nature
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Artificial intelligence

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It has been less than two years since Nature Index last looked at research data on artificial intelligence (AI), but it is a demonstration of the breathtaking speed of the field's growth that it is now firmly rooted in the public's consciousness as the technological revolution of our time. The launch of ChatGPT in November 2022 was a watershed moment, immediately raising questions about how large language models (LLMs) would transform society, especially the world of work.

Research is just one area scrambling to understand the potential impact of AI technologies. In this supplement, we investigate some of the pressing issues it faces, including how AI might be used to evaluate studies and researchers, many of whom worry it will just increase the already heavy burden of assessment. There are also major questions about academia's role as AI takes hold, especially given that current progress is largely driven by powerful companies with a commercial interest in keeping their research and data secret. Big tech's grip on AI is vexing governments, too, as shown by the impact that lobbyists are having on emerging consumer regulation.

In Nature Index journals, corporate research output is growing – in the United States, the leading country for AI research, it more than doubled from a Share* of 51.8 in 2019 to 106.5 in 2021. But it still continues to represent a tiny proportion of total AI Share – just 3.8% in the United States last year – suggesting companies are either publishing the bulk of their research elsewhere or are keeping it under wraps. It is also concerning that the global south, where AI could help accelerate development, is under-represented; South Africa is the only African country in the top 40 nations for AI output, for instance. Although Nature Index journals represent a fraction of AI research, finding ways to redress these imbalances is essential to ensure that this revolution benefits everyone.

Simon Baker
Chief editor, Nature Index

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On the cover
Researcher meets AI.
Credit: Neil Webb

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