

Community Digital Transformation: Elevator "Doctor"

By Cheng Jiajia

In recent years, the combination of digital technology and governance methods has changed the needs and governance strategies of community residents. Among them, smart city, blockchain, "Internet +", and big data have become the focus and hotspot in digital transformation. When pushing forward urban renewal and community transformation, the Yangpu District has been applying intelligent decision-making based on big data analysis.

On August 9, Shanghai Tongji Engineering Project Management Consulting Co., Ltd. officially signed a contract with Yangpu's Daqiao Sub-district to start the blockchain elevator operation and maintenance management project. The project integrates big data, artificial intelligence, blockchain and other technologies to achieve real-time monitoring and efficient and refined management of 120 elevators in the residential area within Daqiao, providing community residents with a modern and intelligent living environment that is safe and convenient.

Daqiao, amid transition of economic development model, has many old houses and high-rise commodity houses that are more than ten years old. In recent years, on the one hand, Daqiao vigorously promoted the installation of elevators in old communities to help the elderly. On the

other hand, it implemented a maintenance system for elevators in high-rise commodity housing communities. With more and more elevators to be "managed", ensuring their smooth operation at all times has become an important issue for Daqiao to participate in community governance.

Classified display of geographical locations, equipment names, types of malfunctions... In the back-office of the blockchain elevator operation and maintenance project, the reporter observed the elevator operation and maintenance mode of one of the pilot communities in Daqiao, Shenrun Jiangtaoyuan Community. Through the data sent back remotely by elevator sensors, after accurate analysis in the background, the elevator management system can send alarm to the urban transportation center for dangerous situations such as electric bikes entering the elevator. At the same time, it also can record the number of people entering and exiting the elevator, elevator failures, and overloading times, acting as an elevator "doctor" who can accurately measure the various performances of the elevators.

Zheng Lianyong, secretary of the CPC branch of Xingfucun residential area, is also looking forward to this new elevator management model. Zheng is the person who organized the installation of elevators in the Mingfengyuan Community. Since 2019, the com-

munity has successfully installed several elevators, becoming a "star community" in terms of elevator installation in Daqiao. Zheng told the reporter that there are currently 5 elevators under construction in the community, and one is about to be installed. "In addition to allowing residents to enjoy the convenience of taking elevators as soon as possible, we also have the responsibility to ensure the safety of residents taking elevators. Establishing a sophisticated elevator management system in residential areas as soon as possible can greatly improve community service and management capabilities."

It is understood that according to the plan, by the end of August, Shanghai Tongji Engineering Project Management Consulting Co., Ltd. will negotiate with the Daqiao Sub-district to complete the design and installation plans for 120 elevators; from September to October, carry out hardware equipment installation, software and hardware debugging and operation; it is planned to establish a unified data platform for reliable data collection and storage in November, and officially launch the application scenarios of elevator management and control in Daqiao.

Elevators in residential buildings feature high number of users, a high frequency and wide range of use, thus closely related to the travel safety of people. What are the

advantages of applying digital technology in elevator operation and maintenance?

Li Zhuo, head of the blockchain business department of Shanghai Tongji Engineering Project Management Consulting Co., Ltd., told the reporter that at present, most elevators in residential buildings are maintained manually, which inevitably leads to potential safety problems. And through the comprehensive use of Internet of Things, blockchain, big data and other technologies, elevator maintenance can be informationized and intelligentized. It is convenient for elevator maintenance units and management departments to access elevator operation information at any time, obtain malfunction information in advance, and respond to and deal with them in time. At the same time, AI cameras can also timely detect, intelligently discourage and automatically retain evidence of various user behaviors including uncivilized and unsafe elevator-using behaviors, such as blocking the door, taking electric bikes into the elevator, etc.

"The most important thing is the blessing of blockchain technology." Wang Bo, technical director of the project, emphasized that by building different nodes, supervision, maintenance, property and other links are incorporated into the blockchain network, and smart contracts for billing, data query, etc. are deployed on the blockchain, which can be automatically

accessed and used in the relevant stages of the business process, so as to realize efficient flow of business. Using blockchain technology ensures the safety and reliability of quasi-public data such as elevator operation and maintenance, and the information will be stable and transparent, thus providing strong support for the supervision of elevator operation and maintenance.

Zhou Xianghong, a professor at Tongji University's China (Shanghai) Digital City Research Institute, admitted that there have been many short-lived smart application scenarios in community governance. Practice has proved that to apply scientific research achievements in community governance, we must ensure that the technology really works, so that residents love to use it. The blockchain elevator operation and maintenance management project is a result of deep integration of Tongji University's digital technology and industry-university-research institutes. We hope to take this opportunity to make the Daqiao Sub-district a benchmark for digital transformation in the Yangpu District. The elevator service platform lays a solid foundation for the application of big data-enabled smart supervision of elevators in residential areas, vigorously improves the elevator life cycle management, and helps with flat and efficient community management.

The First Shanghai Citizen Community Garden Festival Opened in Yangpu



By Luo Jia

Do you dream of a natural garden nearby? The first Shanghai Citizen Community Garden Festival opened recently. The opening event is divided into online web-casting and offline venue. The offline venue is located at KIC Farm Park, Wujiaochang Sub-district, Yangpu District.

Liu Yuelai, Co-founder and Chairman of the Four-Leaf Cottage, attended offline event that day and said, "On one hand, it has been 6 years since the inception of KIC Farm, and it gets increasingly matured, providing reference for other community gardens. On the other hand, KIC Farm is a typical example of social cooperation and a very unique garden built by enterprise, operated by social organization, guided by government and co-created by community neighbors."

On that day, as the first part of opening ceremony, amidst lush green grasses, a discussion of "zero-waste floral art" was held. All materials for onsite flower arrangement came from the waste flowers

and grasses of garden. Regarding its setting, Liu Yuelai said, "The plants grow exuberantly in summer, and there are some weeds. We hope to lead people to weed and perform floral art by the way, allowing people to appreciate the beauty of nature inadvertently and understand that floral art is possible even without buying flowers."

Additionally, Flying Flower Ceremony and Community Garden Talk Show are also a part of the opening ceremony. "Flying Flower Ceremony" is to put the seeds collected in nature back into the nature, and Community Garden Talk Show enables participating volunteers to share their insights. "From nature, back to nature", small public space delivers more opportunities for experiment and practice, and creates a deeper public spirit. "In the future people's city, every family must start from their doorstep." According to introduction, as a city-wide event, Shanghai Citizen Community Garden Festival will last until mid-October, and diverse activities will roll out at sub-venues.