科技日報

Science and Technology Daily

VOL.6-NO.240 MAY 16-17, 2026

CHINA TO PROMOTE INNOVATIVE DEVELOPMENT OF AI AGENTS

PAGE 2 | FOCUS

BRITISH SCIENTIST WHO HELPS SORT OUT TRASH

PAGE 4 | LIFE IN CHINA

China, U.S. Set Out New Vision for Ties

In a meeting closely watched by the world, Chinese President Xi Jinping and U.S. President Donald Trump on Thursday agreed on a new vision of building a constructive bilateral relationship of strategic stability.

The new vision will provide strategic guidance for China-U.S. relations over the next three years and beyond, Xi said when holding talks in Beijing with Trump.

Xi defined the nature of "constructive strategic stability" as a positive stability with cooperation as the mainstay, a sound stability with moderate competition, a constant stability with manageable differences, and an enduring stability with promises of peace.

Trump said he will work with Xi to strengthen communication and cooperation, properly handle differences, and make bilateral relations better than ever before.

Both leaders agreed that China- U.S. relations are the most important bilateral relationship in the world today.

"Looking back at the course of China- U.S. relations, whether or not we could have mutual respect, peaceful coexistence, and win-win cooperation is the key to whether the relationship can advance steadily," Xi said at Thursday's welcome banquet for Trump.

"We must make it work, and never mess it up," Xi said, adding that both China and the U.S. stand to gain from cooperation and lose from confrontation.

New impetus for cooperation

During the two leaders' formal talks, Xi spoke of the latest round of trade talks between Chinese and U.S. officials, lauding the "generally balanced and positive outcomes."

"This is good news for the people of the two countries and the world," he said, calling on the two sides to sustain the good momentum that they have worked hard to create.

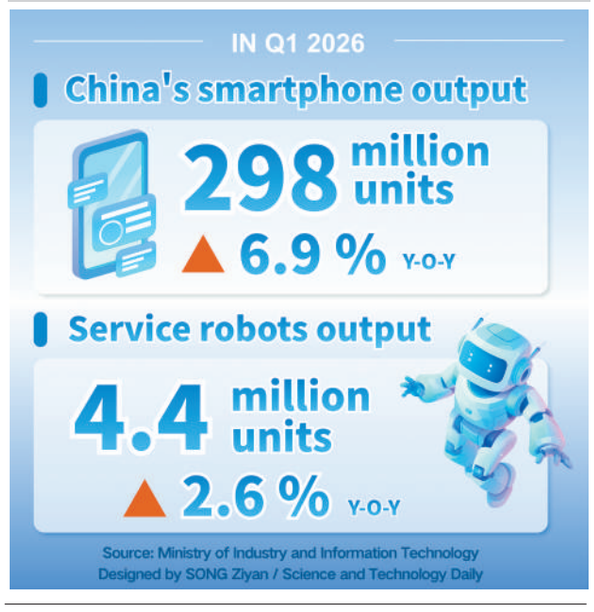
The Ministry of Commerce said on Thursday that China is ready to work with the U.S. to continuously expand the list of cooperation and shorten the list of problems.

In his trip, Trump was accompanied by top U.S. executives, including Apple's Tim Cook, Nvidia's Jensen Huang and Tesla's Elon Musk, whom he called outstanding representatives from the U.S. business community.

"They all respect and value China. I strongly encourage them to expand cooperation with China," Trump said. The business leaders said that the successful meeting between Xi and Trump has injected new impetus into bilateral economic and trade cooperation and provided certainty for the world economy.

See page 3

New Graphic



WECHAT ACCOUNT

E-PAPER

China's first offshore mobile multi-function operations platform, Offshore Oil 283, departed Qingdao on May 14 under the escort of multiple tugboats, heading for the Bohai oilfield in north China. (PHOTO: XINHUA)

STI Frontier

Smart Auto Manufacturing Driven by 'Data+AI'

By LU Zijian & YANG Lun

Data and AI- driven reform now spans the entire auto operation process of industry giant China FAW Group Co., Ltd. This was made abundantly clear at the 9th Digital China Summit held in Fuzhou, southeast China's Fujian province in late April, when the company displayed its latest achievements in the digital and intelligent transformation of auto manufacturing.

In a traditional auto manufacturing system, a large amount of data is separated into isolated information silos. To deal with such sophisticated data issues, FAW developed an Enterprise Operation Agent (EOA).

Men Xin, assistant to the general manager of FAW and manager of the system digitalization department, said the EOA aims to build an intelligent operation hub that independently perceives, makes decisions, executes and evolves. The hub utilizes data, models and agents to optimize the enterprise's full value chain administration dynamically.

In the Fanrong plant area of the FAW Hongqi Manufacturing Center in Changchun, northeast China's Jilin province, orders for customized automobiles enter the production scheduling process according to production orders automatically generated by the system. Driven by data, production organization, process control and quality management operate in a highly efficient and coordinated manner.

The credit for such smooth operation should be given to "digital staff." Driven by the intelligent operation hub, manual approval steps have been reduced by 60 percent, the R&D and production cycles have been significantly shortened by 50 percent, and manufacturing costs have dropped by 40 percent.

The production plan administrator is the enterprise's "digital staff No.001," and there are 20 such "digital staff" members now. The enterprise has realized the intelligentization of 23 key decisions with the help of these "digital staff."

AI has also been integrated into the entire process of FAW's auto R&D and production. The company has compiled a methodology of digital and intelligent transformation that reorganizes the business logic via "data+AI."

On the R&D side, FAW developed GPT- Code, a code generation AI application that can assist tasks like functional testing, code commenting, and the automatic generation of front- end code from prototypes, cutting the coding time by 50 percent.

See page 2

Physical AI Moves from Simulation to Reality

By Staff Reporters

For a humanoid robot, trying to sink a basketball shot is not as simple as it seems to a human athlete. It requires countless hours of fine-tunings and calculations by engineers before the mechanical arm can drop the ball through a hoop.

Fortunately, the wide gap between virtual simulation and real- world execution is closing fast, driven by the advancement of homegrown technology. This breakthrough arrives as China's 15th Five-Year Plan (2026-2030) prioritizes foundational AI research and technology transfer.

First differentiable physics engine

In this case, the innovation comes from Fysics, China's first differentiable physics engine, developed by Fysics AI in collaboration with Fudan University.

Unlike traditional physics engines that only simulate forward motion, Fysics is differentiable — meaning it can calculate errors and backpropagate corrections.

"Traditional physics engines are like one- way streets," said Zhang Lihua, former key contributor to NVIDIA's PhysX engine and now head of the team behind Fysics. "They can simulate movement but cannot tell you where the errors came from."

If a robot misses a basketball shot, Fysics analyzes whether the force was too strong, the angle was off, or the timing wrong. The robot then adjusts autonomously, without tedious real-world trial and error.

Solving the 'sim-to-real' bottleneck

Zhang calls physical AI "the only path for AI to move from the virtual to the real world."

Fysics combines a unified multi-material solving framework with high-precision contact resolution. This allows robots to learn precise manipulation with minimal trial and error, overcoming the sim- to- real transfer challenge that has long plagued embodied AI, humanoid robotics, autonomous driving, and industrial digital twins.

See page 2

International Cooperation

China's Icebreaker Xuelong 2 Bolsters Sci-tech Exchanges

By WANG Xiaoxia & BI Wenting

China's 42nd Antarctic scientific expedition, using the icebreaker Xuelong 2 (Snow Dragon 2), includes an autumn joint voyage in Prydz Bay to explore the mysteries of Antarctic ecology and global climate change. The joint voyage consists of international scientists from five other countries, such as India, South Korea and Australia. They shared their insights with the *Science and Technology Daily* reporter onboard.

A precious opportunity

"As an oceanographer, I had always wished to board Xuelong 2," said Youngju Lee, a senior researcher from the Korea Polar Research Institute (KOPRI). Lee was aiming to clarify the community structure and biomass of phytoplankton in the Prydz Bay during the transition from autumn to winter.

Generally, Antarctic scientific research activities are conducted in summer. Consequently, there is a knowledge gap about the ecosystem during the transition from autumn to winter.

Millie Goddard- Dwyer, a researcher from the Institute for Marine and Antarctic Studies at the University of Tasmania, Australia, said this expedition offered a rare opportunity to conduct experiments in autumn, when historically, sampling data is severely insufficient.

Dwyer worked closely with Chinese expedition member Ying Yiping, sharing live samples of Antarctic krill, which are extremely difficult to catch. She called on young scientists to seek cooperation with countries like China that have advanced platforms.

A collaborative research platform

In Xuelong 2's mobile international laboratory, scientists of different nationalities and backgrounds worked in close collaboration, building an efficient "cooperation chain."

Lee said under the guidance of Professor Zhou Meng, chief scientific advisor of the joint voyage, and with the assistance of experts from multiple countries, she successfully observed the large- scale ice algae bloom in Prydz Bay. Chinese scientists were always ready to help make the research proceed smoothly, she said.

See page 4

WEEKLY REVIEW

China Leverages Space Tech to Meet Climate Goals

China sent a greenhouse gas monitoring payload to the Chinese space station by the Tianzhou- 10 cargo spacecraft on May 11. The device can measure carbon dioxide and methane concentrations at key emission sources across the globe's mid- to- low latitudes. This will provide reliable, accurate, and high- frequency data to support greenhouse gas monitoring, reporting and verification.

Chang'e-6 Samples Reveal Asteroid Bombardment Secrets

Chinese scientists studying Chang'e- 6 lunar samples have discovered a major shift in asteroid impacts on the Earth- moon system 4.3- 2.8 billion years ago, from non-carbonaceous to carbonaceous asteroid dominance.

New Mars Helicopter Exceeds Speed of Sound

NASA's next- generation Mars helicopters have broken the sound barrier. During recent tests, the rotor blades for the upcoming SkyFall mission (to send next-generation helicopters to Mars) reached the speed of Mach 1.08 in a simulated Martian atmosphere.

Antarctic Sea Ice Decline May Accelerate Global Warming

A cascade of ocean and atmospheric changes has driven a rapid decline in Antarctic sea ice since 2015, which could accelerate global warming, new research has revealed. The study found a "triple whammy" of interacting climate processes tipped the Southern Ocean into a new state, according to a statement from Australia's University of New South Wales released on Monday.

Address: No. 15, Fuxing Road, Haidian District, Beijing, 100038. Telephone: 010-58884083 Price: 4.00 RMB **Visit: https://www.stdaily.com/web/English/index.html**
国内统一连续出版物号:CN11—0319 邮发代号:81—97 **Submit your article to: stweekly@stdaily.com**

China to Promote Innovative Development of AI Agents

Policy Express

By TANG Zhexiao

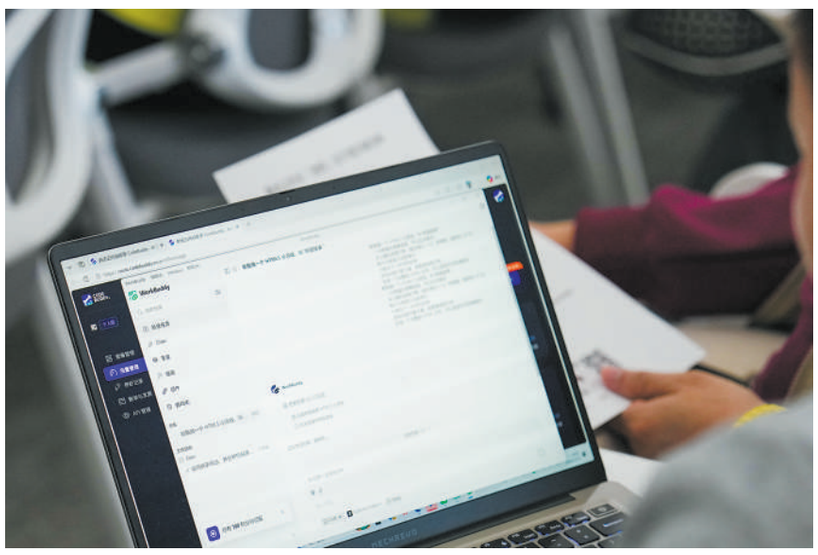
With the rapid advancement of new-generation AI technologies, intelligent agents are accelerating their in-depth integration with cyberspace and the physical world, transforming people's production methods and daily life as well as social governance models.

To promote innovative development of AI agents and advance "AI Plus" action, the Cyberspace Administration of China (CAC), the National Development and Reform Commission and the Ministry of Industry and Information Technology have jointly released an implementation guideline.

The guideline defines AI agents as intelligent systems equipped with autonomous perception, memory, decision-making, interaction and execution capabilities, serving as an important form of AI products and services.

It puts forward measures in four key aspects:

- Consolidating the foundation for development, improving the technical infrastructure, and establishing standards and protocols;
- Upholding the bottom line of security, clarifying product norms, guarding against potential safety risks, improving the governance system, and strengthening industrial self-regulation;
- Strengthening application-driven development. Centered on scientific research, industrial development, consumption promotion, people's well-being, and social governance, it sets forth 19 typical application scenarios;
- Building an innovation ecosystem, boosting industrial cooperation, and scaling up application promotion.



Users experience an AI agent tool. (PHOTO: XINHUA)

The CAC noted AI agent products such as mobile assistants, terminal smart stewards, and cloud-based AI agents have emerged at a rapid pace in recent years and entered large-scale application, greatly facilitating people's work and daily lives.

However, the high autonomy and high permission level of intelligent agents also bring security risks including privacy leakage, unauthorized operation, and behavioral malfunction. Therefore, it is imperative to balance development and security to advance the standardized application and innovative development of intelligent agents.

The guideline proposes a people-centered approach, AI for good, multi-party collaborative governance, and sound and prudent development. This will foster an institutional environment that ensures standardized development while encouraging innovation, thereby promoting healthy and orderly growth of intelligent agents.

Clear product guidelines should be established. This means improving policies, regulations and ethical norms, as well as managing permissions and regulating the behaviors of intelligent agents to guide the R&D of related products.

At the same time, the governance system needs to be improved by building a classified and tiered framework, and professional services such as risk monitoring, early warning, testing, and certification for AI agents strengthened.

An evaluation indicator system will be established for the development of intelligent agents. Monitoring, assessment, rolling implementation and dynamic adjustment will be strengthened for the standardized application and innovative development of AI agents.

List Unveiled to Prevent Invasive Alien Species

By LI Linxu

As part of efforts to safeguard ecological security and biodiversity, China has released a list of key controlled invasive alien species at ports.

The list, jointly released by six government bodies including the General Administration of Customs (GAC), the Ministry of Agriculture and Rural Affairs (MARA), the Ministry of Natural Resources, and the Ministry of Ecology and Environment, took effect on May 1 this year.

Anyone who imports alien species on the list without authorization will have the items confiscated and face a fine ranging from 50,000 to 250,000 RMB. If the violation constitutes a crime, criminal responsibility will be pursued in accordance with the law.

The list identifies the first batch of high-priority alien species requiring strict oversight at ports of entry. It includes 21 families (genera or species) across four categories: insects, mollusks, fish, and amphibians.

These alien species have no natural distribution in China. Once introduced and established, they pose a high risk of damaging the country's ecological security and biodiversity, leading to severe ecological and economic consequences.

In February, customs officers at Gongbei Port seized five *Serrasalmus rhombeus* from an inbound passenger's luggage. Commonly known as the Black Piranha, this ornamental fish can grow to more than 50 centimeters in length and is known for its aggressive and ferocious nature. If introduced into local waters, it would prey heavily on native aquatic species and could pose a physical threat to humans.

Currently, ornamental fish with potential invasive risks, including *Serrasalmus rhombeus*, have been officially included in the list.

In recent years, China has stepped up efforts to guard against and respond to invasive alien species by improving relevant rules and regulations, and strengthening inter-ministerial coordination mechanisms.

The country passed its first biosecurity law in 2020 and issued its first biodiversity white paper in 2021.

In 2022, China introduced measures for the administration of invasive alien species and released a list of key managed invasive alien species, identifying 59 invasive species as primary targets for prevention and control.

However, in customs enforcement practices, species are frequently seized at ports that are not included on the existing list of key managed invasive alien species.

"For these alien species, we also need to develop a dedicated controlled list at ports. On the one hand, this will improve the precision of port inspections and provide a legal basis for customs enforcement; on the other hand, it will help the public fully understand the potential risks of these species and enhance awareness of national biosafety," said Wang Yiyu, an official from the GAC.

Assessment Measures to Build Beautiful China

By YAO Yian

China has rolled out official assessment measures for the building of a Beautiful China, with the goal of expanding green and low-carbon development, along with the overall improvement of the country's eco-environmental quality, according to an official document released recently.

The document was jointly issued by the General Office of the Communist Party of China Central Committee and the General Office of the State Council. It stipulates that the assessment of annual key targets will cover core areas, including air quality, water and marine ecological environments, the soil environment, solid waste pollution prevention and control, and ecological quality.

The assessment measures are made of five core assessment pillars: responsibility for implementation, annual target delivery, key task completion, fiscal fund use performance, and public satisfaction with local eco-environmental improvements.

According to the document, the assessment work is set to adhere to the following core principles.

First, it must prioritize practical results and proactive accountability.

Second, adherence to both target-oriented and problem-oriented principles is required. Efforts must focus on resolving prominent ecological issues that concern the public, improving the critical battle against pollution, defining key metrics consistent with Beautiful China objectives, and targeting critical sectors and governance nodes.

Third is the adherence to law-based, publicly recognized standards. This must ensure precise, scientific, objective, and impartial reviews, while reducing administrative burdens on grassroots authorities and making use of public oversight.

Fourth, assessment results need to be linked to concrete actions, driving on-the-ground implementation through performance reviews, using assessment outcomes to advance eco-environmental improvement, and cementing accountability for eco-environmental protection at all levels.

A high-speed train runs across East Lake in Wuhan city. (PHOTO: XINHUA)

Physical AI Moves from Simulation to Reality

From page 1

Building an ecosystem

Fysics is not a standalone entity. Zhang's team has built a complete infrastructure including MoziSim, a simulation platform for generating massive, realistic training data, and OmniFysics, a multimodal foundation model for perceiving and reasoning about physical reality.

In the next three to five years, the team aims to create a complete industrial chain combining domestic computing power, proprietary engines, and open-source ecosystems. Fysics has already partnered with Chinese chipmakers and research institutions to scale the technology.

"We want to become a core infrastructure provider for the age of physical intelligence," Zhang said.

For now, the basketball-shooting robot is proof that Chinese innovation is helping AI learn not only to think, but also to act and adapt.

Case Study

Tech Guards Green Future in Qinghai

By Staff Reporters

Located in the core area of the "Third Pole of the Earth," the Qinghai-Xizang Plateau, Qinghai province is known as "China's Water Tower." It serves as a crucial ecological security barrier for both China and Asia. Now, through technological innovation, Qinghai has evolved to become a model of biodiversity conservation, especially for the reclusive snow leopard.

Protecting flagship species

Through the Qinghai Ecological Window, a real-time monitoring system with 116 video stations across five major ecological zones, researchers can now observe snow leopards and other wildlife in high definition from thousands of kilometers away.

"To protect the environment, we must first understand the baseline and track changes," said Liu Yanlin, associate professor at Qinghai Normal University. Scientists previously deployed infrared cameras across large habitats to estimate snow leopard populations. Since 2017, they have been developing standardized protocols and a global snow leopard assessment program.

Today, the Sanjiangyuan and Qilian Mountain National Parks serve as major wildlife sanctuaries. In Qinghai, the snow leopard population has reached over 1,200. The Tibetan antelope, once endangered with fewer than 20,000 individuals, has rebounded to more than 70,000. Przewalski's gazelle, in the past rarer than the giant panda, now numbers over 3,700 — 12 times its original population. A major tech-driven ecological monitoring network lies behind these encouraging figures.

Locking drifting sand around Qinghai Lake

Close to Qinghai Lake, China's largest inland saltwater lake, degraded sandy pastoral land is now greening.

Researcher Zhang Dengshan leads a desertification control team under a provincial-academy collaboration. Working with local government, his team developed "living barriers" — planting wheat, barley, or oats instead of using only traditional straw or stone barriers.

Between these barriers, they introduced Qinghai spruce, Qilian juniper, and other species, along with Jerusalem artichoke and Hedysarum scoparium, which provided both ground cover and economic returns.

From lake-focused to landscape-wide governance, this approach reflects Qinghai's tech-driven sand control. Moving from manpower reliant methods to satellite monitoring and drone precision seeding using integrated systems, Qinghai has made measurable progress. Since 2023, the province has completed afforestation on 17.72 million mu (about 1.18 million hectares) and treated 5.23 million mu (about 349,000 hectares) of sandy land. On the plateau, technology is helping to build a solid green barrier.

Preserving the plateau's genetic heritage

At the Northwest Institute of Plateau Biology under the Chinese Academy of Sciences, researcher Chi Xiaofeng places a dried specimen of spikenard, an aromatic herb from the Himalayas, onto a high-precision scanner. The plant is little-known but listed as critically endangered by the International Union for Conservation of Nature — the only plant species in Qinghai with that rating among nationally protected wild plants.

Spikenard is used in incense and medicine and its international trade is strictly regulated. Yet for years, studies on its wild distribution were almost absent. Chi's team analyzed its population ecology, genetics, and reproductive patterns to understand what drives its endangerment. This year, he plans to begin field reintroduction trials in Sanjiangyuan, and other areas with heavy harvesting or degraded black-soil land.

This integrated "conservation-plus-utilization" approach relies on the National Germplasm Bank of the Qinghai-Xizang Plateau, one of Qinghai's top 10 national-level scientific platforms. Around 100,000 biological germplasm samples are now preserved there. From one plant to seed bank, and from research to field reintroduction — this is technology-powered biodiversity conservation in action.

The Sanjiangyuan National Park in Qinghai. (PHOTO: XINHUA)

Smart Auto Manufacturing Driven by 'Data+AI'

From page 1

On the manufacturing side, FAW uses AI large models as the "brain" to develop process agents and production agents, realizing intelligent decision-making and automated production scheduling.

Virtual simulation technologies are used as the "brain" to build a cloud-controlled simulation technology platform, enabling decoupled hardware-software cluster control.

The brick-and-mortar factories are the "torso," accelerating the development of embodied intelligent robots to be deployed in scenarios such as final assembly and logistics sorting.

Digital and intelligent technologies have significantly boosted the company's operational efficiency. Men explained that by fully adopting cloud-native technologies, FAW migrated 290 standalone systems to the cloud in a single, coordinated effort, reducing business iteration cycles from quarterly to weekly and slashing annual maintenance costs from 200 million RMB to 27 million RMB.

FAW's transformation path provides a highly practical and replicable model for the upgrading of traditional industrial bases.

U.S. 'Distillation' Hype on China's AI Is Absurd

Clear Voice

By LIANG Yilian & HU Dingkun

Visitors use handheld controllers to operate a robot claw machine in the interactive exhibition area of the 9th Digital China Summit. (PHOTO: XINHUA)

According to a recent Reuters report, the U.S. State Department has instructed its missions worldwide to amplify claims that Chinese companies "steal" U.S. AI intellectual property through so-called "distillation," laying the groundwork for potential follow-up actions and coordinated international messaging by Washington.

On April 23, Michael Kratsios, the chief science and technology adviser to President Donald Trump, issued a memorandum accusing Chinese entities of using "distillation" to "extract capabilities from American AI models, exploiting American expertise and innovation." The memo claimed that "distillation" allows foreign entities to release seemingly comparable products at very low cost. On the same day, the U.S. House Committee on Foreign Affairs introduced a bill calling for the identification and sanctioning of foreign entities that acquire capabilities from U.S. AI models via "distillation."

These moves suggest a coordinated push within U.S. political circles to elevate the narrative that China is leveraging "distillation" to appropriate American AI technology. The objectives appear twofold: to stigmatize China's AI development under the banner of intellectual property violations, thereby weakening its global influence; and to create a policy rationale for expanded sanctions on Chinese AI companies. Similar tactics have been used in recent years to restrict China's broader technology sector.

Yet the claim that China's AI progress hinges on "distillation" or the misappropriation of U.S. technology is difficult to sustain. Many Chinese AI companies have adopted relatively open development paths, publishing research and making technical approaches accessible. Their advances in core large-model architectures and training methods have been widely recognized in both industry and academia. Against this backdrop, such sweeping allegations appear more political than technical.

Take DeepSeek as an example. In January 2025, the company released its DeepSeek-R1 model. Around the same time, OpenAI was reported to have suggested to media outlets that DeepSeek may have replicated U.S. capabilities through "distillation."

That claim was soon challenged by publicly available research. In September 2024, DeepSeek published a paper in *Nature* detailing the core algorithms behind R1, making it one of the first large-scale machine learning models to be described in a peer-reviewed setting. One of the reviewers, machine learning engineer Lewis Tunstall, noted that DeepSeek's reasoning methods were sufficiently advanced and did not rely on distilling OpenAI's systems.

On April 24, DeepSeek unveiled its next-generation model, DeepSeek-V4, capable of handling context windows of up to one million Chinese characters. Earlier research on long-context processing by the company stood out among more than 8,300 submissions and received the Best Paper Award at the 2025 annual meeting of the Association for Computational Linguistics (ACL), one of the field's leading international conferences.

Such academic outputs underscore a key trend: China's AI development is increasingly driven by indigenous innovation, a trajectory closely observed by the global research community.

In contrast, many U.S. AI companies favor closed-source approaches and disclose minimal technical detail. The extent to which similar techniques — such as distillation — are used in their own development processes, or whether cross-model influences run in multiple directions, are questions that receive far less public scrutiny.

In February, U.S. AI firm Anthropic accused several Chinese companies of distilling its models. Ironically, around the same time, researchers reported that in certain cases Anthropic's model, when queried in Chinese about its identity, responded that it was developed by DeepSeek.

At the 2025 ACL annual meeting, more than half of first authors on accepted papers were affiliated with Chinese institutions. As the global AI landscape evolves, China has emerged as a major center of R&D. China's AI progress relies on the expertise and innovation of its scientists — something the U.S. cannot contain or suppress. No matter how much they hype it up, they are only fooling themselves.

Voice of the World

Zero-tariff Policy a Game Changer for Africa

Edited by GONG Qian

On May 1, 24 tonnes of South African apples were cleared swiftly by Shenzhen customs officers in south China, bound for supermarkets and wholesale markets across the country. For these South African apples, the tariff rate plunged from 10 percent to zero.

Luo Shengcong, general manager of Shenzhen Kin Shing Yip International Agent Co., Ltd., said this batch of produce would yield tariff savings of about 20,000 RMB, according to China's General Administration of Customs.

It is the first shipment from Africa to benefit from an expanded policy implemented by China — to remove tariffs on all imports from the 53 countries on the continent with which China has diplomatic ties, until April 30, 2028. This builds on an earlier measure of granting full tariff exemptions to 33 least developed countries in Africa on December 1, 2024.

According to think tank ODI Global, this sweeping move marks a pivotal development in China-Africa trade relations.

China will benefit from increasing imports from Africa, a continent abundant in natural resources. It already purchases large quantities of crude oil from Angola, according to the financial paper *Nikkei*.

"From Africa's viewpoint, China's decision to eliminate tariffs for 53 African nations is a significant development," ODI Global said.

Economist Ken Gichinga told the BBC that these new measures would improve access to Chinese markets and expand opportunities for African companies to prosper. "For Kenya, it will be a big boost to certain subsectors such as avocados. The agriculture sector will benefit the most — macadamia nuts, coffee, tea and leather," he said.

The Diplomatic Watch website said that "China's move gives African exporters — from farmers and miners to emerging manufacturers — unprecedented access to China's enormous consumer and industrial market." That means higher income from farm produce, processed foods, minerals, textiles, and light-manufactured goods.

Lauren Johnston, a senior research fellow at the AustChina Institute, told the BBC that the expansion of China's zero-tariff policy could increase African agricultural exports, which would "help to elevate rural incomes, improve rural productivity, and ultimately to reduce hunger and poverty."

ODI Global said China's zero-tariff treatment positions the country in stark contrast to the perceived protectionist policies pursued by some Western powers and reinforces it as "a reliable and equitable partner for the Global South." Previously, the U.S. imposed 30 percent tariffs on African nations such as Libya and South Africa in 2025.

"Today, Africa's other major trading partners do not offer comparable market access," ODI Global noted.

Leaders from African nations have welcomed China's zero-tariff treatment with great optimism.

Elizabeth Ofosu-Adjare, Ghana's minister for Trade, Agribusiness, and Industry, said that China's zero-tariff treatment creates significant export opportunities for Ghanaian products in the Chinese market.

"The true and enduring friendship between Kenya and China has resulted in China granting exports of Kenya to access Chinese market duty free," Kenya's Deputy President Kithure Kindiki said in a statement. The zero-tariff policy will enhance incomes "to millions of our farmers, traders and export companies," Kindiki said. "The surest way of creating wealth is through trade."

'China Shock 2.0' a Rhetorical Disguise for Protectionism

Comment

By GONG Qian

Some Western media outlets and think tanks recently hyped up the so-called "China Shock 2.0." They claim that China's booming high-end manufacturing industries like electric vehicles (EVs), solar panels, and semiconductors are generating overcapacity, flooding global markets with low-cost goods and fueling trade tensions.

Such a narrative is neither objective nor fact-based. It stems from a biased zero-sum mindset and is underpinned by trade protectionism.

Previously, the "China Shock" narrative was used as a scapegoat for low-skilled manufacturing unemployment. But according to Nobel laureate economist James Heckman, such narrative is incomplete. Heckman said in an interview that it fixates on localized job losses while ignoring broader welfare gains: Cheaper imports boost consumer purchasing power, lower input costs benefit producers, and competition drives the reallocation of resources to more productive sectors.

"A lot of politicians look only at the job loss but don't count the benefits," he said.

Now, the core allegation of "China Shock 2.0" revolves around the claim of "overcapacity." However, this is fundamentally flawed. In particular, labeling the current green tech capacity as "excessive" ignores the urgent imperative of tackling climate change.

According to the International Energy Agency, under the Announced Pledges Scenario, the global electric vehicle stock could reach 585 million units by 2035, while under the Net Zero Emissions by 2050 Scenario, the figure could hit 790 million.

That means China's rising EV output represents not overcapacity, but precisely the capacity the world urgently needs to combat global warming.

In green technology industries, China's competitive edge comes from technological innovation and industrial ecosystem scale. For instance, enterprises such as BYD and CATL invest billions in R&D, pioneering breakthroughs including blade batteries and highly efficient manufacturing models.

More importantly, China has built a fully comprehensive and deeply integrated supply chain spanning raw material processing to final assembly, which naturally drives down costs. Confusing the efficiency of economies of scale with illegal dumping is an intellectual cop-out.

Furthermore, international trade is rooted in comparative advantage. If exporting competitive products is deemed dumping surplus capacity, should America's massive exports of agricultural goods and advanced microchips also be labeled a "shock" to the global market?

The real driver behind the "China Shock 2.0" narrative is geopolitical anxiety. It serves as a rhetorical disguise for trade protectionism, exemplified by the EU's anti-subsidy probes and the exclusionary clauses within the U.S. Inflation Reduction Act.

China's rapid development poses no threat to any nation; instead, it is an indispensable driving force for global shared progress. China's green manufacturing strengths have filled supply-demand gaps in global green growth, providing strong impetus to the global energy transition and low-carbon development.

In addition, China's high-tech offerings, represented by robots, AI and innovative medicines, are breaking technological barriers and ending market monopolies, making cutting-edge yet affordable technologies accessible to more people around the world.

The real shock is not China's innovation-driven industrial advancement, but the West building tariff walls against progress. In an era of deep economic interdependence, the world needs rules-based competition rather than protectionist paranoia. China has always supported and will continue to uphold an open, inclusive and win-win global trading system.

China, U.S. Set Out New Vision for Ties

From page 1

"China will only open its door wider," Xi said. American companies are deeply involved in China's reform and opening up, and the U.S. side is welcome to enhance mutually beneficial cooperation with China, he added.

Vibes of friendship and respect

Prior to Thursday's talks, Xi hosted a welcome ceremony for Trump outside the Great Hall of the People in central Beijing, featuring military band performances, a 21-gun salute and a march-past of the guard of honor.

Trump said that it was a great honor to visit China, hailing the very good relationship between the two countries.

Trump said he and Xi have enjoyed friendly communication and worked out many important issues, calling Xi "a great leader" and China "a great country," and expressing tremendous respect for Xi and the Chinese people.

After the talks, the two leaders visited the Temple of Heaven. Impressed by the more than 600-year-old UNESCO World Heritage Site, Trump said that as great nations with wise and great peoples, the U.S. and China should deepen mutual understanding and strengthen friendship between their peoples.

Addressing the welcome banquet, Xi recalled the China-U.S. Ping-Pong Diplomacy 55 years ago. Active engagement between the two sides has continued to serve as an important driving force behind the development of bilateral relations. "President Trump and I have had multiple meetings and phone calls and kept China-U.S. relations generally stable," Xi said.

Trump thanked Xi for the gracious reception and hailed the positive and constructive conversations between the two sides. "Today is a fantastic day," he said.

Bright future for bilateral relations and humanity

During their talks, the two presidents also exchanged views on major international and regional issues, such as the Middle East situation, the Ukraine crisis, and the Korean Peninsula situation.

Chinese geopolitical experts say that if the proposed constructive relationship of strategic stability can be established and well-preserved, China and the U.S. will surely contribute a lot to global peace and development for quite a long period to come.

Now it's up to the U.S. to work with China in the same direction, given Beijing's consistent and clear policy on China-U.S. relations, said Diao Daming, vice dean of the National Academy of Development and Strategy of Renmin University of China.

Xi has stressed that the building of such a relationship should not be a mere slogan, but concrete action taken by both sides toward the same goal.

Placing emphasis on the Taiwan question, Xi described it as the most important issue in China-U.S. relations.

If it is handled properly, the bilateral relationship will enjoy overall stability. Otherwise, the two countries will have clashes and even conflicts, putting the entire relationship in great jeopardy, Xi told his American counterpart.

Source: XINHUA

Robots Move into Home

Hi-Tech

By Staff Reporters

In China, robots are being integrated into daily service scenarios. In Shenzhen, the country's first robotic cleaning assistant has been deployed, forming a "golden duo" with human domestic workers to serve ordinary households.

In the city's Bao'an district, resident Chen Guo recently experienced this new service model firsthand. During a nearly three-hour cleaning session, the robot and the human cleaner worked in coordination, each performing distinct roles. The robot was responsible for basic cleaning and organization in the living room, while the human cleaner focused on deep cleaning, client communication, and on-site decision-making.

This clearly defined division of labor leverages the strengths of both sides: Humans excel at communication and handling complex, non-standard tasks, while robots deliver tireless, standardized performance — together achieving an efficiency gain greater than the sum of their parts.

"This represents an upgrade from traditional labor-intensive services to a digitally enabled model of human-machine collaboration," said Si Weixin, an associate professor from Shenzhen University of Advanced Technology. He added in the early stages, humans will continue to lead complex decision-making while robots handle execution. Over time, with continuous autonomous learning, robots are expected to independently perform increasingly sophisticated domestic tasks.

A similar transformation is underway in eldercare. At a smart elderly care robot station in Ronghua, a subdistrict in the Beijing Economic-Technological Development Area, over 40 robotic products have been deployed, covering multiple scenarios. A pancake-making robot can dish out a hot pancake in just three minutes, while rehabilitation robots provide personalized therapy services tailored to individual needs.

"We are using smart elderly care robot stations as a starting point to deploy a range of advanced technologies," said an official from the Beijing Economic-Technological Development Area. These technologies include AI-driven nutrition analysis and smart meal planning, age-friendly interaction systems, non-invasive autonomous health monitoring, and personalized intelligent rehabilitation training.

At the smart elderly care station in Ronghua subdistrict in Beijing, a resident plays a game of Gomoku with a robot. (PHOTO: XINHUA)

British Scientist Who Helps Sort Out Trash

Dialogue

By Staff Reporters

At the North Village canteen at Fudan University in Shanghai, you might spot a British professor tucking into her favorite dish: Fudan's famous braised pork. That's Marie Harder, who has spent 15 years in Shanghai studying "garbage."

Last year, she received China's highest honor for foreign experts, the Chinese Government Friendship Award.

Long before Shanghai's waste sorting regulations made headlines, Harder and her students were already embedded in the city's residential communities, tracking how people shifted from reluctance to routine.

Professor Marie Harder. (PHOTO: Fudan University)

Decade of grassroots research

Fudan University's Sustainable Behavior Research Group, one of the earliest university research teams in China to focus on waste sorting, conducted a decade-long study on how urban residents develop the willingness to sort waste, begin doing it, and sustain the habit.

"At first, even the students didn't know much. In fact, we were building a theory. These theories needed to start with small experiments, moving from residential compounds to subdistricts, and then expanding to the entire city of Shanghai. Ultimately, we identified the most important behavioral factors for waste sorting in Shanghai," Harder explained.

Before Shanghai entered its "mandatory waste sorting era," Harder and her team submitted a report to the municipal government, highlighting three key findings: the adequacy and rationality of facilities and equipment, residents' understanding of their role in waste sorting, and a friendly volunteer-based duty system for interpersonal guidance at waste stations.

In February 2019, Shanghai's *Municipal Regulations on Domestic Waste Management* were released. Harder told reporters the effects were quickly evident after the regulations took effect. The regulations promote waste sorting through legal enforcement, clarifying the responsibilities of all parties, mandating source reduction, and ensuring full-chain supervision of the sorting system. According to assessments and research conducted two years later, Shanghai's waste sorting efforts have proven successful.

In 2011, Harder moved her family from the UK to Shanghai, where she and her students delved into Shanghai's grassroots communities. They visited 25,000 residential compounds across Shanghai for field research. Donning masks and gloves, they inspected waste sorting stations and communicated face-to-face with community residents, studying how people move from willingness to action, and finally to habit. These fieldwork findings were compiled into policy advisory reports on domestic waste management, which contributed to the *2019 Municipal Regulations on Domestic Waste Management*.

One of Harder's students, Li Changjun, now an associate professor at Nanjing Agricultural University, continues to research waste sorting management. "Working with Professor Harder on the ground gave me great inspiration and solidified my decision to continue this research, which is of great significance to the sustainable development of humanity," Li said.

"I have realized my original aspiration to contribute to the development of all humanity. Conducting research on sustainable development in Shanghai has made me resonate deeply with the spirit of this city," Harder said emotionally in 2021, when she received the Magnolia Gold Award, Shanghai's highest honor for expatriates.

Pioneering the 'WeValue' methodology

Harder's research on the "behavioral factors for waste sorting in Shanghai" is part of her broader commitment to studying "sustainable behavior" since 2010. She realized that changing people's behaviors to make them sustainable and facilitating knowledge exchange among different communities are crucial for enhancing public participation in community development and advancing sustainable development.

Harder thinks many phenomena remain unexplained by existing scientific theories; relying solely on known scientific knowledge to guide human development is too limiting. The "sustainable behaviors" of different groups and the underlying values and preferences embody important local wisdom.

"Many communities do not realize that the practices they have passed down for centuries on their land, though not yet explainable by current science, are beneficial to the sustainable development of all humanity," Harder said. A significant part of her team's work involves articulating this wisdom, which has often been overlooked or is difficult to express due to lack of trust or cognitive differences.

"We have spent over a decade developing and refining a methodology called WeValue," Harder said. This methodology systematically extracts "shared values" from people's sustainable behaviors, identifying external factors that influence human health, development, or behavioral change, thereby increasing public engagement with and acceptance of policies.

Throughout their fieldwork, Harder's team respects local values, acting as listeners and translators. This approach aligns closely with the Global Civilization Initiative, which holds that "all peoples have the right to pursue and explore the realization of common values for humanity."

From a philosophical and ethical perspective, Harder's work focuses on empathy and shared understanding among different subjects — a concept that resonates with the principle of "people-to-people connectivity" in the high-quality development of the Belt and Road Initiative.

This article was edited and translated based on the Chinese version written by Fudan University.

Tech+Culture

Beijing Leads Charge in Digital Cultural Innovation

By Staff Reporters

Beijing, a city that has evolved over 3,000 years, is also the nation's cultural hub and a center for international exchange. Its flourishing historical and cultural resources provide an integral and essential component of cultural development in the digital age.

From physical presence to digital perception

To learn about urban culture, you need to experience it firsthand. Technologies such as virtual reality (VR), augmented reality (AR), and high-precision 3D modeling, now allow people living thousands of miles away to immerse themselves in Beijing's historical settings in a truly "on-site" manner.

For example, the ongoing project to digitally preserve and disseminate Beijing's Central Axis is transforming the route's key architectural landmarks into accessible digital assets. By creating navigable, immersive, experiential spaces and making them available to the public via multilingual platforms, the project enables visitors to "walk through" the Central Axis in a digital realm, and observe the evolving urban landscapes of Beijing across different historical periods.

From unidirectional output to bidirectional dialogue

Traditional communication models often overlook audience feedback and needs through their unidirectional "I speak, you listen" model. This is particularly problematic when engaging diverse cultural audiences because the lack of interactivity often leads to misinterpretations and can reduce the effectiveness of cultural exchange. Digital technology's inherent interactivity offers a solution by enabling two-way cultural communication.

Cultural and museum institutions in Beijing are actively improving their digital practices to address this issue. While serving local audiences, these institutions are cultivating new, more vibrant scenarios for international cultural exchange. For example, the Capital Museum's interactive guided tour platform supports multilingual switching and personalized content customization. This ensures that visitors from different cultural backgrounds can engage in a way that suits their cognitive habits and cultural sensibilities.

From grand narratives to micro-perspectives

For a long time, cultural communication in Beijing focused on "grand narratives," such as the city's millennia-old history and magnificent civilization. However, these narratives don't mean much to people lacking the necessary historical context. Digital technology makes cultural themes more universally accessible and relatable through strategically re-contextualizing content.

For example, the lion motif has widespread symbolic meaning representing guardianship and protection, making it a universally understood entry point into cultural appreciation. Beijing's Fengtai district used 3D printing technology to transform the stone lions of the Lugou Bridge into cultural and creative products. These items became a focal point of interest among international journalists and diplomats at the 2026 Spring Festival Reception for Foreign Correspondents.

The video series *Hello, Beijing: A Diplomat's Notes on the Capital* features a wide group of foreign diplomats in China. By translating their impressions of the city into personal narratives and sharing them via digital platforms, the series allows the "Beijing Story" to connect with diverse audiences in a more approachable and engaging manner.

This threefold transformation aims at a single objective: ensuring that cultural communication returns to its human-centric roots. By deeply integrating cultural and technological resources, Beijing enables its stories to reach a wider audience, while still upholding tradition and embracing innovation.

Cloud-and-Dragon Staircase Stone Alive with Artistry

Traditional Eastern Wisdom

By BI Weizi

The Cloud-and-Dragon Staircase Stone stands as a quintessential example of ancient craftsmanship, located proudly behind the Hall of Preserving Harmony (Baohe Dian) in Beijing's iconic Forbidden City.

Sourced from Dashuowo village in the Fangshan district on the outskirts of Beijing, the structure is carved from four blocks of Aiyeqing, a green stone dating back to the Ming Dynasty. The largest block measures approximately over 16 meters long, 3.07 meters wide, and 1.7 meters thick. It weighs over 200 tonnes and is the largest structural component in the Forbidden City. The wisdom behind this monumental work is best demonstrated in the techniques used for its transportation and carving.

To transport the stone, craftsmen combined natural winter conditions with fundamental physics principles to complete an about 70-km haul. According to the historical record *Notes on the Construction of the Two Palaces (Lianggong Dingjian Ji)*, the process was executed in three stages.

First, they constructed "dry boats" or rectangular wooden frameworks designed to carry the stone. The bases of these frames were made of wooden beams that created broad surface areas to evenly distribute the immense weight of the stones and prevented their damage. Second, wells were dug along the route at intervals of about two km. In winter, water was hauled from these wells and splashed onto the road surface to create a sheet of ice, significantly reducing sliding friction. Third was the towing process. Teams of horses dragged the "dry boats" across the ice, advancing about eight to 10 km a day.

In terms of carving technique, the Cloud-and-Dragon Staircase Stone combines various craftsmanship styles that are in perfect harmony with each other. The soaring dragons are carved in high relief. By carving away the background material, the dragon motifs stand out in bold relief, creating a powerful three-dimensional effect that makes the nine dragons appear remarkably lifelike. Conversely, the auspicious clouds and waves of Treasure Mountain are rendered in low relief. Only the areas immediately surrounding the motifs are incised, creating a subtle effect that contrasts with the dynamic dragons. Moreover, the scrolling vine patterns on either side of the stone are rendered in flat relief, conveying a sense of fluid movement and vitality.

The monumental carving embodies the spirit of ancient craftsmanship — a spirit that balances adherence to established aesthetic norms with innovative, era-specific techniques. As such, it serves as an invaluable reference for preserving and sharing intangible cultural heritage skills.

Tourists visit the "Digital Art Exhibition on the Central Axis" at the "Shanmen Laiba" Digital Art Museum in Beijing. (PHOTO: VCG)

What Makes Cerium-Magnesium Changesite Unique?

Science Outreach

By HU Lijuan & BI Weizi

May 3, 2026 marked two years since the Chang'e-6 lunar "soil-sampling" mission began. A milestone in this mission is the International Mineralogical Association approving Cerium-Magnesium Changesite as the 11th newly discovered lunar mineral after Chinese scientists identified it from a lunar meteorite. This discovery provides crucial mineralogical evidence for understanding the Moon's origin and evolution.

Cerium-Magnesium Changesite was discovered in the first lunar meteorite to fall within China's territory — the Pakepake 005 meteorite. Li Minjing, an associate professor at the School of Environmental Science at China University of Geosciences (Wuhan), said the spherical meteorite weighs 44 grams and is covered with a dark fusion crust, revealing white and dark fragments of calcium feldspar.

Many people confuse Cerium-Magnesium Changesite with Changesite discovered in 2022. Although the two are "siblings" within the "phospho-calc-soda group," there are significant differences between them.

Li explained that Changesite, derived from the samples brought by China's Chang'e-5 lunar mission from the moon, was discovered in 2022. It is rich in the heavy rare earth element yttrium. Its space group (the set of all symmetry elements within the crystal's internal structure) is R3c, and the c-axis length of its unit cell (the most basic geometric unit constituting the crystal) is approximately 37.2 Å, which are typical mineral characteristics.

In contrast, Cerium-Magnesium Changesite — discovered in 2024 and officially named in 2026 — originates from a lunar meteorite. It is rich in the light rare earth elements cerium and magnesium, with a space group of R3m.

The discovery of Cerium-Magnesium Changesite provides new mineralogical evidence for understanding the crystallization and differentiation mechanisms of the lunar magma ocean, expanding the boundaries of our knowledge of the material world.

Li said due to its unique crystal structure and chemical composition Cerium-Magnesium Changesite can serve as a sample for studying the composition of lunar materials, while its inherent luminescent properties can provide insights for research on new luminescent materials.

Furthermore, its rare earth element ratios and crystal structure characteristics can be a reference for the artificial synthesis of related minerals.

China's Icebreaker Xuelong 2 Bolsters Sci-tech Exchanges

From page 1

Shramik Maruti Patil, a scientist from the National Centre for Polar and Ocean Research of India, was impressed by the well-prepared Chinese researchers who assisted international participants with sampling and analysis.

Patil praised the open platform established by China, saying it is conducive for scientists from different fields to jointly solve the major scientific problems identified by the Scientific Committee on Antarctic Research. He looks forward to participating in more joint projects, especially expeditions in specific fields such as physical oceanography and the cryosphere.

Benefiting polar governance

International exchanges are crucial for sharing knowledge and deepening understanding of the unique Antarctic region, Dwyer said.

Understanding Antarctica is the foundation for protecting and utilizing it. The continent holds significant strategic importance for global ecological balance, climate regulation and sustainable utilization, said Chen Jianfang, deputy leader of the expedition and chief scientist of the joint voyage.

The joint voyage provided a platform for in-depth exchanges among researchers from various countries. It reflects China's efforts to build an open, inclusive and mutually beneficial polar scientific research environment, and to practice the concept of a community with a shared future for mankind, Chen added.