Computer: Write Me A
GHOST STORY

Using GPT-2 to Terrify You and Occasionally to Tell You About Sparkling Wine

IT LEAPT TOWARDS HIM UPON THE INSTANT.

A Ghost Story Generator: What is it?

I built an NLP generator that can take in Victorian ghost stories and put out… something resembling Victorian ghost stories! Magic. Let's start it up!

NEED STORIES

- Where can I get Victorian ghost stories that I can (legally) use to train my model?
- [Project Gutenberg](#)!
- [The Best Ghost Stories](#) - 27 stories (1 of which I chose not to use)
- Awesome [Gutenberg](#) package - scrapes any text you want from Project Gutenberg. No NLP functionality, just scraping and cleaning.
- Formatting, formatting, formatting.

GPT-2: My Savior

- When I started this project, I was attempting to use BERT, RNN - not so great.
- But then, on the horizon: OpenAI's new GPT-3!
- Couldn't use that. So, OpenAI's GPT-2!
- Generative Pre-trained Transformer: unsupervised transformer language model. Predicts the next word given previous words in a text.
- "The model is chameleon-like—it adapts to the style and content of the conditioning text."
- 1558M - true model, 1.5 billion parameters, Trained on a dataset of 8 million web pages. >5 GB. Nope, can't use that
- 124M - small model, 124 million parameters, 500MB. Perfecto
- How the heck do I use it?
- Max Woolf's gpt-2-simple wrapper and Google Colab notebook.
- WOW

If It's Real, I Can Make It A Website

- So, now I have a working model that generates Victorian ghost stories!

- But I want to show it off - time for Flask!

- CSS: It's Difficult

- I have an app that works locally! Time to deploy: Heroku

- Oh no

- OH NO

- Welp, at least I can show y'all on my local computer!

- Let's see the story!

BEHOLD - A Home Page

Victorian Ghost Story Generator

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Generate a gHoOoOoOsT story!

This may take a few moments - the computer has to think of a story!

BEHOLD - An About Page

About this Generator

Hi! I'm Hilary Lawlor, and I built this generator in December 2020. It uses a pre-trained natural language processing model (GPT-2) that I fine-tuned with a bunch of Victorian ghost stories to write its own ghost story! Sometimes it makes sense, sometimes it's EXTREMELY dramatic, and sometimes it babbles about sparkling wine. But it wants to write some kind of a ghost story for you, so why don't you let it?

BEHOLD: Some Example "Stories"

A Few Example Stories

Below, you'll find some example tidbits of the "stories" that my fine-tuned GPT-2 model has produced. Apparently, it is very interested in sparkling wine and occasionally very dramatic. No, I do not know what a "workahogurt" is.

"The rival ghosts were silent as they stared at each other. Even at this late hour in the match, the sharp contrast between the two phantoms told those phantoms that there was no room for any two of us in the room. As the appearance of the rival ghosts told them that there was no space between them and the light, and that the light in the room was on an object of no real discernment, they were more than willing to overlook it. They looked at, too, into the wall. As soon as the door was opened they saw something, but they could not see in, and were

BEHOLD - It Wrote A "Story"

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Catch 'em all, then. Thus having drawn his attention from the situation, he turned round and began galloping along the empty floor. The candles were still lit when he stopped at a turning-point in the story. "This is the very place to shoot first," he said. "If you think I am going to spend a cold night in that house, I'll be first. No one knows how to make a first impression on him, so long as he keeps his hand out of his pocket." Frank took his arm and walked him down the empty trunks of the two-story house. "You are not going to make a first impression on him, are you?" said Baby Van Rensselaer. "You have not the nerve to make a first impression. If you had, I could be tempted to take you out; I shall regret that." Frank took his arm and walked him down the empty trunks of the house. "You are not only the best young writer in the city, but also the best murder-nerder. If you were to make an impression on

RESULTS: Shaggy Pony Companions

"I have never before come within fifty yards of a haunted house, but I will return fire to it. Ghosts are not unheard of in this country. Last night, for whatever reason, I was unable to view the house. At twelve o'clock in the morning I heard the door open quietly enough, and went in to get a better view. I had a short conversation with Mrs. Wessington before I was seized with horror and did not leave the house till three o'clock of the darkness had cleared me. Shaggy wild ponies were my only companionship, and a shot of crystal in the bottle, as I supposed it was in the chandelier at her house, lit the candle which I had left at twelve o'clock."

RESULTS: Wow, Tone It Down a Little, Captain

"And I am sure that no words are wanting from me when, in the near future, I shall have to die alone in my home, as a ghostly phantom waves at my memory. I know you will find my name in the annals of copy and notes, but I feel sure you will not find me alive. So, whatever your opinion of me, read, and weep with me, till the end. I am Captain Watson."

Next Steps

- Use even more books to fine-tune the model

- Use GPT-3? ??   ?????

- Make a web app that actUALLY WORKS

Questions?