Google launches new Al PaLM 2 in attempt to regain leadership of the pack

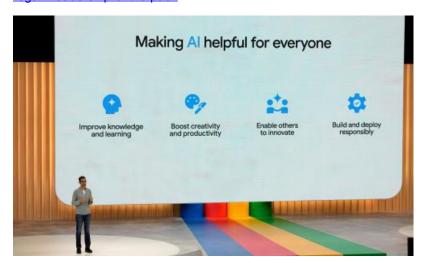
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Google is attempting to reclaim its crown as the leader in artificial intelligence with PaLM 2, a "next-generation language model" that the company says outperforms other leading systems on some tasks. Revealing the cutting-edge AI at its annual I/O conference, alongside a foldable Pixel phone and a new tablet, Google said it would be built in to 25 new products and features, as the company races to catch up with competitors after years of producing AI research but few products. Like other "large language models" such as OpenAl's GPT, PaLM 2 is a general-purpose Al model, which can be used to power ChatGPT-style chatbots but also translate between languages, write computer code, or even analyse and respond to images. Combining those capabilities, a user could ask a question in English about a restaurant in Bulgaria, and the system would be able to search the web for Bulgarian responses, find an answer, translate the answer into English, add a picture of the location – and then follow up with a code snippet to create a database entry for the place. "The neural network revolution that we are now experiencing started around 10 years ago," said Slav Petrov, the co-lead of the PaLM 2 project, "and it started in part at Google." All breakthroughs including the "transformer", the Tin GPT [Generative Pre-Trained Transformer], came from the company's research, Petrov said, "We're really excited to make these models available broadly externally, because we want to see what people can do with them," he added. "We believe that they will open up a lot of opportunities to do things that were previously thought magic and really out of reach, but that now can be accomplished thanks to the amazing progress in machine learning that we've seen over the last years." The most obvious way to interact with PaLM 2 will be in Google's own chatbot, Bard, which is opening up to the general public for the first time and rolling out globally. Making the most of PaLM 2's multilingual capabilities, Bard is also available in Japanese and Korean, as well as English, and the company intends to support 40 languages in time. Chatbot users can also send Bard photos for the first time, with the company giving an example of sending a picture of a kitchen shelf and asking for a recipe using the ingredients. In a reversal of the norm, that replicates a feature promised by OpenAI alongside the launch of its most recent and powerful AI model, GPT-4, but not yet made available to the general public, leaving Google leading the way on so-called "multimodal" capabilities. In a new feature the company is calling "Duet Al", users of Google's "Workspace" apps - Gmail, Docs, Slides and Sheets - will also be able to use the PaLM 2 Al as a co-author of text, spreadsheets and slides. An image generator built into Google Slides, for instance, will let you task an Al with visualising your ideas, while a "help me write" button in Google Docs can generate whole swathes of text automatically. In one example, the prompt "job post for a regional sales rep" was rapidly expanded to a full job description, replete with clear spaces to enter specific details such as company name and location. But a

disclaimer that the tool "is a creative writing aid and is not intended to be factual" underpins the dilemma for Google: rushing the technology out to beat the competition also involves risks of AI software misbehaving. The launch of the AI system was put together at the last minute, with detailed updates being sent to reporters just hours before the company's chief executive, Sundar Pichai, took the stage at the conference. In its preliminary research, the company warned that systems built on PaLM 2 "continue to produce toxic language harms", with some languages issuing "toxic" responses to queries about black people in almost a fifth of all tests, part of the reason the Bard chatbot is only available in three languages at launch.