

## 技術開發人員的長者視角 Developers' Perspective of Ageing

「數錢好難呀」，原來是真的！

作為一個「後生仔」，我知道長者因為視覺和觸覺退化，「數錢」變得困難，但確實有多難呢？經過這次的親身體驗，才發現長者會覺得硬幣都是一式一樣，譬如我們平時很容易就能辨認到形狀獨特的「兩蚊」，但對長者來說，不同面值硬幣的顏色相似，大小又相近，「毫子」之間更是難以分辨。

**"Counting money is so hard", turns out it's true!**

Coming from a younger generation, I reckon it becomes difficult for the elderly to "count money" due to their deterioration of vision and touch, but how difficult is it really? Through this experiential activity, I discovered that the elderly perceive different kinds of coins as identical. For example, we can easily identify a two-dollar coin because of its special shape, but to the elderly, different value of coins are all in similar colour and size, and particularly, cents are even harder to distinguish.



### 執藥都好困難！

觸覺退化之後，藥丸的包裝袋很難打開，之後將藥丸逐粒拿出來亦有難度，所以我嘗試將藥丸倒出來，但一倒就散落各處，往地上找，又找不到。

**Taking out medicine is difficult too!**

After losing my sense of touch, it was difficult to open the packaging to reach the pills, and to take them out one by one, so I tried to pour the pills out, but they scattered all over. I tried to search for the pills on the ground but couldn't find them.

### 沖「乾淨」涼都成問題！

原來長者的手關節硬化或退化後，洗澡時要擦背或俯身，是非常難做到的。

**Getting a "clean" shower is also a problem!**

When the arm joints of the elderly become stiff or degenerated, it is extremely difficult, if not impossible for the elderly to rub their backs or bend over when taking a shower.

### 我們的產品真的可以幫助長者解決問題……？

「我們都是樂齡科技的公司，各有專長。參與樂活安居生活實驗室的同理心體驗工作坊後，令我們反思自己開發的產品是否能夠配合長者需要，還是會為長者帶來新的疑難，以及找出產品可以改良的地方。」 - 科學園園區公司

### Could our products really help to tackle problems for the elderly...?

"We are gerontechnology developers of different specialties. Participating in the Experiential Workshop on Empathy of the Age-Friendly Home Living Lab has driven us to reflect on whether the products we developed were able to meet the needs of the elderly, or had brought additional difficulties to them, as well as to identify areas for product refinement." - Tech ventures in HKSTP





樂活安居生活實驗室為香港科技園公司(科學園)舉辦了一場同理心體驗工作坊，讓一班樂齡科技開發人員走進長者的世界。

於體驗旅程中，開發人員分別戴上特製眼鏡，並穿上護肘及護膝，進行穿衣、吃藥、交費、閱讀及書寫等活動，模擬患有不同眼疾及活動能力受阻的長者，了解他們在老化過程中身體功能的轉變，以及在日常生活中面對的挑戰。

建立同理心是生活實驗室流程中的起點，亦是開發樂齡產品很重要的一步。樂活安居生活實驗室透過將長者的生活習慣及照顧者的需要傳遞予技術開發商，推動開發更「貼地」實用的樂齡產品。

The Age-Friendly Home Living Lab organised an Experiential Workshop on Empathy for the Hong Kong Science and Technology Parks Corporation(HKSTP), bringing a group of gerontechnology developers to enter the world of the elderly.

During the experiential journey, developers put on custom-made glasses, elbow and knee pads to simulate the elderly with different eye disease and impaired mobility to perform daily activities, such as dressing, taking medication, paying bills, reading and writing, so as to understand their changes in physical functions in the ageing process, as well as the challenges that they encounter in daily living.

Establishing a sense of empathy is the beginning of the Living Lab process, a very important step in the development of age-friendly products. By conveying the daily habits of the elderly and the needs of their caregivers to solution providers, the Age-Friendly Home Living Lab promotes the development of more level-headed age-friendly products.



## 樂齡科技知識庫

### Gerontechnology Knowledgebase

#### 遠距安全監察系統

在香港，獨居銀髮族在家失救的不幸消息時有聽聞。因此，家人可能會安裝遠距安全監察系統，實時遙距監測長者的身體狀況、生活習慣及安全情況。

市面上有不同類型的遠距安全監察系統，可以運用一系列的感應器收集長者在家的活動範圍和時間、門窗開關、溫度濕度、用電紀錄等數據，再利用人工智能分析長者的行為有否異常，甚至是否有意外發生等，並透過手機應用程式發送通知，及早提示家人作出相應行動。

明白到長者對私隱的關注，這類監察系統無需使用攝像鏡頭，長者亦無需穿戴任何裝置，可以在家自由活動的同時，亦保障他們的私隱，減低對他們日常生活的妨礙。

#### Remote Monitoring Systems

In Hong Kong, there are often unfortunate reports of elderly individuals who live alone lose their lives at home. Family members may install remote safety monitoring systems to remotely monitor the physical conditions, daily routines, and safety status of the elderly in real time.

There are different types of remote safety monitoring systems on the market, making use of a series of sensors to collect data such as where and when the elderly perform activities at home, opening and closing of doors and windows, temperature and humidity, and electricity usage. Analysed by artificial intelligence on their behaviours, notifications will be sent through mobile apps to alert family members if there are any abnormalities or accidents, so that corresponding actions could be taken as soon as possible.

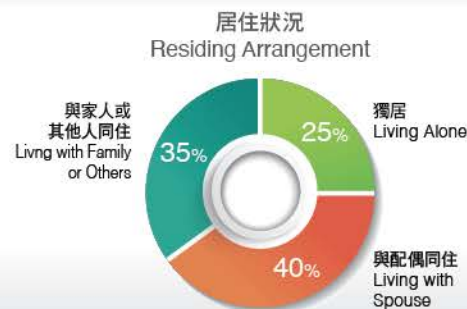
Understanding the privacy concern of the elderly, these monitoring systems neither require the use of cameras, nor the elderly to wear any devices. As such, the elderly are able to freely move around at home for activities with less impact to their daily living, safeguarding their privacy.



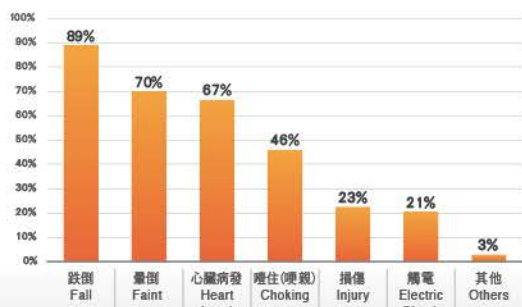


2023年8月，長者安居資源中心共訪問了200名55歲或以上的人士，了解他們對於獨居長者及雙老家庭的家居緊急情況的認知。受訪者當中，有四分之一為獨居人士，另有4成與配偶同住。

In August 2023, the Elderly Resources Centre (ERC) interviewed 200 visitors aged 55 or above to understand their awareness on emergency incidents of elderly living alone and doubleton families at home. Among the respondents, a quarter of them were living alone, while 40% were living with their spouse.



長者獨留在家時，哪些緊急情況最需要支援？  
Which emergency incidents require most assistance when elderly was being left at home?



## 長者獨留在家時最需要支援的緊急情況 Emergency Incidents Require Most Assistance When Elderly was being Left at Home

在常見緊急情況的選項中，最多受訪者認為長者獨留在家時，最需要接受支援的是「跌倒」(89%)，其次為「暈倒」(70%)及「心臟病發」(67%)。

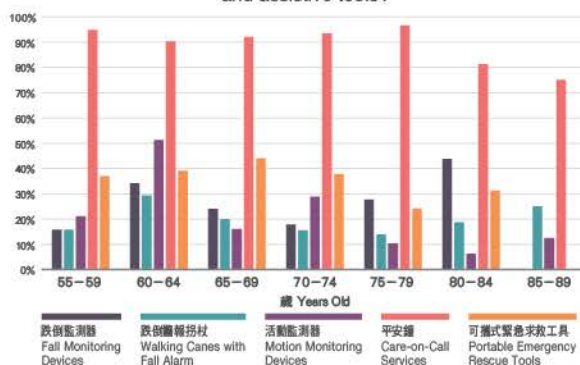
In the options of common emergency incidents, the vast majority of respondents considered "Fall" requires the most assistance when elderly was being left at home (89%); followed by "Faint" (70%) and "Heart Attack" (67%).

## 家居監察儀器及輔助工具 Home Monitoring Devices and Assistive Tools

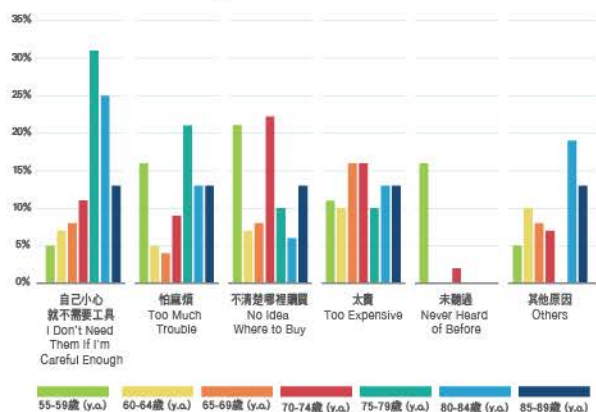
在各項家居監察儀器及輔助工具中，「平安鐘」(92%)是最為人認識的產品。比較所有年齡組別，60歲至64歲的受訪者認識「活動監測器」(51%)的比例最高，而80歲至84歲受訪者則認識「跌倒監測器」(44%)的比例最高。

Among various home monitoring devices and assistive tools, "Care-on-Call Services" (92%) is the most recognised product. Comparing among all age-groups, respondents aged 60 to 64 had the highest level of familiarity with "Motion Monitoring Devices" (51%), while respondents aged 80 to 84 had the highest ratio of familiarity with "Fall Monitoring Devices" (44%).

你認識以下的監察儀器及輔助工具嗎？  
Are you familiar with the following monitoring devices and assistive tools?



為什麼你不會安裝或採用這些監察儀器及輔助工具？  
Why wouldn't you install or use these monitoring devices and assistive tools?



雖然受訪者普遍都對家居監察儀器及輔助工具稍有認識，但仍有超過1成半55歲至59歲的受訪者表示因「未聽過」而不會安裝或採用這些產品及工具，是所有年齡組別中比例最高。

調查亦發現，1成的受訪者因為「怕麻煩」不會安裝或採用這些產品及工具；而年齡較大的受訪者較偏向認為「自己小心就不需要」這些產品及工具，其中超過3成75歲至79歲的受訪者同意這個說法。

Although the respondents were generally acquainted with home monitoring devices and assistive tools, 16% of those aged 55 to 59 revealed they would not install or use these products and tools as they had "Never Heard of Before", the highest ratio among all age-groups.

The survey also discovered 10% of respondents regard the installation or adoption of these products and tools causes "Too Much Trouble"; whereas respondents of older age were more likely to carry the thought of "I Don't Need Them If I'm Careful Enough", of which 31% of respondents aged 75 to 79 agreed this statement.

深思思  
Point to  
Ponder

我們可以如何設計更為用家為本的家居監察儀器及輔助工具，以提升長者的使用意願，協助他們居家安老？

How could we design more user-friendly home monitoring devices and assistive tools to increase elderly's willingness to use them and assist the elderly to age-in-place?



Falls in the elderly are common, there are about 74.5%\* of accidents with injuries caused by falls in Hong Kong each year. In addition to our survey of 89% of respondents considered "Fall" requires the most assistance when elderly was being left at home, public education is crucial to raise the awareness of the community to prevent and mitigate fall risks, as falls, particularly in the elderly, could lead to profound consequences.

Exercise holds a lot of benefits, and reducing fall risks at home is one of them. Through exercise, muscles are trained to be stronger and more flexible, and improve our balance and strength, thus help to prevent falls.



Apart from exercise, home modification by minimising environmental risk factors is also a promising strategy to reduce fall risks. For example, we could enhance home safety by replacing dangerous furniture, installing various kinds of supporting handrail, as well as seeking advice from occupational therapists to improve the living habits of the elderly.

\* Report of Unintentional Injury Survey 2018. Centre for Health Protection, Department of Health, HKSAR



## A Flash of Inspiration



**樂活安居** 生活實驗室  
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