

# INTELLIGENT PERSONAL ASSISTANTS

USING MAINSTREAM TECHNOLOGY TO ENHANCE  
INDEPENDENT LIVING

# OUR AIMS

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We are using IPA (Intelligent Personal Assistants), Smart Speaker Technology and IoT connected devices to:

- Empower individuals
- Maintain & increase independence
- Sustain & maximise resources



# OUR JOURNEY

2017

Awarded £15,000 to start a project exploring the use of IPA devices with supported people

2018

Developed the first SMART house for supported adults in the UK & undertook doctorate research with Cardiff University Psychology into well-being

Present

Sharing knowledge and developing SMART homes in partnership with housing associations & local authorities

# WHAT WE USE

## **1 VOICE & VIDEO**

SMART speaks with audio and visual capabilities

## **2 GESTURE**

Sensors that detect gesture or movements

## **3 EEG / EMG**

Brainwave and Muscular controlled devices

## **4 IoT (Internet of Things)**

Internet connected devices detecting environmental activity (gas, power, temperature, moisture & movement)



# ITV NEWS REPORT

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# CURRENT WORK

## CARDIFF UNIVERSITY PSYCHOLOGY RESEARCH

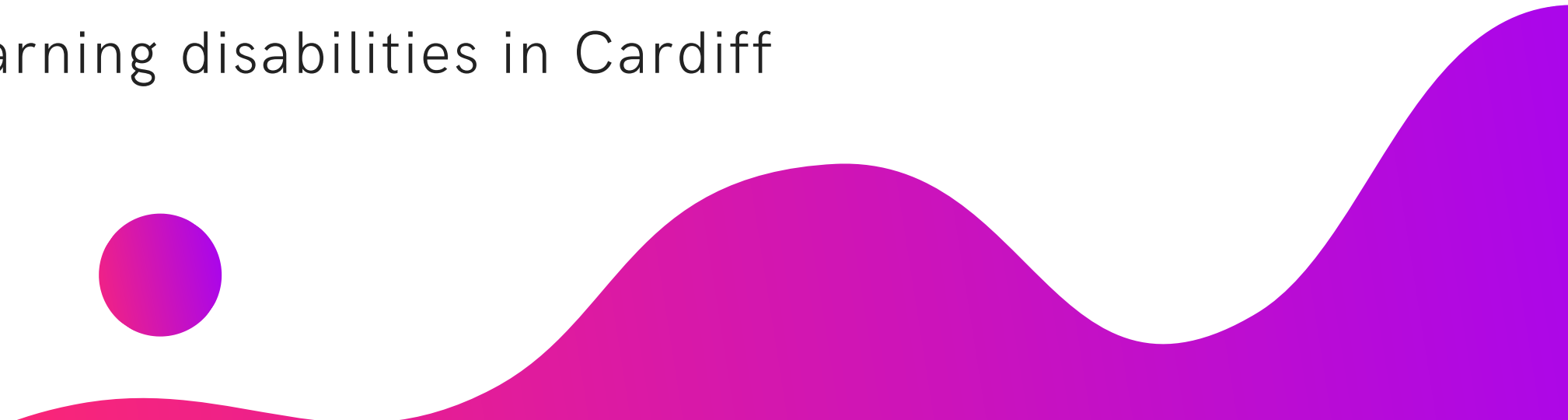
Study into effects on individuals well-being before & after introduction of IPA

## CARDIFF NATIONAL SOFTWARE ACADEMY - STUDY

Study using a Digital Social Companion for assisted living (Humanoid Robotics)

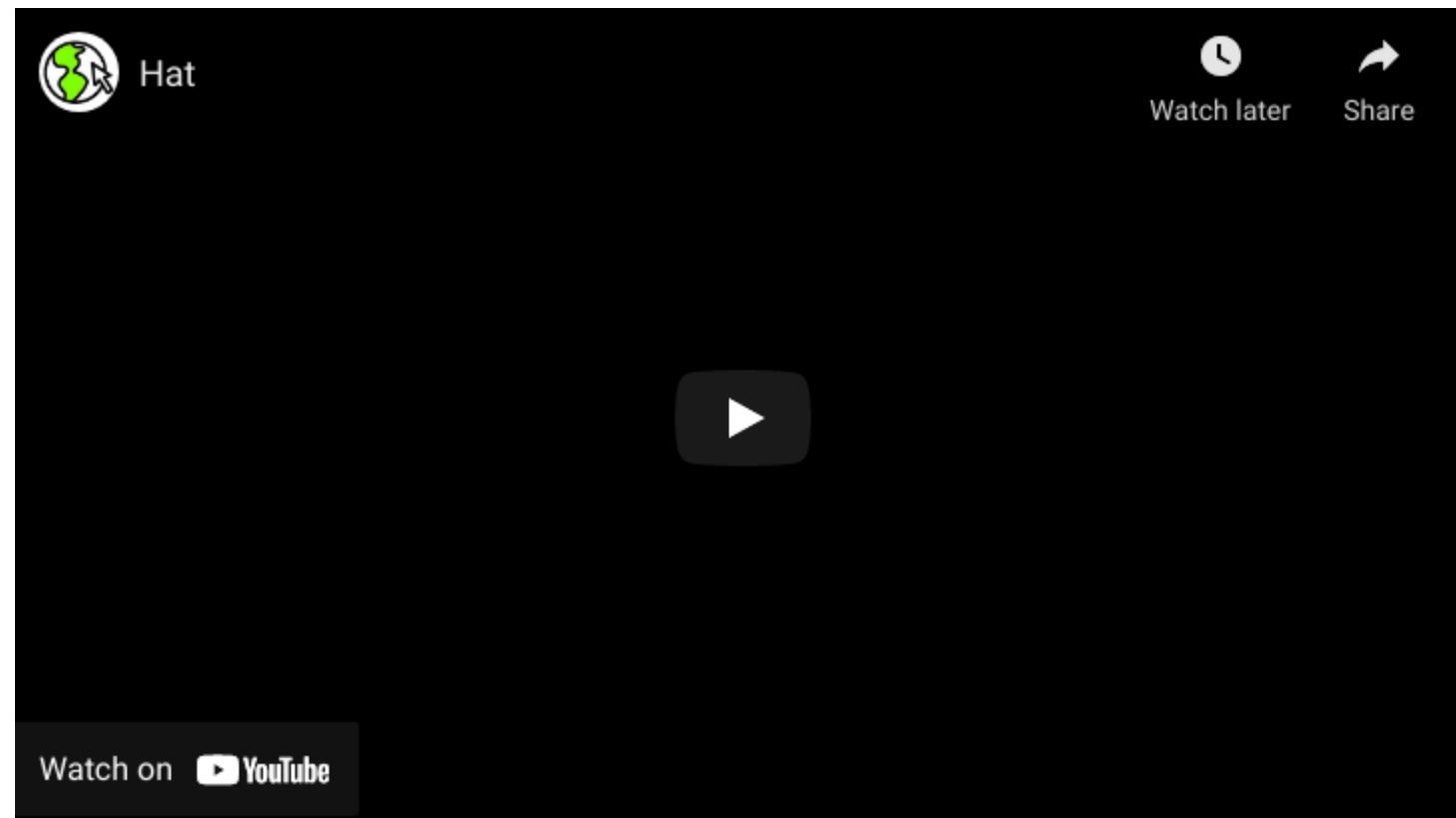
## SMART HOUSING FOR ADULTS WITH LEARNING DISABILITIES

First SMART house in UK for adults with learning disabilities in Cardiff





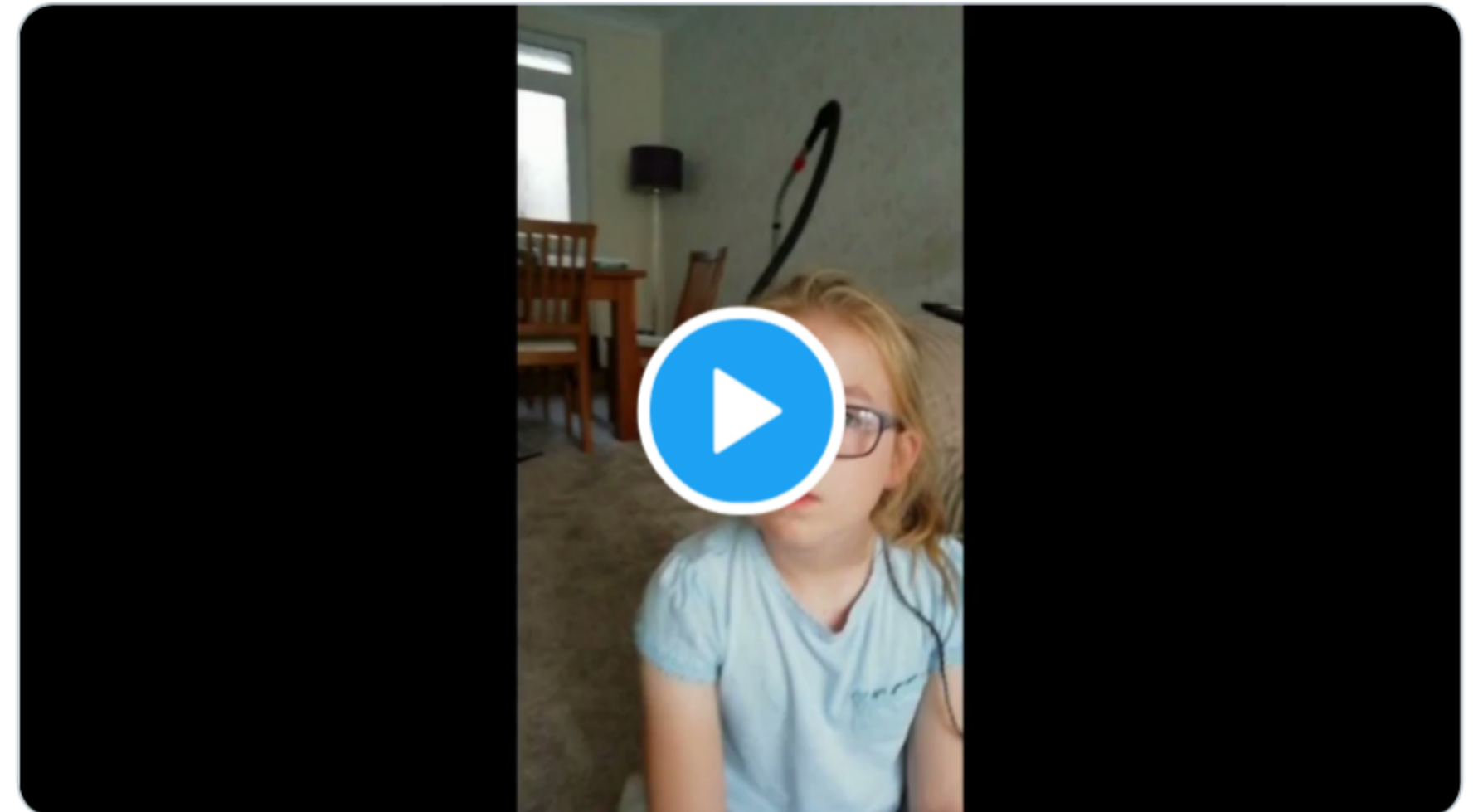
# WHAT WE'VE DEVELOPED



**Ashley Bale**  
@AshleyBaleUK



Over the weekend I spent time with my daughter wiring & coding an Electromyography (EMG) sensor to detect signals from lifting an eyebrow 🙄, to switch on a lamp 💡. This could be used in so many different ways & open up possibilities for individuals with impairments. [#techforgood](#)



9:44 PM · Sep 23, 2019



# AWARDS

2017



Digital Inclusion

WCVA

2018



Promoting Independence

CYMORTH CYMRU

2019



Tech for Good

SOCIAL BUSINESS WALES



# VISIT THE SMART HOUSE

We provide free presentations and tours at our SMART house in Cardiff.

**Christina Harrhy** @ChristinaHarrhy  
Thanks Ashley for helping to shape our future plans. #teamcaerphilly @CaerphillyCBC

**Ashley Bale** @AshleyBaleUK  
Today @CaerphillyCBC, @ChristinaHarrhy & colleagues visited the SMART house to view the work we are carrying out using #IoT & mainstream technology to promote independence & wellbeing. Awesome enthusiasm & exciting news of developments in #Caerphilly. Thank you for visiting 🙌



**Jerome** @Jerome\_Housing  
Replying to @AshleyBaleUK and @UnitedWelsh  
I was blown away by the what you've already achieved, and the huge potential for positive change to people's lives  
8:27 PM · Jun 4, 2019

**Fernando Loizides** @FLoizides  
Starting collaborations for IOT smart house technology to assist carers... Thank you to @InnovateTrust and @AshleyBaleUK for a great demo. Interested? PM me and watch this space!



6:31 PM · Oct 18, 2018  
9 likes, 1 reply, Copy link to Tweet

**@welsh\_jill**  
Great morning with @AshleyBaleUK from @InnovateTrust looking at SMART house in Cardiff. Excited to see how accessible digital technology can be & looking forward to increasing my knowledge of using tech with ppl with dementia to stay independent for longer. @zoewilliams78  
2:15 PM · Oct 7, 2019  
8 likes, Copy link to Tweet

**Mark Drakeford** @MarkDrakeford  
Congratulations to @InnovateTrust on winning the Tech for Good category at the Social Business Wales Awards #SBWAwards19 & good luck at the UK #SocEntAwards19 @socialbizwales @WalesCoopCentre.

Very pleased to have seen this award-winning Smart House first-hand.

**Innovate Trust** @InnovateTrust  
Thank you to @MarkDrakeford for visiting our Smart House in #Cardiff. Sharing how we are creatively using mainstream technology to promote independence and well-being for the people we support. #digileaders #tech4good



11:57 AM · Oct 7, 2019  
Copy link to Tweet

**Scott Morgan** @Scott3142  
Fascinating visit to the @InnovateTrust SMART Home! Great to build on collaborations between @CUSoftAcademy @RoboRadical and Student Volunteering Cardiff. Thanks @AshleyBaleUK for the tour!

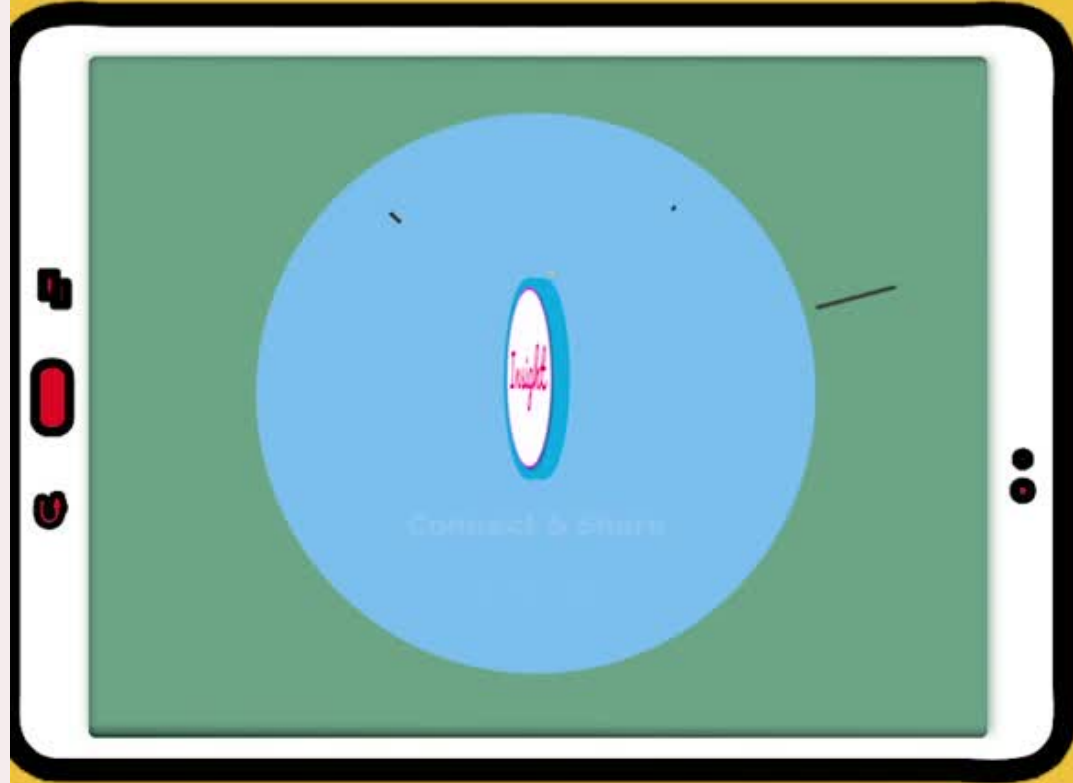
(The tech is pretty invisible, but improves the lives of many service users. So cool!)



1:07 PM · Feb 26, 2019

**Sophie Howe** @sophiehowe  
It was great to see the @InnovateTrust smart house in operation today. Simple ideas for supporting people with specific needs in housing with mostly off the shelf tech solutions such as Alexa. No need for procuring expensive and often behind the times tech. Lots to be learnt here

# INSIGHT





# CONTACT

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