

Economic management scientists warn of industry's increasing dominance in AI research

March 6 2023, by Bob Yirka



Credit: Pixabay/CC0 Public Domain

A trio of economic management scientists, two with the Sloan School of Management at MIT and one with Virginia Tech, are warning of the

consequences of industry dominance in AI research. In their Policy Forum piece published in the journal *Science*, Nur Ahmed, Muntasir Wahed and Neil Thompson outline the recent history of AI research efforts and why consumers should be concerned about the direction it is taking.

As Ahmed, Wahed and Thompson note, for many years, attempts to make computers think and act like humans was mainly in the domain of academia. But then a game-changer arrived—deep-learning neural networks. After meeting with limited success in developing truly useful AI applications, year after year, AI researchers suddenly found themselves with a truly useful AI tool—and they are running with it.

Deep-learning neural networks now form the backbone of a wide variety of useful applications, from medical diagnostics to language processing. But along with the development of such tools, the researchers note, there is a shift in the sectors where such research is conducted. The [private sector](#) is conducting a growing amount of AI research, and the researchers note this has led to a shift in goals.

Because of the nature of the technology, larger AI models tend to produce more impressive results than smaller models. This leads to industry exerting much more influence on the field because corporate entities have more money to spend. As one example, the researchers state, in 2010, industry developed just 11% of the biggest AI models while academia accounted for the rest. But by 2021, industry was building approximately 96% of the biggest models.

The team also notes that AI researchers working in industry tend to have access to much larger and more powerful computers and larger datasets used for training. As a result, AI research by industry has grown by leaps and bounds while academia has remained steady. It has also led to a [brain drain](#)—back in 2004, just 21% of computer scientist Ph.D.s

working on AI applications were working in industry. By 2020, that number had risen to 70%.

Ahmed, Wahed and Thompson argue that the switch should be reason for concern, because while academic research is generally geared toward promoting scientific advancement, industry is always firmly focused on making a profit. Thus, new AI products might better serve the corporate bottom line than the average consumer.

More information: Nur Ahmed et al, The growing influence of industry in AI research, *Science* (2023). [DOI: 10.1126/science.ade2420](https://doi.org/10.1126/science.ade2420)

© 2023 Science X Network

Citation: Economic management scientists warn of industry's increasing dominance in AI research (2023, March 6) retrieved 24 April 2024 from <https://techxplore.com/news/2023-03-economic-scientists-industry-dominance-ai.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--