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*Águeda Parra Pérez**

AI: The Global Game-Changer Driving U.S. and China's Race for Leadership

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Abstract:

The competition between the United States and China in the field of AI is set to have a significant impact on the future of technology, economy, and global governance. Each country is pursuing distinct strategies for technological and energy development, diplomatic projection, and even regulatory framework. Washington's strategy centres on dominating comprehensive platforms, fostering private sector leadership and investing heavily in infrastructure, while China is leveraging open-source innovation and centralised planning to expand its technological diplomatic influence, particularly in the Global South.

As the AI ecosystem is still in its early stages of development, with true leadership being measured by each model's ability to generate higher levels of adoption, the policies announced by Washington and Beijing are laying the foundation for a competitive AI environment that has the potential to drive global geopolitical shifts.

Keywords:

AI, United States, China, AI Infrastructure Investment, National Security

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AI as a new geopolitical rivalry

The role of artificial intelligence (AI) in building the economies of the future and shaping society is set to become a key focus of the rivalry between Washington and Beijing. The outcome of this competition will also influence the impact of AI on the military sphere and global governance.

AI will undoubtedly be one of the major drivers of the global economy in the coming decades. The United States views AI as a powerful tool for maintaining its international leadership, while China sees it as a means of expanding its geopolitical influence and mitigating the severe demographic crisis that threatens its future. Having reached a population of just over 1.4 billion in 2021, China now faces the complex challenge of sustaining growth in order to avoid falling into the 'middle-income trap' — that is, advancing towards a developed society by raising per capita income over the next decade before becoming an ageing nation. The UN's projections are far from encouraging: A medium scenario suggests that China's population could decline to approximately 767 million by the year 2100[1]. This represents a decrease of more than 650 million people, which is equivalent to approximately 46% of the current population.

In order to promote the digitalisation required to confront this demographic crisis, Xi Jinping announced in 2017 an ambitious plan to position China as the global leader in AI by 2030. However, the launch of ChatGPT in November 2022 resulted in the United States assuming a leading position in this field. It was not until the advent of DeepSeek in January 2025 that China returned to the competitive arena with a sufficiently advanced and lower-cost AI model.

The successful launch of DeepSeek R1 has significantly narrowed the gap with its rivals, despite the technological restrictions imposed by Washington in recent years, causing a major shake-up across the US AI sector. According to industry assessments, China has successfully reduced the time lag from two years to just three to nine months in some areas and has even surpassed the United States in others[2].

Technological rivalry is no longer just about choosing between open-source and closed

[1] UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS, Population Division, World Population Prospects 2022: Summary of Results, United Nations, 2022, https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/wpp2022_summary_of_results.pdf

[2] CUNNINGHAM, Ryan, DeepSeek and the End of an Era, Machine Yearning, January 31, 2025, https://www.machineyearning.io/p/deepseek-and-the-end-of-an-era

models. Instead, it revolves around how China's AI model has achieved comparable results using less computing power. This sets the tone for future AI competition between the United States and China across the entire AI ecosystem. In fact, a comparison of US and Chinese AI policies shows that the rivalry will not depend on which country has the more ambitious goals, but on the success of each country's roadmap. As will be outlined in the following sections, the strategies embedded in both AI plans differ significantly, leaving room for innovation to flourish in the years ahead.

The AI policies of the United States and China will shape the future of artificial intelligence

On 23 July 2025, the United States unveiled its commitment to artificial intelligence by launching the America's AI Action Plan[3] — an ambitious initiative designed to attract foreign capital, drive substantial investment in infrastructure, and increase energy capacity and production to meet the soaring demand from data centers in the coming years. This publication builds on the executive order signed[4] by President Trump upon entering the White House, designed to strengthen US global dominance in AI and reverse the guidelines issued by the Biden administration in 2023, which had focused on requiring greater transparency from AI companies.

Structured around three main pillars, the US AI Action Plan emphasizes accelerating AI innovation (Pillar I), building American AI infrastructure (Pillar II), and leading in international AI diplomacy and security (Pillar III). These pillars reflect a strong focus on creating AI ecosystems under the premise of promoting national security—a concept referenced 23 times in the document, compared to just once in China's plan.

According to Washington's plan, the first pillar sets the framework for accelerating AI innovation by creating conditions for the private sector to build the most advanced AI ecosystems, reducing bureaucracy and regulation, and encouraging government adoption of AI. The second pillar outlines objectives for building AI infrastructure domestically and strategically managing the power grid to support this development. The third pillar focuses on US leadership in AI diplomacy and security, aiming to promote the

[3] THE WHITE HOUSE, Winning the Race – America's AI Action Plan, July 2025, https://www.whitehouse.gov/wp-content/uploads/2025/07/Americas-AI-Action-Plan.pdf

[4] THE WHITE HOUSE, Removing Barriers to American Leadership in Artificial Intelligence, January 23, 2025, https://www.whitehouse.gov/presidential-actions/2025/01/removing-barriers-to-american-leadership-in-artificial-intelligence/

adoption of American AI systems, hardware, and standards among allies and partners.

Just over a month later, on 26 August 2025, China's State Council released the Global Action Plan for AI Governance[5], following the announcement of its plan at the World Artificial Intelligence Conference in Shanghai the previous year. This plan, known as the 'AI Plus' initiative, is China's second high-level AI proposal since the publication of its 'National AI Plan' in 2017, which aimed to establish the country as a global hub for AI innovation.

Prior to the emergence of generative AI as a catalyst for economic growth, China had already adopted a proactive stance on technological innovation as a means to stimulate its economy through initiatives such as the Internet Plus Action Plan, which was launched in 2015. As part of the 13th Five-Year Plan, this initiative sought to boost China's global competitiveness in the digital sector. It aimed to achieve this by integrating the internet into traditional industries and promoting the growth of e-commerce.

Following years of promoting digitalisation, the recently launched AI Plus plan is the most comprehensive AI strategy China has implemented to date. It addresses national AI development goals as well as the country's international ambitions as part of its technological diplomacy agenda. The plan outlines six priority areas for the application of artificial intelligence, including the use of AI in science and technology; the promotion of industrial development through AI; the AI as consumption booster; the enhancement of social welfare through AI; the development of governance capacity using AI; and the promotion of global cooperation through AI.

As with other initiatives, the plan establishes timelines for progress in these priority areas. With a theoretical 10-year timeframe, the first milestone is 2027 — just two years after DeepSeek's breakthrough, which reinvigorated China's ambition to use AI as an engine for economic and social dynamism. By that time, it is estimated that the penetration of artificial intelligence (AI) in devices, agents and applications will exceed 70%. The next milestone is 2030, when China anticipates AI will "comprehensively drive high-quality development," with penetration rates reaching 90% and ushering in a new cycle of smart economic growth through open cooperation systems.

According to the China Telecom Research Institute, this roadmap envisions AI as a major

[5] STATE COUNCIL OF CHINA, Global Action Plan for Artificial Intelligence Governance, Global AI Governance Action Plan, July 26 2025, https://www.mfa.gov.cn/zyxw/202507/t20250726_11677803.shtml?utm_source=substack&utm_medium=email

driver of economic growth, with the potential to contribute around $1.55 trillion to China's GDP by 2035[6], representing 4–5% of total output. By then, China aims to enter a new era of intelligent economy and society, in line with long-standing government objectives to achieve 'socialist modernisation'. As set out in the 15th Five-Year Plan (2026–2030), technological innovation will form the cornerstone of this strategic path towards "high-quality development".

Investment strategies fuelling the AI bubble

The evolution of investment in AI is indicative of the approaches adopted by the US and Chinese governments in their respective AI development agendas, resulting in two divergent approaches. The United States employs a model that prioritises the promotion of private sector investment, with a view to fostering the formation of large alliances to consolidate US leadership in AI. Following the successful emergence of DeepSeek in China's technological landscape, the country is recalibrating its strategy. Although it is reopening to international investment after Chinese tech companies regained government support following the regulatory changes they faced since late 2020, it is government backing that will prove pivotal in facilitating progress.

Before DeepSeek established a Chinese AI model, investment in artificial intelligence was losing momentum, to the extent that Europe surpassed China by registering more than double the private investment in 2024. However, China and Europe's innovation hubs have struggled to compete with the United States, where AI investment surged after ChatGPT was unveiled in November 2022. This opened a window of innovation to the world, ultimately positioning American companies as leaders in this field.

As a result of the United States' determined commitment to AI in recent years, private investment reached $109.1 billion in 2024 (Figure 1), almost twelve times more than the $9.3 billion registered in China. Once again, the contrasting approaches to the development of artificial intelligence adopted by the United States and China are paving the way for their respective strategies to build an AI ecosystem that fosters international leadership.

[6] LI, Alice, China races to embed AI use across major industries with ambitious 2030 target, South China Morning Post, August 27, 2025, https://www.scmp.com/economy/china-economy/article/3323323/china-races-embed-ai-use-across-major-industries-ambitious-2030-target

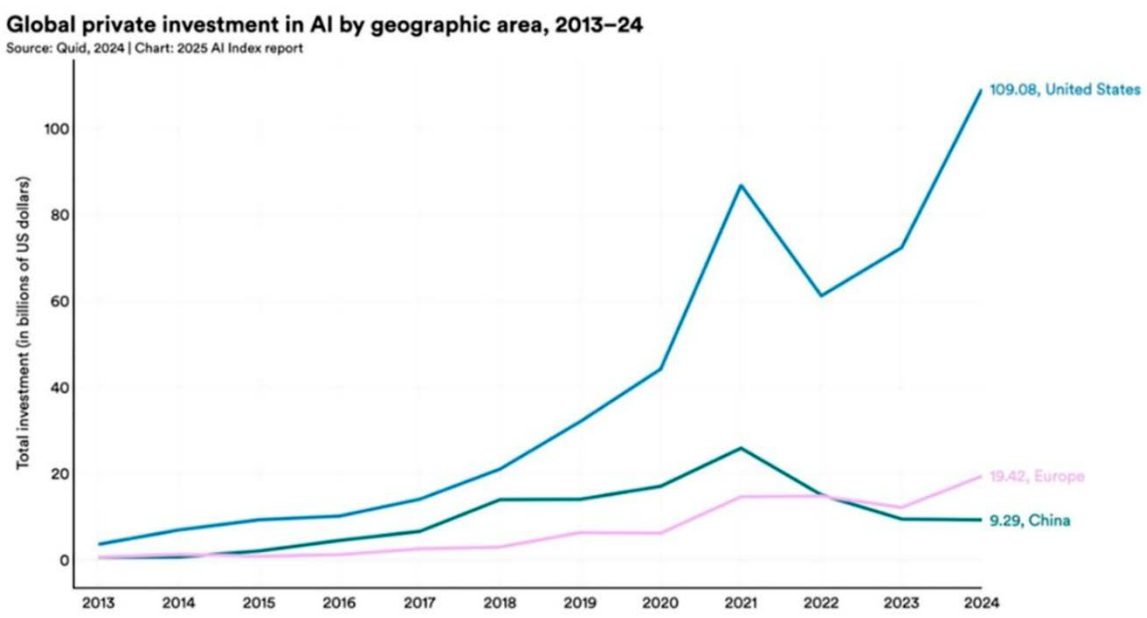

Figure 1: Global private investment in AI by geographic areas, 2013-2024. Source: Stanford HAI.

While AI faces the challenge of avoiding becoming the next bubble, there are calls from within the industry for countries to invest in their own artificial intelligence infrastructure. Mensch, the CEO of Mistral — one of Europe's leading AI start-ups — commented that this could have 'a double-digit impact on countries' GDP[7]. Major US tech companies are familiar with this trend and are leading the way with their rapid investment. Significant investments in the field of artificial intelligence have been made by prominent companies, with Microsoft investing $80 billion[8], Nvidia investing $100 billion in OpenAI[9], and Mark Zuckerberg's $600 million investment in Meta[10], all of which are efforts to stay ahead in the race for AI supremacy. These initiatives complement the Stargate megaproject, led by OpenAI, Oracle and SoftBank, which plans to invest $500 billion in AI infrastructure, although it has not yet taken off as expected[11]. These announcements have given the

[7] ALONSO VIÑA, Daniel y GOEL, Shubhangi, El CEO de Mistral, la startup de IA más importante de Europa: "Tendrá un impacto de dos dígitos en el PIB de los países", Business Insider, 25 de marzo de 2025, https://www.businessinsider.es/tecnologia/ceo-mistral-startup-ia-importante-europa-tendra-impacto-dos-digitos-pib-paises-1450392

[8] SMITH, Brad, The golden opportunity for American AI, The Official Microsoft Blog, January 3, 2025, https://blogs.microsoft.com/on-the-issues/2025/01/03/the-golden-opportunity-for-american-ai/

[9] SIGALOS, MacKenzie y LEVY, Ari, Nvidia's investment in OpenAI will be in cash, and most will be used to lease Nvidia chips, CNBC, September 24, 2025, https://www.cnbc.com/2025/09/24/nvidia-openai-investment-in-cash-mostly-used-to-lease-nvidia-chips.html

[10] SMITH, Dave, Mark Zuckerberg says Meta 'misspending a couple of hundred billion' in the U.S. would be 'unfortunate,' but 'the risk is higher on the other side', Yahoo Finance, September 23, 2025, https://finance.yahoo.com/news/mark-zuckerberg-says-meta-misspending-100400585.html

[11] WARRICK, Ambar, OpenAI and SoftBank's $500 bln AI project struggles to gain traction – WSJ, Investing.com, July 21, 2025, https://www.investing.com/news/stock-market-news/openai-and-softbanks-500-bln-ai-project-struggles-to-gain-traction-wsj-4144905

stock prices of tech companies such as Microsoft a significant boost. Amidst the AI euphoria, Microsoft[12] has become the latest company to surpass the $4 trillion market capitalisation threshold, following Nvidia's significant milestone of $5 trillion.

The AI boom has driven the 'Magnificent Seven' — the seven largest tech companies in the United States — to make a record investment[13] of $364 billion in 2025 for the construction and modernisation of data centers. This investment far exceeds that recorded the previous year. The capacity to mobilise AI-related capital has contributed to US GDP growth that is greater than that resulting from consumer spending[14] during the first half of 2025, further fuelling the possibility that AI could become the next bubble.

It is not only about boosting domestic investment—the Trump administration is actively strengthening technological alliances with other countries to expand a global network of data center infrastructures, including partnerships with the United Kingdom[15] and the United Arab Emirates[16]. At the same time, US tech giants continue to consolidate their position in the AI sector through major deals, such as Microsoft's agreement with Nscale[17] and the expansion of the Stargate partnership[18] between OpenAI and Oracle with the Japanese SoftBank for the expansion of five new AI data centers.

At both the governmental and corporate levels, the US strategy remains focused on developing a highly capital-intensive AI ecosystem to reinforce competitive advantages, even though this will entail high maintenance costs as technology evolves. Investment is concentrated particularly in infrastructure, but also heavily directed towards semiconductors — the other critical component of AI development. According to World Semiconductor Trade Statistics, forecasts indicate that $697.1 billion will be invested in 2025, driving an 11% growth in the chip market compared to 2024.

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[12] KASHYAP, Pranav y RANDEWICH, Neol, Microsoft reaches $4 trillion valuation after solid results Reuters, July 31, 2025, https://www.reuters.com/business/retail-consumer/microsoft-reaches-4-trillion-valuation-after-solid-results-2025-07-31/

[13] BRATTON, Laura, Big Tech's AI investments set to spike to $364 billion in 2025 as bubble fears ease, Yahoo Finance, August 1, 2025 ,https://finance.yahoo.com/news/big-techs-ai-investments-set-to-spike-to-364-billion-in-2025-as-bubble-fears-ease-143203885.html

[14] LANZ, Jose Antonio, Most US Growth Now Rides on AI—And Economists Suspect a Bubble, October 8, 2025, Yahoo Finance, https://finance.yahoo.com/news/most-us-growth-now-rides-213011552.html

[15] THE WHITE HOUSE, President Trump Signs Technology Prosperity Deal with United Kingdom, September 18, 2025, https://www.whitehouse.gov/articles/2025/09/president-trump-signs-technology-prosperity-deal-with-united-kingdom/

[16] EMBASSY OF THE UNITED ARAB EMIRATES, The UAE and US: Forging the Future of AI and Advanced Tech, June 2025, https://www.uae-embassy.org/uae-us-cooperation/economic/artificial-intelligence

[17] REUTERS, UK's Nscale to supply Microsoft with 200,000 Nvidia AI chips, October 15, 2025, https://www.reuters.com/world/europe/uks-nscale-signs-deal-with-microsoft-supply-200000-nvidia-ai-chips-2025-10-15/

[18] OpenAI, OpenAI, Oracle y SoftBank amplían Stargate con cinco nuevos centros de datos de IA, 23 de septiembre de 2025, https://openai.com/es-ES/index/five-new-stargate-sites/

In China's case, Beijing's restrictions on importing Nvidia chips in favour of locally manufactured alternatives are also fuelling domestic chip investments, especially since DeepSeek launched version V3.1, which is designed to operate with next-generation Chinese AI chips[19]. This is indicative of a clear statement of intent: despite Washington's export restrictions in recent years, China has advanced its strategic autonomy in semiconductors, with companies like Alibaba and Baidu already using proprietary chip[20] designs to train their models, reducing dependence on Nvidia.

Despite China's long-standing recognition of AI as a key driver of economic development, investments by Chinese tech giants in infrastructure have been far more modest than those of their US counterparts. The arrival of ChatGPT in 2022 signaled the dawn of the AI era, prompting China to invest in data centers and announce over 500 projects[21]—many of which have since become less appealing following DeepSeek's breakthrough.

DeepSeek's innovative approach has sparked debate over the US infrastructure investment model, prompting China to adopt a different strategy of prioritizing data center construction near population hubs to enhance inference capabilities and response times, thereby accelerating commercial AI applications. This shift means that Chinese tech giants are moving away from training models in remote inland regions, which require different hardware architectures. Consequently, China's approach diverges from US policies, avoiding large-scale infrastructure expansion —though some announcements remain, such as Alibaba's plan[22] to invest $53 billion over the next three years.

This strategic shift, driven by DeepSeek, is also evident in Xi Jinping's AI Plus initiative, which promotes the deployment of inference-focused data centers, emulating a "Chinese Stargate," [23] while reinforcing the government's message against AI overinvestment. These efforts are complemented by an $8.2 billion state fund[24] for AI projects, including

[19] MÁRQUEZ, Javier, DeepSeek acaba de lanzar algo que va a amargar el día a NVIDIA y a las empresas de chips de EEUU: se llama DeepSeek-V3.1, 22 de agosto de 2025, XATAKA, https://www.xataka.com/robotica-e-ia/deepseek-acaba-lanzar-algo-que-va-a-amargar-dia-a-nvidia-a-empresas-chips-eeuu-se-llama-deepseek-v3-1

[20] REUTERS, Alibaba, Baidu begin using own chips to train AI models, The Information reports, September 11, 2025, https://www.reuters.com/world/china/alibaba-baidu-begin-using-own-chips-train-ai-models-information-reports-2025-09-11/

[21] CHEN, Caiwei, China built hundreds of AI data centers to catch the AI boom. Now many stand unused, March 26, 2025, MIT Technology Review, https://www.technologyreview.com/2025/03/26/1113802/china-ai-data-centers-unused/

[22] ALIBABA CLOUD, Alibaba to Invest RMB380 billion in AI and Cloud Infrastructure Over Next Three Years, February 24, 2025, https://www.alibabacloud.com/blog/alibaba-to-invest-rmb380-billion-in-ai-and-cloud-infrastructure-over-next-three-years_602007

[23] OLCOTT, Eleanor, LIU, Nian & COOK, Chris, 'Stargate of China' plan emerges to challenge US as AI superpower, Financial Times, September 21, 2025, https://www.ft.com/content/31b8d6d8-adb0-4db0-a292-422c5a3bff19

[24] CAO, Ann, New AI fund in China to pour US$8 billion into early-stage projects, South China Morning Post, April 11, 2025, https://www.scmp.com/tech/policy/article/3306047/new-ai-fund-china-pour-us8-billion-early-stage-projects

proposals to locate data centers in the ocean[25] as an alternative cooling solution.

Overall, infrastructure investment will continue to shape AI development in China, with IDC estimating that the generative AI market will reach $30.9 billion by 2028. Hardware alone is projected to grow from $9.46 billion in 2025 to $23.05 billion by 2028 (Figure 2).

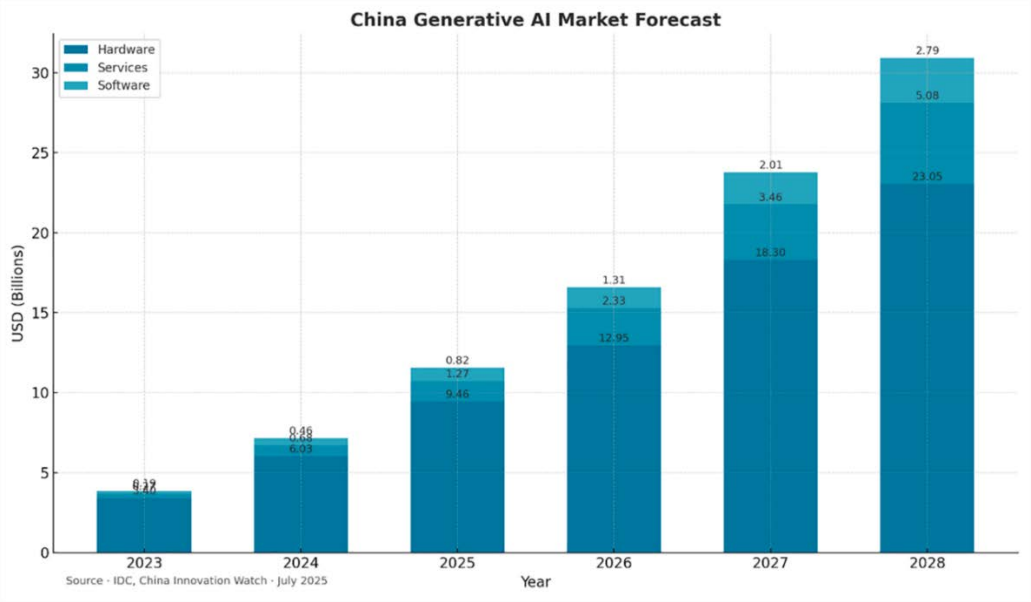

Figure 2. China Generative AI Market Forecast. Source IDC. China Innovation Watch.

Meeting AI's energy demands, another focus of technological rivalry

Since its launch, the rate at which AI has been adopted has surpassed that of the internet. Therefore, technological rivalry will no longer be measured by which ecosystem has the most advanced chips, but by each ecosystem's capacity to power data centers. Consequently, energy efficiency has become a key consideration in AI policy, with Washington and Beijing taking different approaches once again. These political decisions could influence the future development of AI infrastructure and the large-scale adoption of artificial intelligence.

Just days after launching the AI Plus initiative, China unveiled a plan[26] emphasising how to integrate AI advances into the energy sector. Once again structured under a two-phase timeline, the plan sets 2027 as the target date for integrating AI advances into the energy

[25] XIAOYING, You, China Is Putting Data Centers in the Ocean to Keep Them Cool, July 16, 2025, Scientific American, https://www.scientificamerican.com/article/china-powers-ai-boom-with-undersea-data-centers/

[26] XINHUA, China unveils plan on AI-energy integration to drive green transition, September 8, 2025, https://english.www.gov.cn/news/202509/08/content_WS68be8c3ec6d0868f4e8f566d.html

sector by developing new, advanced artificial intelligence systems (LLMs) adapted to energy sector applications. By 2030, the government expects these applications will promote the use of AI in various energy scenarios by coordinating the use of renewable and nuclear energy, energy storage, and stable electricity grid supply.

Recognising this as a strategic issue, China has designed a subsidy plan[27] for the sector that guarantees cost reductions of up to 50% for data center infrastructures that do not use Nvidia or AMD chips; all others would be excluded. This is an additional measure to reinforce the aggressive restrictions on the use of Nvidia chips introduced by the Chinese government two months earlier. The aim is to encourage the use and production of domestic chips, such as those manufactured by Huawei and Cambricon. While these chips are generally less energy-efficient than Nvidia's, they would reduce China's reliance on foreign technology for its critical data infrastructure[28].

While the strategy emphasises the use of domestically produced chips, concerns have been raised regarding the energy efficiency of domestic data centers, which the Financial Times reports use between 30% and 50% more energy. Tech giants such as Alibaba and Tencent are developing infrastructure to power AI models and ensure that local chips remain competitive in the inland provinces of Guizhou, Gansu, and Inner Mongolia, which have abundant hydroelectric and coal resources.

However, the energy approach of the US does not appear to be associated with subsidies as is the case in China. Nevertheless, American tech companies are aware that energy availability could be the biggest obstacle to AI development, potentially rendering chips unusable due to insufficient electrical grid capacity to meet anticipated demand. In response, US technology companies such as Google, Microsoft, Amazon and Oracle have started to take action, considering building reactors[29] or reopening nuclear power plants[30] to power their artificial intelligence data centers, which could be operational again by 2028.

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[27] PARK, Ji-min, China Halves Electricity Fees for Domestic Chip Data Centers, November 4, 2025, The Chosun Daily, https://www.chosun.com/english/industry-en/2025/11/04/BJFRPNBHQJHA5F2EMWLEXRZ3VU/

[28] REUTERS, Exclusive: China bans foreign AI chips from state-funded data centres, sources say, November 5, 2025, https://www.reuters.com/world/china/china-bans-foreign-ai-chips-state-funded-data-centres-sources-say-2025-11-05/

[29] HUNT, Alex, Google to fund development of three nuclear power sites, World Nuclear News, May 7, 2025, https://world-nuclear-news.org/articles/google-to-fund-elementl-to-prepare-three-nuclear-power-sites

[30] KEARNEY, Laila, y SRIVASTAVA, Vallari, NextEra Energy partners with Google to restart Iowa nuclear plant, October 28, 2025, https://www.reuters.com/business/energy/nextera-energy-partners-with-google-restart-iowa-nuclear-plant-2025-10-27/

Two AI models, two geopolitical rivalry strategies

Although the US AI plan appears to share the same high-level objectives as China's proposal, the two countries diverge significantly in terms of strategy, implementation, and—most notably—in the emphasis the US places on national security within its plan.

Under Washington's approach, American tech companies once again play the role of global leaders, tasked with developing a comprehensive AI model tailored to the business environment and designed to facilitate the full-scale export of AI technology. This model, known as full-stack, seeks to dominate every layer of the ecosystem—hardware, models, software, applications, and standards—positioning US solutions as global benchmarks, particularly among geopolitical allies. This strategy strengthens the competitive positioning of US tech firms by enabling control over the entire AI value chain through closed-source, full-stack technological environments.

This integrated approach contrasts sharply with China's AI model, championed by DeepSeek, which advocates for open-source development. Following this Chinese start-up's successful rise in the AI industry, most major tech players have begun transitioning parts of their large language models (LLMs) to open-source frameworks, incorporating the performance enhancements and innovative capabilities introduced by DeepSeek into the AI ecosystem.

As a result, China's AI model positions itself as an affordable and inclusive option for Global South economies, enabling any country to leverage AI's benefits to drive economic growth while fostering cooperation and technological exchange within open-source communities. Unlike the US approach, China does not require its Global South partners to be politically aligned in order to adopt its model — although it is widely acknowledged that Beijing enforces a domestic ideological framework that censors content critical of the Chinese Communist Party (CCP) and socialist values.

From a technological standpoint, the open- or closed-source nature of an AI model does not, in itself, define the priorities for building a global AI ecosystem. However, governments' implementation of specific policies does shape the foundation upon which these ecosystems are built. In the US model, private companies and the tech sector largely set the strategy with minimal government intervention. Conversely, China's centralized governance enables a more coordinated approach, allocating resources to companies and universities to position them as global leaders in strategically defined areas. Indeed, underpinning the implementation of its 15th Five-Year Plan (2026–2030),

China has identified artificial intelligence as one of the key growth drivers.

This opens a window of opportunity for startups promoting the Chinese AI model to expand the technological ecosystem developed by tech giants over the past two decades into an international environment, similar to what happened with the internationalization strategy of Chinese tech companies under the implementation of the Go Global government policy in 1999.

However, despite the evident rivalry between AI models and the adoption of divergent approaches to infrastructure development, the United States overwhelmingly leads in global AI computing capacity. As of May 2025, US tech companies account for up to 70% of global GPU (Graphics Processing Unit) cluster performance (Figure 3), with China in second place, holding 15% of the total. Despite the implementation of export controls on advanced Nvidia chips and other restrictions on the use of US technology by Washington in recent years, the Asian giant has achieved second place. In this scenario, Europe, and its technology companies, are lagging behind in shaping the current artificial intelligence landscape.

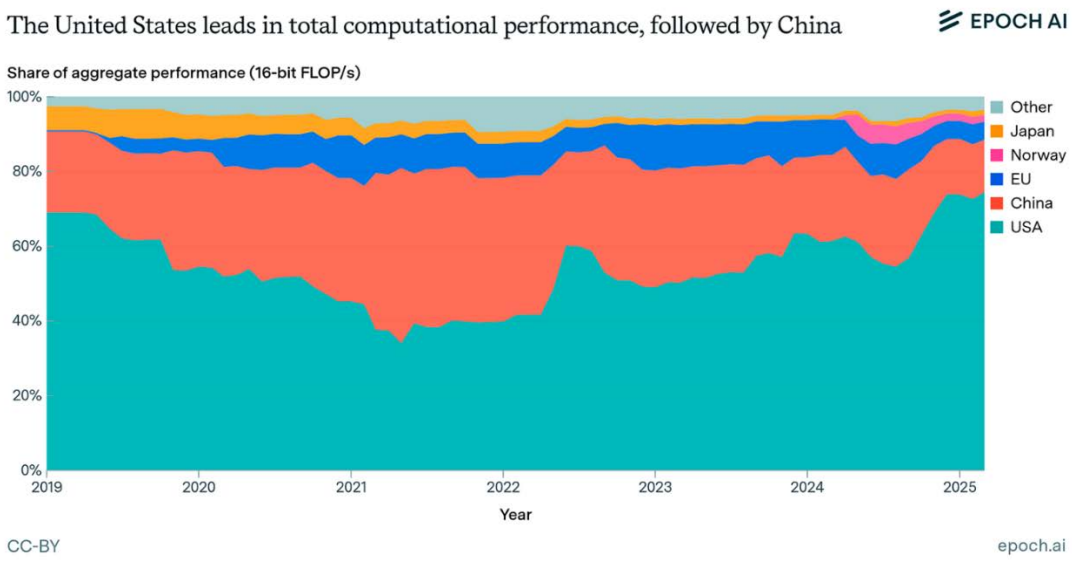

Figure 3: Share of aggregate performance (16-bit FLOP/s). Source: EpochAI.

When comparing the AI models proposed by Washington and Beijing, it is important to consider the diffusion of the standards that comprise their respective AI ecosystems. This is an essential aspect of technological diplomacy, akin to the way in which the deployment of the US-led internet model and its associated protocols established a global technological order that spread worldwide in the 1980s. In the era of artificial intelligence,

a similar scenario emerges, underscoring the pivotal role of adoption in determining success in this competitive field.

Technological diplomacy regarding AI ecosystems is also linked to scientific research. According to the World Economic Forum[31], 47% of the world's leading AI researchers are based in China. This reflects China's achievement in ranking among the world's ten most innovative countries by 2025[32] and in becoming the only middle-income economy among the top 30 in the Global Innovation Index (GII).

In the context of patents, it remains to be seen which AI model — open or closed — will generate the greatest economic benefits. However, China's patent generation capacity far surpasses that of leading US institutions such as Harvard, MIT, Princeton and Stanford combined[33] (Figure 4). Nevertheless, the United States still holds the most influential AI patents, with Harvard and MIT leading the way in terms of impact.

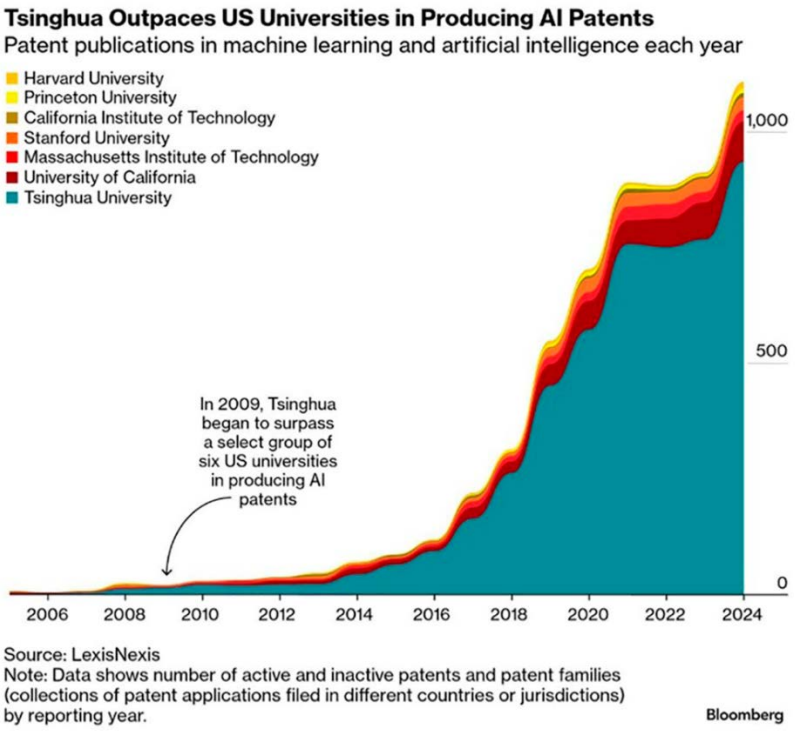

Figure 4: Tsinghua Outpaces US Universities in Producing AI Patents. Source: Bloomberg.

[31] WORLD ECONOMIC FORUM, Blueprint to Action: China's Path to AI-Powered Industry Transformation, January 2025, https://reports.weforum.org/docs/WEF_Blueprint_to_Action_Chinas_Path_to_AI-Powered_Industry_Transformation_2025.pdf

[32] WIPO, China ranking in the Global Innovation Index 2025, World Intellectual Property Organization, https://www.wipo.int/gii-ranking/en/china

[33] RAI, S., Xi's University Fuels China AI Boom With More Patents Than Harvard or MIT, Bloomberg, November 18, 2025, https://www.bloomberg.com/news/features/2025-11-18/china-s-tsinghua-university-is-beating-us-in-the-race-for-ai-patents

Beyond the contrasting approaches outlined in the AI plans published by the United States and China, Washington and Beijing also differ in their vision for establishing an international body to regulate AI governance. The Chinese government is advocating for the leadership[34] of this initiative to foster global cooperation, proposing Shanghai as the headquarters to consolidate the city's position as a technological hub. In contrast, Washington remains firmly opposed to any attempt to regulate AI.

These strategies reflect competing ambitions to dominate the evolving AI ecosystem at a time when debate continues over whether the greatest benefits of artificial intelligence will stem from the type of language model (LLM) adopted—closed or open—or from the ecosystem surrounding each LLM that succeeds in maximizing AI adoption.

The AI adoption model: Two visions of how to maximize benefits

The approaches taken by the United States and China to maximise the benefits of AI could not be more different. While American tech companies' elite seek to integrate AI capabilities into their cloud services and develop enterprise software, China's approach is more focused on maximising adoption benefits for consumers.

Therefore, the future of AI is not necessarily determined by who is currently leading the race, but rather by which technological development approach succeeds in increasing the use of artificial intelligence. For now, it could be said that China is winning the AI adoption race.

Indeed, the commercialisation of AI is proving more profitable than developing the technology itself, thereby driving its adoption. In 2024, companies dedicated exclusively to AI, such as OpenAI and Anthropic, reported revenues of $3.4 billion and $200 million respectively, while tech giants such as Microsoft reported revenues of up to $13 billion in AI-related areas, according to their financial reports.

The same applies to tech giants Alibaba, Tencent and ByteDance, who are competing fiercely to accelerate the adoption of AI in their applications to maximise revenue. However, DeepSeek presents a different case, as it has not yet reached profitability, primarily because it uses an open-source AI model. However, if the Chinese company were to monetise its open-source model, it could generate daily revenues of $562,000

[34] REUTERS, China's Xi pushes for global AI body at APEC in counter to US, November 1, 2025, https://www.reuters.com/world/china/chinas-xi-pushes-global-ai-body-apec-counter-us-2025-11-01/

with a profit margin of 545%, assuming that all users paid[35].

In fact, the story behind DeepSeek is closely tied to its founder, Liang Wenfeng, an engineer who graduated from Zhejiang University. He built his career through High-Flyer, a hedge fund he established in 2015, before going on to launch DeepSeek in July 2023—so far without relying on external financing. Moreover, DeepSeek has not only revolutionized the field of artificial intelligence but has also served as a clear demonstration, even to the government, that China possesses homegrown talent capable of driving innovation in AI despite restrictions that have limited access to advanced chips. The digital ecosystem China has built over the past two decades provides a significant advantage for its tech giants, which would find it challenging to monetize artificial intelligence through pay-to-access models—unlike US companies, where enterprise services are the primary driver of AI commercialization. China also benefits from DeepSeek's approach, which offers a far more cost-effective model compared to its American rivals. In fact, Sam Altman, CEO of OpenAI, claims that the cost of using a certain level of AI decreases roughly tenfold every 12 months[36], which means that widespread adoption of AI is expected as costs continue to fall.

China's strategy focuses on integrating AI into the super-apps that already dominate its technological ecosystem—primarily those tied to consumer interaction in e-commerce, social media, and digital payments—given that Chinese consumers are far more reluctant to pay for AI usage. Indeed, according to official sources, China's digital economy already accounts for 40% of its GDP.

Although DeepSeek is just one player in the global AI industry, its success has sparked nationwide enthusiasm and unprecedented mass adoption in both coastal cities and rural areas of China. DeepSeek is now everywhere[37], from home appliance manufacturers incorporating AI capabilities for voice, motion, and facial recognition[38], to smartphone makers and companies in the energy sector, chemicals and transportation sectors. It is also being used by financial institutions and central and local governments to handle

[35] CNBC, China's DeepSeek claims theoretical cost-profit ratio of 545% per day, Reuters, March 2, 2025, https://www.cnbc.com/2025/03/02/chinas-deepseek-claims-theoretical-cost-profit-ratio-of-545percent-per-day.html

[36] ALONSO VIÑA, Daniel y KWAN WEI, Kevin Tan, 10 veces cada 12 meses: así se reduce el coste de la inteligencia artificial, según Sam Altman, 10 de febrero de 2025, https://www.businessinsider.es/tecnologia/10-veces-cada-12-meses-reduce-coste-inteligencia-artificial-sam-altman-1441465

[37] LO, Kinling, China's AI frenzy: DeepSeek is already everywhere — cars, phones, even hospitals, Rest of the World, March 13, 2025, https://restofworld.org/2025/china-embeds-deepseek-ai-in-everything/

[38] FEIFEI, Fan, AI driving transformation of consumer electronics, China Daily, October 4, 2025, https://global.chinadaily.com.cn/a/202510/04/WS68e060a9a310f735438b37c1.html

inquiries and perform administrative and operational tasks.

In a highly competitive environment, Chinese tech giants have swiftly embraced the enhancements provided by the open-source AI model, thereby bolstering the Chinese tech ecosystem and fostering collaborations within the industry. Alibaba has incorporated DeepSeek's advancements into a new Qwen model that can see, hear and speak in real time[39]. This model is available on laptops and mobile phones and has driven AI adoption in the automotive industry[40]. Meanwhile, Ant Group[41], a subsidiary of Alibaba, has launched medical AI agents that are advancing artificial intelligence in the healthcare sector.

However, the DeepSeek effect isn't limited to tech giants. A vibrant digital ecosystem in which competition thrives fosters the growth of numerous start-ups focused on maximising the benefits of AI. Examples include Yitu Technology[42], which specializes in healthcare and smart city applications; Megvii Technology[43] and CloudWalk Technology[44], which provide image recognition solutions; and the pioneering iFLYTEK[45], a voice recognition technology leader. And let's not forget Manus[46], the latest sensation in Chinese artificial intelligence, which has developed the world's first fully autonomous AI agent.

While it might have seemed impossible a year ago that Chinese AI models could lead the industry, China has taken the lead in the artificial intelligence industry just a few months after the launch of DeepSeek's free, open-source AI model, DeepSeek-R1. According to Xinhua, China has launched 1,509 public large-scale artificial intelligence models (LLM) by July 2025, compared to the 3,755 models released worldwide[47].

The recent surge in interest surrounding DeepSeek has led to a resurgence in the attractiveness of Chinese tech companies, primarily due to their strong performance in

[39] FARRUH, Qwen2.5 Omni: Multimodal AI Powerhouse, Alibaba Cloud, April 8, 2025, https://www.alibabacloud.com/blog/qwen2-5-omni-multimodal-ai-powerhouse_602127

[40] CAO, Ann, Alibaba steps up AI adoption in auto industry with Nio, BMW deals, South China Morning Post, April 14, 2025, https://www.scmp.com/tech/big-tech/article/3306468/alibaba-steps-ai-adoption-auto-industry-nio-bmw-deals

[41] SHEN, Xinmei, Ant Group ramps up healthcare presence as 'AI doctors' gain popularity in China, South China Morning Post, April 15, 2025, https://www.scmp.com/tech/tech-trends/article/3306608/ant-group-ramps-healthcare-presence-ai-doctors-gain-popularity-china

[42] YITU Technology, https://www.yitutech.com/en

[43] Megvii Technology, https://en.megvii.com/

[44] CloudWalk Technology, https://www.cloudwalk.com/en/

[45] iFLYTEK, https://iflytek.com/

[46] Manus, https://manus.im/

[47] XINHUA, China tops global AI model count with over 1,500 large models released, September 28, 2025, https://english.news.cn/20250728/ff93808c3b674349acc9cfee48f07774/c.html

international markets, which has surpassed expectations[48]. Bloomberg recently ranked the 10 most important Chinese tech firms and compared them to the so-called "Magnificent Seven" (Figure 5), revealing that Chinese tech companies delivered superior returns—aligning with forecasts suggesting that China's stock index could rise by 30% by the end of 2027, according to Goldman Sachs[49].

Figure 5. U.S. Mag 7 vs China Tech 10: Normalized YTD Returns. Source: Bloomberg, Saxo.

This competitive dynamic has also had an impact on the financial sector, with AI research lab Nof1[50] organising a real-money cryptocurrency trading session featuring six of the most advanced AI systems from the United States and China. In the contest, Chinese models DeepSeek Chat V3.1 and Qwen3 Max (Alibaba) were pitted against their US counterparts, namely GPT-5 (OpenAI), Gemini 2.5 Pro (Google), Claude Sonnet 4.5 (Anthropic), and Grok 4 (X AI). Ultimately, Chinese models Qwen and DeepSeek outperformed their American rivals.

[48] AO, Yulu, Chinese stocks: 90% of US investors set to increase exposure, Morgan Stanley says, South China Morning Post, September 11, 2025, https://www.scmp.com/business/china-business/article/3325139/chinese-stocks-90-us-investors-set-increase-exposure-morgan-stanley-says

[49] SHIDONG, Z., Goldman sees 30% upside for Chinese stocks by 2027 on policy support, earnings growth, October 22, 2025, https://www.scmp.com/business/china-business/article/3329910/goldman-sees-30-upside-chinese-stocks-2027-policy-support-earnings-growth

[50] CHOW, Vincent, Alibaba's Qwen returns 22 per cent in 2 weeks, beats DeepSeek, OpenAI in crypto trading showdown, South China Morning Post, November 4, 2025, https://www.scmp.com/tech/tech-trends/article/3331425/alibabas-ai-model-outperforms-us-rivals-crypto-trading-showdown

After several days of leading the competition, DeepSeek was ultimately overtaken by Alibaba, which emerged as the winner with a 22.32% return. DeepSeek secured second place with a 4.89% gain, while US models posted significant losses, with GPT-5 from OpenAI suffering a 62.66% decline. The results have prompted in-depth reflection among professionals in both Wall Street and Silicon Valley.

Conclusions

The AI policies implemented by Washington and Beijing reflect the pace at which the AI boom has evolved in the United States and China. Since ChatGPT burst on the scene in November 2022, investment in artificial intelligence in the US has grown rapidly, while in China the opposite trend occurred, with a steady decline in AI investment since that date. This global surge in AI coincided with a period when tech giants were still adapting to the regulatory crackdown launched by the Chinese government in late 2020. It was not until the arrival of DeepSeek in 2025 that Chinese tech companies regained government confidence and renewed interest from international investors.

After years of prioritizing innovation and digitalization, China has identified AI as the key tool to restructure its economy by driving large-scale integration of AI applications across economic structures, government, and society. Unlike the US approach, which focuses on accelerating AI adoption through enterprise software penetration, Chinese tech giants have opted to stimulate domestic consumption by embedding AI features into their commercial applications. The goal is to boost internal demand through AI, which has now become, alongside investment and exports, one of the levers identified by the Chinese government to fuel economic growth.

The emergence of DeepSeek in the AI landscape has not only revitalized China's ambitions in artificial intelligence but has also accelerated adoption across all sectors. Today, the Chinese AI model is ubiquitous, reaching even rural areas, and surprisingly influencing global debates. The rivalry over AI has shifted toward competition between open-source and closed-source models, presenting two divergent strategies shaped by Washington and Beijing, which are driving a redefinition of infrastructure investment strategies.

The strong performance of Chinese tech stocks, welcomed by international investors, and the superior results of Chinese AI models (Qwen and DeepSeek) in the financial sector compared to their US counterparts—following a cryptocurrency trading experiment—

have sparked reflection in Silicon Valley and on Wall Street. As Chinese tech giants regain global appeal, the global AI industry insists there is no AI bubble, as Nvidia CEO Jensen Huang has stated, but "something very different," despite heavy infrastructure investment and looming energy constraints.

Nevertheless, at a time when the AI ecosystem is still taking shape, it remains unclear which approach will ultimately establish a dominant model—securing global technological leadership for its proponent—or whether rivalry will lead to the coexistence of two AI models with divergent strategies within a shared global ecosystem.

*Águeda Parra Pérez**

Doctor in International Relations (PhD), engineer, and analyst of China's geopolitical and tech landscape. Founder and editor-in-chief of ChinaGeoTech and author of "China, las rutas de poder."

@agueda_parra