific prompt, on the other hand, provides a clear context, setting and character, significantly narrowing the scope and guiding the creative process.

In the context of AI interaction, specificity is even more critical. Use the acronym **G.U.I.D.E** to assist you create a prompt.

- **Goal (or intent):** Emphasizes the purpose behind the prompt
- **User (or role):** Highlights the role the AI should play.
- **Instructions:** Remains a core element, covering specific directions.
- **Delivery (or format):** Focuses on how the output should be presented.
- **Examples (or extras/adjustments):** Includes any additional context or constraints.

Examples

Example 1: Creating a Short Story

Goal: Create an engaging and imaginative short story for young adults.

User role: A creative storyteller writing for young adults.

Instructions: Write a short story about a teenager who discovers a hidden portal in their attic.

Delivery: The story should have a clear beginning, middle, and end, with engaging characters and a compelling plot.

Examples: (A short excerpt demonstrating the desired style) "Dust motes danced in the lone beam of sunlight piercing the attic's gloom. Alex coughed, waving a hand in front of their face. Boxes overflowed with forgotten treasures, casting long, distorted shadows. Then, behind a stack of moth-eaten quilts, they saw it: a shimmering, oval-shaped distortion in the air, like heat rising off asphalt on a summer day."

Full Prompt: "Write a short story about a teenager who discovers a hidden portal in their attic. You are a creative storyteller writing for young adults. The story should have a clear beginning, middle, and end, with engaging characters and a compelling plot. Examples: Dust motes danced in the lone beam of sunlight piercing the attic's gloom. Alex coughed, waving a hand in front of their face. Boxes overflowed with forgotten treasures, casting long, distorted shadows. Then, behind a stack of moth-eaten quilts, they saw it: a shimmering, oval-shaped distortion in the air, like heat rising off asphalt on a summer day."

Example 2: Generating a Simple Recipe

Goal: Provide a simple and easy-to-follow recipe for scrambled eggs.

User Persona: A novice cook looking for a quick breakfast.

Instructions: Write a recipe for scrambled eggs.

Delivery: The recipe should include a list of ingredients and step-by-step instructions.

Examples: Ingredients: 2 eggs, 1/2 tbsp butter, salt and pepper to taste. Instructions: 1. Whisk eggs in a bowl. 2. Melt butter in a non-stick frying pan over medium heat. 3. Pour egg mixture into the pan. 4. Gently stir the eggs as they cook. 5. Cook until the eggs are set but still slightly moist. 6. Season with salt and pepper.

Full Prompt: "Write a recipe for scrambled eggs. You are a novice cook looking for a quick breakfast. The recipe should include a list of ingredients and step-by-step instructions. Examples: Ingredients: 2 eggs, 1/2 tbsp butter, salt and pepper to taste Instructions: 1. Whisk eggs in a bowl. 2. Melt butter in a non-stick frying pan over medium heat. 3. Pour egg mixture into the pan. 4. Gently stir the eggs as they cook. 5. Cook until the eggs are set but still slightly moist. 6. Season with salt and pepper."

Example 3: Generating a Road Trip Itinerary

Goal: Create a 2-day road trip itinerary from London to Bath, focusing on historical sites.

User Persona: A history buff planning a short trip.

Instructions: Generate a 2-day road trip itinerary from London to Bath, focusing on historical sites. Include key attractions and estimated driving times.

Delivery: Present the itinerary as a day-by-day breakdown with key attractions and driving times.

Examples: Day 1: London to Stonehenge/Salisbury (approx. 2 hours driving). Stonehenge: Explore the ancient stone circle. Salisbury Cathedral: Visit the Magna Carta. Day 2: Salisbury/Stonehenge to Bath (approx. 1 hour driving). Roman Baths: Explore the ancient Roman baths. Bath Abbey: Visit this historic abbey.

Full Prompt: "Generate a 2-day road trip itinerary from London to Bath, focusing on historical sites. Include key attractions and estimated driving times. You are a history buff planning a short trip. Present the itinerary as a day-by-day breakdown with key attractions and driving times. Examples: Day 1: London to Stonehenge/Salisbury (approx. 2 hours driving) Stonehenge: Explore the ancient stone circle. Salisbury Cathedral: Visit the Magna Carta. Day 2: Salisbury/Stonehenge to Bath (approx. 1 hour driving) Roman Baths: Explore the ancient Roman baths. Bath Abbey: Visit this historic abbey."

> (i) **Tip:** Adding the instruction "Ask me questions before you answer" can help address any ambiguous areas ultimately leading to more accurate and relevant outcomes.