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Innovate Trust

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Evaluation Report:

Smart Supported Living Home

FCHA

Building Independence

First Choice Housing Association
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INTRODUCTION

Innovate Trust have been working closely with First Choice Housing Association to promote digital inclusion and encourage innovative approaches in social care in order to provide services more effectively, efficiently and to increase dignity and control for supported individuals. In order to achieve this aim Innovate Trust and First Choice Housing teamed up on a project to pilot the UK's first fully smart supported living service. This report outlines our evaluations and findings, 12 months since the project started.

The project converted a Supported Living home in Cardiff into a fully integrated smart home by introducing Wi-Fi enabled plugs and switches to the property and many mainstream smart devices, including smart speakers, sensors, TV controls and many other person centred features.

KEY FINDINGS

Research Findings: Cardiff University School of Psychology

We have been working with specialist research psychologist from the Human Factors of Excellence research unit (HuFex), who are currently investigating the impact that smart technology has on individual levels of wellbeing, independence and control. The controlled experimental study involved pre and post experimental research and ethnographic observations where specialists visited the property and completed assessments with individuals both before the technology was received and following its installation.

Their primary findings were:

- Overall a positive change in emotional wellbeing
- All individuals reported that they felt better able to do things for themselves
- 75% of individuals said the house was more fun to live in (with 25% saying it was the same)

Research Findings: Innovate Inclusive Technologies

Our own research very much mirrors the findings of the HuFex research however takes a broader focus by considering all and any individual outcomes arising out of the use of technology. Our research takes a multimethod approach based on structured observations, survey data and quantitative analysis.

Our primary findings:

- The higher the level of customisation and personalisation of technology – the higher the benefits for supported individuals
- Staff engagement and involvement is key to digital inclusion
- Individuals want to use technology and will devise their own methods and strategies to achieve their goals

PROJECT BACKGROUND

The full project background and individual profiles are presented in the initial evaluation report where the project is outlined at lengths (Vass 2019).

However to summarise, the supported living service can be considered typical of South East Wales, five individuals with various learning disabilities live at the property, which belongs to First Choice Housing Association and is supported by Innovate Trust. The service was selected for the pilot as it has a range of individuals with highly diverse needs, providing a wide sample of experiences with technology.

* Vass, K. 2019. *Initial Evaluation Report: Smart Supported Living Home Pilot Project* [Report]. Cardiff: Innovate Trust, pp. 1-16.

UPGRADES SINCE JAN 2019/INITIAL EVAULATION

The initial report highlights the work completed from August 2018 through to December 2018/January 2019, namely the initial rewiring and installation of smart technology, primary training, research and engagement with individuals, partner organisations and other stakeholders – such as the local authority and parents/guardians. From February 2019 through to July 2019, a host of developments, upgrades, training and ongoing input has taken place; that this report considers and evaluates building on the work and considerations made in the first report.

The focus for the second part of the project was embedding person-centred values into the technology. Now that the foundations had been set and the required hardware, software and awareness was in place, work begun with the individuals and customising the technology to ensure that the highest possible potential was reached for each of them. This was of particular benefit to two individuals at the service with limited verbal communication.

Additional measures introduced:

- Motion activated Cube enabling voice free control of home features
- Sensor based TV control system to allow individuals with dexterity problems to change channels and independently control their own television from anywhere in the living room
- Smart buttons to allow remote control of lights for individuals with limited/reduced mobility
- Sensor based lighting, integrated in smart framework reducing night time light usage
- Personal voice access point/portable receive for control
- Improving tablet compatibility and functions
- Additional “tap” control options for smart home hardware
- Integration of additional back-up smart fire panel with on call capabilities
- Secure networking app “Innovate Insight” to encourage adoption and further familiarity of technology.

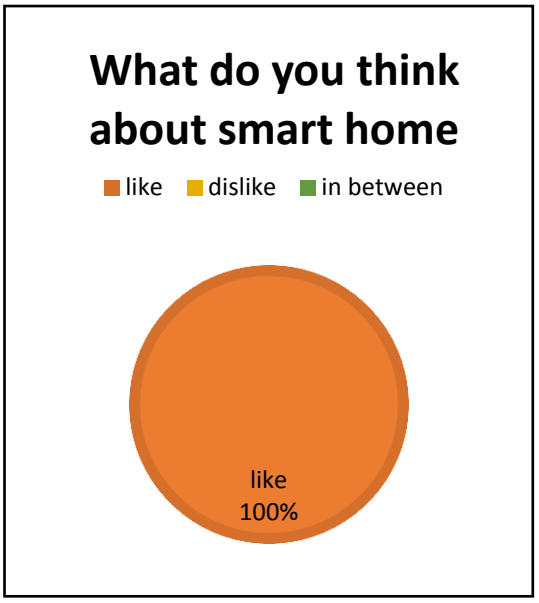
In addition, to these planned introductions the individuals found their own new and innovative uses for the technology, for example one individual using play-back video with pre-recorded voice commands to control his devices, which was an unplanned or intended outcome of the technology – where he increased his own usability of his home.

PERSONAL OUTCOMES

Some of the personal outcomes gained by the technology are apparent – for example easier use of lights and other home features. However other outcomes were more discreet, for instance the use of automation. Prior to the introduction of the smart lighting system and the later addition of a mainstream motion sensor, individuals often argued over corridor lighting at night. Although many steps had been taken to reduce light pollution at night and find an amenable solution, individuals often argued over lighting. Two individuals often attend the local pub until late in the evening on weekends and would like the corridor lights on for when they return in the night so that they can find their way safely to their bedrooms, whereas the other two tenants tended to go to bed earlier and did not like having the light on all night. This was a cause of many an argument between the

individuals at the property and despite a wide array of intervention attempts these were all unsuccessful. With the use of the existing smart lighting at the property and two affordable mainstream smart sensors which were programmed on a timer to activate when movement was detected in the corridor to turn on the lights. This covered any night time bathroom visits and the opening of the door when individuals returned from the pub. Since that day there have been no arguments surrounding the corridor lighting at night.

Prior to this technology intervention there were considerations of moving one of the tenant to a different property as the lighting situation and the arguments that followed were making it difficult for him to continue living at the property, with his friends and housemates. This clearly highlights the benefit of technology in this instance and although motion activated lighting is not necessarily a new occurrence, traditional systems which require hardwiring and replacement of switches is a sizeable additional cost. Whereas two smart sensors, when the lighting is already in situ is a significantly lower cost than the traditional system of motion activation.



Survey data was collected from the individuals at the property but also their staff team to provide a triangulated perspective and validate all responses. This data was incredibly positive and suggested that all individuals responded positively to the technology and were particularly pleased with it. Stating the preference for using the technology enabled features of home control in many circumstances over traditional controls where possible. This overwhelmingly positive feedback from individuals involved in the pilot suggests a coherent link between the technology and individual levels of wellbeing, at least during the first 12 months of the project.

A DIVE INTO THE DATA

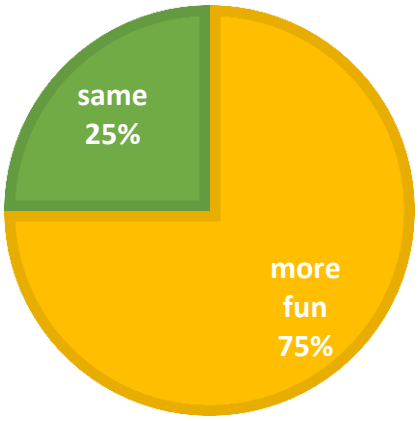
A closer look at the data provides several insights which capture the role the technology plays in the lives of supported people

50% of individuals reported feeling safer at home

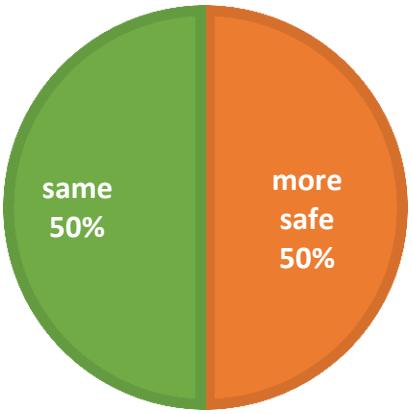
75% of individuals said the house was more fun

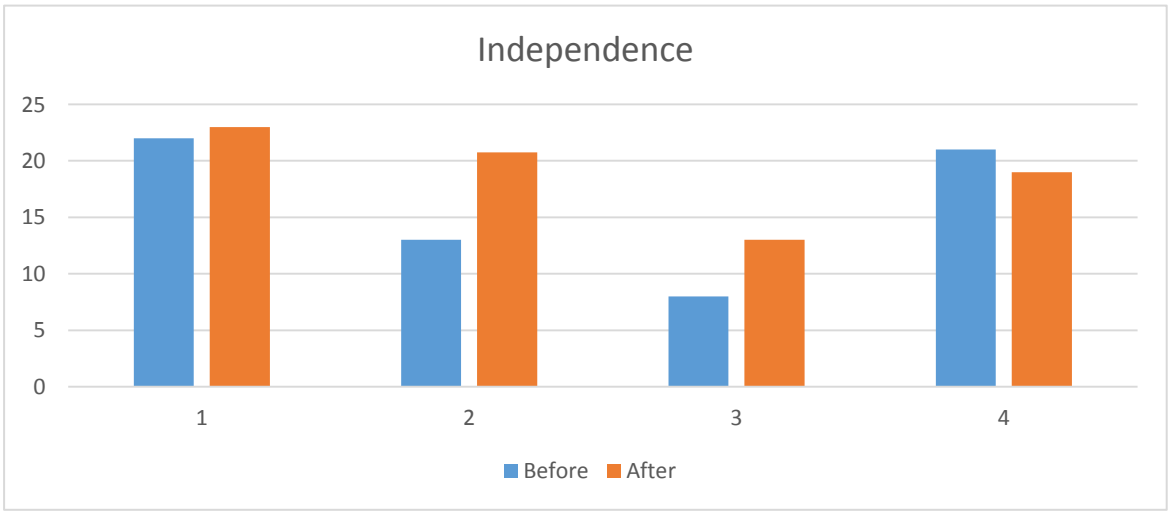
All individuals were independently assessed* as feeling better able to do things for themselves due to the introduction of technology.

IS THE HOUSE LESS FUN, MORE FUN, OR THE SAME



DO YOU FEEL MORE SAFE, LESS SAFE OR THE SAME?





* CU Psychology Researchers

FUTURE DEVELOPMENTS

To further extend the benefit and positive outcomes for individuals in supported living this approach needs to be embedded within strategic thinking in the sector. Additional further trials, taking into account an even more diverse range of individuals and including the lessons gained from this and similar research would be beneficial. Key decision makers, and those in the position to make the required changes, need to understand the transformative role technology can play in the lives of individuals and the secondary benefits this can have for organisations and the wider care sector.

More specifically, the pilot project is expected to naturally continue and develop as technology providers release updates – improving usability, utility and enabling an even wider range of skills and functions for users to access. There is ongoing potential for partnership working, further integration and connection of systems which could further extend these benefits. Additionally the ongoing upkeep and adoption of technology will improve as the skills and confidence of staff teams – as encouraged by the values and training regimes of leading organisations.

CONCLUSION

When the conditions are right, when the actors involved are committed to doing what is best for individuals and when there is a propensity and willingness to try new technology, amazing outcomes can be achieved on multiple levels to the benefit of many. The overwhelming evidence provided in this report and the level of transformation gleaned in the individuals involved in the pilot, highlights the significant and profound impact that digital inclusion can have on individuals, with varying needs and abilities, when technology is used to leverage individual outcomes. This of course requires some investment and nurturing – particularly in the early stages, but the results that can be achieved should not be ignored or overlooked. It is the hope that projects such as this will be used to inform wider audiences and provide a solid foundation for future digital inclusion and a commitment to doing what is best – not necessarily what is easy.

PUBLICATION STATEMENT

FUNDING

This report and the pilot project was developed in partnership with First Choice Housing Association; a registered social landlord operating for over 30 years across Wales and in Shropshire whose aim is to improve the quality of life through provision of quality, bespoke accommodation that enables tenants to achieve independence, fulfil their potential and optimise enjoyment of life, and allowing staff and family to be part of that journey.

ACKNOWLEDGMENTS

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