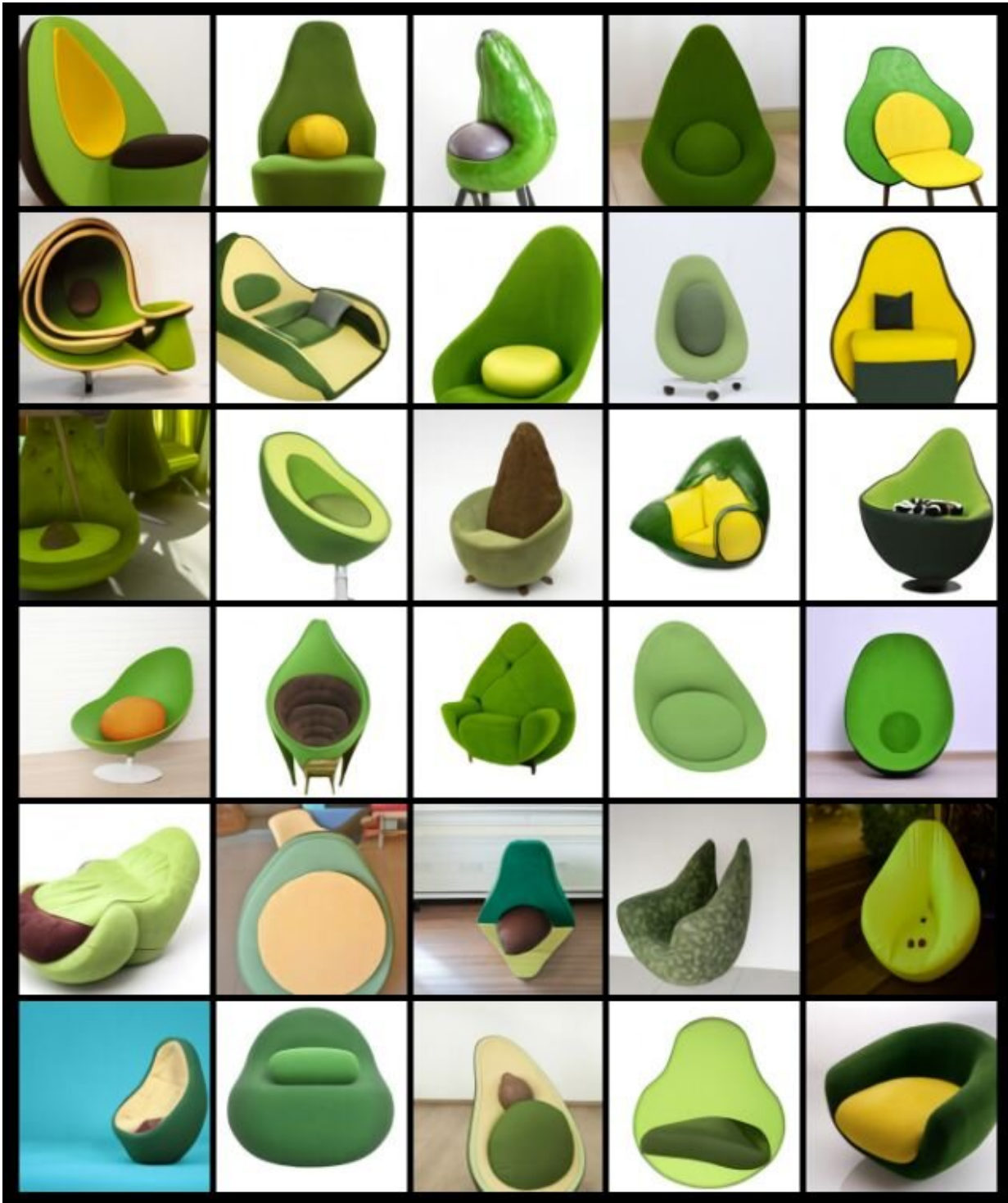


New module for OpenAI GPT-3 creates unique images from text

January 6 2021, by Bob Yirka



“an armchair in the shape of an avocado”. Credit: OpenAI

A team of researchers at OpenAI, a San Francisco artificial intelligence development company, has added a new module to its GPT-3 autoregressive language model. Called DALL·E, the module excerpts text with multiple characteristics, analyzes it and then draws a picture based on what it believes was described. On their webpage describing the new module, the team at OpenAI describe it as "a simple decoder-only transformer" and note that they plan to provide more details about its architecture and how it can be used as they learn more about it themselves.

GPT-3 was developed by the company to demonstrate how far [neural networks](#) could take text processing and creation. It analyzes user-selected text and generates new text based on that input. For example, if a user types "tell me a story about a dog that saves a child in a fire," GPT-3 can create such a story in a human-like way. The same input a second time results in the generation of another version of the story.

In this new effort, the researchers have extended this ability to graphics. A user types in a sentence and DALL·E attempts to generate what is described using graphics and other imagery. As an example, if a user types in "a dog with cat claws and a bird tail," the system would produce a cartoon-looking image of a dog with such features—and not just one. It would produce a whole line of them, each created using slightly different interpretations of the original text.

The system is able to create images by using a corpus of information consisting of internet pages. Each part of the [text](#) is researched in an attempt to learn what it should look like. For the previous example, it would search for and analyze thousands of pictures of [dogs](#). Then it would study cats, and what their claws look like, and then birds and their tails. Then, it combines the results into several graphic images to give users a variety of results.

More information: DALL·E: Creating Images from Text:
openai.com/blog/dall-e/

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