Translation

The following article summarizes an interview of Chinese AI expert Song-Chun Zhu, who argues that China's AI industry should chart a different course than the current U.S. focus on data- and compute-heavy large language models. He contends that China should explore multiple paths to general purpose AI simultaneously, such as modeling human cognition, algorithm innovation, and "small data."

Title
Song-Chun Zhu: The Race to General Purpose Artificial Intelligence is not Merely About Technological Competition; Even More So, it is a Struggle to Control the Narrative
朱松纯：通用人工智能不仅是科技竞争，更是叙事权争夺

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Source
Economic View (中新经纬), January 12, 2025. Economic View is an online financial news media outlet run by (主办) China News Service (中国新闻社; 中新社). China News Service is a Chinese state-run press agency that takes Hong Kong, Macao, Taiwan, the Chinese diaspora, and foreigners with connections to China as its target audience.

The Chinese source text is available online at:
https://jw.jwview.com/jwview/content.jsp?id=614857
An archived version of the Chinese source text is available online at: https://perma.cc/4KUL-NGGF

Translation Date	**Translator**	**Editor**
January 29, 2025	Etcetera Language Group, Inc.	Ben Murphy, CSET Translation Manager

Song-Chun Zhu: The Race to General Purpose Artificial Intelligence is not Merely About Technological Competition; Even More So, it is a Struggle to Control the Narrative

On January 11, the 26th Peking University Guanghua New Year Forum was held at the Centennial Lecture Hall of Peking University. During the forum, Song-Chun Zhu (Zhu Songchun; 朱松纯), a member of the 14th National Committee of the Chinese People's Political Consultative Conference (CPPCC) and dean of the Institute for Artificial Intelligence and the School of Intelligence Science at Peking University, delivered a keynote speech and stated that independence of thought (思想自主) is the prerequisite for science and technology (S&T) innovation, while confidence is the core driving force for promoting high-quality economic development. In an exclusive

interview with Economic View, Zhu specifically emphasized the urgent need to reform existing evaluation systems and incentive mechanisms, implement the original strategy of “playing Go” (“下围棋”), and focus on the overall situation rather than isolated victories.

Independence of Thought in S&T Shapes the Narrative System

Confidence is an "invisible variable" in current economic and technological development. Zhu highlighted that building self-confidence requires robust technological support and, more importantly, building one's own narrative system, which requires “independence of thought” in S&T innovation.

“The development of general purpose artificial intelligence (“general AI”)[1] depends on big data, computing power (compute), and chip technology. In the background, however, is not merely about competition in technological capabilities but, even more so, it is a struggle for global confidence and for control of the narrative” (叙事权). Zhu pointed out that in the field of S&T, there has always been a “U.S.-dominated narrative.” For example, in AI, the promotion of this narrative has solidified the United States’ dominance in general AI by emphasizing that big data, compute, and chips are insurmountable barriers for other countries. At the same time, the market capitalization of U.S. technology giants in the U.S. stock market has soared.

This type of sentiment has far-reaching implications, creating a “confidence gap.” On the one hand, the confidence of individuals and enterprises in other countries has been undermined, leading to conservative investment decisions and slower innovation. On the other hand, international capital flows to the United States, continuously funding its technological research and industrial upgrades, thereby widening the technological gap. In such an environment, the United States has consistently gained the upper hand in global technological competition.

[1] Translator's note: The Chinese term 通用人工智能 can be translated into English either as "artificial general intelligence" (AGI) or "general purpose artificial intelligence" ("general purpose AI," for short). This translation opts for "general purpose AI" because when Chinese writers use the term 通用人工智能, they are usually referring to a broadly capable form of AI, rather than to AI that resembles human cognition, as AGI implies. For a more thorough discussion of this term, see Wm. C. Hannas, Huey-Meei Chang, Daniel H. Chou, and Brian Fleeger, "China's Advanced AI Research: Monitoring China's Paths to ‘General’ Artificial Intelligence," Center for Security and Emerging Technology, July 7, 2022, https://cset.georgetown.edu/publication/chinas-advanced-ai-research/, pp. 1-3.

Additionally, Zhu pointed out that certain self-media[2] have exaggerated the technological advantages of the United States. This one-sided narrative not only fosters blind worship of the United States but also diminishes attention paid to the S&T achievements of other countries. Reflecting on the history of globalization, Zhu noted that the United States has reshaped the trend of globalization through its AI narrative, while other countries have passively accepted this "bias" amplified by global sentiment. He stressed the urgent need to correct this cognitive imbalance.

Zhu proposed that with the advent of the era of general AI, China must reshape global discourse power (话语权) through "S&T self-reliance" ("科技自立自强"), "modernization of the governance system," and "cultural renaissance."

He emphasized that China's development cannot simply imitate the West. Instead, it must achieve genuine autonomy in thought and culture, building a uniquely Chinese system of AI theory and practice. S&T self-reliance is the foundation of China's continued rise, while a modernized governance model and cultural elevation are key to realizing Chinese-style modernization. "Our goal, and our responsibility, is to create world-class technology through Chinese thought. China is fully capable of seizing the initiative in the era of general AI," Zhu declared.

The Mechanism of Intelligence Production is "Subjective Idealism"

Zhu noted that general AI differs fundamentally from traditional AI. While the hardware and algorithms of digital humans, biological humans, and robots may vary, their philosophical and mathematical expression spaces should be equivalent to those of humans. For example, in scene understanding, both "perception" and "cognition" are involved, encompassing tasks ranging from identifying object positioning relationships to inferring underlying intentions. These tasks require complex value transmission and thinking mechanisms.

Therefore, general AI must align with human logical thinking and address underlying value demands. Zhu proposed that the mechanism of intelligence is rooted in "subjective idealism," which incorporates deep levels of mental capabilities (心智). China's development in this field requires achieving "common expressive capabilities" with humans, which will be a critical point of competition for future AI.

Zhu told Economic View that general AI must possess three fundamental characteristics: First is the ability to complete unlimited tasks, rather than being limited to a predefined set of tasks. Second is the capacity to autonomously identify tasks in

[2] Translator's note: The Chinese term "self-media" (自媒体) refers to non-institutional social media accounts on platforms such as Weixin (WeChat) and Douyin (TikTok) that are typically run by individual users and produce news content.

scenarios, embodying the concept of “seeing what needs to be done” (“眼里有活儿”). The third is autonomous value-driven decision-making, rather than being passively driven by data.

Based on these characteristics, Zhu introduced the world’s first testing and evaluation standard and platform for general artificial intelligence—the Tong Test (通智测试). Inspired by developmental testing standards for human infants, Tong Test establishes a dual-system evaluation theory based on capabilities and values. Its tasks emphasize practicality, measurability, and alignment with human intelligence development.

This testing system not only guides researchers in designing comprehensive architectures and evaluation frameworks for general AI but also offers proactive solutions for addressing AI safety and governance challenges.

Achieving Breakthroughs from Zero to One

In the academic and industrial fields of artificial intelligence, there is currently a dependence on the “Western model.” Zhu emphasized the importance of enhancing and promoting original innovation capabilities.

In 2023, the so-called “Battle of the Hundred Models” occurred. Zhu argued that this “battle” stemmed from widespread optimism about certain fields, with capital driving competitors to enter the same trending sector. However, these battles often involve quickly launching imitative products to seize market advantage, rather than achieving core breakthroughs in general AI. The duration of such battles is shortening, with increasingly lackluster outcomes, resulting in excessive waste of societal resources without substantive technological or service advancements.

Zhu also highlighted a common misconception: that general AI is simply big data + big compute + large models, and that compute is the sole determining factor. This perspective neglects the enormous potential of algorithmic innovation, data quality, and the exploration of application scenarios. At the early stages of the large-model boom, blind imitation without considering specific industrial needs and characteristics led to dispersed resources and redundant investment. Zhu stressed that achieving general AI does not follow a singular path, and innovation should not be confined to one approach.

The rise of general AI is recognized as a critical juncture in technological transformation. Zhu noted that China has unique advantages, such as its large population base and diverse application scenarios, which provide massive data resources, thus providing ample source material for model training, as well as a

comprehensive industrial system with close coordination across all production chain segments.

How should China create general AI? Zhu believes that, first, China should strengthen science popularization work, so as to clarify matters and get to the bottom of things, and thus correctly understand that general AI is not merely a technology but a grand scientific and social project. Second, we must ensure that our research directions are correct, by utilizing a “small data, big tasks” technical paradigm to create value-driven general intelligence agents (通用智能体) that balance “heart” and “logic,” advancing the construction of an intelligent society of human-machine symbiosis. Third, we must establish a new organizational model, and build powerful teams that dare to break free from dog-eat-dog (内卷) competition.

Addressing the challenges of current S&T development, Zhu outlined key directions for China’s future development. The first is S&T self-reliance: Break away from dependence on foreign technology and ideas. Adhere to the principle of “you do you, and I’ll do me” (“你打你的、我打我的”) and avoid rashly rushing to and fro according to foreign narratives. The second is modernization of the governance model: Leverage tools such as large-scale societal simulators to solve the problem of “being unable to conduct experiments in the liberal arts,” and explore governance models suited to China’s national conditions.