Stanford | Geopolitics, Technology, and Governance

Conference Report

4th Annual Geopolitics of Technology in East Asia Conference

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Introduction

Stanford University's Geopolitics, Technology, and Governance program hosted the Geopolitics of Technology in East Asia (GTEA) conference on November 6, 2025. Sponsored by the Korea Foundation and convened annually since 2022, the event took place on Stanford's campus and brought together a distinguished group of experts from academia, industry, non-profits, and government sectors.

The conference featured a series of panel discussions, fostering in-depth conversations on the current state and future trajectory of geopolitics and technology in East Asia. Four themes emerged over the course of the event:

I. Allied need for AI sovereignty and AI diffusion

II. Geopolitical positionality on AI

III. Allied misalignment on economic security and the future of friendshoring

IV. Hedging in the AI race and on export controls

I. Allied Need for AI Sovereignty and AI Diffusion

AI sovereignty and AI diffusion were central themes at this year's GTEA conference, with participants exploring whether U.S. allies in the region, as well as countries across the Global South, should develop their own AI models or instead focus on becoming competitive in AI applications.

Frontier AI development is highly concentrated in a small handful of countries. Martin Chorzempa, Senior Fellow at the Peterson Institute for International Economics, noted that only one non-U.S. or Chinese model, from the French AI lab Mistral, ranks in the top 20 AI models globally. This dominance by the United States and China occurs against a backdrop of significant uncertainty about AI's economic impact. While some forecasts project rapid GDP growth and productivity gains in emerging economies, others anticipate far more modest gains. This uncertainty

about the timing and scope of impact forces countries to make difficult choices about whether and how to compete in and regulate AI technologies.

U.S. allies in East Asia are pursuing distinct strategies based on their competitive advantages. In South Korea, for example, an ongoing debate centers on sovereign AI and whether the country should develop its own frontier models. Sejin Kim, Associate Director at the Center for Korean Innovation and Competitiveness at the Information Technology and Innovation Foundation, noted that this debate has become particularly salient as the government decides how to allocate GPUs from a recent Nvidia deal between startups and established companies. The government is focused on ensuring security in AI applications and promoting AI in robots, though significant challenges remain around developing robotics capabilities.

The social impacts of AI may be particularly acute in South Korea due to the country's existing economic imbalances. Ahram Moon, Research Fellow at the Korea Information Society Development Institute, explained that for decades, Korean economic success relied on a short-term innovation model focused on information and communications technology (ICT) development to escape the middle income trap. The result is an economy with two distinct productivity levels: high productivity in the ICT sector but low productivity elsewhere, compounding existing socio-economic problems. In this context, AI is seen as a potential growth engine to raise productivity across the broader economy.

Japan's strengths lie in AI applications such as medical analysis rather than in developing frontier models. Tagui Ichikawa, Specially Appointed Professor at the Center for Data Science and AI Education at the Institute of Science Tokyo, explained that Japan can compete in different segments of the AI application market. There is also a burgeoning ecosystem of Japanese startups focused on developing Japanese-language large language models (LLMs) for the domestic market. There is little incentive, on the other hand, to compete with frontier models for sheer performance.

The AI race has also alarmed countries in the Global South. Glenn Tiffert, Distinguished Research Fellow at the Hoover Institution, pointed out that many governments in Africa and South America fear that AI, if diffused unevenly or concentrated in advanced economies, could both exacerbate existing global

inequalities and reinforce existing barriers to these governments' ability to shape digital innovation ecosystems to align with their interests and values.

These countries risk being caught between U.S. and Chinese diffusion strategies, while wanting to address their own sovereignty goals. On the other hand, competition between the U.S. and China for global market share could present an opportunity for countries to play the two superpowers off one another.

II. Geopolitical Positionality on AI

The geopolitical position of Korea and other democracies in East Asia fundamentally shapes their AI strategies and technology relationships with the United States. The "First Island Chain," comprised of South Korea, Taiwan, and Japan, has always carried military significance. Washington has historically viewed this region as a "forward defense line," first against the Soviet Union and today against China and North Korea. But it has become increasingly salient for technology competition. Graham Webster, Research Scholar at Stanford and Editor-in-Chief of DigiChina, noted that while Taiwan hosts the global center of advanced semiconductor manufacturing, Japanese and South Korean businesses provide essential tooling and components to the supply chain.

Taiwan's decision to build out semiconductor manufacturing as a business-to-business model for U.S. clients was primarily driven by security concerns. Jeremy Chang, Executive Director of the Research Institute for Democracy, Society, and Emerging Technology (DSET), explained that this choice followed Taiwan's exclusion from international organizations and the end of diplomatic relations with the U.S. in the 1970s. The geopolitical situation has evolved significantly since then. Taiwan, which previously leveraged the Chinese market as a manufacturing base, has increasingly reshored manufacturing capacity due to economic security concerns. This shift, coupled with the AI boom, has benefited Taiwan, which manufactures over 90% of global AI servers in addition to advanced chips.

As the United States, Japan, and other countries seek to reshore critical

semiconductor production, this trend has threatened Taiwan's "Silicon Shield." Chang noted that this has driven the government to seek new ways to link U.S. and allied strategic economic interests to preserving Taiwan's status quo as autonomous from mainland China. Ultimately, Taiwan remains oriented toward the United States not only geopolitically but also economically, as its main technology clients remain U.S. companies such as Nvidia. However, China's increasing competitiveness in manufacturing may change the market trends that influence Taiwan's technology sector.

For South Korea, domestic politics influence the country's balancing act between the United States and China. Ji-Young Lee, Professor at American University, explained that while South Korea remains broadly aligned with the United States on national security issues and AI goals, the current Korean administration is more likely to seek hedging opportunities to soften the edge of its relationship with China.

Japan has increasingly stepped up its security profile in the region by increasing defense spending and pursuing cooperation in joint defense production with the United States. Kemy Monahan, Former Deputy Chief of Mission at the U.S. Embassy Tokyo and Visiting Scholar at Stanford University, noted that even as Japan's security outlook on China mirrors that of the United States, its extensive trade with China makes the task of navigating this economic relationship challenging and sensitive.

III. Allied Misalignment on Economic Security and the Future of Friendshoring

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Concerns about the impact of U.S. tariffs and unpredictable trade policy on East Asian and Southeast Asian allies such as South Korea, Japan, and Singapore featured prominently in conference discussions. Panelists underlined the continued importance of friendshoring for their countries' economic security against potential economic coercion by China.

Friendshoring

Friendshoring means different things to different stakeholders, ranging from legally binding agreements to joint statements of intent between leaders. Jane Mellsop, Director of Trade, Investment and Economic Security at the Asia Society Policy Institute, noted that from a New Zealand perspective, friendshoring is fundamentally about cooperation with allies and deepening trade and supply chain relations with them. Nonetheless, certainty remains an important element, as it is crucial for businesses to make investment decisions.

The South Korean relationship with China is shaped by 3,000 years of history, during which China was both a security concern and a partner. Chung-Min Lee, Senior Fellow at the Asia Program at the Carnegie Endowment for International Peace, explained that over the past 70 years, however, the United States has been the primary partner. Increasingly, Korean companies have come to realize that an important aspect of their economic futures lies in friendshoring. Lee estimated that investments by Korean companies in the United States (as of early November 2025) totaled $64 billion, with plans to invest another $100 billion in the future. Simultaneously, Korea's share of exports to the U.S. has grown significantly in recent years while the share destined for China has plunged, indicating that the Korean private sector has made a decisive pivot toward the United States.

Kazuto Suzuki, Director & Group Head (Economic Security) at the Institute of Geoeconomics and Professor at the University of Tokyo, argued that friendshoring represents an opportunity to build resilience against external threats, especially from China. In particular, combining U.S. and Japanese expertise in manufacturing products like semiconductors will enhance Japan's overall economic security. Shoring up a lead in advanced chips is particularly crucial. Japanese companies are therefore looking for joint ventures in line with the Trump administration's policies to bring investment and manufacturing back to the United States. Andrew Grotto, Co-Director of the Program on Geopolitics, Technology, and Governance at Stanford University, pointed out that this represents a very different trade logic than when Japan was competing in the automotive industry in the 1980s, as the driving force is geopolitical this time.

Friendshoring extends beyond simply building factories. Lee emphasized that it is defined by long-term investment and security commitments. This is exemplified by

South Korea's support for the Make American Shipyards Great Again (MASGA) initiative to revitalize the American shipping industry. Technologies developed by East Asian allies, such as radar systems, are key to ensuring the U.S. Navy can successfully ramp up its shipping equipment at the required speed.

The Chinese economic coercion faced by South Korea and Japan has acted as a wake-up call to other countries, including those in the European Union. Mellsop noted that this experience, combined with U.S. persuasion in the form of export controls, has increased awareness of economic security vulnerabilities. She added that this messaging by the United States remains important.

IV. Hedging in the AI Race and Export Controls

The AI race has driven U.S. allies to adopt a variety of hedging strategies, particularly concerning export controls, while maintaining their support for the United States as a security partner.

Strategic Approaches to AI Competition

The United States and China pursue different strategies in the "AI race." Tiffert pointed out that the United States focuses on frontier AI models while China emphasizes making "tangible objects to deploy AI in." China has an advantage in the global diffusion of open models, especially below the frontier, and in applications such as autonomous vehicles, computer vision, and surveillance systems. China also has unique advantages in certain types of data, including genomics and other biometric data. These datasets may have a "gravitational pull" internationally. Tiffert expressed concern that a future where China dominates industrial capacity and the United States dominates AI services would leave the United States vulnerable to political coercion and supply chain disruption. Ensuring allies can fill in these gaps in the value chain would be important.

Suzuki described four topics that are prevalent in debates about the geopolitics of AI in Japan. One of them is the role of hardware in AI innovation and diffusion, especially as it relates to China's ability to amass computing power. Another is

software—models and applications—with DeepSeek viewed as an alternative to expensive American models by some Japanese users. Diffusion is the third issue, with countries in the Global South—especially in Southeast Asia, the Middle East, and South Asia—seeking to achieve some level of AI sovereignty via open models, an area where China has greater influence. Data is the fourth concern. While the "data free flow with trust" (DFFT) concept previously promoted the use of non-Chinese data, EU AI rules have made it more challenging to maintain coherent data flows, making the use of Chinese datasets more attractive. Tiffert added that AI and data sovereignty are linked, as the regulatory architectures governing AI and data can be exported, and many countries do not wish to have them imposed upon them.

South Korea focuses on building strong ties with the United States via the corporate world. Suh-Yong Chung, Professor at Korea University, pointed to the recent AI deal between the United States and the Republic of Korea, which involved Jensen Huang, CEO of Nvidia, Lee Jae-yong, Chairman of Samsung, and Chung Euisun, Chairman of Hyundai Motors.

Industrial settings and AI services are not, however, the only place AI competition is occurring. China is taking on leadership roles in global governance initiatives, such as on climate change with the Paris Agreement. Chung noted that for the future AI market, how AI governance is communicated to Africa, Latin America, and South Asia is crucial.

Export Controls

While export controls have constrained China’s access to advanced node semiconductors, Tiffert noted that they are not impenetrable, as smuggling of chips into China remains possible. Colin Kahl, FSI Director and Faculty Director of the Program on Geopolitics, Technology, and Governance, added that the sort of large-scale smuggling needed to outfit an AI datacenter is already difficult and will get even more difficult as datacenters get bigger, but that preventing sanctions evasion requires ongoing vigilance.

While South Korea views the United States as a "business and security partner," the Korean government, according to Chung, wants to preserve a margin of flexibility to give Korean companies time to adapt their operations and manage escalation of

tensions with China. Chung emphasized that the government remains in close contact with Washington to coordinate future export controls and push for more flexibility in shaping its own policies.

Japan, meanwhile, views the current situation of export controls as "acceptable although not ideal." Suzuki characterized export controls as "doable" since Japanese companies remain flexible, focusing on other lines of business while limiting advanced semiconductor manufacturing. Moreover, products designed for high-end chip production can be exported to other countries such as South Korea and Taiwan. However, if the United States expands requirements for materials and equipment essential in semiconductor manufacturing, this will make the situation more challenging for Japanese companies. From a Japanese perspective, China has much greater leverage when it comes to rare earth minerals, which can be used to negotiate the relaxation of export controls on advanced semiconductors—a lever that China has used before against Japan, in 2010 as tensions flared over the Senkaku Islands (claimed by both China and Japan).

Conclusion

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