Generative AI Basics

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Generative AI

A type of Artificial Intelligence that generates information in response to prompts.

Prompt - A message that you type into the application.

Output - The response from the Generative AI application

ChatGPT

- OpenAI developed this AI chatbot based on the Generative Pre-trained Transformer (GPT) model
- Based on Large Language Model (LLM) technology
  - Artificial Intelligence (AI) models that are trained on large datasets of text to understand and predict language patterns. This is *not* machine learning.
- Predicts text based on input (prompts)
- Used to problem-solve and for brainstorming

ChatGPT Concerns

- Bias - Can lead to biased outputs based on training data.
- Misinformation - Can generate incorrect information.
- Hallucination - Can generate text that is factually incorrect, irrelevant, or nonsensical due to the model's lack of understanding of context, lack of training data, biases, and other errors.
- Data privacy - Concerns about whether the data included personal details that might share sensitive data.

Always validate ChatGPT's responses.

Prompt Engineering

Crafting specific instructions or queries to guide responses of a model like ChatGPT.

Practice Prompts

Use the prompts in this section to practice using ChatGPT.

Practice Persona Prompts

- Enter prompts that use a persona profile to guide the conversation. The following are examples:
  - As a Technical Writer, write the following statements in active voice and use clear, concise language.
  - John is a 40-year-old banker who enjoys biking and is a foodie. He is looking for a weekend getaway in the upstate NY area. Can you provide some suggestions?
  - As a teacher, I need to create a language arts lesson plan for my third grade class. Can you provide a suggestion?

Practice Action Prompts

- Use prompts that direct generative AI to perform an action such as creating a table or summarizing text in a bulleted list. The following are examples:

  - Create a bulleted summary of the following: <insert paragraph of text here>

  - Please take the following content and convert it into a comma-separated value list with columns named "Variable" and "Description".

    FirstName Joe LastName Smythe Address 123 Main Street Phone 222-222-2222

    After you get the results, you can follow with this prompt:

    Thank you. Now, please put that information into a two-column table.

Practice Problem-Solving Prompts

- Use prompts that direct generative AI to help you solve a problem. The following are examples:

  - When you are asked a question, follow these rules: Generate additional questions to help more accurately answer the question. Combine the individual answers to produce the final answer to the overall question.

    How do I complete a March Madness bracket?

  - When you are asked a question, follow these rules: Generate additional questions to help more accurately answer the question. Combine the individual answers to produce the final answer to the overall question.

    How can I determine if DITA is the right solution for my Technical Writing department?

Practice Problem-Solving Prompts (continued)

- Use prompts that provide alternatives. The following is an example:

  - Whenever I ask a question, suggest a better question and ask me if I would like to use it instead.

    What factors should I consider when creating a bracket for March Madness?

Practice Formatting Prompts

- Use prompts that format text. The following is an example:

  - Imagine that you enter a procedure to make soap into ChatGPT.

    Your prompt might read as follows: Please put this into DITA format.

Crafting Prompts

Make prompts clear, specific, engaging, varied, and relevant to guide meaningful interactions and generate insightful responses.

The following are some types of prompts you can use. This is not an exhaustive list.

Unambiguous Prompts

- Create clear prompts with to reduce potential interpretations. Some tips are:
  - Be clear and specific
  - Use descriptive language
  - Ask direct questions
  - Provide context
  - Clarify ambiguous terms

- **Ambiguous Prompt**: Tell me about dogs.

- **Unambiguous Prompt**: Provide information on various dog breeds, their characteristics, temperaments, and care requirements.

Constraint-based Prompts

- Create prompts with constraints that focus the response. Some tips are:
  - Include specific limitations, requirements, or constraints
  - Provide clear, concise instructions
  - Include a focused objective

- **Non-Constraint-based Prompt**: Write a short story.

- **Constraint-based Prompt**: Write a short story about fairies in a fairyland where the main character is a mischievous fairy who must retrieve a lost magical artifact before it falls into the wrong hands.

Comparative Prompts

- Create prompts that perform an evaluation by comparing items or concepts. Some tips are:
  - Clearly outline the items to compare
  - Provide specific criteria for the comparison

- **Non-Comparative Prompt**: Discuss your opinion on the importance of education.

- **Comparative Prompt**: Compare the education systems in the United States and Japan.

Personalization Prompts

- Tailors the conversation to the user's interests, preferences, or characteristics.

- **Non-Personalized Prompt**: Can you recommend a book?

- **Personalized Prompt**: I enjoy historical fiction that focuses on WWII. Can you recommend a book?

Scenario-based Prompts

- Provides a scenario to give context and guide the conversation to elicit a response tailored to the situation.

- **Non-Scenario-based Prompt**: What skills do you have?

- **Scenario-based Prompt**: Imagine you're in a job interview to be a business analyst and the interviewer asks you to discuss your key strengths and abilities. How would you describe the skills you possess that make you a strong candidate for the position?

Educational Prompts

- Used to promote learning and knowledge acquisition.

- **Non-Educational Prompt**: Tell me a joke.

- **Educational Prompt**: Can you provide an example of wordplay and explain how it works linguistically?

Prompt Templates

Generate new prompts efficiently

Prompt Templates

- Predefined format that includes the initial instructions or context

- Includes with placeholders or variables

- Users enter specific details to formulate effective prompts

Prompt Templates

- Define the goal
- Break down the task
- Develop the structure, including placeholders
- Provide clear instructions, with examples and formatting information
- Test and refine

Think about ways you can use prompt templates to make your work more efficient.

Simple Example

- Template: I'm writing a user manual about [Topic]. Can you create a short document to get me started?

Try these prompts in ChatGPT and see the results:

- Prompt 1: I'm writing a user manual about clearing a drain. Can you create a short document to get me started?
- Prompt 2: I'm writing a user manual about installing Linux. Can you create a short document to get me started?