

OpenAI releases powerful text generator

June 19 2020, by Peter Grad

```
> "model": "davinci",
> "temperature": 0,
> "stop": "\n",
> "prompt": "Q: What is human life expectancy in the United States?
\nA: Human life expectancy in the United States is 78 years.\n\nQ: Wh
at is the meaning of life?\n"
> }' | jq
{
  "id": "cml-RRcXqSMfadADL1tst9gxPTJ9",
  "object": "text_completion",
  "created": 1591865181,
  "model": "davinci:2020-05-03",
  "choices": [
    {
      "text": "A: The meaning of life is 42.",
      "index": 0,
      "logprobs": null,
      "finish_reason": "stop"
    }
  ]
}
```

Artificial intelligence laboratory OpenAI [announced](#) it is making a powerful new neural network for natural language processing available for limited release to the public.

The laboratory, founded by Elon Musk and recently supported by a \$1 billion grant from Microsoft, has designed [text](#) generators that create readable passages virtually indistinguishable from those written by humans.

OpenAI's machine learning approach scrapes massive amounts of data from the web and analyzes it for statistical patterns that allow it to realistically predict what letters or words will likely be written next.

When users feed a word or phrase or longer text snippets into the generator, it expands on the words with convincingly humanlike text. The results can be used to create stories, tackle reading comprehension exercises, [answer questions](#), summarize theses or even play chess, solve mathematical problems or create text-based Dungeon scenarios.

Dubbed GPT-3, the text generator relies on a huge database composed of nearly a trillion words amassed from scans of web posts and digital books. Microsoft built a supercomputer stocked with hundreds of thousands of processors for the project.

The program is proficient at creating factual passages and works of fiction. An early version of the text generator, in fact, was so good at creating original text that it raised concerns among its creators that it could be used for nefarious purposes such as spreading false news stories on the web or engaging in schemes to cheat consumers through fake online chats.

Those concerns led OpenAI in February 2019 to take the unusual step of declining to release the early version, GPT-2, citing fears potential misuse could be dangerous.

"We need to perform experimentation to find out what they can and can't do," said Jack Clark, OpenAI policy director, said at the time. "If

you can't anticipate all the abilities of a model, you have to prod it to see what it can do. There are many more people than us who are better at thinking what it can do maliciously."

The program was eventually released to the public and OpenAI's worst fears were never realized.

Now the newer GPT-3 will be available for commercial lease to a limited number of sources.

GPT-3, about 100 times more powerful than GPT-2, has performed admirably in tests, according to the OpenAI report. It tackled reading comprehension exercises requiring filling in word blanks, tackling "on-the-fly reasoning," and generating compositions up to 500 words.

Google has applied this technology to its algorithms handling complex search queries. Microsoft uses the program in its Office products to constantly improve grammar-checking functions.

OpenAI is still concerned about abuses such as the creation of phony news releases, spam and phishing. Their online paper states, "We will terminate API access for obviously harmful use-cases, such as harassment, spam, radicalization, or astroturfing [masking who is behind a message]. But we also know we can't anticipate all of the possible consequences of this technology, so we are launching today in a private beta [test version] rather than general availability."

Access to the GPT-3 API is by invitation only. Among early users are [natural language](#) web search company Algolia, [mental health](#) social network Koko and artificial intelligence chatbot "companion" creator Replika.

More information: openai.com/blog/openai-api/

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