# The Art of Prompting -Effective Instructions for AI Language Models

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### Introduction

- Al language models like Bard from Google Al offer new dimensions for creativity, information, and problem-solving
  - Effective prompts are crucial for exploiting this potential
- Prompts guide the AI and influence the quality of the results
  - Similar to a recipe for a chef, prompts provide instructions or questions for the AI to perform specific tasks or obtain information



# Why are prompts important?

- Bridge between human intention and AI capability
  - Conveys expectations and provides context
- Characteristics of good prompts
  - Clarity and conciseness
  - Specific information
  - Examples and references
  - Correct grammar and spelling
  - Courtesy and respect

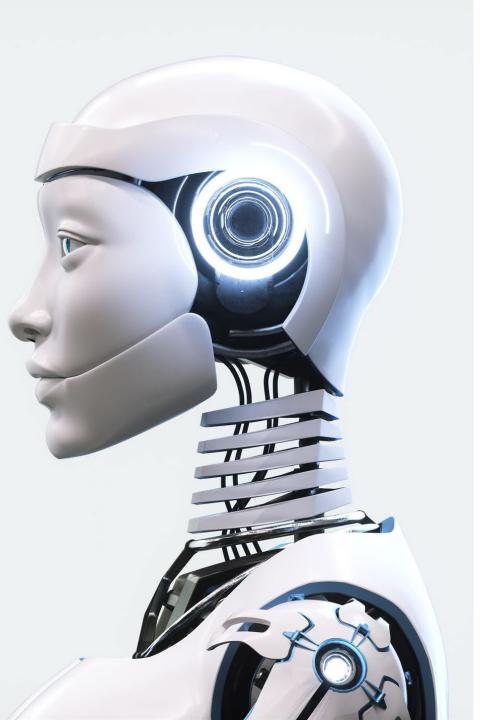
The Semantics of Prompting -The Meaning Behind the Words

- Word meaning
  - Pay attention to precise and consistent terminology to avoid misunderstandings.
- Sentence structure
  - Formulate your instructions clearly and unambiguously to avoid ambiguity.
- Context
  - Make sure the prompt contains enough context information for the AI to understand the situation and your intention.
- World knowledge
  - Make sure that your formulations correspond to the general level of knowledge of the model to avoid misunderstandings.



# Techniques for improving semantic quality

- Use Precise and Unambiguous Language
  - Avoid vague wording or jargon
- Provide Enough Context Information
  - Include all relevant details for the task
- Use Examples and References
  - Provide examples or references that match your wishes
- Feedback and Iteration
  - Provide feedback and iterate on prompts to improve results



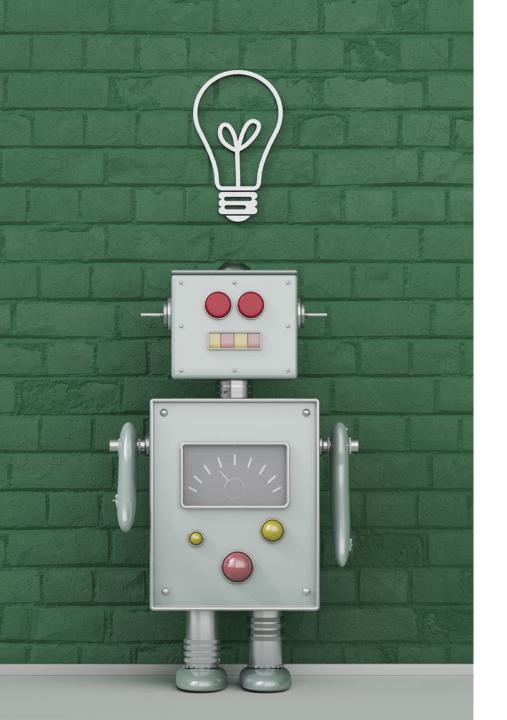
# Ethical Implications of AI

- Transparency and Fairness
  - Ensuring AI systems are transparent and fair
  - Preventing discrimination and prejudice
- Autonomy and Control
  - Finding balance between AI autonomy and human control
- Responsibility and Accountability
  - Determining responsibility for AI decisions and actions
- Jobs and Society
  - Understanding AI's impact on labor market and society



#### Additional Tips for Creating More Complex Prompts

- Break down the task into smaller steps
  - Helps the model better understand the context
  - Allows for manageable steps
- Ask open questions
  - Requires deeper analysis, explanation, or opinion-forming
  - Avoids simple yes-no answers



# Creative formulations and techniques

- Use metaphors and analogies
  - Compare complex facts to familiar concepts
- Tell stories
  - Clarify ideas and inspire the Al
- Ask hypothetical questions
  - Explore different scenarios and possibilities
- Use humor and irony
  - Make interaction with the AI more enjoyable
- Play with language and style
  - Experiment with different language styles and genres

Combine Different Information Sources

- Refer to current research findings
  - Use the latest insights from science and research to provide the AI with well-founded knowledge.
- Cite expert opinions
  - Introduce the opinions of experts and thought leaders into the prompt to illuminate different perspectives.
- Use statistical data and facts
  - Substantiate your arguments with relevant data and facts to increase the credibility of your requests.
- Refer to cultural references
  - Integrate cultural elements, such as literature, art, or music, to enrich the prompt.
- Link the prompt to current events
  - Include current events and trends in the prompt to increase the relevance of the request.

Providing Clear Instructions and Guidelines

- Define the goal: Specify exactly what you want from the AI language model.
- Set the framework: Specify which information may and may not be used by the AI.
- Define the desired style: Provide hints on the desired writing style, tone, and formatting.
- Set deadlines: If applicable, set deadlines for the processing of the prompt.
- Provide evaluation criteria: Define criteria by which you can evaluate the quality of the results.



### Feedback and Iteration

- Give feedback to the AI
  - Share your opinion on the results with the AI language model
- Identify areas for improvement
  - Point out areas where the AI can improve its performance
- Formulate new prompts
  - Iterate on the prompt process to achieve the desired results
- Document your experiences
  - Record your experiences with the prompt process to learn from them and improve your skills



# Examples of Simple Prompts

- First Prompt: How is the weather in Berlin
  - Cloudy with occasional showers
  - High temperature of 15 degrees Celsius
  - Low temperature of 9 degrees Celsius
- Second Prompt: What are benefits of Exercise
  - Improves physical fitness
  - Strengthens immune system
  - Reduces risk of chronic diseases
  - Promotes mental health
  - Boosts mood and increases concentration
  - Enhances social relationships and builds self-confidence

#### Example of a Complex Prompt

- Prompt: Write a short article about the latest developments in artificial intelligence and discuss the ethical implications of these developments.
  - Artificial intelligence (AI) is a rapidly evolving field that presents new challenges and opportunities. This article will discuss some of the latest developments in AI that are influencing both AI research and application.....



### Conclusion

- Practice and experience can develop the skill of prompting
  - Effective prompts lead to precise, creative, and helpful results
- Experiment, be creative, and give feedback to optimize collaboration with AI language models
  - Achieve your goals with the help of AI language models