【智慧家居】
由空間至人際關係
以創新改善長者生活質素

Smart Homes: From Space to Relationships, Improving Elderly Well-being Through Innovations

"The United Nations's New Urban Agenda III (2017) advises countries not to adopt a pessimistic attitude towards population ageing but instead treat it as a unique opportunity to improve the living quality of its urban inhabitants. We have succeeded in lengthening lifespans of elderly people, now we need to work hard towards improving elderly health and their self-care abilities to ensure they live with dignity. Smart homes for the elderly is just the starting point of this endeavour." said Mr Ling Kar Kan, Director of Jockey Club Design Institute for Social Innovation (JCDISI).

Building a smart home for the elderly is not limited to the application of assistive technology but also encompasses aspects such as spatial designs, intergenerational relationships, co-living and even age-inclusive public spaces. Age inclusivity is an innovative approach involving anything from spatial hardware to interpersonal relationships to improve elderly well-being.

Mr Ling Kar Kan, Director of Jockey Club Design Institute for Social Innovation (JCDISI)
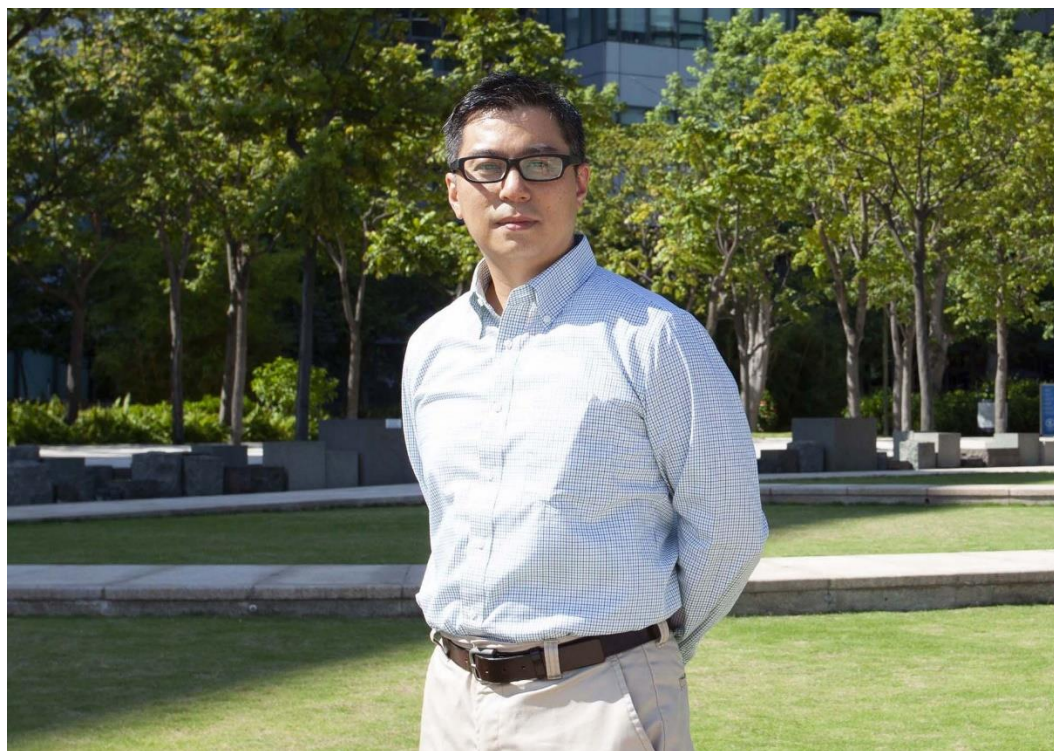
Mr Daniel Chun, Chairman, Research and Blueprint Committee, Smart City Consortium

Smart Home Technology Prevents Elderly Falls

Independent living is the hope of many elderly. However, data from the Elderly Commission has shown that every year, around 25% of the elderly have fallen at home at some point. Among them, 75% of cases involve head injuries and fractures, which greatly reduces their self-care abilities and overall well-being. Contemplating the issue, Mr Daniel Chun, veteran technology expert and chairman of Research and Blueprint Committee of the think tank Smart City Consortium, reckoned that the first step to finding a solution is to ask the right questions: What kind of problems are we tackling with age-inclusive technology? In recent years, the government, NGOs and organizations from both the private and public sectors have pushed forward the development of age-inclusive technology to fields beyond simple care-on-call services. Continuous innovations in assistive smart technology help the elderly navigate the challenges they face in daily lives, such as falling.

In light of the problem, several existing wearable devices equipped with fall detection sensors were developed to notify family members and emergency services immediately after falls. The device can also prevent accidents by tracking the elderly's motion and analysing indoors black spots for falls. Other existing devices monitor users' vitals such as ECG and provide medical professionals with accurate health data. These devices greatly improve the quality of life of the elderly by enhancing home safety and preventing accidents.

Ms Karen Lee, Registered urban planner and JCDISI project manager

Internet of Things Expands Age-Inclusivity to Outdoor Spaces and Fosters Intergenerational Interactions

Registered urban planner and JCDISI project manager Ms Karen Lee, who has 12 years of experience in infrastructure development and placemaking, pointed out that many existing projects aiming to mitigate the challenges posed by population ageing focused primarily on improving indoor living environment. Outdoor spaces, by comparison, is a less-explored research area. Lacking confidence in their physical aptitude, many seniors are stuck at home because they worry that they will get injured or unable to find toilets in public spaces. Prolonged sitting and the lack of exercise at home, however, further exacerbates the deterioration of their physical health, creating a vicious cycle of misery. Making public spaces more age-inclusive encourages seniors to go out of their cocoons and build relationships with neighbours, slowing down ageing and improving overall well-being.

JCDISI and the Hong Kong Housing Society (HKHS) co-organized 'Intergenerational Play Space Design Competition', a pioneering project under the social innovation project "Operation SoInno". Using HKHS-managed Prosperous Garden as a case study, the experimental project explores how the concept of ageing-in-place can be implemented and expanded to outdoor spaces. This project re-designs facilities in the communal playground to foster intergenerational interactions. The Internet of Things (IoT) technology helps public health management of the ageing population. The ultimate goal is to improve elderly's confidence, physical health and self-care ability outside their homes, rehabilitating them into active members of local communities.

Ms Liu Ying, Chief Brand Officer and Co-founder, Chengdu Longlive Pension Industry Development Co, ltd.

Adaptive homes help support the independent living of the silver-aged

As the physical abilities of the elderly deteriorate, the original living environment they lived in might not be able to adapt to their changing needs for safety and comfort. Working with the team, Chengdu Longlive Pension Industry Development Chief Brand Officer and co-founder Ms Ying Liu revamped their home after evaluating their needs, "A little tweak in interior design can greatly improve their living quality and even restore their dignity." Age-inclusive adaptive interior design and services can make living alone more manageable for the elderly.

Mr Spencer Ke, Co-Founder, 9 floor Co-Living apartments

Intergenerational Living in Taiwan Rebuilds Rapports Between The Young And The Old

Is living with an elderly always a drag and no fun at all? Mr Spencer Ke, founder of Taipei's trendy co-living space 9floor, breaks the stereotype. Collaborating with the Xinbei municipality, 9floor launched the "National Taiwan University Intergeneration Social Housing Plan" in 2017. His team spearheaded the three main aspects of the project: spatial design, flatmate matching and consensus-building. Living under the same roof, the young and the old shared memorable moments. Young residents learnt valuable life lessons from their seniors. The co-living space solves elderly loneliness while providing youngsters with affordable housing in the city, killing two birds in one stone.

Social Innovation Regional Forum: Tacking Double Ageing by Double Smart

Population ageing and building stock ageing are usually tackled as two separate subjects, and each has already received much attention. However, the combined impact of these processes of ageing, i.e. "Double Ageing", is a much more complex issue to address. The Jockey Club Design Institute for Social Innovation advocates that tackling this acute issue would require an integrated, people-centric "Double Smart" approach which leverages smart aging and smart city efforts holistically in order to enhance the sustainability, liveability and resilience of cities. Social Innovation Regional Forum 2020, an event within PolyU Jockey Club Operation SoInno, invited the aforementioned guests for a sharing, with a panel discussion moderated by Ms Sabrina Li of the Hong Kong Housing Society, to explore how smart homes can be used to tackle Double Ageing.