

iPad shortcut menu to Access Smart Technologies for those with no speech or dysarthric speech

Leuchie House, East Lothian. October 2022



Leuchie House Overview:

Leuchie House is a national charity dedicated to supporting people living with neurological conditions. It provides short respite breaks and over the last three years has invested in infrastructure and equipment to support guests to use technology to reduce their dependence on carers and enable independence. All bedrooms have integrated Smart technology, enabling guests to use voice activation to operate smart lights, plugs, curtains and fire TV cubes. In addition, they offer 1-2-1 digital skills sessions and assistive technology workshops for guests, based on 'off the shelf' affordable technology; and advice on setting up Smart technology when they return home.

The Problem

Most of the Smart technology available to guests is based on voice activation. We have a number of guests who, because of their neurological condition, are non-verbal or have dysarthric speech and therefore unable to control their environment in the same way by using Alexa or equivalent technology.

AIM: To increase access and inclusivity for guests who are unable to use their voice to access technology by installing Apple shortcuts (icons with links) to iPad screens which can be tapped or triggered through a switch control, to link with the Smart technology.

Outcome

We are delighted to have been able to create an iPad with shortcuts to enable our non-verbal guests and those with dysarthric speech to control the Smart technology in the bedrooms

Key Learning Points

- It is important to involve users and get feedback from them at an early stage
- The menu icons in the app can be changed to suit; dropdown, small icons, or larger icons for those with poor vision.
- Apple shortcuts do not integrate easily with non-Apple approved devices
- The introduction of Matter, a new communications standard, will be happening in the future. This will enable different types of technology to talk to each other and will make integration easier to achieve. Hopefully this will vastly simplify the processes needed to set links to non-Apple tech on the iPad shortcuts.
- Many guests are familiar with Alexa and would rather use this mainstream technology instead of a specialised enabling technology, such as an environmental control system.

For more information contact: Social Care Programme Team: nss.DigiCareHome@nhs.scot

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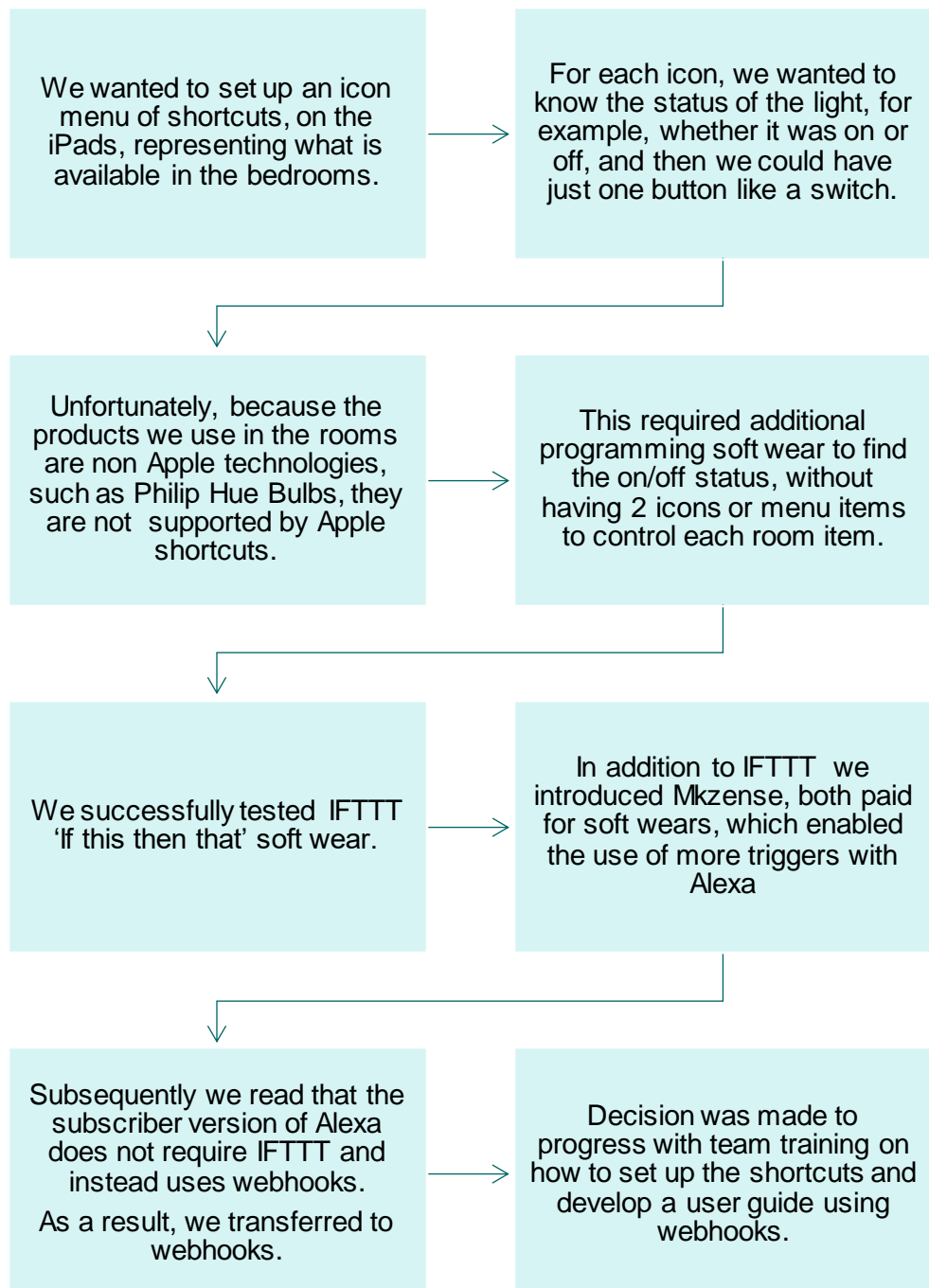
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Parkinson's Disease
Multiple Sclerosis
Motor Neurone Disease
Stroke

"There is an element of 'future proofing' where, for example, those with MS are highly likely to lose their voice in the future due to their condition."

Technical set up and Process



Security and Practicalities

Setting up smart rooms

- When setting up the 18 Alexa devices we thought about a naming standard; what Amazon account to link them to; should we have separate accounts and sim cards etc? We decided that they worked best under separate accounts for each bedroom. This greatly reduced the occurrence of someone in the next room triggering an event on a neighbouring Alexa or someone accidentally turning off all the lights in the bedrooms!

Passwords

- Managing passwords was substantial and after a period of setup, testing and stable use we have decided to make each one unique to make the setup more secure.

Cleaning of data

- Leuchie House guests change every fortnight, so we needed to ensure that the technology use history is not stored/saved on a device without consent.
- Guests need to consent to the use of Alexa and if they do not want to use it, the Alexa is unplugged.
- We currently delete voice data for guests who consent to use, but not storage of voice data and we are currently reviewing the digital ethics and looking to see whether this is still the way to go.
- We have put together a privacy impact assessment. We learnt that for Alexa, the voice data is like a voice print as unique as a fingerprint – Amazon knows the voice if a guest has an Alexa at home.

"I trialed the shortcuts using a switch and although I don't need to use this now, as my voice is still strong enough to trigger Alexa, I can see the reason for having this and recognise that it could be useful for me the future"

"Building on our digital and enabling technology programme over the last 3 years, 75% of our guests now request digital support when they come for a break."

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