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TECH

# Elon Musk, Other AI Experts Call for Pause in Technology's Development

Appeal causes tension among artificial-intelligence stakeholders amid concern over pace of advancement



Elon Musk has voiced concerns about artificial intelligence and embraced some AI tools at Tesla.

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Several tech executives and top artificial-intelligence researchers, including Tesla Inc. Chief Executive Officer Elon Musk and AI pioneer Yoshua Bengio, are calling for a pause in the breakneck development of powerful new AI tools.

A moratorium of six months or more would give the industry time to set safety standards for AI design and head off potential harms of the riskiest AI technologies, the proponents of a pause said.

“We’ve reached the point where these systems are smart enough that they can be used in ways that are dangerous for society,” Mr. Bengio, director of the University of Montreal’s Montreal Institute for Learning Algorithms, said in an interview. “And we don’t yet understand.”

These concerns and the recommendation for the pause were laid out in a letter titled “Pause Giant AI Experiments: An Open Letter” coordinated by the nonprofit Future of Life Institute, which lists Mr. Musk as an external adviser. The letter that was made public Wednesday was also signed by Apple co-founder Steve Wozniak; Stability AI CEO Emad Mostaque; and co-founders of the Center for Humane Technology, Tristan Harris and Aza Raskin, who have been critical of social media and AI technology, said a spokeswoman for the team authoring the letter.

The letter doesn't call for all AI development to halt, but urges companies to temporarily stop training systems more powerful than GPT-4, the technology released this month by Microsoft Corp.-backed startup OpenAI. That includes the next generation of OpenAI's technology, GPT-5.

OpenAI officials say they haven't started training GPT-5. In an interview, OpenAI CEO Sam Altman said the company has long given priority to safety in development and spent more than six months doing safety tests on GPT-4 before its launch.

"In some sense, this is preaching to the choir," Mr. Altman said. "We have, I think, been talking about these issues the loudest, with the most intensity, for the longest."

Calls for a pause clash with a broad desire among tech companies and startups to double down on so-called generative AI, a technology capable of generating original content to human prompts. Buzz around generative AI exploded last fall after OpenAI unveiled a chatbot with its ability to perform functions like providing lengthy answers and producing computer code with humanlike sophistication.

Microsoft has embraced the technology for its Bing search engine and other tools. Alphabet Inc.'s Google has deployed a rival system, and companies such as Adobe Inc., Zoom Video Communications Inc. and Salesforce Inc. have also introduced advanced AI tools.

"A race starts today," Microsoft CEO Satya Nadella said last month. "We're going to move, and move fast."

That approach has spurred renewed concerns that a rapid rollout could have unintended consequences alongside real benefits. Advances in AI have surpassed what many experts believed was possible just a few years ago, said Max Tegmark, one of the organizers of the letter, president of the Future of Life Institute and a physics professor at the Massachusetts Institute of Technology.

"It is unfortunate to frame this as an arms race," Mr. Tegmark said. "It is more of a suicide race. It doesn't matter who is going to get there first. It just means that humanity as a whole could lose control of its own destiny."

The Future of Life Institute started working on the letter last week and initially allowed anybody to sign without identity verification. At one point, Mr. Altman's name was added to the letter, but later removed. Mr. Altman said he never signed the letter. He said the company frequently coordinates with other AI companies on safety standards and to discuss broader concerns.

"There is work that we don't do because we don't think we yet know how to make it sufficiently safe," he said. "So yeah, I think there are ways that you can slow down on multiple axes and that's important. And it is part of our strategy."

Messrs. Musk and Wozniak have both voiced concerns about AI technology. Mr. Musk on Wednesday tweeted that developers of the advanced AI technology “will not heed this warning, but at least it was said.”

Mr. Musk at the same time has embraced some AI tools at Tesla for the company's advanced driver-assistance functions. Tesla last month said it was recalling around 362,800 vehicles equipped with its technology marketed as Full Self-Driving Beta. The U.S. top car-safety agency said the technology could, in rare circumstances, violate local traffic laws, potentially increasing the risk of a collision if a driver fails to intervene.

Yann LeCun, chief AI scientist at Meta Platforms Inc., on Tuesday tweeted that he didn't sign the letter because he disagreed with its premise.

Mr. Mostaque, Stability AI's CEO, said in a tweet Wednesday that although he signed the letter, he didn't agree with a six-month pause. “It has no force but will kick off an important discussion that will hopefully bring more transparency & governance to an opaque area.”

Microsoft declined to comment, and Google didn't immediately respond to a request for comment.

Mr. Tegmark said many companies feel “crazy commercial pressures” to add advanced AI technology into their products. A six-month pause would allow the industry “breathing room,” without disadvantaging ones that opt to move carefully.

The letter said a pause should be declared publicly and be verifiable and all key actors in the space should participate. “If such a pause cannot be enacted quickly, governments should step in and institute a moratorium,” it said.

AI labs and experts can use this time to develop a set of shared safety rules for advanced AI design that should be audited and overseen by outside experts, the authors wrote.

“I don't think we can afford to just go forward and break things,” said Mr. Bengio, who shared a 2018 Turing award for inventing the systems that modern AI is built on. “We do need to take time to think through this collectively.”

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