



# AI and America's Future: Ensuring the United States' Global Technology Leadership

Artificial intelligence (AI) is one of the most consequential technologies of our time. It is [projected](#) to add more than \$15 trillion to the global economy by 2030, create millions of jobs, and drive innovation across virtually every sector.

These innovations will have immense benefits to society, including:

- Changing the trajectory of health care through increasing efficiency, improving diagnoses, and supporting new treatment discoveries.
- Innovating agriculture by helping monitor crops, predict yields, and keep pests away.
- Underpinning our national security, keeping us safe and helping us protect and expand democratic ideals.

**The rapid development of AI exemplifies the power of a well-resourced S&T enterprise and presents an opportunity for important coordination among government and industry both domestically and internationally. It is incumbent on the U.S. to ensure we continue leading the world in innovation while identifying opportunities for collaboration.**

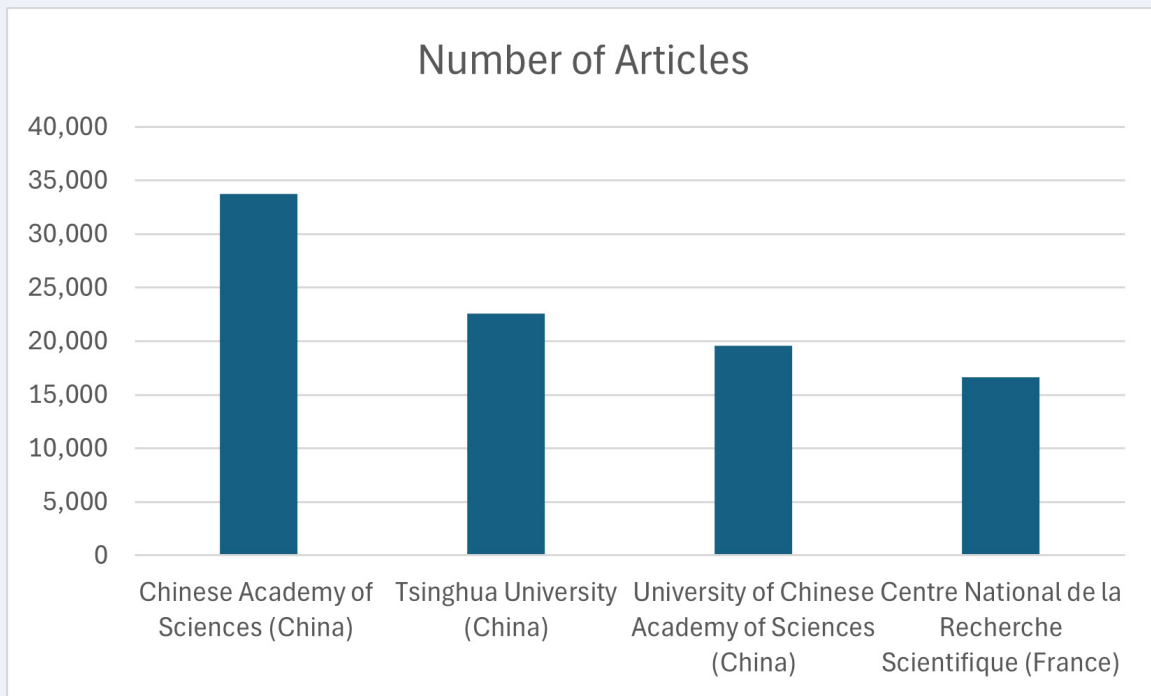
In addition to supercharging our economy, bringing great benefits to our day-to-day lives, and bolstering national security, AI has a vital role to play in ensuring America's continued leadership on the global stage. We must invest in AI, among other emerging technologies, to ensure we continue to out-innovate our global competitors and we facilitate safe, ethical use of new technologies.

For these reasons, it's critical for the U.S. to ensure that government agencies work hand in hand with the American companies that are driving advances in AI. We must foster a thoughtful approach to regulation that protects against the harmful uses of AI without stifling development.

# The U.S. Risks Falling Behind in AI Development and Technologies

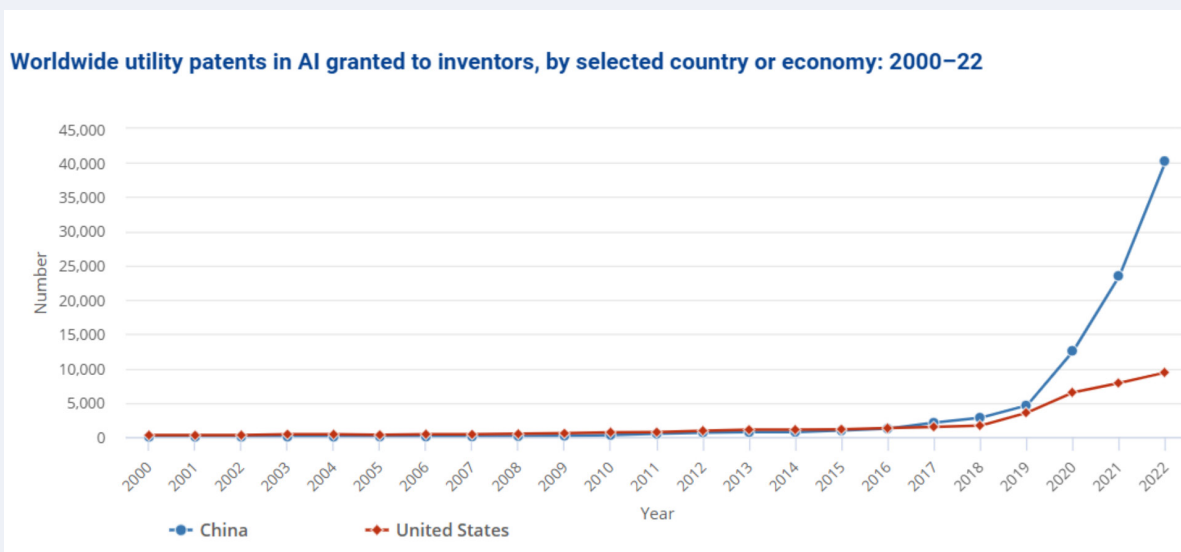
Our competitors – namely China – recognize that we are in a moment of unprecedented global competitiveness and are investing heavily in emerging technologies, especially AI.

China is aggressively executing steps to build its technology capabilities and overtake the U.S. in critical and emerging technologies to become **the global tech leader** by 2030. These efforts are already paying off: when analyzing published **articles related to AI over the last five years**, Chinese institutions emerge as top producers of AI research papers.



ETO Map of Science  
[https://sciencemap.eto.tech/?all\\_subjects=Artificial+intelligence&top\\_countries=China%2CUnited+States&mode=summary](https://sciencemap.eto.tech/?all_subjects=Artificial+intelligence&top_countries=China%2CUnited+States&mode=summary)

We need to act now so the U.S. does not cede our position on the global stage. Already, China has surpassed the U.S. in **AI patents granted to inventors**.



National Science Board, National Science Foundation. 2024. Invention, Knowledge Transfer, and Innovation. Science and Engineering Indicators 2024. NSB-2024-1. Alexandria, VA.

# The Roadmap to Securing America's Global Technology Leadership

Investments in fundamental research and a cohesive, collaborative scientific enterprise are critical components to solidifying and advancing America's position as a leader in global technology.

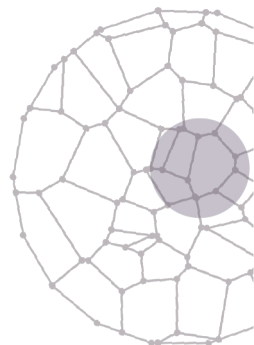
To protect and expand U.S. global technology leadership, bolster technologies critical to national security, and boost America's economic prosperity, we need:

- Strong public-private partnerships that strengthen talent and workforce pipelines to ensure the latest technological advances are developed here in the United States.
- Collaboration among industry, private sector partners, and government to regulate AI and ensure AI benefits society without hindering U.S. research and development.
- Increased investments in fundamental research and development in AI and other emerging technologies.

**The 2024 Nobel Prize for Physics was awarded to John J. Hopfield and Geoffrey Hinton for foundational discoveries in machine learning that provided the building blocks for AI. The fundamental research that underpinned these discoveries was made possible through federal funding more than 40 years ago.**

**About the Science & Technology Action Committee | [www.sciencetechaction.org](http://www.sciencetechaction.org) | [info@sciencetechaction.org](mailto:info@sciencetechaction.org)**

The Science & Technology Action Committee (STAC) is a group of 25 non-profit, academic, foundation, and corporate leaders working to dramatically strengthen U.S. science and technology. The Committee is co-chaired by: Bill Novelli, Professor Emeritus and founder of Business for Impact at Georgetown University and former CEO of AARP; Sudip Parikh, CEO, American Association for the Advancement of Science (AAAS) and Executive Publisher of the Science Family of Journals; Mary Woolley, President & CEO of Research!America; and Keith Yamamoto, Vice Chancellor for Science Policy and Strategy at UCSF and Past President of AAAS.



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