

Co- Create Smart Park to promote SDG 11

On the 5th of June, the Cyberport and the Rotary co-organized the opening of the “Co-Create Smart Park Challenge”, gathering exclusive speakers - Mr. Duncan Chiu, Chairman of Lai Yuen Company Limited, Prof. Karen Q. Cheung, Executive President & Secretary-General of UNESCO HK Association and Mr. Albert Wong, Partner, Public Sector Consulting from PwC Hong Kong to discuss the concept and cases of constructing sustainable smart parks using technologies.



Smart Park as a part of Smart Cities - Mr. Albert Wong

Smart City is not a new topic, but the concept of smart parks hasn't been widely discussed. So what is the relationship between smart parks and smart cities? Mr. Albert Wong suggested that to find out the linkages we have to go back to the definition of smart cities.

A smart city is a city that leverages innovation, technology and data to deliver citizen-centric services with due regard to the environment and scarce resources. It is a way to build spaces that connect citizens together and form innovative communities using appropriate technologies. Smart Park could not be considered as an isolated concept, but rather a part of smart cities, so essentially, the factors that we need to consider when building smart cities are transferable to smart parks. Smart cities provide solutions to many emerging challenges such as poor air and water quality, ageing population, derelict buildings, and it's closely related to multiple aspects of the UN sustainable development goals. The most obvious one that it corresponds to is goal 11- "Make cities and human settlements inclusive, safe, resilient and sustainable", but it's also related to many other aspects that prof. Karen Cheung covered in her speech.

The definition of smart cities could vary across cities. Different cultures and norms form different opinions on what is a smart city, and it is not necessary to digitize every piece of the city to be considered as “smart”. Only technologies that are suitable and usable for the local community should be implemented. For instance, European cities emphasize the component of environmental or heritage protection, whereas the most urgent need of developing countries is to ensure minimum welfare of citizens and use the development of smart cities to attract foreign investments.

For Hong Kong, here are six main themes that underpinned Hong Kong’s smart city development, including:

- Smart people
- Smart living
- Smart government
- Smart mobility
- Smart economy
- Smart environment

Just as how we cannot look at Smart Park in isolation from Smart Cities, these six themes also cut across each other for literally any problem at hand. For instance, in the case of building Smart Park, how we access the park concerns Smart Mobility, whereas the management of the park concerns Smart Government. Any successful smart initiative needs to integrate all elements seamlessly into one.

Another interesting idea that Mr Albert Wong mentioned was spatial data. Spatial data is crucial for the provision of personalized services, they are information about location, such as maps, underground railways, water systems. On a personal level, spatial data have made GPS and delivery services possible, whereas on the macro level, they provide insights into sustainability issues that could arise in a city. Two Proof-of-Concept of smart initiative that could be implemented in smart parks that Hong Kong is exploring are the *Dengue Fever Risk Assessment* program and the *Parking Space Finding System*. The *Dengue Fever Risk Assessment Program* Involves installed digital data collection points in parks to record the Ovitrap Index (a risk index) in different locations to identify and provide real-time monitoring of the potential facilities that are being affected in the vicinity with high Ovitrap Index. *Parking Space Finding System* was also implemented in various parks in Hong Kong which uses AI to predict whether there will be a parking slot when you arrive if you start driving to the park at the current time. These solutions optimize the use of technology in park designs not only to minimize our impact on the environment - for example by reducing carbon dioxide emitted from vehicles while they find parking slots, but also to mitigate the possible risks that the dynamic environment imposes on us, such as the spreading of diseases.

In the past, the line *“The best predictor of future behaviour is past behaviour”* defined our way of thinking, moving into the future, advancement in technologies means we might need to rethink if it still applies. Using digital technologies, we could co-create a citizen-centric smart city and smart park where personalization and predictions allow us to take proactive actions.

Perspective from UNESCO HK Association - Prof. Karen Cheung

The 5th of June was also the World Environment Day of 2021. The theme for this year was “Reimagine, Recreate, Restore”, it is a year of rebuilding our relationship with the ecosystem, it is a year of relaunching our journey to a more sustainable future. After the United Nations have published numerous new plans for how we should move forward from 2021 to 2030, discussion around sustainable development has become the “New Normal”, and indeed, the slogan “We are the generation that can make peace with nature. Let’s get active, not anxious. Let’s be bold, not timid.” calls for worldwide effort.

UNESCO Hong Kong Association (UHKA) is a member of the Chinese National Federation of UNESCO Clubs, Centres and Association, a regional reporting member of the United Nations Global Compact, and a member of the wide international network of various organizations in the family of the United Nations and UNESCO. In the past decade, aligning itself with the mission of “Promoting sustainable development and international exchanges through education, sciences and culture”, UHKA continues to promote peace, inclusivity and sustainability in Hong Kong. From 17th to 19th May 2021, the UNESCO World Conference on Education for Sustainable Development was held in Berlin, international participants joined the conference virtually. Along with the conference, Hong Kong also published its Regional report, highlighting the four stages of development regarding the promotion of Education for Sustainable Development (ESD) and its outlook in Hong Kong and the Greater Bay Area. Hong Kong’s unique experience in building SDG lifelong learning system was given special recognition in China’s country report as it helps to nurture talents in the field of sustainable development.

Prof. Karen Cheung pointed out that from the perspective of the 17 Sustainable Development Goals (SDGs) , the most fundamental level - SDG13: Climate Action, SDG 14: Life Under Water and SDG 15: Life on Land should be the starting point of how we think about building Smart Parks. The case of Water Smart Park from Australia which could be found on the United Nations SDGs Knowledge Platform is a good example. The initiative revolutionized the water management system in the park, including ecozonation and hydrogenation, irrigation system retrofits, soil moisture probes and connection to a centralised irrigation system, utilizing various IoT Technologies and data processing, data analysis Techniques. The United Nations also provides guidance on how to design green spaces that address relevant SDGs.

Furthermore, in order to implement feasible and impactful projects, we have to start with planning. Since 2015, UHKA has rolled out a series of courses, programmes and certifications on Sustainable Development Planning, such as the Certified Sustainable Development Planner - CSDP. The World Institute of Sustainable Development Planners was also established to bring elites from different professions together to bring plans and ideas into reality. With leadership from industry professionals, we could build Smart Parks that are sustainable, innovative and inclusive.



Bringing Back Memories with Smart Park - Duncan Chiu

In the current age of digitalization, forms of online entertainment have gained much more popularity among the younger generation compared to physically visiting a park. Hong Kong is a city with very limited land resources, the effort put into building and maintaining parks should not be wasted, so we have to rethink how we can transform parks in a way that makes them more appealing for children of the current generation.

Mr. Duncan Chiu shared how Lai Chi Kok Amusement Park, namely "Lai Yun " navigated itself through such transformation using innovative technologies. Lai Yun is located on the west shore of Hong Kong. First opened in 1949, it was once the largest amusement park in Hong Kong. However, due to the opening of Ocean Park, regulations on animal shows and land restriction, on 31 March 1997, Hong Kong Government decided to close the park and use the land for residential public housing.

This was a shock, but also an opportunity for Lai Yun to evaluate and explore how to integrate technologies into its operation and come up with new business models. In 2015, the park reopened in Central, bringing back memories with new momentum. Using technologies in parks is not a simple task, any mobile game could be a form of entertainment, but for Lai Yun, the question is how to use them as a way to enhance visitor's real-life experience. Since then, innovation has become the centre of its projects and events. Revisiting its journey, in 2016, robotic elephant Tino was a star in its Super Summer Carnival; the XRace electric go-kart competition was the first-ever park-initiated go-kart competition in Hong Kong; in 2019, AR games were introduced in its 70th anniversary.

Many entertainments in parks lose their essence when we add technological elements to it, thus it is crucial to keep in mind where happiness and memories originated from in order to build a smart park that not only introduces new pieces of technologies to enhance visitor's physical experience and engagement, but more importantly, carries on the culture of parks and the precious memories from 1949 to the present generation, and to the future.



Concluding Remarks

Of course, smart cities need technologies, but it's never only about technologies. We should not use technology just for the sake of using it. What is more fundamental are the citizens and the environment. Collaboration between different stakeholders is the first step, ultimately, we should aim to engage the youth to co-create such a smart park that connects the community and surrounding ecosystem, fostering a harmonic society to promote sustainable development.

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