AI for the people? How China’s AI development challenges U.S. big tech

written by Gary Wilson
February 17, 2025

The following text is based on a talk given by Gary Wilson at the “Deep Seek and the Challenge to U.S. Technological Hegemony” webinar on Feb. 16, hosted by the Friends of Socialist China and the International Manifesto Group. The full webinar is available on YouTube at

Let’s start with the U.S. tech war against China. Some call it a New Cold War. A problem with that term is there’s no guarantee it will stay “cold.” There is a major

U.S. military buildup around China, with a U.S. Army drone warfare Green Beret unit now stationed in Taiwan, and aircraft carriers from the U.S., France and Japan conducting “war games” in the South China Sea.

Nancy Pelosi’s visit to Taiwan in 2022, the first high-level U.S. official visit since the 1990s, was a provocation challenging China’s sovereignty, that was backed with an unprecedented escalation in U.S. military activity in the region that came dangerously close to sparking a “hot war.”

Anyway, whatever we call it, a New Cold War, an economic war, trade war or tech war — the U.S. has made China’s science and technology a target. The U.S. has imposed strict limits on technology transfers, restricted access to semiconductors, sanctioned Chinese tech companies, blocked academic and research collaboration, and halted many scientific exchanges.

This tech war didn’t just start. It really began in 2011 with Barack Obama’s Pivot to Asia, a Cold War-style containment policy. The Pivot to Asia was primarily a military operation but also introduced export controls on advanced technologies.

As a military operation, it involved moving 60% of U.S. naval forces into the Asia-Pacific region, militarily surrounding China, and expanding military exercises like RIMPAC, the world’s largest naval war games.

The tech war escalated significantly during Donald Trump’s first presidency with trade restrictions and sanctions on Chinese firms, including Huawei and ZTE.

Then, with Joe Biden, even more severe restrictions were imposed. The U.S. also expanded military and technology alliances against China, like AUKUS – some call it the Asian NATO — and the U.S.-Japan-South Korea trilateral pact.

In the first few days of his second term, Trump implemented more aggressive export controls. The media is calling it a “tough on China” policy. Just two days ago,

Trump's State Department removed the statement "We do not support Taiwan independence" from its U.S. relations with Taiwan web page. The Financial Times reported this week that Trump has threatened China with 60% tariffs and he may ban Nvidia semiconductors.

Why are semiconductors such a big deal?

Semiconductors are the foundation of modern technology — enabling the functionality of virtually every device and system we use every day. For example, since the 1970s, every automobile has required semiconductors in order to operate.

Biden's Commerce Secretary said – and I quote – "the goal is to limit China's 'access to advanced semiconductors that could fuel breakthroughs in artificial intelligence and sophisticated computers.'"

Despite the restrictions, China has been making significant strides in semiconductor technology. Huawei is developing advanced high-powered chips, and the performance of its new Ascend 910C compares to Nvidia's H20, the GPU used to build DeepSeek R1. While DeepSeek was trained on the Nvidia H20, it used the Ascend 910C for inference, the process where a trained AI model draws conclusions.

This brings us to DeepSeek AI, a large language model or LLM built in China that equals the best in the U.S.

It was developed using less data and computing power and at a fraction of the cost of U.S. models.

With its release it profoundly became clear that the U.S. is not winning its tech war against China. Instead of falling behind, China showed its strength.

It's not just DeepSeek — China has built entire high-tech industries that now dominate globally:

- Huawei is the world's leading 5G telecommunications company.
- BYD is the world's top electric vehicle maker.
- CATL leads in advanced battery technology.
- Tongwei is tops in solar power.
- DJI is the world's largest commercial drone maker.

U.S. restrictions haven't stopped China

When the Pivot to Asia began in 2011, the U.S. led in 60 of 64 key technologies globally.

By 2022, China had surpassed the U.S. in 52 of those technologies.

For years, AI was dominated by U.S. companies like Google and Microsoft's OpenAI, but today, China is leading in AI development and applications, not just with DeepSeek. Why?

Unlike the U.S., which focuses on AI for corporate profits, China sees AI as a driver of economic transformation — a way to modernize its economy.

Lenin famously said that communism is Soviet power plus electrification. Today, he might say, high tech.

In 2017, China released its "Next Generation Artificial Intelligence Development Plan." That plan is based on building open-source platforms to coordinate hardware, software and cloud-based systems.

This approach is similar to how technologies like the Internet's World Wide Web or Linux (the operating system for servers, cloud computing, mobile devices, and supercomputers) became dominant: They were built on open source standards that allowed for worldwide collaboration and innovation.

Accessible open-source AI can overtake the for-profit proprietary tech monopolies.

One of DeepSeek AI's most groundbreaking features is its ability to run on low-cost hardware, including laptops, even smartphones — making AI more accessible than ever before. This decentralized approach contrasts with how AI is used in the U.S., where companies like Amazon and Walmart deploy closed AI systems for worker monitoring, automation and robotics while using it to cut wages and suppress union organizing.

The potential benefits of treating AI as a public utility are immense. Rather than displacing workers or driving inequality, open-access AI can be used for equitable planning of production and distribution.

China is already leveraging AI for public services

China has embraced smart cities, using AI to optimize urban management, traffic control, waste management, and energy efficiency. There are over 500 smart city pilot projects in China right now. AI is also being used in health care, education, and disaster response:

- Health care: AI is being used to predict disease outbreaks, optimize hospital resource allocation, and provide personalized health care.
- Education: AI is being used to enhance personalized learning and helps bridge urban-rural education gap.
- Disaster Preparedness: AI assists in flood prediction, earthquake monitoring, and emergency response coordination.

Despite U.S. restrictions, China continues to advance in AI, semiconductors, and other high-tech industries. China is shaping the future of global technology, and AI could play a key role in the economic planning of production and services to meet people's needs.

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