"Cultural + Technological" Synergy Achieves "Tropical Rainforest" Ecology

By Tang Shunjia

In late August 2021, Paper Games, an internet culture company known for its popular original games like "Love Nikki–Dress UP Queen" and "Mr. Love: Queen´s Choice," moved into its new home located in the Yangpu district. They were pleasantly surprised to find that the surrounding area was filled with cultural and creative companies, as well as internet technology firms. A well–connected industry chain had taken shape, making business collaboration seem within reach.

"Being part of the same park provides us with more opportunities for cooperation and facilitates daily communication," said Li Xueting, an employee at Paper Games. "Our office buildings are only a few hundred meters apart, so if we need to have a quick meeting, we can walk there in minutes. It´s so convenient." The park Li Xueting referred to is the Great Knowledge and Innovation Community (GKIC).

How did GKIC, a technology–focused innovation hub, achieve the status of a national–level cultural industry gem? Where does the confidence in "cultural production" come from? Walking into the park, it´s hard to imagine it as an industrial park: nestled among the Wujiaochang business district, universities, and old residential areas, it has no walls or gates. The open spaces within, such as the KIC Plaza, KIC Enterprise Center, and University Road Living Quarter, are filled with lush greenery as far as the eye can see.

One day in 2014, several young people arrived here, renting three scattered workstations to study real–time audio and video technology, with ambitious plans for the future. In June 2020, their company successfully went public on the NASDAQ. Although their office remained in the same building, the number of workstations expanded from "a few" to "several floors," resulting in multiplied profits.

This company is called Agora, which is a global leader in real–time interactive cloud services, serving industry giants like Bilibili, Xiaohongshu, Momo, and Xiaomi.

Another company with a similar story is MetroDataTech. Since its establishment in 2015, MetroDataTech has been rooted in Yangpu and later settled in GKIC three years later. Today, they serve over 300 leading enterprises.

Many companies in GKIC have grown from small startups to larger enterprises, thanks to its nurturing and incubation attributes. In its initial design and planning, GKIC aimed to support companies in achieving "gradual growth" by offering different office spaces for different stages of development. "When a company first enters, it can rent just one workstation, which is cost–effective and allows for flexibility. As it grows, we provide them with one floor, several floors, and eventually even several buildings. The company doesn´t have to leave its ´birthplace´; instead, it expands outward from GKIC until it matures," said Du Juan, Deputy General Manager of Shanghai Yangpu Science and Technology Innovation Group.

On the other hand, GKIC benefits from the resources of surrounding universities such as Fudan University, Shanghai University of Finance and Economics, and Tongji University. This has helped it become a benchmark for the integration of industry, academia, and innovation in Shanghai and the Yangtze River Delta region. Today, Atrenew Inc., founded by Fudan alumni, has grown into a leader in China´s digital circular economy and went public on NASDAQ in 2021. Fab–Union, led by Tongji alumni, focuses on "digital

design and intelligent construction in architecture" and represents projects such as the permanent venue for the World Internet Conference and the Chinese Pavilion at the Venice Architecture Biennale. The reputation of GKIC has spread far and wide with slogans like "Enter the park as soon as you leave the campus" and "Start a business right at the school gate."

The development positioning of GKIC is centered around "Culture + Technology." Currently, it is focusing on cultivating three major cultural technology industry clusters: entertainment, design, and new consumption. The park has attracted companies with both "cultural" and "technological" genes, including Bilibili, ByteDance, and Grape Seed Culture Media.

Take Grape Seed Culture Media, for example, they specialize in overseas promotion and distribution of Chinese intellectual properties (IP) and manage over 3,000 high–quality content channels both domestically and internationally. Their flagship IPs, such as "Ao Changzhang" and "Sean´s Kitchen," have a total fan base of over 580 million.

Leveraging these leading companies, GKIC attracts upstream and downstream enterprises to gather further. It has introduced MCN agency Joy Media to serve KOL. Huayun Data has settled in to provide computing support for online e–commerce and live streaming. There are also companies like Vland, Sheencity.com, and ARK, which create possibilities for parallel online and offline worlds. Through events like business exchanges and project subcontracting, GKIC encourages companies within the park to get to know each other, share entrepreneurial experiences, and strengthen business cooperation. Going up and down the building means going upstream and downstream, and the industrial park represents the industrial chain, vividly presented here.

Yangpu has successively built the GKIC Public Service Platform, Xinjiangwan Diamond Loop, and GKIC Cultural Green Axis, incorporating digital scenarios to create a composite functional space that integrates culture, technology, experience, exhibition, and interaction, significantly enhancing the working experience of white–collar workers in the park.

Recently, GKIC has been building a "Digital Park" as a cultural landmark of the "metaverse." Within an 8–square–kilometer space, cultural and technological companies account for 85.71%, with over 4,500 of them exporting their products overseas. Over 170,000 knowledge workers choose to start businesses, work, and live here, with a total revenue exceeding 300 billion yuan. GKIC is deeply integrating into the global innovation chain.

Full–Time Dad: Balancing Parenthood with Blueprints and Models

By Tang Shunjia

Imagine the extraordinary scene when an engineering guy, who is constantly surrounded by blueprints and models, becomes a "full–time dad."

"Every boy has a science fiction dream. But I never thought that as an engineering guy, I would one day receive a ´cosmic order,´" says Wang Xin, a robotic exoskeleton designer and mechanical engineer at ULSROBOTICS Co, Ltd. (Referred to as ULS Robotics). Earlier this year, the exoskeleton robot he developed with his colleagues appeared in the popular national film "The Wandering Earth 2."

Speaking of the robots he developed, Wang Xin jokingly says, "It´s like being a dad in advance. These robots are our kids." Many people are not familiar with Wang Xin´s profession, nor do they understand what he means by "kids." Take the "movie star" exoskeleton robot, for example. It is a wearable robot, like the armor of "Iron Man." In terms of functionality, it can be divided into two types: human enhancement and rehabilitation. The one developed by ULS Robotics belongs to the former. When worn, it enables an ordinary person to instantly become "stronger" and lift heavy objects more easily.

Mechanical battles, space elevators, planetary engines... The intense collision between real–life technology and future imagination in "The Wandering Earth 2" has left many viewers amazed. However, being a "movie star" is not the main job of the exoskeleton robot. The real technological challenge lies in how to better serve the "working people."

Therefore, the key to raising "kids" well lies in whether they are lightweight enough, have flexible joints, and can bear enough weight. These factors directly determine the user experience. The ideal state is for them to be as lightweight and convenient as wearing clothes, truly integrating into everyone´s daily life.

Currently, ULS Robotics´ main products are divided into four categories based on the body parts they serve: upper limbs, waist, lower limbs, and full body. Among them, the upper limb exoskeleton robot is a classic model and has reached its third generation. It weighs 6.5 kilograms and can provide the wearer with approximately 15 kilograms of assisted lifting force.

In real life, exoskeleton robots have gradually been applied in industrial scenarios such as aviation, automotive, and construction. For example, recently, ULS Robotics´ exoskeleton robot has embarked on a "brick–laying" journey at a construction site in Xuhui Binjiang.

The era of rapid technological development is also the era of robotic engineering and technical personnel. Among the 18 new occupations announced by the Ministry of Human Resources and Social Security in June 2022, robotic engineering and technical personnel are prominently listed.

With the emergence of the fourth generation of exoskeleton robots, the application scenarios are becoming more and more diverse. ULS Robotics´ marketing team has started participating in large–scale exhibitions and sales events nationwide. Meanwhile, "unsung heroes" like Wang Xin and other engineers are striving to achieve new breakthroughs in technology.

For these "unsung heroes," failure is a frequent visitor, while relative success is harder to come by. Two rows of cardboard boxes under the table are filled with countless sleepless nights of technical staff. "Even after multiple computer simulations, no one can be 100% certain of its success until we finally obtain the prototype. Before actually producing the product, we may have to go through three or four generations of scrapped parts, or even four or five generations. It requires continuous experimentation and ´refinement.´ The human body model becomes our work partner, and almost every designer is half a medical student. Exoskeleton robots are different from ordinary humanoid robots. It is extremely difficult to design them with simple and reliable mechanisms that can meet the complex movements of the human body. It relies on some ingenious ideas," said Wang Xin.

The goal of technology has never changed: to make devices smaller and cheaper. Zhang Hua, the marketing director of ULS Robotics, said, "Whether it is to assist our industrial workers or our users, we hope our devices are targeted and precise."