

'Sino-U.S. Cooperation Essential for the World'

Dialogue

By LONG Yun & BI Weizi

The auditorium at the Zhongguancun Academy in Beijing was packed for the forum "From AI Strategy to Business Growth: Building the AI-Enabled Enterprise." The speaker was Joe Weinman, a renowned AI strategist widely known as the "Father of Cloud Economics." He is also the founder of the International Institute for Future Industries and the author of numerous books as well as the newly released report *Disruptive and Interesting Tech: AI*.

Weinman, who has made dozens of trips to China, did not simply deliver a report. In a recent interview with *Science and Technology Daily*, he offered a narrative that blended deep personal affection for the country with a vision of a world being transformed at an unprecedented speed.

A career shaped by circumstance
When asked how he became involved in AI, Weinman described a career path shaped entirely by circumstance rather than deliberate planning. He worked at AT&T Bell Labs, where he focused on everything from integrated circuit fabrication and complex manufacturing to network operations and business continuity, consulted for numerous companies, and led corporate innovation and strategy. None of it was planned.

This randomness, he thinks, taught him how to learn across disciplines. His advice to students is to bring ideas from different fields together: A problem in AI has often already been solved in evolutionary biology or elsewhere, and the trick is to adapt that solution.

Weinman sees his unique value at the intersection of technology and business. "Many people know more than I do about AI or about business alone," he says. "But few work at the intersection. I bridge the two worlds: speaking AI to business leaders and business to AI experts."

When asked about the most inter-



Joe Weinman. (COURTESY PHOTO)

esting part of his job, Weinman says it is being exposed to the amazing work of brilliant researchers who push the field forward every day.

He also enjoys connecting ideas between business and technology. He recalls preparing for talks for very different audiences and learning just enough about each industry to make his ideas relevant. He credits large language models as personal tutors that help him quickly grasp new topics.

A trilateral convergence
Looking ahead, Weinman notes a rare convergence of three fundamental technologies: AI, quantum computing and fusion energy. After decades of slow progress, all three have recently achieved practical breakthroughs. He finds it remarkable that they have come together at the same time, almost as if planned. In his view, "The world we live in five years from now will be nearly unrecognizable."

For those feeling overwhelmed by AI, Weinman offers reassurance. He believes that if a person is not overwhelmed, they are not fully grasping what is happening. The pace is so rapid that even top researchers cannot keep up with everything. However, he urges calm and practical learning. Most AI applications will be hidden in everyday life, and

people do not need deep technical expertise to benefit from them. He compares it to electricity or aerodynamics: One does not need to understand how electricity flows through a house to use a coffee maker, nor does one need to know the physics of flight to board a plane.

On the issue of job displacement, Weinman is cautious. He does not believe that retraining is a simple solution. His recommendation is to embrace continuous learning and stay aware of developments in one's own industry. He warns that there will be bumps on the road toward what he hopes will be a better future and that "a better future is not guaranteed."

China's systematic thinking
Weinman sees something in China that extends beyond its rapid technological leap. For him, the country's strength lies not only in specific breakthroughs but also in a distinctive approach to complex challenges and in the people who drive them.

"What strikes me most is the overall vision behind China's approach," he says. "Nothing is done randomly." He cites autonomous vehicles as an illustration. Different countries have adopted different philosophies. In China, attention has shifted toward the entire transportation ecosystem, integrating

vehicles, smart city infrastructure, power grids, traffic lights and pedestrian data into a coordinated system.

From his perspective, this holistic perspective can achieve what isolated efforts cannot, such as using roadside sensors to detect pedestrians in blind spots or synchronizing traffic signals to reduce fuel consumption.

As he points out, a study by the Australian Strategic Policy Institute shows that China leads the world in research across virtually all important technologies. "There is no shortage of Chinese breakthroughs," Weinman says. "Many brilliant people are doing remarkable work." DeepSeek, with its highly efficient and low-cost large language model, has not only impressed the industry but also influenced financial markets.

Yet China is not merely technological. "I love the Chinese people," he says. "Everyone seems so kind, intelligent and earnest. There is a genuine niceness about them." He sees a country that attends to small details, such as a perfectly trimmed hedge and a thoughtfully placed tree.

A critical collaboration
On international cooperation, Weinman is unequivocal. "U.S.-China cooperation is essential to everything the world needs to achieve in the coming years." He observes that in a modest way, he himself serves as a bridge between the two countries, having worked extensively in both.

Weinman offers a balanced comparison of the two countries' AI strengths. The United States currently leads in the most advanced frontier models, including cutting-edge chips, data centers and lithography infrastructure. China leads in robotics and in more affordable solutions, particularly in drones and humanoid robots, where it excels in value.

As two of the world's largest economies, they have a relationship that is critical to global progress. He believes that without collaboration between these two major forces, the world's most pressing challenges cannot be adequately addressed.

the most important thing is this: do you love doing one small thing with all your heart?" He recalled how others urged him to expand Sanbao on a massive scale. "I only hope to make my tiny village perfect. What is the spirit of craftsmanship? Doing one small thing to the utmost perfection."

For Li, the global mission of Chinese ceramic culture has only just begun. "In today's language of global communication, ceramics is one of the best languages. Chinese ceramic culture is immensely rich. This is a big opportunity."

He continued: "We need to re-understand ourselves, to re-understand the past thousand years. A thousand years is not just a number to be studied. We, the people of today, must walk into every single day of those thousand years."

founded the Sanbao International Ceramic Art Village, a private, artist-built haven outside Jingdezhen.

Li describes Sanbao as an experimental field. "It has allowed the world to see the value of traditional Chinese culture, and it has allowed Chinese tradition to enter a contemporary form," he explained. "Sanbao has given Jingdezhen a different kind of model: how to open yourself, and let others see you, while completely preserving your own form. To some degree, it shows that Chinese traditional culture is incredibly valuable."

When asked about the young artists and crafters now flocking to Jingdezhen, Li offered advice rooted in the spirit of Chinese craftsmanship. "Young people today have more opportunities, more channels, better methods. But

submit delivery requests to AGVs, which promptly transport the retrieved rubber materials to the corresponding vulcanizing machines. Requesting materials, rubber extrusion and delivery are now completed in one seamless process, Yin said.

Cloud 'brain' optimizes decisions
A smart "brain" is indispensable to the running of an intelligent factory. By building a private cloud platform, a centralized data platform and an Enterprise Service Bus, the 5G factory's cloud-based "brain" can consolidate high-performance computing and storage resources, gather data across the entire business chain, and integrate management systems across different operational segments.

The cloud-based "brain" enables the real-time sharing and full-scale visibility of data information from different sides, including process parameters

from the production side, inventory data from the storage side, and test records from the quality inspection side.

Taking warehousing operations as an example, the factory operates a smart warehouse with more than 25,000 storage locations. Supported by a warehouse management system, it achieves the automatic, transparent and intelligent full-lifecycle management of material inbound, storage and outbound processes. Algorithms precisely position materials and dynamically manage storage locations, improving space utilization.

Rong Jigang, deputy general manager and chief engineer of TMT, said functions such as automated inventory aging analysis in the warehouse management system can not only identify materials nearing expiration and reduce unnecessary losses, but also help procurement managers make more informed purchasing decisions through data sharing.

Letter to the Editor

China's Smart Tech Builds a Shared Global Vision

By Md Altab Hossin

China's innovation-oriented development is not merely a slogan — it is the engine driving the nation toward a future defined by sustainability, intelligence and shared prosperity. From renewable energy farms to orbital satellites, China is building technologies for the shared future of humankind. The country stands at the forefront of technological innovation and breakthroughs and is creating a benchmark that inspires the world.

Greening the planet
China contributes a critical innovative role in renewable energy field and makes the world greener, cleaner and more sustainable. It now produces more solar, wind and hydroelectric power than any other country.

But quantity alone is not the answer. Breakthroughs in ultra-high-voltage transmission allow clean electricity generated in China's western deserts to power coastal megacities with near-zero loss. Floating solar farms on former coal subsidence areas and tidal energy converters in the East China Sea showcase an ecosystem of green innovation. By aggressively lowering the cost of photovoltaics and energy storage, China has made renewable adoption economically viable for developing nations across Africa and Southeast Asia — a tangible contribution to the global fight against climate change.

The electric revolution
China's electric vehicle (EV) industry has moved beyond catch-up to leapfrogging. Chinese companies are advancing technologies ranging from next-generation batteries and smart chassis systems to ultra-fast charging, with some vehicles capable of adding about 400 km of range in 15 minutes under optimal conditions. Meanwhile, solid-state batteries and vehicle-to-grid technologies are progressing through pilot programs and early commercial deployment.

More importantly, China's EV boom is inclusive: from affordable mini-EVs to luxury models, facilitating EVs for all. Through technology sharing and joint ventures, Chinese EV makers are helping other nations such as Thailand, Hungary and Brazil build their own local supply chains — turning mobility decarbonization into a collective endeavor.

AI+ and humanoid robots
China is actively promoting its "AI+" initiative that integrates AI into every economic sector. In agriculture, AI predicts pest outbreaks; in healthcare, it reads medical images with specialist-level accuracy; and in manufacturing, it optimizes energy use in real time. Yet the most sought-after frontier is humanoid robotics. Chinese companies have unveiled a wide range of general-purpose

humanoids capable of learning tasks through observation — from assembling intricate electronics to assisting elderly patients. These robots are designed with open interfaces, allowing global developers to customize them for local languages, cultures and needs. Rather than replacing humanity, they aim to augment human potential worldwide.

Navigating the globe
As one of four global navigation satellite systems, BeiDou offers free global navigation services, while its high-precision services can achieve positioning accuracy at the centimeter level. Over 120 countries now use BeiDou services, from disaster warning in Nepal to precision farming in Pakistan and fleet management in Ethiopia. Unlike proprietary systems, BeiDou's bilateral communication feature allows users in remote areas to send distress signals when cellular networks fail. It is a navigation tool, not a weapon, for use as a lifeline that can improve our shared future.

An open door
All these innovation-oriented developments are underpinned by China's opening-up policy. Foreign enterprises now enjoy expanded access to high-tech sectors in China, including EV manufacturing and AI R&D. For example, Tesla's Shanghai Gigafactory, the company's most efficient globally, stands as proof that openness accelerates mutual progress.

Meanwhile, the Belt and Road Initiative has evolved into a digital and green corridor, exporting solar standards, EV charging protocols, and BeiDou ground stations to partner nations. More than 70 Belt and Road Joint Laboratories with partner countries expand openness and global cooperation, conducting collaborative research in all cutting-edge fields such as integrated circuits, AI and quantum information, to advance science and technology for our shared future.

In summary, China's innovation-oriented development is not a zero-sum race. It is a collective building project and progress is visible and viable. By sharing its renewable grids, EV platforms, AI frameworks, humanoid robots and BeiDou signals, China is constructing a technological foundation upon which all of humanity can stand taller and receive the benefits.

China's continuous effort on innovation-oriented development is not only building the innovative technologies for our green, modern, safe and shared future, but also opening a door for global cooperation and jointly guiding the global economy in a better direction.

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Chinese Ceramics Connects Cultures

Tech+Culture

By ZHONG Jianli & LONG Yun

Twenty-five years ago, Li Jianshen, an internationally acclaimed ceramic artist and founder of the Sanbao International Ceramic Art Village, made a documentary called *Jingdezhen: My Home in China*. The film won a silver medal at an international ceramic film festival, bringing the ancient porcelain capital to international audiences. "Maybe, in some unseen way, we carry a mission," Li said. "People of our generation have an inex-

plicable attachment to Chinese culture, to the soil we live on, to this country."

Li is from Chaisang, the ancient name for today's Jiujiang in Jiangxi province. He grew up with the story of Tao Yuanming, also a native of that same area, and a poet from the Eastern Jin dynasty who wrote *The Peach Blossom Spring*, a fable about a hidden utopia where people live peacefully, cut off from the outside world.

"Tao Yuanming used words to express a scholar's ideal of a beautiful life," Li said. "Fifteen hundred years later, I followed Tao Yuanming's yesterday and built today's own Peach Blossom Spring." That vision became real when he

5G Factory Upgrades Smart Manufacturing

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Connecting data in real time
The private 5G network and industrial Internet of Things (IIoT) platform also play an important role in the smooth operation of the factory.

The factory has deployed industrial communication gateways covering every piece of equipment and electricity meter in the workshop, which can collect key production data like temperature, pressure and vulcanization time during the manufacturing process.

The data is then uploaded to the industrial IIoT platform via the private 5G network. The coordination among these three parties can realize real-time, stable transmission and storage of data.

Relying on the "nervous system"

built by the private 5G network and industrial IIoT platform, the factory can connect the equipment used in the rubber preforming and vulcanization processes.

Yin Jinyun, deputy general manager of TMT's rail transportation department, said that in the past, material requests and rubber extrusion relied entirely on manual operations. Now, vulcanizing machines can directly initiate material requests through the manufacturing execution system.

Once a request is issued, the system automatically checks the operating status of the extruders and rubber inventory levels, then sends extrusion instructions to the designated extruder. At the same time, it can automatically



A photovoltaic and photothermal hybrid project in Amdo county of Nagqu, southwest China's Xizang autonomous region. (PHOTO: XINHUA)