Collaborations falter as US, China compete for Al dominance

Article



The news: The US and China have been the world's biggest collaborators on AI research to date, but there's a rift underway that could deepen a global tech war with heavy implications.

In 2021, about **9,660 papers on AI** were co-authored by researchers from US and Chinese institutions, **down from over 10,000 the year before**, <u>according to</u> a Stanford University report.





- The decrease is attributed to rising geopolitical tensions and accusations of intellectual property theft leveled at US-based Chinese researchers, <u>per</u> the South China Morning Post.
- In October, Pentagon Chief Software Officer Nicolas Chaillan quit abruptly, saying that the US has no fighting chance against China's cyberwarfare and AI dominance in 15 to 20 years. Chaillan reportedly cited the lack of collaboration between US Big Tech companies and the US military as the cause, per Vox.

Why it's worth watching: Despite the US's early dominance and continued academic research lead in AI, China's ultra-competitive tech industry and greater access to big data to train AI systems is positioning it as a global leader for <u>AI implementation</u>.

- Al is a pivotal technology across industries, including defense, prompting Russian President
 Vladimir Putin to <u>say</u> in 2017 that Al is "the future, not only for Russia, but for all humankind.
 ... Whoever becomes the leader in this sphere will become the ruler of the world."
- Russia previously received AI tech support from China for <u>robotic weapons</u> development, but war sanctions are dealing a blow to Russia's AI aspirations. China is similarly working on <u>AI-fueled autonomous weapons</u>, possibly surpassing US progress in that arena.
- The divisions also apply to regulations, as Beijing's <u>tightening</u> of Big Tech's Al usage contrasts with its own use of Al as a mass surveillance tool. Meanwhile, the US <u>lags</u> behind the EU in enacting privacy and civil-rights controls around the technology.

The opportunity: China is still the US's primary AI research partner, something both nations stand to gain from. Yet current geopolitical tensions could diminish future cooperation—an outcome that a <u>deleted report</u> from Peking University indicated would cause more significant losses for China.

- Instead of any one nation striving for AI supremacy, advancing the technology for goals like curing disease and solving climate change will signal greater global leadership than building autonomous weapons.
- Frayed ties between the US and China leaves the door open for other research alliances, such as with the UK, India, or Israel.
- The US has <u>signaled</u> that it may follow the EU's tech regulatory lead, and being on the same page about fostering AI innovation while protecting public welfare would be a competitive advantage.

Problems that AI Can Solve in Their Industry According to US Decision-Makers, by Industry, Dec 2021

% of respondents

1 Financial services 4	4 Manufacturing/automotive								
2 Tech 5	5 Professional services								
3 Retail/ecommerce 6	Total								
	1	2	3	4	5				
Efficiency and productivity gains	62%	72%	61%	70%	63%				

Efficiency and productivity gains	0270	1270	01/0	1070	0578	05%
Improved analytics	67%	50%	41%	53%	56%	50%
Business model expansion	52%	39%	51%	53%	26%	48%
Competitive differentiation	57%	47%	34%	35%	56%	46%
Speed time to market	43%	50%	56%	44%	30%	46%
Cost reduction	52%	39%	37%	44%	52%	41%
Customer retention	48%	19%	34%	33%	37%	33%

Note: respondents were asked about problems within their industry, but outside of their organization

Source: LXT, "The Path to AI Maturity" conducted by Reputation Leaders, Feb 22, 2022

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65%

