



AUSTIN HORNG-EN WANG, KYLE SILER-EVANS

# U.S.-China Competition for Artificial Intelligence Markets

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Analyzing Global Use Patterns of Large Language  
Models

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# About This Report

In this report, we analyze global large language model (LLM) adoption patterns, with a focus on the competitive dynamics between the United States and China. Using website traffic data across 135 countries from April 2024 through May 2025, we tracked site visits to major U.S. and Chinese LLM platforms to assess market penetration, identify geographic adoption patterns, and examine the impact of the January 2025 DeepSeek R1 launch.

In our analysis, we explore three key drivers of international LLM adoption: pricing strategies, multilingual capabilities, and government-led artificial intelligence (AI) diplomacy initiatives. With this report, we aim to provide insights to policymakers, technology leaders, and industry observers who seek to understand the evolving U.S.-China competition for AI supremacy.

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# Summary

As the United States seeks to maintain its leadership in artificial intelligence (AI), understanding global adoption patterns of U.S. versus Chinese models provides insights into the evolving AI landscape. In this report, we analyze website visits to major U.S. and Chinese large language models (LLMs), identify regions in which Chinese models have gained traction, examine the DeepSeek R1 disruption, and explore key drivers of model adoption.

## Key Findings

### Market Growth and U.S. Dominance

The following key findings are related to market growth and U.S. dominance:

- Global LLM use is growing rapidly; site visits to major LLM platforms increased threefold from April 2024 to August 2025, rising from an estimated 2.4 billion to nearly 8.2 billion monthly visits.
- U.S. models have maintained overwhelming market dominance and captured approximately 93 percent of global LLM site visits in August 2025.

### The DeepSeek Disruption

DeepSeek R1, a popular China-Based LLM, was launched in January 2025. Following its release,

- Site visits to China-based LLMs increased by 460 percent in just two months. The rise of DeepSeek did not cannibalize traffic to other Chinese models, which continued their upward trajectories throughout 2025.
- Chinese LLMs' global market share surged from 3 percent to 13 percent in two months, mostly carried by DeepSeek, even as the website traffic for U.S. LLMs continued to increase steadily during this period.
- Chinese models captured more than 10 percent penetration in 30 countries and 20 percent of market share in 11 countries. Gains were most pronounced in developing countries and countries with close political and economic ties to China.

### Drivers of Model Adoption

We assess three factors that may influence global users' choices between LLM offerings: model pricing, support for foreign languages, and diplomatic initiatives to encourage the use of either Chinese

or U.S. LLMs. We conclude that **none of these three factors meaningfully explains global adoption patterns at the current stage**. The following key findings are related to drivers of model adoption:

- Chinese models are one-sixth to one-fourth the cost of U.S. rivals. However, with ubiquitous free-tier offerings, most users never directly encounter these price differences.
- Although U.S. models have historically supported more languages, Chinese LLMs have largely closed this gap.
- In the area of AI diplomacy, China engages more countries earlier and more frequently than does the United States. Although this may be significant for government-to-government partnerships or large corporate deals, we are skeptical that embassy activities meaningfully influence the choices of everyday users, which are likely to dominate the use trends documented in this report.

We conclude that U.S.-based LLMs continue to dominate in terms of global model use, likely because of a first-mover advantage and superior model capabilities. That dominance should not be taken for granted. The rapid shifts described in this section paint a picture of a fluid and volatile market. As DeepSeek R1 has shown, competitive alternatives can rapidly erode U.S. market share. If the cost of switching between models remains low, which model is in the lead could change when performance, cost, or other factors better match consumer preferences. Although U.S. models continue to hold an edge, the benefits of incumbency are not yet cemented.

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# U.S.-China Competition for Artificial Intelligence Markets: Analyzing Global Usage Patterns of Large Language Models

The United States and China are in a race for artificial intelligence (AI) supremacy; significant investments are being made to reap the benefits that would be expected to follow AI supremacy. The stakes are high: AI dominance is likely to yield advantages in economic growth, geopolitical influence, and national security.<sup>1</sup>

Although U.S. companies consistently develop the most-capable models, this advantage may prove insufficient.<sup>2</sup> Frontier AI models have become ubiquitous, and performance differences between U.S. and China-based models have narrowed.<sup>3</sup> As a result, future competition may depend on effective adoption and deployment rather than pure innovation.<sup>4</sup>

Previous comparative studies have examined U.S. and Chinese AI capabilities through the lens of computing power and advanced algorithms,<sup>5</sup> but no comprehensive analysis has assessed the global diffusion patterns of Chinese and U.S. large language models (LLMs).<sup>6</sup> We address that gap by providing a systematic review of current global LLM use and comparing global adoption of U.S. and

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<sup>1</sup> White House, “AI Action Plan,” webpage, undated; Colin H. Kahl and Jim Mitre, “The Real AI Race: America Needs More Than Innovation to Compete with China,” *Foreign Affairs*, July 9, 2025; Vegard M. Nygaard, Jonathan W. Welburn, and Anujin Nergui, *Macroeconomic Implications of Artificial Intelligence*, RAND Corporation, PE-A3888-3, August 2025; Richard Danzig, *Artificial Intelligence, Cybersecurity, and National Security: The Fierce Urgency of Now*, RAND Corporation, PE-A4079-1, July 2025; Danielle C. Tarraf, William Shelton, Edward Parker, Brien Alkire, Diana Gehlhaus, Justin Grana, Alexis Levedahl, Jasmin Léveillé, Jared Mondschein, James Ryseff, Ali Wyne, Daniel Elinoff, Edward Geist, Benjamin N. Harris, Eric Hui, Cedric Kenney, Sydne J. Newberry, Chandler Sachs, Peter Schirmer, Danielle Schlang, Victoria M. Smith, Abbie Tingstad, Padmaja Vedula, and Kristin Warren, *The Department of Defense Posture for Artificial Intelligence: Assessment and Recommendations*, RAND Corporation, RR-4229-OSD, 2019.

<sup>2</sup> Stanford Institute for Human-Centered Artificial Intelligence, *Artificial Intelligence Index Report 2025*, Stanford University, 2025.

<sup>3</sup> Lennart Heim, “China’s AI Models Are Closing the Gap—but America’s Real Advantage Is Talent,” commentary, RAND Corporation, May 2, 2025.

<sup>4</sup> Kahl and Mitre, 2025.

<sup>5</sup> Heim, 2025; Carter C. Price, Brien Alkire, and Mohammad Ahmadi, *Algorithmic Advancement in Artificial Intelligence: A Survey of Advances with Projections for the Near Future*, RAND Corporation, RR-A3485-1, 2025.

<sup>6</sup> LLMs are language models trained by machine learning technique on text data that is designed for natural language processing. LLMs are currently the primary way that the average user employs AI. See Barr Yaron, *The 2025 AI Engineering Report*, Amplify Partners, June 24, 2025. Also see Nichol Bradford, “Navigating the AI Landscape: Is Culture the Key to Success?” *The AI+HI Project* podcast, October 13, 2024.

Chinese models. We argue that model use is an important metric to understand the evolving AI landscape for the following four key reasons:

- **revenue generation and long-term viability.** Sustained leadership in AI competition requires profitable companies that can fund continued innovation. Revenue from a broad international user base will likely be needed to offset the massive fixed costs required for AI development.<sup>7</sup>
- **privacy and data security.** Adoption of U.S.-developed AI models rather than those from foreign competitors reduces the risk that foreign governments could exploit AI systems to conduct surveillance against U.S. citizens, citizens from allied countries, companies, and government entities.<sup>8</sup>
- **global influence and soft power.** Broad adoption of U.S. AI models could enhance the United States' global image as a technological leader and create additional pathways for foreign users to engage with U.S. companies and products. Broad adoption of U.S.-based AI models may also strengthen the United States' ability to shape international AI standards.<sup>9</sup>
- **Training data for next-generation AI models.** In the push toward artificial general intelligence, next-generation models will likely require vast, diverse datasets that reflect global linguistic, cultural, and behavioral patterns. Companies that serve a broad international user base may be at an advantage in accessing and using such data.<sup>10</sup>

We employ website traffic analysis across major LLM platforms to quantify the global market share of U.S. and Chinese models. We identify countries and regions in which Chinese models have established a foothold, and we explore how use patterns changed following the launch of DeepSeek R1 in January 2025. We then consider three factors that may be driving model adoption: prices, multilingual offerings from leading LLMs, and proactive efforts by the U.S. and Chinese governments to promote model adoption through AI diplomacy.

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<sup>7</sup> Du Zhihang and Ding Yi, "China's AI App Startups Should Plan Overseas Expansion as Quickly as Possible," *Caixin Global*, November 13, 2024. A robust domestic AI industry will, in turn, ensure that the U.S. military has access to cutting-edge AI capabilities, potentially yielding advantages in combat, logistics, weapon development, threat assessments, and offensive and defensive cyber operations, among others. See Bipartisan Policy Center and Center for Security and Emerging Technology, *Artificial Intelligence and National Security*, June 2020.

<sup>8</sup> Backdoor and data leaking are the main challenges for China to promote its model, according to Liu Dan, "Strategic Priorities and Internal Coordination of the SCO AI Cooperation Framework: Building a Non-Western Paradigm Between Sovereignty Divergences and Collective Narratives" ["上合组织AI合作框架的战略重点与内部磨合：在主权分歧与集体叙事间构建非西方范式"], BAAI Hub [北京智源人工智能研究院], September 24, 2025.

<sup>9</sup> White House, undated; Jim Mitre and Joel B. Predd, *Artificial General Intelligence's Five Hard National Security Problems*, RAND Corporation, PE-A3691-4, February 2025.

<sup>10</sup> This argument is also shared by Pawei Chang, a professor at Tsinghua University. See Zhang Bo [张钊], "Embodied Intelligence Drives the Realization of General Artificial Intelligence" ["具身智能推动实现通用人工智能"], CCTV.com [央视网], June 9, 2025.

# Global Use of U.S. and Chinese LLMs

## Approach

To explore global AI use patterns, we used traffic data from Similarweb on visits to LLM websites. Similarweb collects and aggregates web traffic data from thousands of intermediary devices around the world, anonymizes the traffic data, and tallies the total monthly number of website visits for each country.<sup>11</sup> The data include traffic from both desktop and mobile webpage visits; however, they do not include application programming interface (API) and application-based use (these limitations are discussed further in later sections). Currently, Similarweb provides monthly website visit data for 135 countries.

We tracked monthly website visits from each country to seven U.S.-based and thirteen China-based LLM service websites during the study period (see the box). The criteria for selecting these websites were the following:

- The model ranked among the best 100 LLMs on HuggingFace.com during the study period.<sup>12</sup>
- Websites associated with the LLM had more than 1 million monthly visits during the study period.<sup>13</sup>
- The LLM was launched by a major company in China or the United States.

Data collection spanned from April 2024 to August 2025. Note that this period covers several key events: the release of ChatGPT-4o (May 2024), ChatGPT's discontinuation of service in China (July 2024), the release of DeepSeek R1 (January 2025), and the launch of ChatGPT-4o's image-generating feature (March 2025).

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<sup>11</sup> For the details of the Similarweb's methodology, see Similarweb, "Website Traffic Checker," webpage, undated.

<sup>12</sup> Hugging Face, homepage, undated.

<sup>13</sup> We found that below that threshold, many countries have missing data for those providers, or the data may be subject to measurement errors according to Similarweb's methodology.

## U.S. and Chinese LLM Providers Included in This Analysis

We tracked monthly visits to the following U.S.-based LLM providers:<sup>a</sup>

- chatgpt.com; openai.com<sup>b</sup>
- gemini.google.com
- perplexity.ai
- claude.ai
- copilot.microsoft.com
- grok.com
- meta.ai

We tracked monthly visits to the following China-based LLM providers:<sup>a</sup>

- deepseek.com
- kimi.com; kimi.moonshot.com
- doubao.com
- yiyan.baidu.com; ernie.baidu.com
- metaso.cn
- Tongyi.aliyun.com; tongyi.com; qwen.ai<sup>c</sup>
- yuanbao.tencent.com
- chatglm.cn
- xfyun.cn
- cici.com; cici.ai.com
- tiangong.cn
- coze.com
- hailuoai.com<sup>d</sup>

<sup>a</sup> Providers are ranked from highest to the lowest visits during the research period.

<sup>b</sup> The openai.com web domain was replaced by chatgpt.com in May 2024.

<sup>c</sup> Qwen models are provided on Tongyi.

<sup>d</sup> Hailou focused on video generation more in later versions, but it still provides services that are similar to other LLM platforms.

## Limitations

Our analysis is focused on the most-popular LLM providers in China and the United States. We excluded several Chinese services that terminated operations or failed to reach 1 million monthly visits, as well as several LLM providers that are not based in the United States or China. These exclusions represent a very small share of LLM traffic and do not affect the conclusions of this study.

Similarweb estimates web traffic using data sampled from a global network of intermediary devices. Because the company's data-collection methodology and sampling procedures are proprietary, we cannot independently assess potential sampling errors or selection biases that may affect our results.

Finally, a significant limitation of this analysis is that web traffic data captures only a portion of total LLM use, excluding the following three major channels:

- **Offline deployments.** Open-source models can be downloaded and deployed locally. In such cases, use will not be captured by web traffic data. Importantly, the majority of leading U.S.-based LLMs (such as GPT-4, Claude, and Gemini) are closed source and cannot be deployed

offline, while many Chinese models (including DeepSeek and Qwen) are available as open-source models that can be downloaded and run locally. By excluding offline deployments, our web traffic analysis likely underestimates Chinese LLM market share relative to U.S. models.<sup>14</sup>

- **Mobile application use.** Although Similarweb data capture website traffic from mobile web browsers, users who access LLMs through native iOS or Android apps are not reflected in our site visit metrics. Two data points suggest that mobile apps account for a meaningful share of use: Claude reported that approximately 15 percent of its 18.9 million monthly active users worldwide accessed the platform through mobile apps, and ChatGPT attributed roughly 11 percent of its \$12 billion annualized revenue (January to July 2025) to mobile app use. When possible in our analysis, we use app download data to validate findings from Similarweb use data.
- **APIs.** Developers and enterprises frequently access LLM services through APIs rather than web interfaces. This is an important form of deployment on which we have very limited visibility. Revenue figures indicate that API use is significant, though revenue is certainly not a perfect proxy for use: For OpenAI, API use represented approximately \$1.4 billion of its projected \$5 billion in revenue at the end of 2024 (roughly 28 percent of total revenue), while, for Anthropic, API use constituted approximately 85 percent of revenue. In our analysis, when possible, we present limited API data that roughly corroborate the conclusions drawn from Similarweb use data. Excluding API use likely biases our results toward everyday users rather than developers or enterprise customers.

Despite these limitations, website traffic data remain a valuable tool for understanding global LLM adoption, and website traffic is the only data source that provides insight into geographic adoption patterns across time.

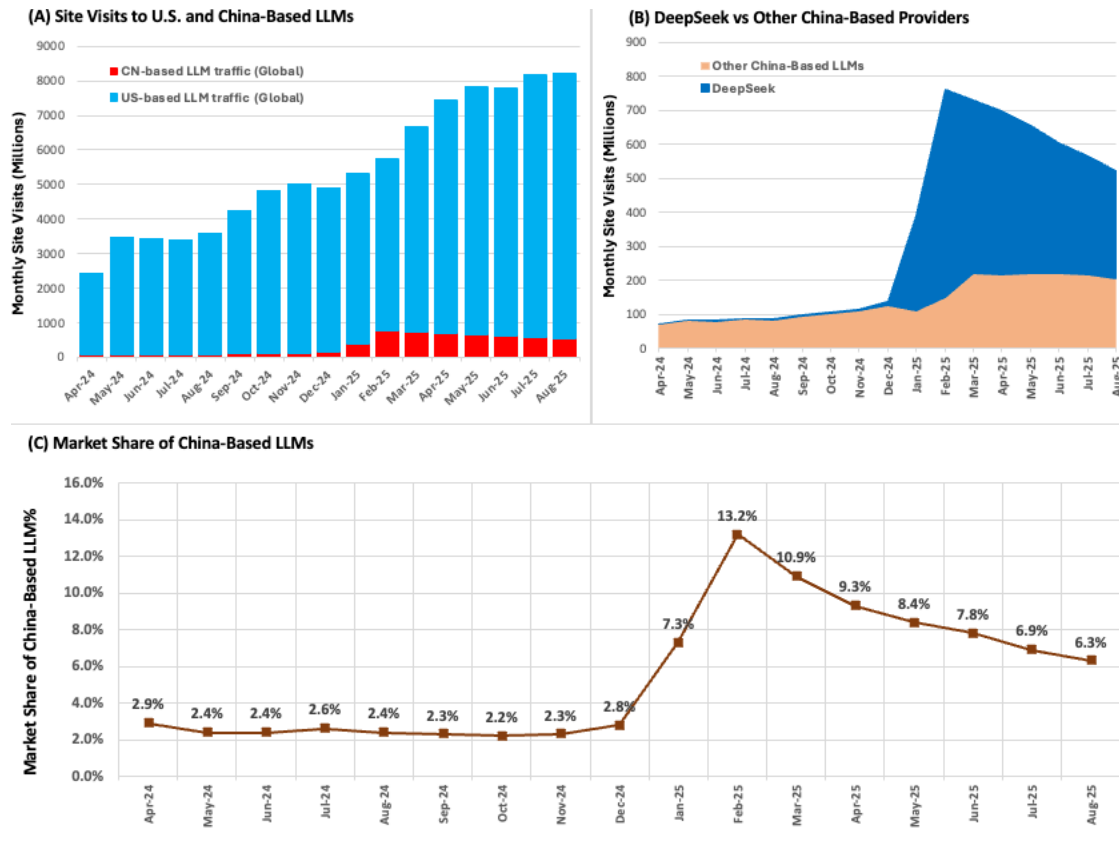
## Trends in Global LLM Usage

Figure 1 shows results from our analysis of LLM use. Panel A (top left) shows total monthly site visits to U.S.- and China-based LLM services; Panel B (top right) shows only China-based LLM site visits and highlights the dramatic rise of DeepSeek; Panel C (bottom) shows the global market share of China-based LLMs.

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<sup>14</sup> As one reference point, data from Ollama—a popular tool for running LLMs locally—indicate that U.S.-based models (llama3) and China-based models (DeepSeek R1 and Qwen) were roughly equal in terms of local deployments. See Realryan, “Ollama’s Global Reach: A Look at Deployment Trends and Model Choices,” DEV Community, May 20, 2024.

Figure 1. LLM Usage Analysis (April 2024–August 2025)



SOURCE: Features data from Similarweb, undated.

NOTE: DeepSeek R1 was launched January 20, 2025. CN = China-based.

Unsurprisingly, we find that the global LLM market, as measured by the Similarweb use data, is experiencing rapid growth. Site visits to major LLM platforms had a threefold increase from April 2024 to May 2025, rising from 2.4 billion to nearly 7.8 billion monthly visits (Figure 1, Panel A).<sup>15</sup> Throughout this period of growth, U.S. models maintained overwhelming market dominance and captured approximately 92 percent of global LLM site visits as of May 2025.<sup>16</sup>

Following the launch of DeepSeek R1, monthly site visits to China-based LLMs rose from 136 million visits in December 2024 to 763 million in February 2025—a 461 percent increase in just two months (Figure 1, Panel B). Notably, the surge of DeepSeek did not cannibalize traffic to other Chinese models, which continued their upward trajectory throughout the period. Rather, DeepSeek’s success expanded the overall market for Chinese LLMs.

**The result was that Chinese LLMs’ global market share surged from 3 percent to 13 percent in two months** (Figure 1, Panel C). Market share of Chinese models has since dropped to roughly 6

<sup>15</sup> For reference, Google had roughly 100 billion site visits in May 2025, and Facebook had roughly 10.5 billion visits (Josh Howarth, “Worldwide Daily Social Media Usage [New 2025 Data],” *Exploding Topics* blog, June 23, 2025).

<sup>16</sup> We also traced the visits of other LLM services not based in the United States and China, and overall, they account for 0.15 percent of global traffic.

percent in August of 2025 as use of China-based models declined while use of U.S.-based models continued to increase.

This 6 percent figure roughly aligns with estimates from other data sources. According to Sensor Tower, which tracks mobile app downloads, the number of times people have downloaded and installed DeepSeek on their mobile phones is roughly one-tenth of the downloads for ChatGPT and Gemini combined as of June 2025.<sup>17</sup> OpenRouter, which aggregates token use for open-source models (excluding newer ChatGPT models), reported that China-based models represented roughly 16 percent of all tokens processed through its service by August 2025.<sup>18</sup> In addition, researchers at Tsinghua University estimated Chinese model market share at less than 10 percent in mid-July 2025.<sup>19</sup>

Finally, it is worth noting that ChatGPT's discontinuation of service in China in July 2024 had a negligible impact on ChatGPT's growth in global use, and the launch of ChatGPT-4o's image-generating feature in March 2025 brought a significant increase in traffic to ChatGPT.

## Regional Variations

Chinese LLM adoption patterns vary greatly by region. Figure 2 maps the market share gains achieved by China-based models—primarily DeepSeek—across all 135 countries in our dataset. The map compares the market share of China-based LLMs before and after the launch of DeepSeek (April to December 2024 versus January to May 2025). Countries are categorized by magnitude of Chinese LLM market share increases—minimal gains of 5 percent or less (yellow), moderate gains of 5 to 10 percent (orange), and substantial gains exceeding 10 percent (red).<sup>20</sup>

The traffic data show that the share of China-based LLMs in total global use increased in all countries in 2025. As shown in Figure 2, the countries with the highest increases (red) include Russia and countries in the Middle East, Africa, and South America. These countries all either are developing countries or have close political and economic ties to China. In contrast, countries that report smaller increases are mainly located in Europe, Australia, East Asia, and South Asia (light yellow). Most of these countries are members of the North Atlantic Treaty Organization, are allies of the United States, or collaborate with the United States on its Indo-Pacific strategy.

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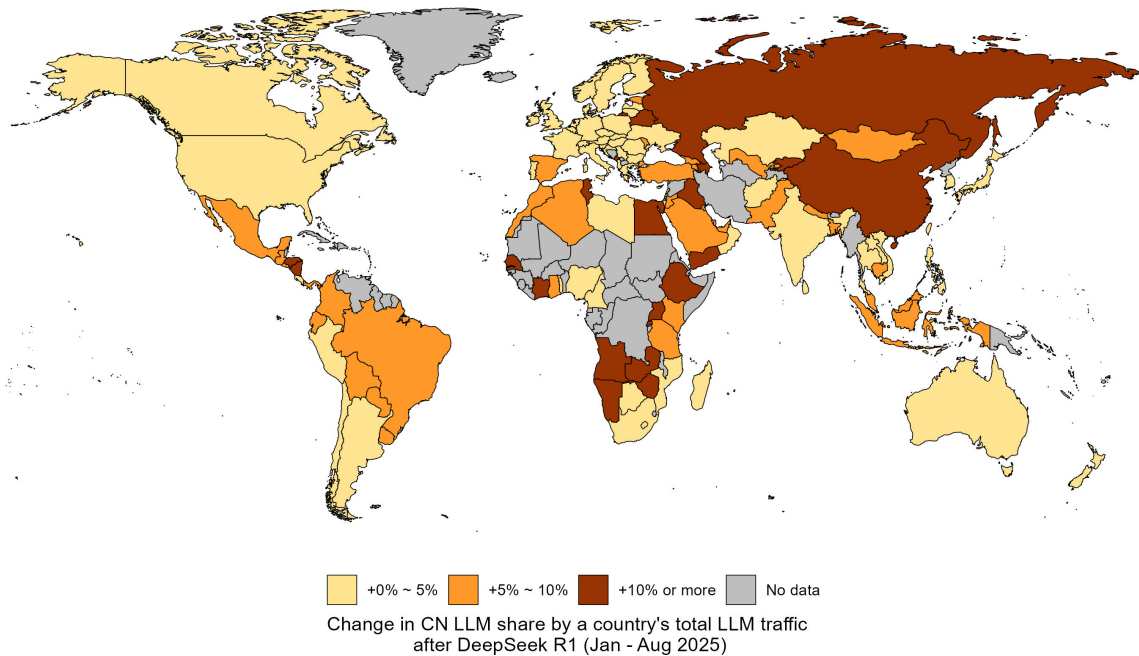
<sup>17</sup> Jonathan Briskman, "Tech Giants Drive Rapid Growth for Generative AI Apps in 2025," *Sensor Tower* blog, August 2025.

<sup>18</sup> OpenRouter, "Model Rankings," webpage, undated.

<sup>19</sup> "Zhang Yaqin: The Biggest Obstacle to Unmanned Driving Is People! Unmanned Driving Will Usher in the 'Deepseek Era' in 2030" ["无人驾驶最大的障碍是人! 2030年无人驾驶将迎来'DeepSeek时代'"], Q&A Shenzhou [问答神州], July 26, 2025.

<sup>20</sup> For example, China-based LLMs increased market share in Yemen by 30.2 percent between 2024 and 2025 (from 5.1 percent in 2024 to 35.3 percent in 2025), which puts Yemen in the substantial (red) category; China-based LLMs increased market share in the United States by 4 percent between 2024 and 2025 (from 0.4 percent in 2024 to 4.4 percent in 2025), which puts the United States in the minimal (yellow) category.

Figure 2. Changes in Global Use of China-Based LLMs After DeepSeek R1



SOURCE: Features data from Similarweb, undated.

NOTE: CN = China-based. The number is calculated by the China-based LLM share by a country's total LLM traffic after DeepSeek R1 (January 2025 to August 2025) minus the share before DeepSeek R1 (March 2024 to December 2024).

A correlation analysis indicates that, after DeepSeek R1's release, countries' market share of Chinese LLMs showed a significant negative correlation with gross domestic product (GDP) per capita ( $r = -0.25$ ;  $p = 0.007$ ), which indicates disproportionately higher adoption in developing countries.<sup>21</sup> This relationship remained statistically significant even after controlling for the previous year's LLM market share and political regime type, suggesting that economic factors—rather than simply political alignment or prior use patterns—played an important role in driving the adoption of Chinese models.

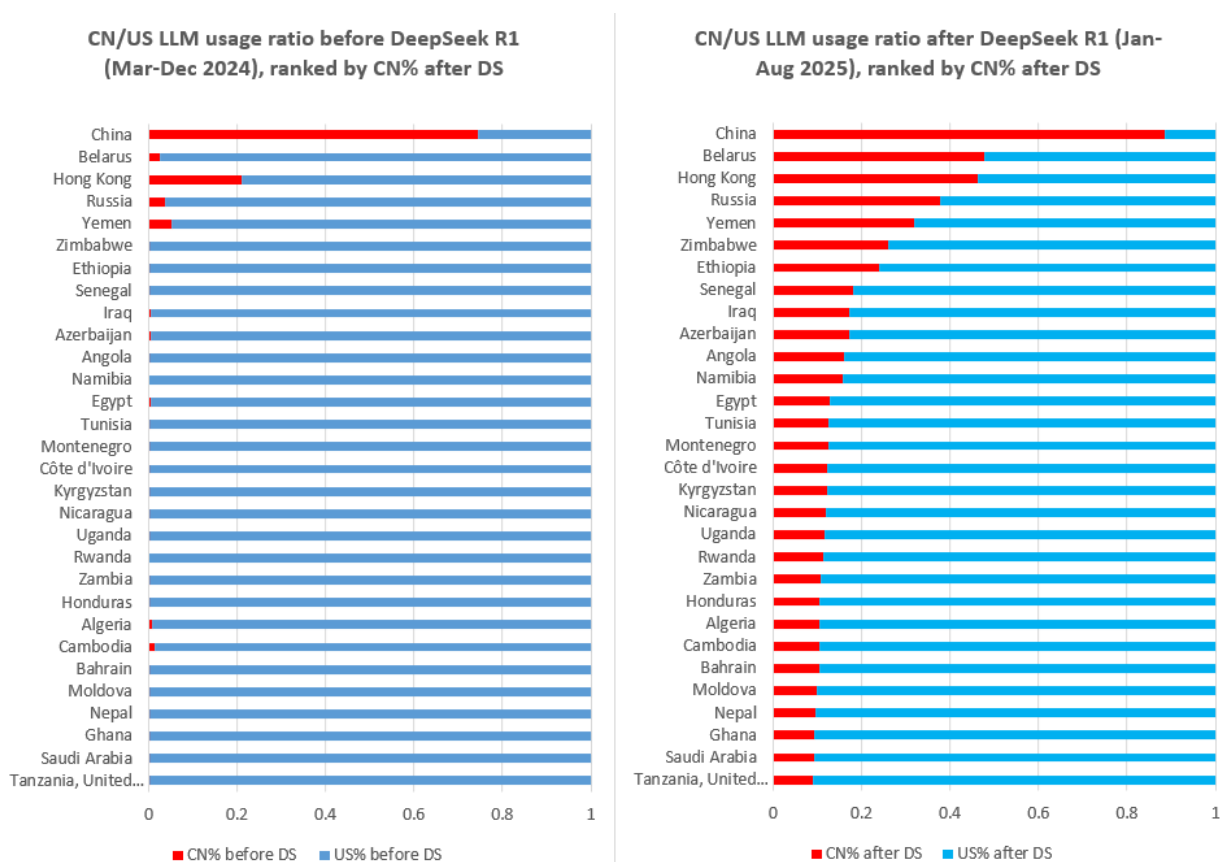
Figure 3 highlights the dramatic expansion of Chinese LLM adoption; it compares market penetration across 30 countries before and after the launch of DeepSeek. Countries are ranked by the share of China-based LLM use in that country in 2025 (right panel).

<sup>21</sup> The Pearson's correlation between the proportion of Chinese LLM use across countries and the 2023 GDP per capita of those countries was indistinguishable from zero ( $r = -0.04$ ,  $p = 0.66$ ) in 2024, before the release of DeepSeek R1. However, after the release of DeepSeek R1, a significant negative correlation emerged between the proportion of Chinese LLM use and countries' 2023 GDP per capita ( $r = -0.25$ ,  $p = 0.007$ ). This negative correlation remained significant even after controlling in an ordinary least squares regression model for the Chinese LLM use proportion in 2024 and for political regime types ("Free," "Partly Free," and "Not Free," as measured by the 2024 Freedom House Index. See Freedom House, *Freedom in the World 2024*, February 2024). This suggests that, after the launch of DeepSeek R1, users in developing countries adopted Chinese LLM models at higher proportion than did users in developed countries.

Prior to DeepSeek R1's release (left panel), China-based LLMs had meaningful market penetration only within China's domestic market and Hong Kong; the use of these models elsewhere in the world was negligible. In 2025, following the release of DeepSeek, Chinese models had captured more than 20 percent of market share in 11 countries and exceeded 10 percent penetration in 30 countries (right panel). Notably, every country in our 135-nation dataset experienced an increase in market share for China-based models from 2024 to 2025.

The comparison between the left and right bar charts in Figure 3 shows the significant gains made by Chinese LLMs: Once a competitive alternative was offered, China-based LLMs quickly gained a meaningful foothold in a wide range of countries.

**Figure 3. 30 Countries with the Highest Shares of China-Based LLM Use from March to December 2024 (Left) and January to August 2025 (Right)**



SOURCE: Features data from Similarweb, undated.

NOTE: CN = China-based; DS = DeepSeek.

## Exploring Drivers of LLM Use

In this section, we assess three factors that may influence global users' choices between LLM offerings: model pricing, support for foreign languages, and diplomatic initiatives to encourage use of

Chinese or U.S. LLMs. We conclude that none of these three factors meaningfully explains the adoption patterns documented in previous sections.

Given this conclusion, we find it likely that model performance was the primary barrier to Chinese LLM adoption. Before January 2025, U.S. models' first-mover advantage and superior capabilities drove near-total market dominance (see Figure 1, Panel C). Once DeepSeek sufficiently narrowed the performance gap, users in all 135 countries in our dataset rapidly adopted Chinese models, which suggests that when some performance threshold is crossed, other factors drive adoption decisions. However, given our findings that pricing, language support, and diplomatic initiatives do not effectively explain observed patterns, the question of what actually drives user choices remains open. We recommend future research to identify these drivers.

## Price of LLM Offerings

To assess model pricing as a potential driver of LLM adoption, we collected pricing data from the top five most-used Chinese and U.S. LLM providers between July 5, 2025, and July 20, 2025 (Table 1). We examined both free-tier offerings and API token pricing; the latter allows for a direct price comparison for equivalent services (1 million tokens). We do not compare the price of monthly subscriptions because the features and limitations of those subscriptions vary widely across providers.

We found that all mainstream models provide a free option, although most U.S. companies impose some restrictions. The paid versions of Chinese models are substantially cheaper, typically priced at one-sixth to one-fourth the cost of comparable U.S. alternatives.<sup>22</sup> For example, DeepSeek R1 charges \$0.55 per million input tokens compared with ChatGPT's \$2.00, while output costs are \$2.19 versus \$8.00 respectively.

For most goods and services, pricing is a key competitive factor. However, with ubiquitous free offerings of leading models, it is unclear whether the price difference between U.S. and Chinese LLMs drives adoption decisions. ChatGPT data indicate that approximately 98 percent of users rely on free tiers; only 2 percent of users have converted to paid subscriptions. If this pattern holds across other providers, the use patterns documented in this report primarily reflect free-tier–user behavior rather than price-sensitive purchasing decisions.

In other words, despite Chinese models offering API pricing at one-sixth to one-fourth the cost of U.S. alternatives, it is likely that most users never encounter these price differences directly. Though not definitive, this factor suggests that price is not currently a key driver of the adoption patterns documented above.

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<sup>22</sup> The models may differ significantly in performance, feature sets (including image or video generation), token limits, reasoning abilities, and other technical specifications.

**Table 1. Cost of the U.S.- and China-Based Major LLM Services, as of July 21, 2025**

| Country       | Newest Full Version of Model | Free Version Available | API Input Cost per 1 Million Input Tokens | API Output Cost per 1 Million Input Tokens |
|---------------|------------------------------|------------------------|-------------------------------------------|--------------------------------------------|
| United States | ChatGPT4.1                   | Yes <sup>a</sup>       | \$2                                       | \$8                                        |
| United States | Gemini 2.5 Pro               | Yes                    | \$1.25                                    | \$10                                       |
| United States | Copilot GPT4.1               | Yes                    | \$2                                       | \$8                                        |
| United States | Grok 4                       | Yes <sup>b</sup>       | \$3                                       | \$15                                       |
| United States | Claude Opus 4                | Yes <sup>c</sup>       | \$15                                      | \$75                                       |
| United States | Perplexity Sonar Pro         | Yes <sup>d</sup>       | \$3                                       | \$15                                       |
| China         | DeepSeek-R1                  | Yes                    | \$0.55                                    | \$2.19                                     |
| China         | Yiyan (ERNIE) 4.5            | Yes                    | \$0.56                                    | \$2.2                                      |
| China         | Kimi-k2                      | Yes                    | \$0.14                                    | \$2.24                                     |
| China         | Qwen3-32B                    | Yes                    | \$1                                       | \$4                                        |
| China         | Doubao-seed-1.6              | Yes                    | \$0.8                                     | \$2                                        |

SOURCES: Features information from OpenAI, “ChatGPT Plans,” webpage, undated; Google, “Gemini Developer API Pricing,” last updated December 18, 2025a; Microsoft, “Microsoft 365 Premium,” webpage, undated; xAI, “Models and Pricing,” webpage, undated; Claude, “Pricing,” webpage, undated; Perplexity Enterprise, “Perplexity Enterprise Pricing,” webpage, undated; DeepSeek, “Models & Pricing,” webpage, undated; Moonshot AI, “Model Pricing Details” [“模型推理价格说明”], webpage, undated; Alibaba Cloud, “Billing of Large Model Products” [“大模型产品计费”], webpage, December 12, 2025; Toutiao [今日头条], “Introduction to Commonly Used Free AI Tools in China (2)—Doubao” [“国内常用免费AI工具介绍 (2)—豆包”], April 25, 2025.

NOTE: API = application programming interface.

<sup>a</sup> 25 messages per hour are free.

<sup>b</sup> Ten queries per two hours are free.

<sup>c</sup> Ten queries per five hours are free.

<sup>d</sup> Three deep research queries per day are free.

In both the United States and China, prices of major LLMs tend to be similar to their domestic competitors. In other words, pricing strategies appear to be driven by domestic, not international, competition. This likely reflects the importance of domestic markets as the primary user and revenue bases for both U.S. and Chinese LLMs.

It will be worth monitoring pricing strategies going forward. If Chinese models continue expanding their global footprints, U.S. providers may be forced to reduce prices to remain competitive—particularly in price-sensitive markets in which Chinese models have already gained traction. Both U.S. and Chinese companies appear to be prioritizing market growth over immediate profitability; most providers are likely operating at a loss. OpenAI, for example, was projected to lose \$5 billion to \$8 billion in 2024 on revenues of \$3.7 billion, and Anthropic expects to lose

approximately \$3 billion in 2025 despite generating around \$1 billion in annualized revenue.<sup>23</sup> These companies depend on private-sector investments to sustain operations. This practice follows an established pattern in the U.S. technology sector: Companies routinely operate at a loss for extended periods to prioritize growth, research and development investment, and market expansion before focusing on profits.<sup>24</sup>

The situation differs for Chinese companies, which rely extensively on government and state-owned enterprise subsidies to cover training costs, data acquisition, computing costs, electricity, and operational expenses. This approach reflects a deliberate industrial policy designed to establish AI infrastructure as a public utility. According to Liang Zheng, director of the Center for AI Governance at Tsinghua University, these subsidies are intended to enable industries to use AI models in industrial production “as easily as they use water or electricity.”<sup>25</sup>

## Multilingual Support

The ability to use an LLM in one’s native language is an obvious factor that may drive user choices. To explore this dimension, we document the number of languages that leading U.S. and Chinese LLMs claim to support.

There is an important limitation to this approach: Models may claim to support a language yet offer vastly different levels of fluency, cultural accuracy, and contextual understanding.<sup>26</sup> For instance, one model might provide professional-level fluency with nuanced cultural sensitivity while another offers only basic translation capabilities. Our binary count of supported versus not supported languages does not capture these qualitative differences in user experience. To our knowledge, no standardized index or benchmark currently measures the quality of multilingual support across LLMs, which makes it difficult to directly compare performance across languages.

Table 2 shows the results for multilingual support offered by the major LLMs from China and the United States. U.S. models tend to provide a more detailed list of supported languages than do Chinese LLMs. For example, ChatGPT 4.1 lists 29 languages as being supported at a professional level and includes 20 languages that have a moderate level of support. Many Chinese-language models offer speech recognition for local dialects from various Chinese provinces and cities (such as Doubao), rather than text recognition. Nearly all models support English, Chinese, German, Japanese, Arabic, Spanish, French, Italian, Portuguese, Russian, Vietnamese, and Indonesian.

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<sup>23</sup> Edward Zitron, “Why Everybody Is Losing Money on AI,” *Where’s Your Ed At* blog, September 5, 2025; Matthias Bastian, “OpenAI and Anthropic Lose Billions on AI Development and Operations,” *The Decoder*, July 27, 2024.

<sup>24</sup> Eric Kutcher, Olivia Nottebohm, and Kara Sprague, *Grow Fast or Die Slow*, McKinsey & Company, April 2014; Vijay Govindarajan, Shivaram Rajgopal, Anup Srivastava, Aneel Iqbal and Elnaz Basirian, “Why Are Companies That Lose Money Still So Successful?” *Harvard Business Review*, June 27, 2024.

<sup>25</sup> Zheng Liang [梁正], “It’s Time to Use AI Like Water and Electricity” [“是像用水用电一样去用AI的时候了”], *China News Weekly* [中国新闻周刊], March 6, 2025.

<sup>26</sup> For example, see ERNIE Team, *ERNIE 4.5 Technical Report*, Baidu, June 2025.

**Table 2. Multilingual Support by U.S.- and China-Based Major LLMs, as of July 15, 2025**

| Country       | Newest Full Version of Model | Total Number of Languages Supported |
|---------------|------------------------------|-------------------------------------|
| United States | ChatGPT4.1                   | 50 to 75 <sup>a</sup>               |
| United States | Gemini 2.5 Pro               | 111                                 |
| United States | Copilot GPT4.1               | 48                                  |
| United States | Grok 4                       | 50                                  |
| United States | Claude Opus 4                | 15                                  |
| United States | Perplexity Sonar Pro         | 15                                  |
| China         | DeepSeek-R1                  | 102                                 |
| China         | Yiyan (ERNIE) 4.5            | 22                                  |
| China         | Kimi-k2                      | 10                                  |
| China         | Qwen3-32B                    | 119                                 |
| China         | Doubao-seed-1.6              | 3                                   |

SOURCES: Features data from OpenAI, “How to Change Your Language Setting in ChatGPT,” September 2025; Google, “Google Models,” last updated December 18, 2025b; Ben Summers, “New Languages Supported in Microsoft 365 Copilot,” *Microsoft 365 Copilot Blog*, July 1, 2025; Alix, “Grok 3 AI Announces New Features for 2025: What Users Need to Know,” Grokipedia, February 25, 2025; Claude Docs, “Multilingual Support,” webpage, undated; Perplexity, “Sonar Language Filter Guide,” webpage, undated; DeepSeek-AI, “DeepSeek-V3 Technical Report,” arXiv, arXiv:2412.19437, February 18, 2025; ERNIE Team, 2025; Qwen Team, “Qwen3 Technical Report,” arXiv, arXiv:2505.09388v1, May 14, 2025; ByteDance, “Doubao Realtime Voice Model Is Available upon Release! High EQ and IQ,” January 20, 2025.

<sup>a</sup> ChatGPT4.1 supports 50 languages at the fluent level and 25 languages at the moderate level.

Meanwhile, Chinese LLMs are rapidly expanding their multilingual capabilities. Qwen 2.5 supported only 26 languages, while Qwen3 offers 119. The DeepSeek model, like many other Chinese models, initially supported only Chinese and English but quickly claimed to support more than 100 languages in its third version. When ERNIE was first launched in 2023, it supported four languages; it now supports 22. Meanwhile, Baidu, the company behind ERNIE, began offering AI-powered translation services for 200 languages this year, suggesting that the number of languages ERNIE can support will continue to increase.

In short, Chinese LLMs have rapidly closed the gap in language support. As a result, we do not believe that the difference in multilingual capabilities is a key driver of LLM adoption patterns.

## AI Diplomacy

The U.S. AI Action Plan identifies strengthening AI diplomacy as a key pillar for enhancing global use of U.S. AI technologies, including LLM services.<sup>27</sup> AI diplomacy is defined as the pursuit of formal cooperative agreements on AI investment, research, development, and adoption. To assess how

<sup>27</sup> White House, *Winning the Race: American’s AI Action Plan*, July 2025.

the United States and China are pursuing AI diplomacy, we analyzed diplomatic announcements promoting AI cooperation issued by both countries' embassies around the world.

## Approach

We searched Chinese and U.S. embassy websites between October 2024 and May 2025, using the keyword “artificial intelligence” (“智能”) to identify relevant diplomatic activities. We archived all articles and webpages mentioning AI, then filtered the results to focus specifically on AI cooperation initiatives rather than general AI discussions.

Our analysis included announcements promoting bilateral research and development, investment opportunities, academic exchanges, student programs, AI-related conferences, competitions, and other collaborative activities. We excluded announcements that discussed AI risks or security concerns because those engagements did not include the promotion of LLM services as the main consideration.

The final dataset comprises 401 Chinese and 304 U.S. AI cooperation announcements spanning January 2015 to May 2025. Each announcement was categorized by publication year and the number of countries targeted. For multilateral initiatives, we counted each participating country separately to capture the full scope of diplomatic engagement.

## Limitations

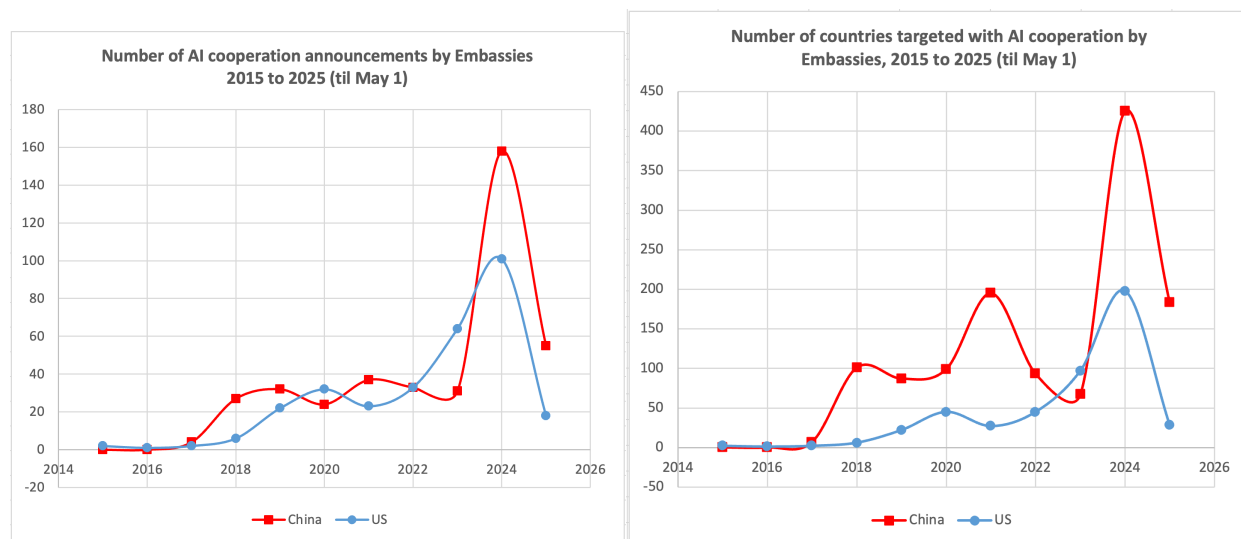
Readers should be aware of the following three key limitations of this analysis:

- **Limited scope of diplomatic activities.** Embassy announcements represent only one dimension of AI diplomacy. Other significant forms of diplomatic engagement, such as direct industry partnerships, multilateral treaty negotiations, or informal diplomatic channels, may not be captured in this analysis, and thus we potentially underestimate the full scope of AI diplomatic efforts.
- **Uniform weighting of activities.** Our methodology counts all announcements equally regardless of their scale or significance. A modest workshop or lecture receives the same weight as a major bilateral AI agreement or research collaboration.
- **Implementation versus announcements.** Our data capture diplomatic announcements rather than actual program implementation or outcomes; announcements may or may not reflect substantive impact.

## Results: U.S. Versus Chinese AI Diplomacy

Figure 4 shows the number of AI cooperation announcements made by the United States and China (left panel) and the total number of countries targeted for AI cooperation announcements (right panel; many countries were targeted repeatedly). As measured by embassy announcements, China demonstrates more AI diplomacy than the United States across multiple dimensions. Chinese embassies issued 401 AI cooperation announcements, compared with 304 from U.S. embassies (approximately 32 percent more). More strikingly, China's announcements collectively targeted 1,257 countries, compared with 473 for the United States (166 percent more engagement).

**Figure 4. AI Cooperation Announcements (Left) and Number of Countries Targeted (Right)**



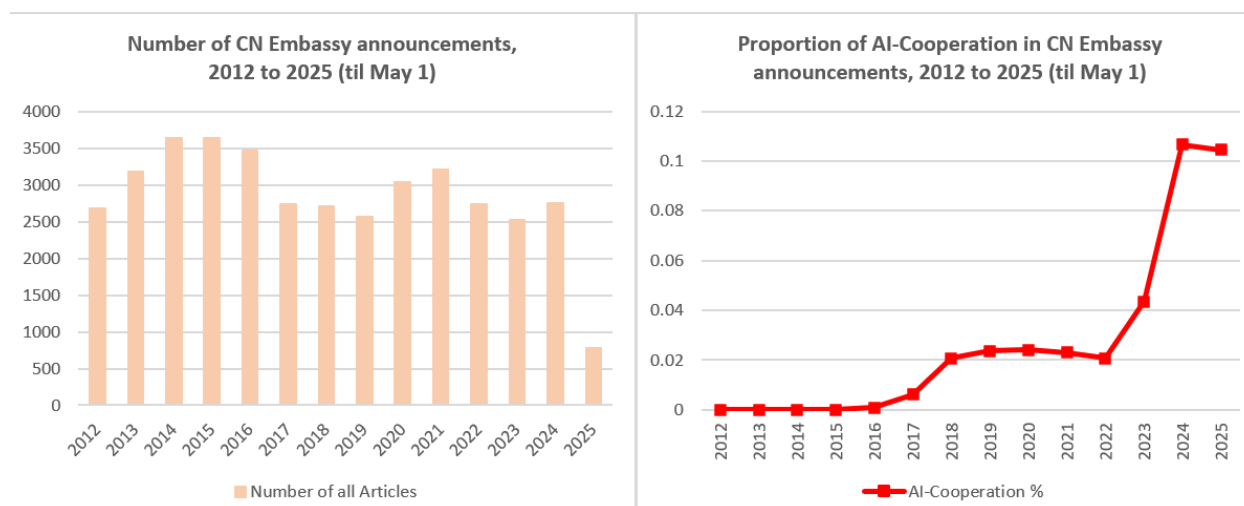
Our analysis suggests that the two countries may be pursuing different AI diplomacy strategies. The United States relies primarily on bilateral relationships; only 9.9 percent of announcements involved multilateral cooperation, mainly through meetings with Indo-Pacific partners and allies. China is more likely to pursue multilateral engagement; 21.9 percent of Chinese announcements targeted two or more countries simultaneously. China is also more likely than the United States to leverage established international organizations, including the Association of Southeast Asian Nations, the Gulf Cooperation Council, BRICS, and the Shanghai Cooperation Organization, to promote AI cooperation.

Both countries began emphasizing AI diplomacy in 2018 and had similar announcement levels through 2022. Between 2022 and 2024, U.S. AI diplomacy activities tripled. China, however, increased activity by 4.5 times over that same period (Figure 4, left panel). The drop of China's AI diplomacy between 2022 and 2023 could possibly be explained by the coronavirus pandemic, during which Chinese embassies decreased their overall activities (Figure 5, left panel).

As shown in Figure 5, AI-focused efforts represent a growing share of China's diplomatic activity. The proportion of Chinese diplomatic announcements mentioning AI cooperation increased from 0 percent in 2012 to 10.6 percent in 2024 and 10.5 percent in 2025 (Figure 5). This growth occurred even as China's overall diplomatic activities fluctuated, indicating a deliberate prioritization of AI diplomacy rather than general diplomatic expansion.

Overall, China engages more countries than the United States does, and it engages those countries earlier and more frequently. By 2024, Chinese embassies had made AI cooperation announcements with 113 distinct countries (compared with 91 countries for U.S. embassies).

**Figure 5. Number of Chinese Diplomatic Announcements and Proportion of AI Cooperation Announcements**



NOTE: CN = China-based.

Both governments have publicly stated that AI diplomacy is a strategic priority and affirmed the belief that these efforts can influence international AI adoption.<sup>28</sup> Embassy-led initiatives may indeed help facilitate government-to-government partnerships or major corporate deals. However, the use patterns documented in this report appear to be driven primarily by individual users—most of whom access free-tier services—rather than by institutional deployments. For this population of everyday users who make independent decisions about which LLM to use, we are skeptical that embassy activities meaningfully influence their choices.

In short, we do not rule out the importance of AI diplomacy as a worthwhile tool to support AI diffusion, but we do not believe that it is a key driver of the adoption patterns documented in this report.

## Discussion and Conclusions

We analyzed global use patterns of U.S. versus Chinese LLMs and examined three factors that may influence users' choices between LLM offerings: pricing strategies, multilingual capabilities, and AI diplomacy initiatives. In this section, we summarize key insights from the analysis.

### Current State of the Competition

U.S.-based LLMs maintain overwhelming global dominance, capturing approximately 93 percent of worldwide use as of August 2025. However, this leadership rests on a fragile foundation. The

<sup>28</sup> Zheng Liang [梁正], *Five Key Areas of the "Artificial Intelligence+" International Cooperation Initiative Align with Global Needs; China-U.S. Dialogue and Government-Industry Collaboration Are Key* [“人工智能+”国际合作倡议五大重点领域契合国际需求，中美对话互补+政企协同是关键], Institute for AI International Governance, Tsinghua University, September 28, 2025; White House, undated.

DeepSeek R1 disruption—in which the model captured 10 percent of global market share within two months—demonstrates how rapidly use patterns can shift when competitors offer a viable alternative to U.S. LLMs. In just 13 months of use data, we see the following three distinct periods:

- **Pre-DeepSeek monopoly (2024).** Chinese models lacked competitive offerings, which allowed U.S. platforms to capture more than 97 percent of global market share with minimal challenge from alternative Chinese models.
- **DeepSeek surge (January to March 2025).** DeepSeek R1's release marked China's first viable competitor to leading U.S. models. The platform's rapid global adoption—particularly in developing nations and countries with closer China ties—indicates that users can readily switch models when presented with competitive alternatives.
- **Established Chinese global presence (March 2025 to the present).** Although U.S. models have regained some market share, we expect that the foothold gained by DeepSeek will allow China-based LLMs to maintain a meaningful global market presence, potentially establishing a foundation for additional gains.

## Drivers of Adoption: What Does Not Explain the Pattern

Of the following three potential drivers explored here—pricing, multilingual capabilities, and AI diplomacy—none meaningfully explains the adoption patterns documented previously:

- **Pricing.** Despite Chinese models offering substantial cost advantages (one-sixth to one-fourth the price of U.S. alternatives), pricing appears to have minimal impact on user decisions. All major models offer free tiers, and approximately 98 percent of ChatGPT users rely on free access, so most users never encounter the price differences between services.
- **Multilingual capabilities.** Although U.S. models currently document more supported languages, Chinese providers are rapidly closing this gap: Some have expanded from 26 languages to more than 119 supported languages in recent iterations. Any remaining U.S. advantage appears small and temporary.
- **AI diplomacy.** China demonstrates more-extensive diplomatic engagement; it has 32 percent more AI cooperation announcements than the United States does. However, these efforts likely influence government partnerships and enterprise deals rather than individual consumer choices. The use patterns documented in this report appear to be driven by everyday users making independent adoption decisions.

## What Does Explain Adoption

If the above factors do not drive adoption patterns, what does? The evidence from the DeepSeek surge points to the following three key factors:

- **Model capability is the primary barrier to market entry.** Before January 2025, U.S. LLMs had a first-mover advantage and superior performances that drove near-total market dominance (97 percent of global market share). DeepSeek captured market share not through pricing, language offerings, or diplomatic initiatives but by sufficiently narrowing the

performance gap with leading U.S. models. Once users perceived Chinese models as viable alternatives, adoption occurred rapidly.

- **Switching costs are low.** The speed and breadth of DeepSeek’s adoption reveal weak brand loyalty and minimal barriers to switching between LLM providers. Users can easily switch between ChatGPT, Claude, and DeepSeek: There are no proprietary file formats to convert, no extensive retraining required, and limited integration dependencies. This stands in contrast to other technology platforms, for which high switching costs create durable competitive advantages (e.g., Microsoft Word’s file formats and enterprise integration).
- **Use differs by geopolitical alignment.** Figure 2 shows that the largest gains by DeepSeek occurred in developing countries and nations with closer ties to China (Russia, the Middle East, Africa, South America), while U.S.-aligned countries and North Atlantic Treaty Organization members experienced smaller increases. Though not definitive, this correlation suggests that geopolitical alignment is a secondary factor after performance parity.

These findings suggest that sustaining U.S. market leadership may be difficult. If more foreign competitors sufficiently narrow the performance gap and switching costs remain negligible, the 92 percent U.S. market share represents a fragile rather than durable competitive position. Without relying on user retention, U.S. LLM providers must continuously maintain performance superiority to prevent market share erosion. Such a model cannot endure indefinitely.

## Recommendation

Competition for global AI and LLM market share will likely intensify. The use patterns documented in this report demonstrate how quickly competitive dynamics can shift. Given the strategic implications for economic competitiveness, national security, and international influence, we recommend that relevant stakeholders continue to monitor global LLM use to understand the evolving U.S.-China competition for AI supremacy.

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# About the Authors

**Austin Horng-En Wang** is an associate political scientist at RAND and an associate professor in the Department of Political Science at the University of Nevada, Las Vegas. His research focuses on AI policies, public opinion, cognitive warfare, and U.S.-China-Taiwan relations. He holds a Ph.D. in political science.

**Kyle Siler-Evans** is a senior engineer at RAND, where he leads the AI Security Portfolio within the Center for AI, Security, and Technology (CAST). Siler-Evans holds a Ph.D. in engineering and public policy.