Is there a doctor in the house?

UK firm Lilli will install AI-backed sensors in the homes of 100 people in Dorset requiring social care under a three-month pilot. The technology will monitor the residents' behaviour, movement and use of appliances, and the data generated could reduce annual patient visits by 780 hours and save the local council £250,000 ($345,000).

Temps de lecture : minute

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Lilli said the trial could highlight improvements in independent behaviour as well as problems. It addresses privacy concerns by not using cameras. (*BBC News*)

Why does this matter?

There are a growing number of IoT household devices with health tracking capabilities, such as *smart beds*, *smart mirrors* and *bathroom scales*, which can record sleep quality, heart rate, breathing, body fat index, temperature, hygiene and skincare routines among many other metrics. *Smart fridges*, for example, can provide healthy food recommendations and recipes, and *alert* users when food is turning bad. Mobile-based technologies have been trialled to detect mental health issues via the *calls* we make and *texts* we send.

Also in the pipeline are *smart toilets* that can detect disease biomarkers in faeces and urine to alert users to potential health problems, such as some cancers, kidney failure, irritable bowel syndrome or COVID-19.

Other sensors can also alert to possible concerns. The Howz *Smart Home* kit – which targets older people living alone – provides a smart plug to detect how often an appliance such as a kettle or toaster is used, alongside motion and door sensors to detect physical activity. A hub joins these together so data can be shared via the internet so others can be alerted to any changes in normal behaviour or potential dangers.

Sick notes

Putting these technologies together means our homes could become the first to let us know when we need to pay more attention to our health and wellbeing by making suggestions for lifestyle changes or recommendations for seeking assistance. Integrating these with *remote-monitoring* services – which grew in popularity during the COVID-19 pandemic – can also help medical professionals keep better track of a patient's health condition.

An additional bonus – for those who are willing and happy with how their information is stored – could be by *monetising* the wealth of health data they are collecting through their devices.

What's the cost?

The number and type of IoT household devices will continue to grow as will the amount of data they generate. While this may not equate to excessively higher energy bills for the user, carbon emissions generated by the energy needed for data storage, sharing and downloading will increase. According to ClimateCare, the current *carbon footprint* of our devices, the internet and the systems supporting them accounts for 3.7% of global greenhouse emissions, similar to that produced by the airline industry.

Nichola Watts is Health Care Curator at *Curation* where this article was originally published

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