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TECH & YOUTH OF CHINA

Newsletter from All-China Youth Federation



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NOTE

This e-magazine is produced by the All-China Youth Federation and China Youth Daily teamed up to introduce the youth work and youth development in China on a regular basis. We hope that it can provide you with updated information about Chinese youth, youth policy and youth programs, and we sincerely look forward to feedbacks and suggestions from friends all over the world.

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Smarter Cities in China

Digital technology has brought great changes to Chinese people's daily life. Across China, smart cities and communities play an important role in improving residents' well-being and quality of life.

China prioritizes the building of smart communities. Community-based online platforms and offline organizations have worked together to provide personalized services to residents by using technologies such as the Internet of Things, big data, cloud computing and AI technologies, creating a more convenient and comfortable living environment.

Community Service on Your Phone

In Chengdu, Sichuan Province, soon after Ms. Zhao placed an order on "Community Mall", a WeChat mini app, the fruit she wanted was delivered to her door.

During the Covid-19 pandemic, an online mall that enables residents to shop via mobile phones and enjoy door-to-door service has been set up in Ms. Zhao's community.

A full range of goods and services are provided, the quality of which is regulated by the community staff.

The mall supports electronic payment

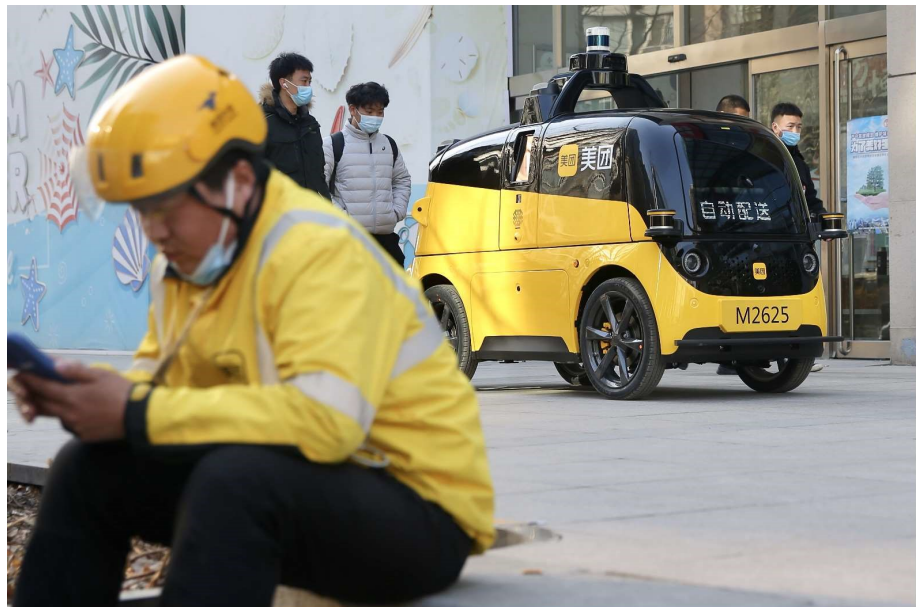
and customer supervision and evaluation. Once receiving orders, the system will immediately notify the stores to make preparations. Volunteers are recruited to help with product delivery, and they can redeem the points gained through voluntary work for goods.

Another online supermarket, "Seed Town", attracts customers with competitive discounts. Intelligent

exclusively for the elderly.

The platform has an emergency rescue system connected to the calling equipment installed at the home of the senior citizens who live alone. Two failed calls will trigger the system to send community workers or volunteers to check on them.

"Press here and then you can call the caretaker," said Mr. Liu in Chengdu,



logistics robots are used to ensure less person-to-person contact during the pandemic.

Caring for Senior Citizens

Grandma Weng enjoys the "push-to-help" elderly care service in her community. Her district, the Hexi District of Tianjin, has partnered with JD.com to set up a service platform

pointing to the red button on the wall.

The button is an emergency help device for those in need. Once the button is pressed, a message will be sent to the community workers. At-home health sensors are also installed to send users' requests to the service providers. Some of the major functions are remote reminder and

control, automatic alarm, dynamic monitoring and request recording.

A Safe, Smart and Convenient Community

Mr. Zhang's comment on his home is "safe, smart and convenient". With the help of technologies such as AI, the Internet of Things, and cloud computing, his community enjoys a network that not only takes care of basic living needs, such as lighting, water use, and cooking, but also provides community services such as access control, parking, and security.

Residents in this community can control their speakers, lamps and curtains remotely. After entering the community with their identity confirmed, they can control the elevator without pressing its buttons. "The comfortable and intelligent living environment saves me a lot of worries." Mr. Zhang remarked.

Smart communities can also reduce costs for property service companies.

For example, to trace a falling object, all they have to do is to extract and analyze security camera footage at the control center. Such technologies can save property managers' time and energy while boosting the quality of their work.

Intelligent Public Transit System

The Intelligent Public Transit System is another highlight of Smart Cities.

Changsha, capital of Hunan Province, is one of the first cities in China where intelligent driving cars are allowed to be tested on the road. It is also among the first Chinese cities to establish intelligent driving test areas.

In 2020, Changsha established the first intelligent bus line in China. Compared with those of a regular bus line, the average time of this line is shorter by 13.3%, while its average speed grows by 15.4%. Industry giants in this field, such as Huawei, have built the Intelligent Connected Cloud Platform, intellectualizing more than 2,000 buses. The

technological upgrade has been gradually promoted to other types of vehicles, including dangerous goods transporters, school buses, and sanitation vehicles.

The construction of Smart Cities and Smart Communities in Changsha has attracted numerous high-tech enterprises. Take the example of Xiangjiang New Area of Changsha: The 70+ related industry-leading enterprises, 10+ famous research institutes, and 340+ supporting enterprises gathering here have formed an industry chain which covers artificial intelligence computing, the manufacturing of complete vehicles, automotive parts, and autonomous vehicles.

As more and more cities in China step towards intellectualization, a leaping progress will be seen in related industry chains of chips, sensors, high-precision maps, artificial intelligence computing, new energy vehicles, and entertainment, which in turn will make Chinese cities smarter.

Beijing Winter Olympics Underpinned by Technology

Beijing 2022 Winter Olympics has been safer and greater thanks to technology.

After China succeeded in the bid for the 2022 Winter Olympics, the Beijing Winter Olympics Organizing

Committee formulated a specific implementation plan according to the design of the Chinese Ministry of Science and Technology. The plan aimed to promote research and development in areas of clean energy, green mobility, 5G, smart game

viewing, sports technology, etc.

The cooperation among the government, higher education and research institutions, and corporate enterprises guaranteed Beijing's delivery of the Winter Olympics that it promised—



“simple, safe and splendid”.

Since the number of live audiences was limited due to anti-Covid-19 measures, it was highly important to ensure a high-quality sportscast. CCTV developed a number of new technologies, including an AI image processing system called “time slice”, which can capture super-speed movement and present the details of the athletes’ movement.

Also, CCTV created a 3D virtual anchor “Ling Yu” (meaning Language of Hearing) to cater to the needs of the disabled audience. With the technological support of Tencent, Ling Yu, integrated with technologies of 3D modeling, machine translation, voice recognition and natural language understanding, etc., could learn relative knowledge and use sign language almost as well as a real person.

In addition, in the Olympic arena,

high-tech equipment ensured that athletes could perform their best. For instance, the fibers in the suits of Chinese short track speed skaters were 15 times stronger than steel wire, allowing the athletes to compete without worries.

A great arena also promised high performance. During the Beijing Winter Olympics, many new world records were set in speed skating, thanks to the high-quality ice of the arena. The carbon dioxide direct-cooled ice technology ensured an ice surface of uniform hardness and flatness with low energy consumption. No wonder the ice is called “the fastest ice”.

Under closed-loop management, the aerosol nucleic acid detection system in the “prevention bubble” could quickly detect the coronavirus in the air, and give results automatically within 45 minutes. The inspection

robots would alert people without masks on. Together with the disinfection robots and logistics robots, they helped to realize “contactless prevention and control” during the Winter Olympics.

At the recreation area of the Beijing Winter Olympic Village, leisure and fitness involved both modern technology and traditional Chinese culture. VR entertainment technology was used to create 3D and 4D simulators of manned deep-sea submersible, manned spaceflight cabin, and ski arenas. It was also used to help visitors to learn about Chinese Kung Fu and the culture of traditional Chinese medicine.

Automation service was found at the Main Media Center. All cuisines were cooked by chef-bots, including desserts, ice cream, pour-over coffee, and cocktails, and delivered by a robot arm lowering from the ceiling.

In terms of accommodation services, the Village was equipped with a barrier-free management platform and smart terminals. The lamps, air conditioners and curtains in the rooms could all be controlled remotely on smartphones.

The bed of the Village, which went viral on social media, was adjustable, providing desired support for the spine. With built-in sensors, the memory-foam mattresses could massage users and even wake them up like an alarm clock.

The high-tech Winter Olympics is meant to leave long lasting positive impact on its host city.

The core exhibition area of the Village highlighted a “Beijing Cabin” with a 360-degree immersive cinema.

With the VR headsets on, viewers could enjoy the spectacle of the National Ski Jumping Center and experience what it was like to fly off a mountain in a ski jump.

By clicking the “Start Race” button on the screen and swiping the handles, they would know how it might feel to hold ski poles and feel the exciting tension of diving from a high place. All this was set against the vivid and beautiful scenery of the arena. The viewers also got to see the distance and speed of their “jump”.

During the Winter Olympics, the cinema was affirmed by guests from all over the world. After the Winter Olympics, the technology behind the cinema will be promoted to schools, local communities, and shopping malls.



Similarly, the Winter Olympic Village after the Olympics will be transformed into an apartment for high-end talents.

The extensive use of robots will provide a solid foundation for normalized epidemic prevention and control. The construction of the venues for the

Winter Olympics itself has also set a good example for the building of Beijing into an intelligent city.

Winter Olympics, empowered by technology, has provided the world with a sound solution for future urban life, in which the demands of people for a better life are satisfied.



Check out the video to learn more.

(Related video) During the 2022 Beijing Winter Olympics, many world records and Olympic records were broken, which proved the excellent quality of the venues, especially the ice surface. How is such great ice produced? Click this link and you will find the answer.

https://s.cyol.com/articles/2022-02/18/content_rbzaAosv.html?gid=Z7rojG1y

Youth Contributing to a Barrier-free Environment

With the help of high-technology, a group of young people in China have developed smartphone apps suitable for the disabled, which brings love, care, and convenience to them.

Heart-warming Facilities in a Community

Huang Tingwan and her colleagues have poured a lot of effort into

ensuring that the disabled and the elderly are able to use wheelchairs without worrying about steps or slopes.

Huang found that most people are



For instance, they added the function of enlarging the font size, considering that elder citizens often have difficulties making out the video subtitles. They also added subtitles to movies so that people with hearing impairment can enjoy them. Every change of the detail brings convenience to the users.

Developing Accessible Software

Wu Liquan, who has visual disabilities, is an expert in assistive services. He believes that the visually disabled understand the needs of the visually disabled better.

Wu worked with Internet companies to translate foreign apps useful for visually disabled people into Chinese, enabling them to call a taxi, navigate and socialize on their smartphones.

With the help of warmhearted people, more and more technologies have been introduced into the lives of the disabled, bringing them great convenience.

kind-hearted and willing to help mobility-impaired individuals. However, she also found that one has to really engage with them, who might be sensitive about their conditions, to understand their real needs and to be more helpful to them.

Hoping to make the disabled feel warm and confident through her design, Huang focused on renovating the stairs and lawns, lowering the slope of ramps, and installing tactile paving slabs in the community so as to create a

barrier-free environment.

Making Videos Accessible for the Disabled

Chen Chen discovered that many people with visual and hearing impairments were making short videos, which inspired him to explore the accessibility of production software for the disabled and the elderly. He and his colleagues have found ways to improve the software, and they hope, with a user-oriented perspective, to cater to the needs of their target users.

Technology: China's Weapon to Fight Covid-19

Though mutated Covid-19 viruses ravaged the world over the past year, technology has helped China to achieve continuous success in pandemic prevention and control. Many new products and services have emerged and attracted much attention during the process.



Click the video link to learn more.

https://s.cyol.com/articles/2022-02/21/content_1RzAXXFL.html?gid=28Dga1xp

Fitness at Home? Smart Fitness Magic Mirror Works

Recently, a “Smart Fitness Magic Mirror” is installed in the quarantine hotels in Shanghai. The manufacturers explain that this mirror, which contains fitness courses, planning, health management, and community communication, is a product of “Hardware + Content + Service + AI”. It can fully meet the needs of home fitness.

The epidemic prevention and quarantine personnel in the hotels can experience a variety of courses provided by the Magic Mirror, according to their own schedule and preferences

without having to go outside. Currently, more than 2,000 fitness courses are accessible in the Smart Fitness Magic Mirror.

With the release of the National Fitness Plan (2021–2025) by the Chinese government, the fitness industry of China has embraced a wave of innovation: a large number of companies and brands have emerged and the smart fitness equipment industry is booming.

The market size of fitness in China jumped to the top globally in as early as 2018. Gradually, more and more Chinese have developed the habit of keeping fit. This expanding group also possesses great consuming power. In 2021, the annual average consumption in fitness was RMB 5,670 per person, and nearly a quarter of the consumers invested more than RMB 8,000 annually.

Among the rapidly increasing number of high-spending fitness consumers, their awareness of smart fitness equipment has reached

89%. More than one third of them have purchased fitness equipment such as a fitness mirror, treadmill and rowing machine. According to the data from Tmall, an e-commerce platform, the smart fitness mirror has the highest growth rate in all categories of equipment, with a maximum increase of more than 200%.

The sales of smart fitness mirrors ranked the first in Tmall from January to August last year. According to the data, the monthly average training times for Magic Mirror users exceed over 14, and the average time of each training is between 30 and 40 minutes, which indicates that smart equipment can largely reduce the threshold of fitness.

To ensure the quality of courses, a group of over 20 coaches have been dedicated to producing 5,000 fitness courses in a film base covering 4,000 square meters. Now installed in tens of thousands of families, the Magic Mirror has increased the scale of the fitness-lover group.

Internet, big data, and artificial intelligence have consistently provided new impetus for the fitness industry. The smart fitness equipment can fully meet the requirements of Chinese consumers in terms of the variety and quality of products and help more people to adopt a healthier lifestyle.

