

UNIVERSITY of
STIRLING



Promoting Inclusive living via Technology- Enabled support

The INVITE Project Summary

Vikki McCall, Grant Gibson, Steve Rolfe,
Regina Serpa and Julia Lawrence

2022



In partnership with



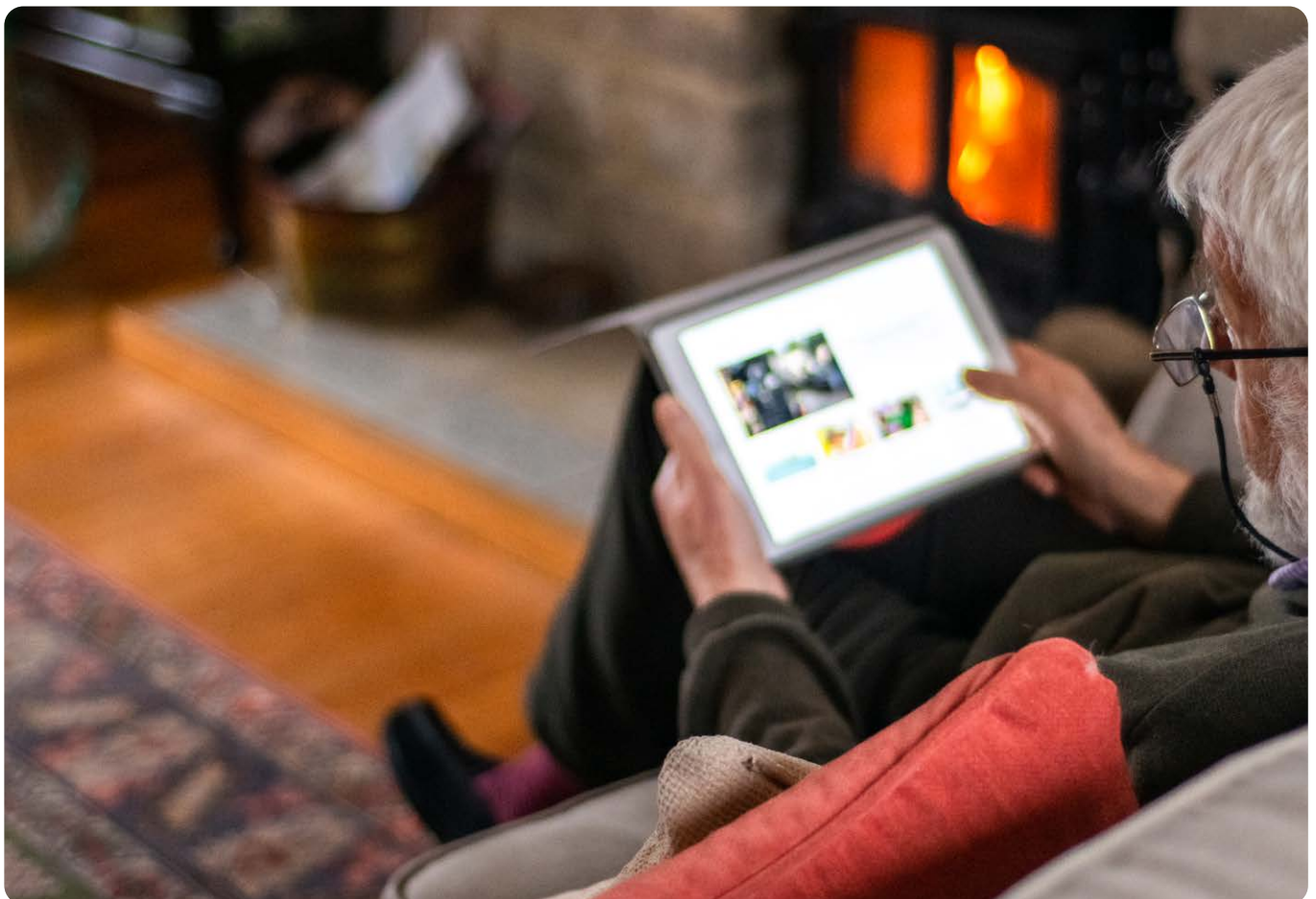
Funded by



The INVITE project is a partnership between researchers from the University of Stirling and Stonewater, a social housing provider in England, and funded by the Longleigh Foundation. The project investigates the ways in which assistive technologies can be used to improve health, wellbeing, activity, and community participation in older adults.

Working with people to explore solutions is increasingly recognised as a valuable process in research. With the help of residents, families, and staff across four Stonewater retirement living schemes we identify everyday assistive technology solutions to care and support needs. Residents were asked to test whether the identified technology solutions met their needs and then tell us about their experiences: the good, the bad and the indifferent.

The INVITE project demonstrates the role housing providers can play in connecting older people, families and frontline staff with knowledge and guidance on how to identify available, affordable and appropriate assistive technologies. And, most importantly, the findings show that even quite small, low-tech items can make substantial differences to quality of life.



What's the issue?

Growing older can sometimes come with added challenges around health and mobility. This can lead to difficulties in carrying out everyday activities independently and pose risks to living safely at home. There are a wide range of 'assistive' and 'everyday' technologies that can help people, but individuals often don't have these devices, or give up using them if they don't work easily or require maintenance.

Some of the barriers around 'assistive' and 'everyday' technologies for older people include a lack of involvement in the design of products, and a lack of awareness among older people, families and service support staff about what is available or what devices can do.

What do we mean by 'assistive' and 'everyday' technologies?

'Assistive technology' covers anything which has been specifically designed to help people with disabilities, restricted mobility or other impairments to do things that might otherwise be challenging. 'Everyday technologies' are things like mobile phones, tablets, smart speakers and other equipment that can be adapted to support people in their homes. Examples include simple household items like jar openers and easy-grip cutlery, to high-tech devices such as using mobile phones and tablets to keep individuals connected with family and friends, reducing loneliness and isolation.

The project looks at 'assistive' and 'everyday' technologies – which we often term 'gadgets' – that are widely available to buy online and in local shops and supermarkets.



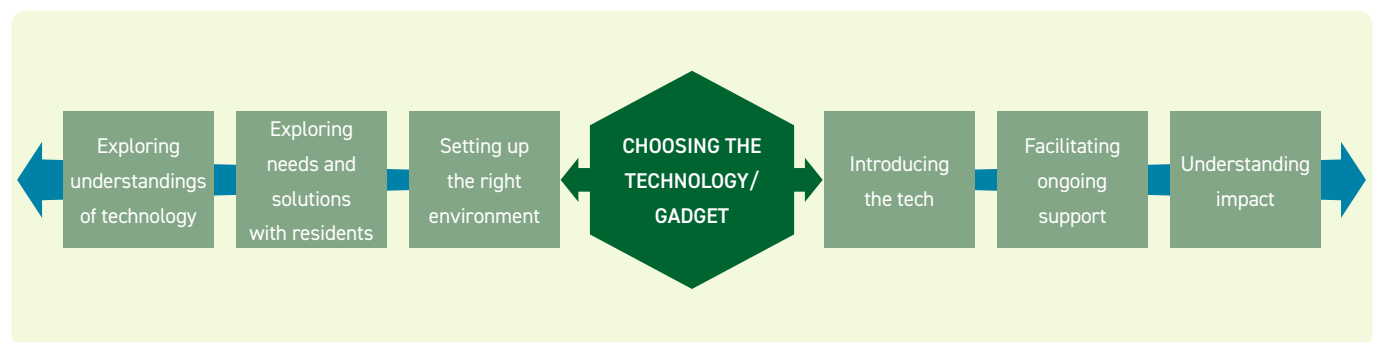
What did we do?

We asked residents and staff in four Stonewater retirement living schemes across England to share their personal experiences on the challenges they face living independently and ageing well. We asked participants to describe the tasks they found difficult to perform and what solutions they use or had considered using to manage those difficulties.

By understanding individuals' experiences in this way, the INVITE project researchers were able to identify 'assistive' and 'everyday' technology solutions to help make daily tasks easier to do in a number of ways, such as reducing the strain and stress on joints in the hands, hips and knees and helping residents to engage in leisure and social activities that they enjoyed. We gave people these devices and then went back to ask them how they got on.

Don't think of technology as a 'gadget' but a process

Our first finding was that introducing the 'gadget' needs to be person-led and specific to need. We found the process of introducing and helping that person with the gadget in the long term is just as important as the technology itself.



Housing staff play an important role in assisting residents by:

- Helping people become familiar and comfortable with gadgets
- Providing information and advice
- Signposting residents to resources

Family, friends and neighbours were also a key group in introducing, facilitating, building trust in, supporting and maintaining technology interventions. What was clear from the study is that technology can with help face-to-face interactions, but cannot replace it.

How did we make everyday tasks easier and safer?

There was success with a wide range of high-tech solutions and low-tech devices that were tested by residents. However, what this project found was that the low-tech solutions have the most potential in making small but huge impacts on residents' day-to-day lives. Items that helped with small, often taken for granted tasks, such as making a cup of tea or opening a jar, had the largest impact on making people feel independent, in control and supported in connecting with others (e.g. inviting a neighbour around for that cup of tea).



Low-tech solutions helping everyday tasks - like making a cup of tea



One of the most popular pieces of technology was the hot water dispenser, that gives a cup of tea with a touch of a button. Participants loved the design, and it had replaced traditional kettles for some. Others had recommended it to other friends in the sites, who had bought their own version.

I mean, it's nice that I can make a drink for myself, I can make a drink for us both, and feel completely safe, and independent. It really is wonderful... It really has made a difference to my life (Nana, Cornmill House).

This device enhanced the feeling of independence for many residents.

The hot water dispenser had the bonus of saving money in energy efficiency, alongside an inclusive design. It enhanced social connections, where people could invite friends over and now make them a cup of tea.

The technology helped with an everyday routine activity that many take for granted – making a cup of tea.



What does supporting independence look like?



One of the most popular items re-ordered and requested by a wide number of participants across sites were jar openers.

Everything that's been provided has made somebody more independent. I mean it's awful if you can't open a jar...the gadget that they've got people can actually do that now, you know? And, you know, [they were] probably starving because they haven't eaten for a long time because they couldn't do their tins (Stonewater staff member).

The jar openers appealed to those who were both confident with technology and those who were not, as the tasks it helped with ranged from opening milk bottles to glass jars.

Interestingly, many participants were surprised by the usefulness and noted they wished they had had this item a long time ago to support their independence but did not know it existed.

People know what they need. They just don't know what they don't know.

Residents, family and staff were generally interested and motivated around technology solutions but often 'did not know what they did not know'. The project found that working together to find solutions, demonstrating low-tech gadgets and having people around you helping with the gadget can act as a catalyst to building trust in technology.



Some high-tech solutions supporting health & wellbeing



One resident in his 60s had long-term anxiety and depression, with difficulty managing day-to-day and experiencing regular and spontaneous panic attacks.

The resident was provided with a Fitbit which communicated with the Fitbit mobile application (app) on his smartphone via Bluetooth. The Fitbit allowed the resident to track their heart rate, sleep and physical activity (e.g. number of steps). This helped the resident to identify risk factors associated the onset of a panic attack (e.g. increased heart rate) before the symptoms were visible.

*The watch has done a lot for me
since I got it... it's changed my life!
(Harold, Abbey Lodge).*

The Fitbit has helped the resident to detect the symptoms of an oncoming panic attack and regain control.

The Fitbit was also helping other residents to regain confidence as Covid-19 restrictions were easing:

*You've got people that don't leave the building because they're scared of Covid but will go to the walking group
(Stonewater staff member).*

Furthermore, one of the residents who was pivotal in maintaining the gardens was delighted that residents were walking round the gardens:

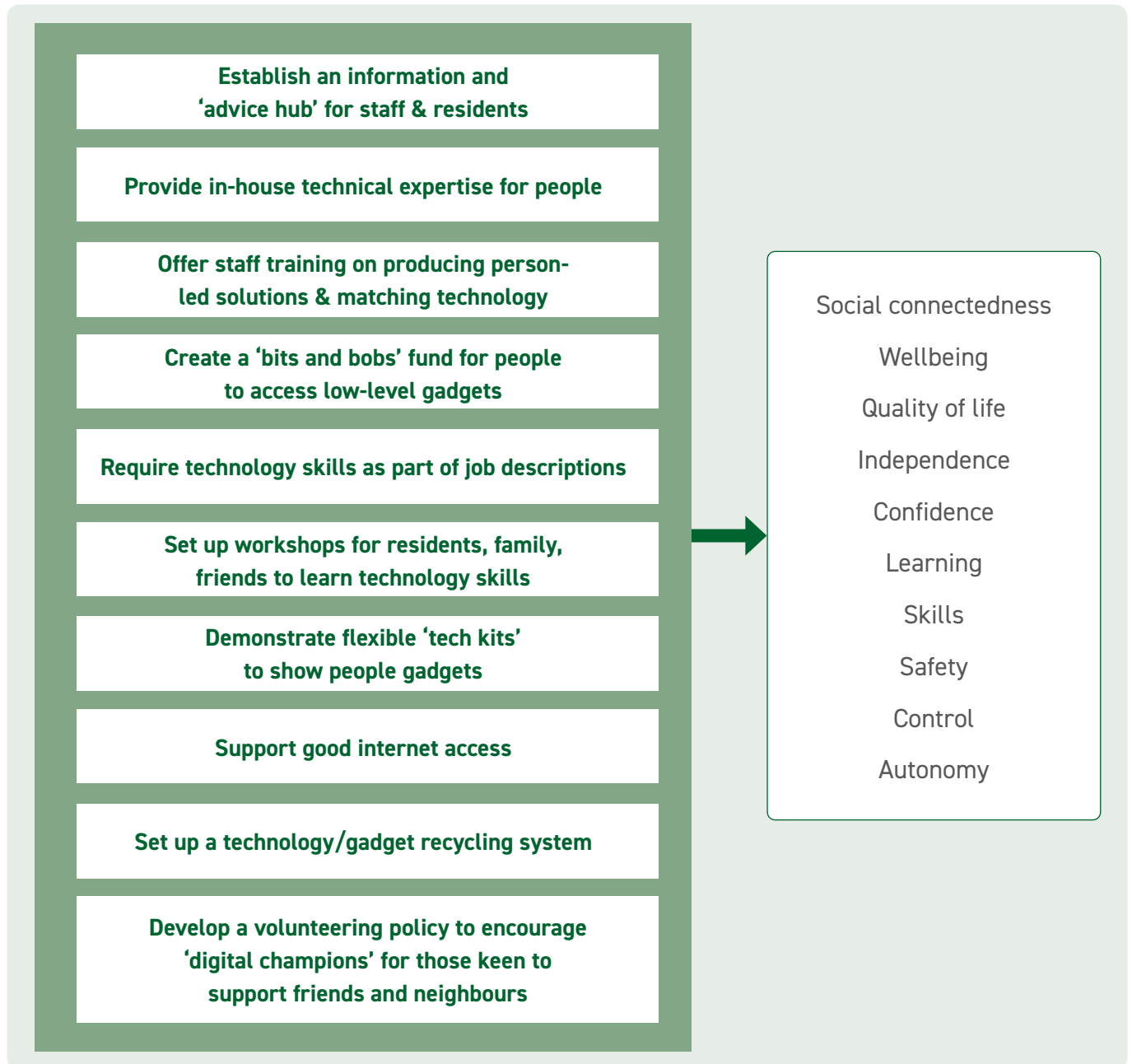
*We've had four of them traipsing around with their little Fitbits on going, oh, look how many steps we've done. Oh, it's so lovely to see them ... And I'm loving it, because they're looking at our gardens
(Bonnie, Abbey Lodge).*

Word of mouth by residents championing the Fitbit had generated additional demand for them after the project ended.

*... [but] there's still more residents that still want to be part of this walking club ... I had them knocking on the door asking for one of them watches [Fitbit] after the feedback, what he said to other residents
(Stonewater staff member).*

Our recommendations

From the findings, we recommend a range of activities for social landlords to support people when working with technology:



Introducing, providing and maintaining different levels of technology has shown clear and positive outcomes for individuals - including increasing social connectedness, wellbeing, quality of life, independence, confidence, learning, skills development, feelings of safety and control. Technology can play a key role in promoting positive outcomes in people's lives, but for it to work properly it requires the right gadget for the right person alongside people to show how it works and ongoing support as people's needs and technology change.

Image credits

With thanks to the Centre for Ageing Better for use of some of their images.

More details can be found at ageing-better.org and creativecommons.org/licenses/by-nd/4.0/