TOP NEWS

AI toys offer emotional support to consumers

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Eager to tap into a huge potential customer base, industry players are accelerating their push into the artificial intelligence-driven toys market, hoping to unlock new growth as supportive policies inject fresh momentum into the sector.

Experts and business leaders noted that AI toys, created to provide emotional support and companionship, are well-positioned to spark the next wave of consumer trends by using advanced technologies to foster emotional connections with consumers.

"Young consumers are increasingly paying for emotional value, and AI companionship is emerging as a key early-use case," said Sun Zhaozhi, founder and CEO of Shanghai-based AI-driven toy startup Robopoet.

"This is attracting more companies, including major firms, into the field," Sun said.

According to data from the Ministry of Industry and Information Technology, China's AI toy market was valued at 24.6 billion yuan ($3.49 billion) in 2024, and is expected to be worth 29 billion yuan this year.

The growth momentum is backed by an action plan released by the Ministry of Industry and Information Technology, the National Development and Reform Commission, the Ministry of Commerce, the Ministry of Culture and Tourism, the People's Bank of China and the State Administration for Market Regulation last month, where collectible toys were listed as a priority support consumption category for the first time, making it one of 10 consumer segments targeted to exceed the 100 billion yuan mark by 2027.

"The deep integration of AI with traditional toy manufacturing is reshaping product forms and value chains, making AI toys a new engine for high-quality industrial development," said He Yaqiong, head of the consumer products industry department at the Ministry of Industry and Information Technology.

Priced at 399 yuan, Robopoet's flagship AI plush toy Fuzozo, which talks to and makes eye contact with users, sold over 1,000 units in the first 10 minutes of the "618" shopping festival presale and ranked No 1 in AI toy sales on both JD and Tmall during this year's Double 11 shopping festival, Sun said.

The senior executive added that the product has sold about 100,000 units so far this year and targets 1 million next year, aiming for 400-500 million yuan in gross merchandise value.

As consumer demand grows more diverse, more companies are shifting their focus toward AI-powered pet companions.

"Unlike typical robots designed to serve humans, our product simulates a live pet that needs care. The process of caring offers users a sense of healing, helping them to cope with anxiety and loneliness," said He Jiabin, co-founder and CEO of AI robot pet manufacturer Ropet.

He added that AI-powered robot pets better suit the lifestyles of young people today, as challenges such as allergies, time constraints and a training process are not present.

Supported by an emotional large language model and behavioral learning, Ropet can continuously adapt to users' habits and gradually develop distinctive traits, allowing it to interact more like a personalized pet, the executive said.

Following its domestic debut on JD in late October, the AI pet product quickly made its way into the platform's top three ranking in the robot category by sales volume during the Double 11 shopping festival.

"Our business logic is straightforward: first create an appealing hardware product, then use high usage rates to accumulate behavioral data, and finally leverage this data to deliver true intelligence," He said.

As domestic momentum builds, Chinese AI toys are also finding strong traction abroad.

In 2024, China's domestic toy retail market was worth 97.85 billion yuan, up 25.5 percent from 2020, while toy exports totaled $39.87 billion, rising 19.1 percent from 2020, Ministry of Industry and Information Technology said.

"Consumers in the United States and Europe have shown high acceptance of AI robots with visual understanding and personalized interaction. Many describe our products as 'little desktop creatures', 'AI pets' or an 'emotional charging station'," said Yi Qi, marketing manager at Shenzhen-based AI hardware company TangibleFuture.

The company's LOOI Robot, priced at around $150, differs from typical companion robots with its phone-dock form factor. Once a smartphone is placed on it, the device activates intelligent interaction and obstacle detection functions.

Since mass production began in November 2024, more than 10,000 units have been shipped, with 90 percent sold overseas. The product even received a social media endorsement from Tesla CEO Elon Musk.

"Boasting the world's most complete toy industry chain, strong manufacturing capabilities and a highly skilled labor force, China is now able to offer more high-quality and well-priced toys to global consumers," said He Yaqiong, from the Ministry of Industry and Information Technology.



Guests interact with artificial intelligence companion toys on Nov 16 at the 2025 Global AI+ Conference in Beijing.
CHEN XIAOGEN / FOR CHINA DAILY



Taking shape

Staff members work on a sculpture of animation character Nezha on Saturday at the 38th Sun Island International Snow Sculpture Art Expo in Harbin, the capital of Heilongjiang province.
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Victims of massacre remembered

International community urged to jointly hold Japan responsible for its atrocities

By CAO DESHENG in Nanjing
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Liu Minsheng, 91, a survivor of the Nanjing Massacre, felt overwhelmed by emotions as he attended the solemn national memorial ceremony held on Saturday in Nanjing, Jiangsu province, to mourn the 300,000 victims of the atrocity.

His thoughts raced back to the heartbreaking chapter in history as he touched a scar on his right leg, left behind by a wound caused by the bayonet of a Japanese soldier. The scars on his heart and mind are deeper, because they capture the arduous journey from pain to resilience.

Liu was only 3 years old when Japanese invaders captured Nanjing, then the Chinese capital, on Dec 13, 1937. His parents took him and his sister to a refugee shelter, but it turned out to be anything but a safe place. One day, the shelter was attacked. The little boy's panic-stricken cries drew the attention of a Japanese soldier who raised his bayonet and stabbed the boy in the leg.

That was also the day Liu last saw his father. "The Japanese soldiers took away many young and middle-aged men, including my father. He never came back. It was initially believed that they were taken for forced labor, but later we heard that all of them were killed at the Zhongshan Wharf," Liu said.

Reflecting on the tragedy, Liu said the harm inflicted upon the Chinese people by Japanese invaders can never be forgotten. "We must remain vigilant against the resurgence of Japanese militarism. We must remember the history and cherish peace," he added.

The Japanese invaders brutally killed about 300,000 Chinese civilians and unarmed soldiers during the six-week massacre, making it one of the most barbaric episodes of World War II.

This year, eight more people who survived the 1937 slaughter passed away, leaving only 24 registered survivors still alive. Eighty-eight years have passed, but the Japanese government has yet to officially acknowledge the Nanjing Massacre.

On Saturday, China held a national memorial ceremony in Nanjing to mourn the victims of the massacre. Sirens resonated through the city as people from all walks of life observed a moment of silence in solemn remembrance of the day.

Thousands wearing dark attire gathered at the public square of the Memorial Hall of the Victims in Nanjing Massacre by Japanese Invaders, with white flowers pinned to their chests for the ceremony.

China's national flag flew at half-staff in front of the crowd, which included survivors of the massacre, local students and international friends. Eighty-eight young people from the city read out a declaration of peace, and citizen representatives struck the Bell of Peace.

Addressing the ceremony, Shi Taifeng, a member of the Political Bureau of the Communist Party of China Central Committee and head of the CPC Central Committee's Organization Department, said the gathering aimed to express the Chinese people's unwavering commitment to peaceful development, while mourning those who were brutally killed by Japanese invaders.

He called for carrying forward the great spirit of the Chinese People's War of Resistance Against Japanese Aggression (1931-45), striving to promote China's modernization and national rejuvenation, and making greater contributions to the cause of peace and progress for humanity.

In 2014, the Standing Committee of the National People's Congress, China's top legislature, officially designated Dec 13 as National Memorial Day for Nanjing Massacre Victims to keep the history firmly in mind and cherish the hard-won peace.

This year's ceremony took place amid the 80th anniversary of the victory in the Chinese People's War of Resistance Against Japanese Aggression and the World Anti-Fascist War, and against the backdrop of the strained China-Japan ties following Japanese Prime Minister Sanae Takaichi's erroneous remarks on the Taiwan question.

According to a recent global online survey conducted by China Global Television Network, 80.8 percent of the respondents said they believe the recent provocative words and actions of Japan's current leadership, which glorify militarism, have reinforced the country's image as both a troublemaker and a peace breaker.

Meanwhile, 81.6 percent said they believe Japanese politics has long been dominated by militarist and right-wing forces, and that its accelerating rightward shift poses a significant threat to global peace.

Lyu Jing, an associate professor of Chinese history at Nanjing University's School of History, said the post-WWII international order was built upon the reckoning with wars of aggression and the defense of humanitarian principles, and any attempt to deny or falsify history constitutes a direct challenge to the principles of international justice.

The global community must reach a shared understanding that Japan should face its history with a responsible attitude and fulfill its obligations to historical truth, Lyu said, adding that the international community should stop allowing Japan's continued evasion of its wartime culpability.

Cang Wei in Nanjing contributed to this story.

Archives: Biological warfare proves to be 'state crime'

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Kawashima acknowledged that the special cultivation of bacteria by Unit 731 and the Japanese military's use of deadly pathogens against Chinese troops and civilians clearly violated international treaties and obligations prohibiting the use of such weapons in warfare.

"I now realize that the methods we used, which involved experimenting on living humans and causing their deaths by infecting them with deadly bacteria, were cruel, inhumane and criminal acts against humanity," he confessed in one statement.

In 1945, on the eve of the Japanese Army's defeat, Unit 731 destroyed base facilities, massacred test subjects and eliminated evidence of their crimes. During the postwar Tokyo Trials, a deal between Japan and the United States allowed key members of Unit 731 to get away with their crimes, according to Gong Wenjing, director of the international research center on Unit 731 at the Harbin Academy of Social Sciences.

The Khabarovsk trials, which were the first in history to specifically target germ warfare criminals, held accountable the war criminals who escaped justice at the Tokyo Trials, and exposed more crimes committed by the Japanese military, Gong said.

"The newly released archives include firsthand accounts from the biological war perpetrators. Their testimony contains detailed accounts of victims' lives in Unit 731, their painful reactions during experiments, and casualty data, all of which reveal the inhumane nature of the Japanese Army's atrocities," she added.

The archives complement and corroborate China's archives on the crimes of Unit 731, forming a complete chain of evidence that confirms Japan's biological warfare as an "organized, premeditated and systematic state crime", according to Zhou Zhenfan, an official responsible for archives management at the China Central Archives.

The release of the archives coincided with the 12th National Memorial Day for Nanjing Massacre Victims.

As this year marks the 80th anniversary of the victory in the Chinese People's War of Resistance Against Japanese Aggression and the World Anti-Fascist War, preventing the resurgence of Japanese militarism is a shared commitment of the international community, said Zhao Cong, director of the department of international exchange and cooperation of the National Archives Administration of China.

"The release of these archives once again provides indisputable evidence of the crimes committed by the Japanese Army, and they hold significant value in restoring historical truth and promoting a correct understanding of World War II history," Zhao added.

Research: Locked water supplies planet with lasting vitality

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By modeling the crystallization process of the magma ocean, the research team found that thanks to bridgmanite's strong water-locking ability, the lower mantle became the largest water reservoir in the overall mantle once the magma ocean began to solidify.

Du said that previous studies, based on relatively low temperatures, suggested that bridgmanite's water storage capacity was limited. However, researchers successfully increased the temperature to 4,100 C with an ultra high-pressure experimental simulation device they invented. This revealed that bridgmanite's water-locking capacity increases with heat and could be five to 100 times greater than earlier estimates.

Researchers designed an experiment to produce heat with lasers, as well as high-temperature imaging similar to the conditions of the early deep mantle. They were able to determine the temperatures at which water could be stored, providing a solid foundation for uncovering the key role of temperature in water partitioning.

In collaboration with Long Tao, a professor at the Institute of Geology under the Chinese Academy of Geological Sciences, Du's team also incorporated atom probe tomography, which collectively enabled the development of a series of innovative methods for water analysis down to the nanometer scale. It was akin to equipping the micro world with an ultra high-resolution chemical CT scan, which allowed the researchers to clearly visualize the distribution of water within tiny samples and to confirm that water was indeed carried within the structure of bridgmanite.

The amount of water retained in the early solid mantle may have been equivalent to 0.08 to 1 times the volume of all modern oceans, Du said.

Water locked in stone deep underground is not a static stockpile. Instead, it acts as a kind of lubricant for the Earth's colossal geological engine. It lowers the melting point and viscosity of molten rock in the mantle, he said, promoting the slow circulation of what could be described as a thick, heavy soup of hot rock. This in turn animates tectonic plates at the surface — the continental and oceanic plates — and supplies the planet with lasting evolutionary vitality.

Over time, the deeply sequestered water gradually made its way back to the surface through the slow movement of magma. This contributed to the formation of the primordial atmosphere and oceans, he said. Water sealed within Earth's early structure likely served as the crucial force that ultimately drove the planet's transformation from a molten inferno into the blue, livable world today.

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