Capstone Project: AI-Powered Text Completion

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**Model**

The model I used for this text completion assignment was GPT-2 obtained from the transformers package.

**Test Prompts and Output**

1st Prompt Analysis

Settings used: max length = 100, temperature = 0.7

Prompt: continue this story: A dinosaur went to a birthday party

Output: continue this story: A dinosaur went to a birthday party but didn't get the birthday cake. He was not a dinosaur. The man, who goes by the name "Pete," said he didn't get the birthday cake because it was a fake. "I'm sure it's a fake. I'm sure it was a fake. I thought it was a fake," he told the Star Tribune. The man said he went to a birthday party on May 6 and decided to get the fake cake to give to a neighbor. Pete said he didn't have the birthday cake and was still getting it to his house.

Analysis: The model fit to the prompt but did not follow along with the creative domain. It changed key elements of the prompt and then started down a path about a fake birthday cake.

2nd Prompt Analysis

Settings used: max length = 250, temperature = 0.2

Prompt: Continue this story: a group of animals have a party

Output: Continue this story: a group of animals have a party at a park in the Philippines The group of animals, called the "Pangolins", were invited to a party at a park in the Philippines on Thursday night. They were invited to a party at the park in the Philippines, where they were given a drink and were given a drink of water. The group of animals were invited to a party at the park in the Philippines, where they were given a drink and were given a drink of water. The group of animals were invited to a party at the park in the Philippines, where they were given a drink and were given a drink of water. The group of animals were invited to a party at the park in the Philippines, where they were given a drink and were given a drink of water. The group of animals were invited to a party at the park in the Philippines, where they were given a drink and were given a drink of water. The group of animals were invited to a party at the park in the Philippines, where they were given a drink and were given a drink of water. The group of animals were invited to a party at the park in the Philippines, where they were given a drink and were given a drink of water

Analysis: The model kept the theme of the prompt and offered more creativity with a lower temperature variable. Although after a few sentences the model started to repeat itself. Changing the settings allowed for a more creative output but reduced the depth.

3rd Prompt Analysis

Settings used: max length = 200, temperature = 0.6

Prompt: explain recursion to me like im five

Output: explain recursion to me like im five or six years old. I never thought I'd be able to do that."

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A few years ago, the same kind of response came up about a similar experiment in which the same group of students had been given a 20-minute lecture on the theory of evolution and then asked to explain what that meant.

"I actually didn't get very much of that," Dr. Brown said. "I think it was something that was really interesting to me. I was just fascinated by the idea of thinking about how animals evolved and the idea of evolution as an important part of human relationships. I think that's something that was very interesting to me."

Photo

But Dr. Brown, a psychologist at the University of Pennsylvania who is also a former president of the American Association for the Advancement of Science, said that the research on the theory of evolution was not well done to begin with.

"I think it's probably a good idea to start by doing some research on the question of evolution," he said. "I think it's a very good idea to start by looking at what the scientific community has to say about it."

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Dr. Brown's team

Analysis: The model did not follow the prompt at all. It did however get creative talking about advertisement and evolution in the scientific community. The tone of the output takes a more informational tone and provides a more in-depth analysis of the topic.

4th Prompt Analysis

Settings used: max length = 200, temperature = 0.6

Prompt: summarize this text A doctor went to his office to assess a patient; the doctor’s car broke down on the way to the office. Once the doctor pulled over to the side of the road he realized his tire had gone flat. He took out his tools and spare tire and changed it. By the time the doctor fixed the tire and got to his office the patient had already left.

Output: summarize this text A doctor went to his office to assess a patient; the doctor’s car broke down on the way to the office. Once the doctor pulled over to the side of the road he realized his tire had gone flat. He took out his tools and spare tire and changed it. By the time the doctor fixed the tire and got to his office the patient had already left.’

The following day, the police pulled over the car and found that the tire had been turned off. The driver was wearing a T-shirt with the words, "Let's get out of here and get out of here." The police also found a large amount of heroin in his car.

When the police arrived at the residence, the driver's name was John Doe. He had been arrested for possession of heroin.

On May 25, 1992, John Doe, who was 21 years old, was arrested on charges of possessing heroin, heroin paraphernalia, and possession of a controlled substance. He was also charged with failure to pay a fine.

On May 27, 1992, John Doe was found in his cell with a large amount of heroin still in his car. He was charged with marijuana possession

On May 27, 1992, John Doe was found with a large amount of heroin in his car. He was charged with marijuana possession. On June 4, 1992, John Doe was found with a large amount of heroin in his car. He was charged with possession of heroin.

On June 6, 1992, John Doe was found with a large amount of heroin in his car. He was charged with possession of heroin

Analysis: The model did not summarize the prompt at all. It did however create a spin-off story from the text I asked it to summarize. The output’s tone is very creative when it should have been informative, this could be due to temperature variable of 0.6. The output was in-depth none the less.

5th Prompt Analysis

Settings used: max length = 50, temperature = 0.9

Prompt: give me an example of 6 fruits

Output: give me an example of 6 fruits of my labors. To what fruit are these fruits? And to what root are these fruits planted? Answer: A vegetable, leafy-yellow, sweet, or sweet, of various sizes, and of various colors. The same fruit is eaten, or known as vegetables, in large quantities. Plants, flowers, seeds, fruit, or seeds are always represented by a set or variety of flowers. The seeds give rise to numerous distinct types of fruit, plants, or seeds.

The term fruit is used to designate any variety of plant or flower. Plants are named for their fruits and flowers and their branches, plants for their fruits and flowers, flowers for their fruits and flowers, flowers for their vines, leafs for their roots, roots for their plants, roots for their leaves, and branches for their branches, stems, or leaves.

The species of root or plant that plants should keep are: seeds, branches, shoots, leaves, shoots, shoots, shoots, plants, plants (except plant plants) growing by a single fall, or shoots growing by one or more branches that grow by the fall.

Root species do not constitute a tree that must be kept indefinitely in a tree condition. As a matter of fact, trees may be kept

Analysis: The AI model stuck to the topic of fruits, but it did not answer the prompt effectively. Even with a higher temperature variable the model did not answer the question.

**Reflection on Limitations**

This model seems to have a lot of limitations. In prompting it and looking at the outputs I found it focused on generating stories from the prompt. Although when asked to generate a story it still did poorly. It seems to do well in creating stories although they do lack in some respects.

The model struggles with most other tasks that are not creative because it keeps focusing on trying to create stories from prompts. To improve this model I would filter outputs, train it on more data, use better prompts to train it, and validate content to make sure it relates to the prompt and what it is asking.