## DeepMind Says Its New Al Has Almost the Reading Comprehension of a High Schooler

A provocative claim!

Alphabet's AI research company DeepMind <u>has released</u> the next generation of its language model, and it says that it has close to the reading comprehension of a high schooler — a startling claim.

It says the language model, called Gopher, was able to significantly improve its reading comprehension by ingesting massive repositories of texts online.

DeepMind boasts that its algorithm, an "ultra-large language model," has 280 billion parameters, which are a measure of size and complexity. That means it falls somewhere between OpenAI's GPT-3 (175 billion parameters) and Microsoft and NVIDIA's Megatron, which features 530 billion parameters, <u>*The Verge* points out</u>.

Such a system could allow us to "safely and efficiently to summarize information, provide expert advice and follow instructions via natural language," according to <u>a statement</u>.

In a test, the model was able to score highly enough on a high school reading comprehension test to approach human-level performance, according to <u>DeepMind's paper</u>. Its math and reasoning skills, however, left something to be desired, showing "less of an improvement."

The more parameters, the more accurate, generally speaking. But there are other issues, like reading comprehension or perpetuating harmful stereotypes, that are proving more difficult to overcome, despite the models' sheer size.

Algorithms like Gopher have been used in the past for commercial products like digital assistants and translators. In a test, Gopher was able to have a full dialogue with a human with a "surprising" level of coherence, according to DeepMind.

But DeepMind isn't looking to commercialize its algorithm.

"That's not the focus right now," Koray Kavukcuoglo, DeepMind's vice president of research, told *Fortune*.

In an attempt to get ahead of criticism that its algorithm <u>regurgitated ethnic</u> <u>or gender stereotypes</u> — often a product of the texts these algorithms were fed — DeepMind published an <u>accompanying paper</u> about the steps researchers took to maintain ethical integrity.

For instance, the team built a tool called Retrieval-Enhanced Transformer, a

massive two trillion word database to cross-reference its sources.

But even then, the DeepMind team admitted that research on how language models perpetuate harmful stereotypes "is still in early stages."

As AI tools become better and better at interpreting text, researchers are increasingly turning to stickier problems, like the potential for spreading misinformation or propaganda.

Even with all the texts on the internet, helping language models like Gopher read between the lines is proving much harder than many AI researchers like to admit.

**READ MORE:** <u>DeepMind debuts massive language A.I. that approaches</u> <u>human-level reading comprehension</u> [*Fortune*]

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