Introduction

Residents at care homes often struggle with two things; memory and loneliness, so how can we combat this? Well my idea for an invention is this: an actual voice assistant that works!

What is it?

The invention will be a tablet that the residents can hold and move around with but also can dock in their room. The benefit of docking is that it attaches to a speaker for improved audio as well as that's how it charges. The tablets purpose is to answer your questions, remind you of things, make socialising easier, watch entertainment, play games. The device will be a 13" 5mm thick device with 1250nits. This is so in any light, at any angle, from a good distance it can still be seen and read from. The software will have visual and haptic feedback for everything from input recognition to taking action.

How to use it

It is understandable that care home residents don't have a full understanding of how to use the latest technology, so we made this device with that in mind. Our tablet can be used like any other (touchscreen) but also can be controlled with their voice as some patents dont have fine motor control. The users request will appear on screen and the response will be spoken as well as be shown on screen. There is also a camera onboard for FaceTime capabilities

Ethical Considerations

There is a camera onboard but that will not be used to send any data to any server, that will stay on device (or who they're calling), however the microphone will need to be turned on at all times (so it can be available at all times). Any audio picked up on the microphone will not be sent to third parties. Privacy is a huge concern that will be taken as a top priority.

AI In the machine, there will be multiple forms of AI. To detect voice there will be a natural language processor inside. This is used to take your voice as in input, speaking in natural human language and the computer being able to process the task you have given it. The point of NLP is to take voice input and convert it into an action the computer can take. We will also use an personal action model that all starts from the same base but learns from your personally. It will learn your habits, how you speak, and become more useful from that by. It will also keep track of (by asking for updates) your personal health, it will ask for BP, any pain, and other vitals to make sure you are happy and healthy. It will use machine learning to take your past and current health vitals to show you what - if anything - has changed, and how much by. It will use the past health data to create a prediction for what it should be now, and compare that against what it actually is now.