Responsible AI Development Benefits the World

Voice of the World

By LIN Yuchen

The recent 2024 World AI Conference and High-level Meeting on Global AI Governance in Shanghai released the *Shanghai Declaration on Global AI Governance*, which proposes to promote the development of AI, safeguard its safety, build an AI governance system, strengthen social participation and enhance public literacy, and improve the quality of life and social wellbeing.

China's stance on AI governance is no quest for technological supremacy. Instead, it is a commitment to ensuring that AI serves humanity as a whole. This position was articulated clearly during the first bilateral AI safety dialogue between the U.S. and China held in Geneva in May.

China emphasized the need for "strengthening the global governance of AI" and advocated an expanded role for the UN in these efforts. This push is not just about countering U.S. dominance but about fostering a global consensus on AI safety and governance.

China has increasingly focused on AI safety measures, both domestically and internationally. Domestically, it has implemented strict regulations against deepfakes and harmful algorithms since 2018. Internationally, it has engaged in initiatives like the "Bletchley Declaration" to enhance AI security and reliability. The efforts reflect a commitment to addressing AI risks and fostering responsible development on the global stage.

Visitors watch a robot dancing during the 2024 World AI Conference in Shanghai, east China, July 5, 2024. (PHOTO: XINHUA)

China's approach to AI governance seeks to include voices from the developing world to promote a more equitable distribution of technological benefits. *Forbes* said China's Global AI Governance Initiative asserts that "all countries, regardless of their size, strength, or social system, should have equal rights to develop and use AI."

This inclusive vision was echoed at the recent China-Africa Internet Development and Cooperation Forum, which called for stronger representation of developing countries in global AI development and urged the UN to establish an AI governance institution.

China's regulatory framework for AI is advancing rapidly. It has introduced regulations targeting deepfakes, algorithmic recommendations, and generative AI, and is working on an AI law to consolidate these efforts. This regulatory environment underscores a commitment to align AI development with human values, a sentiment that resonates with the broader goals of global AI safety communities.

The Chinese government recognizes the transformative potential of AI amidst economic challenges and U.S. sanctions on key technologies. By scaling up the national computing capacity and investing in a nationwide network, it aims to close the gap with the U.S. and establish China as a leader in AI and other groundbreaking technologies.

China's rapid adoption of generative AI is another testament to its technological prowess. A survey by SAS and Coleman Parkes Research found that 83 percent of Chinese respondents in various industries reported using generative AI, the highest adoption rate among the surveyed countries. This rapid uptake is complemented by China's leading position in the generative AI patent race, with over 38,000 patents filed between 2014 and 2023.

Chinese companies, from tech giants like ByteDance to startups like Zhipu, are driving this innovation, developing robust domestic AI industries despite international restrictions. The competitive landscape is expected to fuel further enterprise adoption of generative AI, supported by advancements in continuous automated monitoring technologies.

China's multifaceted approach to AI governance, safety, and development positions it as a global leader not only in technological innovation but also in setting ethical and regulatory standards. A report by Concordia AI, a Beijing-based social enterprise focused on AI safety and governance, says there is a growing convergence of views on AI safety among major powers, driven in part by China's diplomatic engagements and regulatory progress.

China's AI vision is firmly rooted in the belief that technology should serve all. By advocating for inclusive global governance, advancing regulatory frameworks, and leading in AI adoption and innovation, China aims to ensure that the benefits of AI are distributed equitably and ethically across the world. This commitment underscores China's role as a responsible global leader in the technological era.

Tech Innovations' Role in Building a Leading Sports Nation

Opinion

By TANG Zhexiao

Off to a golden start at the 2024 Paris Olympic Games, the Chinese delegation bagged the first two gold medals in shooting and diving.

Lauding the success, China's General Administration of Sport, All-China Sports Federation, and Chinese Olympic Committee sent a congratulatory message to the team on July 28, stating, "We hope the Chinese sports delegation promotes the Chinese sports spirit and the Olympic spirit, making further contributions to building China into a leading sports nation."

In recent years, information technologies such as AI, big data and 5G, as well as high-tech devices like sensors are being integrated with the sports industry, and the role of tech innovation in competitive sports has become increasingly prominent.

The Hangzhou Asian Games, the 31st International University Sports Federation Summer World University Games, or the Chengdu Universiade, as well as the Beijing Winter Olympics are prime examples of China building itself into a leading sports nation through tech innovation.

The Hangzhou Asian Games was lauded as a spectacle "like no other" by the media due to its tech innovations. The integration of naked-eye 3D technology, augmented reality (AR), and AI created a fresh and exciting experience for audiences worldwide.

The dazzling e-fireworks which caused no pollution, the digital torchbearer on the opening night, the self-driving shuttle services at the competition venues, and the first-ever use of only clean power at all venues and other innovations at Hangzhou showcased China's achievements in green development and technological progress in international sports.

Cutting-edge technology also prevailed at the Chengdu Universiade last year. According to the Chengdu Municipal Bureau of Science and Technology, more than 170 high-tech products were deployed in over 30 venues. The athletes used high-tech training facilities such as wind tunnel laboratories and six-degree-of-freedom training halls to enhance their performance.

Prior to the Beijing 2022 Winter Olympics, a Winter Olympics laboratory at Northeast Normal University worked on wearable training devices to display athletes' body indicators on the screen in real time. Auxiliary training simulators helped neuromuscular rehabilitation training for athletes taking part in ice and snow events.

Beijing 2022 introduced carbon dioxide refrigerants for ice-making, the least toxic and most eco-friendly natural refrigerants, thereby reducing greenhouse gas emissions. The previous Winter Olympics had used freon refrigerants for ice-making. Compared to that, carbon dioxide refrigerants were estimated to improve refrigeration efficiency by 20 percent and save electricity use by two million kWh a year for the National Speed Skating Oval, the speed skating arena.

Bian Zhiliang, chairman of a Chinese sports industry giant Mount Tai, said the development of sports relies on technology and sci-tech innovation powers the sports industry.

Pushing the development of tech innovation is needed to achieve China's goal of becoming a leading sports nation by 2035, as well as becoming a modernized country.

China's EV Production Is Here to Stay

Comment

By TANG Zhexiao

After a period of debate slamming China's overcapacity, some Western media have begun to realize the error of their ways.

According to *The Economist*, besides being the world's factory and a giant market for the world's companies, China's brainpower and its innovative regulatory regime are crucial ingredients of their companies' global success.

"Chinese electric vehicles (EVs) are more of an opportunity than a threat," said an opinion piece in the Financial Times recently, adding that Europe's EV goals are implausible without welcoming China's ability to produce cost-effective cars.

Maciej Mazur, president of the European Association for Electromobility echoed this view. During a visit to the European Chamber of Commerce in China on July 23, he said that China's EV industry and other new energy industries play an indispensable role in the EU's goal of banning the sale of fuel vehicles by 2035 and achieving net zero greenhouse gas emissions by 2050.

Higher tariffs will lead to higher prices for EVs in Europe, which is not good for European consumers, and will also lead to tensions in Sino-European relations and European damage, said Mazur, adding that Chinese automakers, battery companies and related industries will benefit European consumers and Europe's green transformation.

Unfair subsidies and dumping are the labels the developed countries put on China's industries, based on their inertial thinking.

Türkiye's trade policy for Chinese EVs served as a good example. In March 2023, Türkiye announced that it would impose an additional 40 percent tariff on Chinese vehicle imports, raising the total tariff to 50 percent to protect its domestic EV industry and address trade imbalances.

On June 8, 2024, the policy was expanded to include all Chinese imported vehicles (including auto parts), with a minimum tariff of 7,000 USD, which was set to take effect on July 7.

However, just a month later, a Türkiye presidential decree announced a reduction in additional tariffs on EVs. According to the decree, automobile manufacturers that invest and set up factories in Türkiye will enjoy investment incentive policies and do not need to pay the previously stipulated 40 percent additional tariff, but only a 10 percent tariff.

To some extent, Türkiye's move on Chinese electric cars reflects trends in global trade. Many countries are re-evaluating their trade policies and cooperation with Chinese EV manufacturers. Chery Automobile signed a joint venture agreement with Spain's EV Motors to open a manufacturing base in Catalonia, while China's largest EV company BYD will establish its first electric car production base in Hungary.

Statistics from the Thai Automotive Industry Association showed the total registration of Thailand's EVs in 2023 was about 76,000, accounting for 12 percent of the total vehicle registrations, of which eight of the top 10 are Chinese brands.

Chinese EVs have continued to sell well in the Southeast Asian market, not only contributing to energy conservation and carbon reduction in local transportation, but also helping the locals to continuously improve and enhance infrastructure construction, according to Qu Jizong, executive vice president of PT Chery Sales Indonesia.

The "green trend" Chinese EVs set in Southeast Asia demonstrates China's leading role in promoting global green energy technologies. As the *Financial Times* commented, "Western leaders will have to choose between their climate goals and their protectionism — and it would be better for everyone if it is protectionism that has to give."

Cooperation with China for Sustainable Goals

By Quarraisha Abdool Karim

I had the honor to address the opening ceremony and plenary session of the 2024 Zhongguancun Forum in Beijing. The theme this year, "Innovating for a Better World," was incredibly timely, showing we are fully committed to achieving sustainable development goals, advancing technological sciences, and promoting sustainable development.

The forum fostered partnerships and promoted collaborative efforts towards future sustainable development. It provided a platform to explore new ways to achieve the United Nations Sustainable Development Goals and create a world where everyone has the opportunity to reach their full potential, ensuring global health and safety.

We live in an increasingly complex world where multiple threats are interwoven, presenting us with numerous challenges. There is much work to be done, and science, technology, and innovation can play a crucial role in accelerating the achievement of sustainable development goals.

To boost global economic recovery and growth and enhance the quality of lives, we need to expand global collaboration in science, technology, and innovation and accelerate the development and adoption of emerging technologies.

Countries should also collaborate to promote green and low-carbon growth and enhance digital connectivity to achieve sustainable development.

Regardless of national boundaries or other barriers, we should be committed to open science and ensure that science, technology, and innovation staff and resources can move freely worldwide. It is important to support more scientific exchanges and collaboration to create a dynamic and inclusive global scientific and technological cooperation environment.

The World Academy of Sciences (TWAS) based in Trieste, Italy, has a longstanding relationship with China. Both share a common vision of promoting sustainable development through science and innovation, particularly in supporting the development of low- and middle-income countries and those lagging in technological advancements.

These efforts have cultivated a scientific culture, promoted international cooperation, bridged the talent and skills gap, and created a mutually beneficial learning environment. TWAS hopes to continue deepening its cooperation with China.

In today's interconnected world, we bear the responsibility to leave a proud legacy for future generations, enabling them to build upon it and advance human progress in a safe and stable environment.

The author is president of the World Academy of Sciences and a leading South African infectious diseases epidemiologist.

New Material for Next-generation Cooling

By TANG Zhexiao

Climate change and accelerated urbanization have led to serious energy, environmental, and safety issues.

A research team from China's Sichuan University has developed an innovative biomass-derived aerogel which can reduce ambient temperatures by 16.0℃ on sunny days under high solar irradiance, according to their study published in the *Science* journal on July 5.

Passive radiant cooling is a potentially sustainable thermal management strategy. However, petrochemical-derived cooling materials usually face efficiency challenges owing to the absorption of sunlight.

Combining DNA and gelatin, researchers converted absorbed ultraviolet light into visible light. The material has a visible light reflectance exceeding 100 percent and is able to yield a large cooling effect.

The simulation results of the study showed that all of the modeled cities experienced significant reductions in the annual energy consumed to cool buildings.

Additionally, this biomass-derived aerogel material has other properties such as flame retardancy, rapid self-repairability, recyclability and biodegradability. It is also highly eco-friendly throughout the entire life cycle of the material source, preparation, use and disposal.

It will be another tool for designing next-generation sustainable cooling materials, the team said.
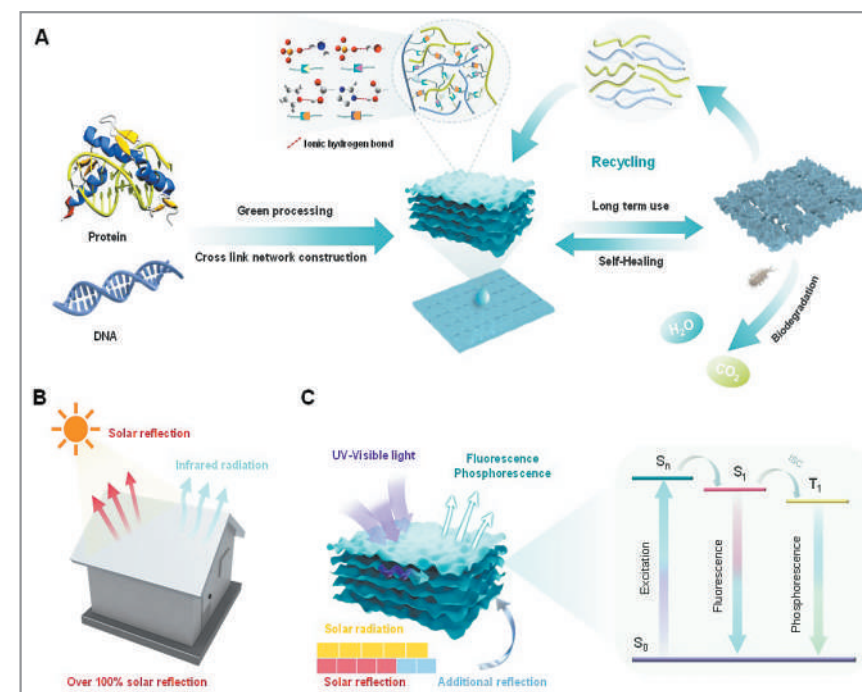
Schematic diagram of biomass radiative cooling aerogel panel. (PHOTO: SCIENCE)