Dementia friendly Technology

Tuesday 10 December 15.30-17.15

Tips for a successful webinar

- Please use the Q&A function throughout to ask your questions

- Please feel free to let us know who is on the webinar and where you are from by introducing yourself on the chat box

- You will automatically be placed on mute

- This webinar is being recorded and will be made available to those who have signed up

- Please complete the short survey at the end of this session

- Presenters - Please say "next slide" when you are ready to move on

Agenda

15.30 **Ali Rogan** – Chair's opening remarks

15.35 **John Livermore** - Preparing for the Jan 2027 Digital Shift: the latest update for providers

15.45 **Pete Middleton** – Opportunities and risks, the art of the possible

16.00 **Dáithí Clayton** – Challenges and opportunities in the use of technology and AI in dementia

16.10 **Bryony Evans** – UK wide challenges and how to fix the digital divide

16.20 **Ben Williams** - Enabling community spaces to become more dementia friendly for people with dementia using Augmented Reality

16.30 **Alex Barker** - AI examples and free support

16.45 **Ruth Eley** – DHWG update

16.55 Q&A panel

17.15 End

Ali Rogan

DHWG External Affairs Advisor
founder of Hornsey Consulting
Chair PMCG Dementia Friendly Technology group

UK Analogue to Digital Switchover

John Livermore

All-IP Industry Engagement Manager Openreach

openreach

Openreach

A bit about us

We build and maintain the UK's largest wholesale communications network which provides phone, broadband, TV and data services to millions of homes, businesses and other organizations.

We're owned by the BT Group but we're legally separate and heavily regulated.

We work on behalf of Communications Providers like Sky, Vodafone, BT, TalkTalk, Zen and hundreds of smaller players.

Our engineers work in every community in the UK, around the clock, and in all kinds of weather to install and maintain equipment that provides fast, reliable broadband to millions of people.

We provide around 24.5m voice and broadband lines to homes and businesses in the UK.

We are upgrading the UK's broadband infrastructure to pass 25m homes and business with Full Fibre connections by 2026.

We are committed to a balanced build including over six million premises in rural and semi-rural areas.

Openreach

↳ **Communications provider**

↓

End customer

690+
Communications providers

35k+ employees

Building Full Fibre to
25m premises by Dec 2026

12.5m+ Full Fibre build complete
(2.5m rural), building 66k a week

4.2m end customers
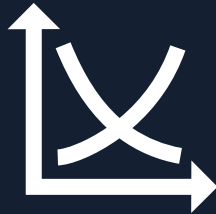connected to Full Fibre

The PSTN is becoming less reliable as time goes on

Ofcom Connection Nations UK Report 2023

| Equipment is beyond its intended lifespan and reduced skills in legacy technology | Since 2020, the fault rate on the copper network was 50% higher than on FTTP | In 2023 the number of PSTN incidents increased by 20% | In 2023 there was a 60% increase in hours lost for customers on the PSTN |

*Over the last three years, for the two operators with fibre and copper access networks (KCOM and Openreach), the fault rate (per 1,000 connections) on KCOM's copper access network (ADSL) and Openreach's copper access networks (ADSL / VDSL) was around **50% higher** than the fault rate (per 1,000 connections) on their respective FTTP networks*

Source: Connected Nations Page 64

The volume of fixed incidents, particularly relating to PSTN voice, has grown over a

*number of years due to the equipment being beyond its intended lifespan and reduced skills in this legacy area of technology. For instance, this year has seen a **20% increase in the number of PSTN incidents** reported to us, with a **60% increase in the amount of service hours being lost for customers.***
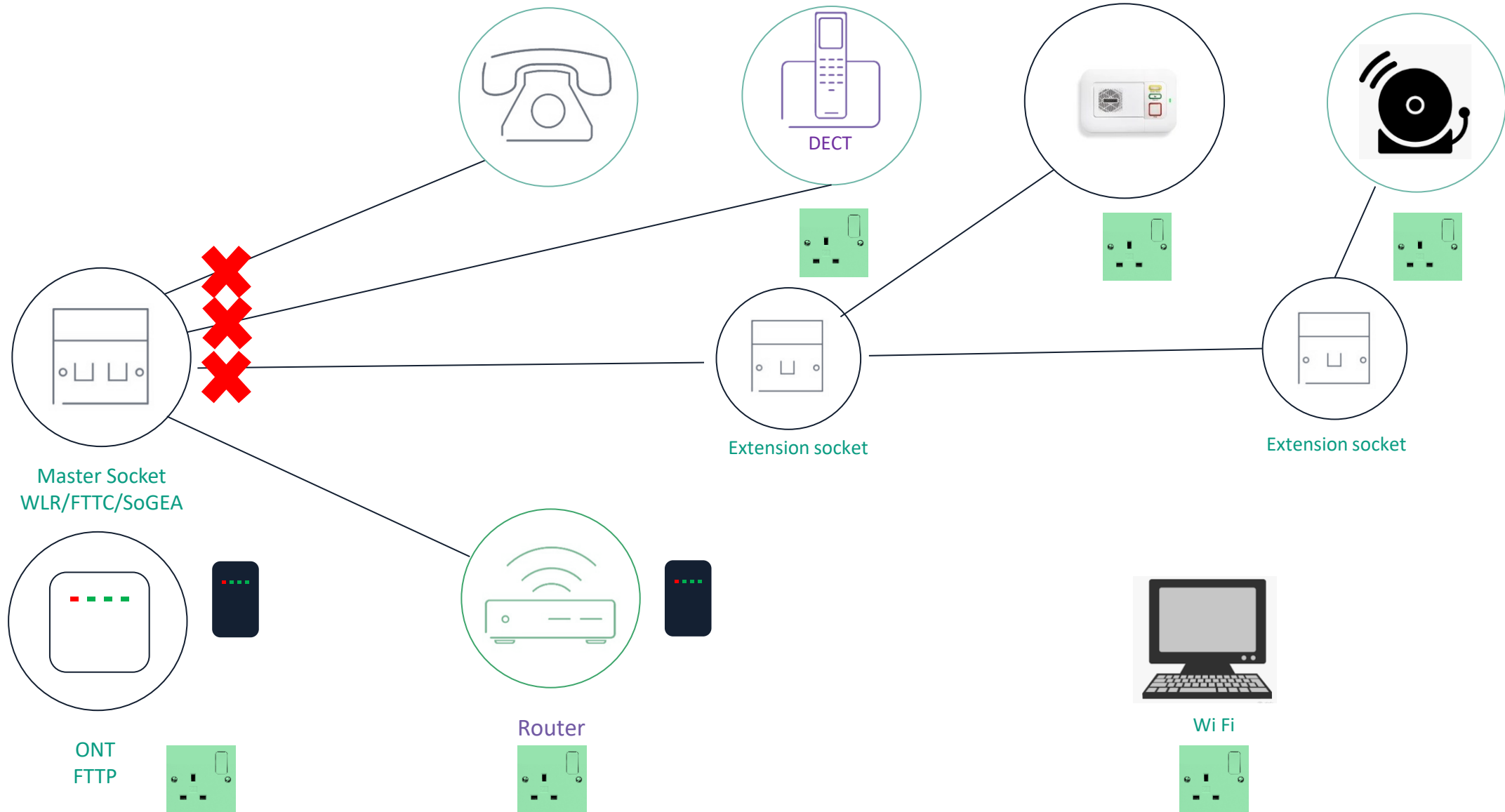
Source: Connected Nations Page 65

The Communications Provider
Their choices

- CPs need to move their PSTN customers from that exchange equipment before the end of Jan 2027

- Each CP will choose how they want to do this. The choices are:

- Move to FTTP if at the premises or FTTC (SOGEA) if not.

- Where there is no Fibre product, they can move their customer to BT Wholesale's SOADSL product (ADSL service)

- Even if Fibre is at the premises, they can move their customer to SKY or TalkTalk who have their own exchange equipment that works on an all-copper line and where there is a Special Service and the CP feels that they don't want to move their customer to Fibre. they can use BT Wholesale's PDPL (Pre-Digital Phone Line) product.

- The long-term goal should be to move to All IP on a fibre line.

So what's changing inside the premises ?

On Migration by CP to SoGEA (FTTC)/FTTP

DECT

Extension socket

Extension socket

Master Socket
WLR/FTTC/SoGEA

ONT
FTTP

Router

Wi Fi

Use Cases

- Special Services (non-standard Phone use)

Alarms
CCTV
Door Entry Systems
External Bells
Fire Alarms
Intruder/Security
Lift Alarms

Government
Custodial Tagging
Helicopter Pads
School Security
Weather Monitoring

Telephony
Emergency Phones (Coastal or Bridges)
Fax Machines

Business
EPOS (Tills)
Franking Machines
Printers

Health
Baby Unit Alarms
Blood Fridges
Medical Equipme

Travel
Bus Stops
Car Park Barriers
EV Charging
Motorway Signs
Pay and Display Machines
Railway Level Crossings
Traffic Lights
Train Platform Help Points
Underground (Oyster)

Entertainment
Arcade Machines
National Lottery Terminals
Vending Machines

Monitoring
Air con units
Electricity Telemetry
Environment Agency Monitors
Flood Monitors
Gas Telemetry
Sluice Gates
Smart Meters
Streetlights
Water Telemetry

Finance
ATMs
Chip and Pin Terminals
Paypoint Machines
Stock Market Systems

Vulnerable
Telecare Alarms
Telehealth Alarms (biometrics)

How do I connect existing devices?

All devices in the current installation will need to connect to a router supplied by their Communications Provider

There are 3 ways to connect a device to a router
1. Wi-Fi
2. Ethernet port
3. ATA port (where provided)
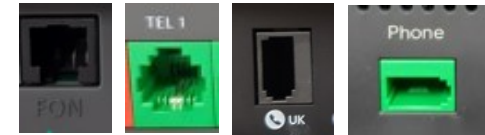
What is an Analogue Terminal Adapter port?

The ATA is a socket provided by SOME Communications Providers, which may be integrated into the back of the router or may present through a stand-alone device plugged into the Ethernet port on a Router

The ATA port must be "switched on" by the Communications Provider as part of the customers package

An ATA port can give very varied results and Openreach do not recommend the use of these for life saving devices

The ATA port is designed for Voice calls from phones not for sending **DTMF/STMF** tones which are machine to machine and can get lost in transmission, elongated or shortened. This could seriously affect the reliability of the devices plugged into them

Learn to C.L.A.P.

Communications

- Who is likely to receive them?
- Will they understand it?

Logistics

- Will they be able to make the changes?
- Will the router plug into the **master** socket easily?
- Will there be power available for the router/ONT?

Adjustments

- Will the CP provide an ATA port?
- Will the existing devices plug into an ATA port?
- What are the risks?

Power

- Is there power on-site?
- What will you do in a power cut situation (UPS/BBU)?

How can you get ready?

1. Audit your own telephone estate records
Check which devices you use today that are plugged into a main phone or extension socket. This could be a telephone, a system, a telecare device, or many other things. Take the 13-month extension as a safety net, don't delay your plans.

2. Contact your device providers
Ask them how the devices will work when plugged into a router (supplied by the CP). Do they have solutions to ensure your devices work when not using the PSTN

3. Contact your CP
Speak to your account manager or customer services, and ask their advice for your migration. They may have a specialist team or good information for you to read

4. Local Authorities
If you are a Local Authority, you can use a data sharing agreement to help Communication Providers identify Telecare customers in your area. https://www.local.gov.uk/our-support/cyber-digital-and-technology/digital-switchover/digital-switchover-telecare-data
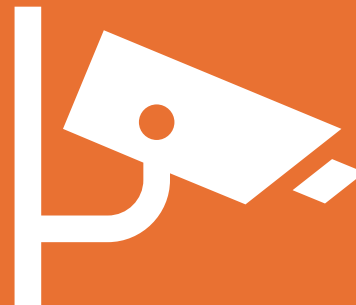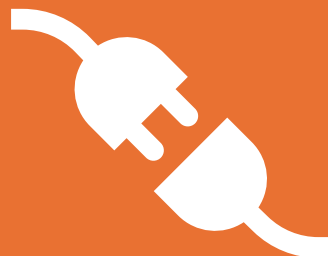
Summary

The Deadline for withdrawing services on the PSTN is January 2027.

Between now and then, all Communications Providers (Telephone/Broadband suppliers/ISP) using PSTN, must migrate all of their customers from old exchange equipment to the new digital fibre network

Customers may be contacted by their own CP, but can migrate anytime as the vast majority of alternative solutions are ready and available

Any Special Services (Telecare (Healthcare devices), Intruder, Fire or Lift alarms, telemetry (monitoring lines), fax etc) may need to connect to a router. Digital devices are recommended as analogue devices can be problematic

In the event of a power outage, the line will rely on the router and the internal Openreach equipment being powered and so the customer may need a Battery Backup Device

Openreach run a Digital Services Test Lab for Vendors of devices to test in an All IP environment. To date we have had 35 visits from 24 different vendors

14

Thank you

openreach

Peter Middleton
Living with Young Onset Dementia
The true challenge - how can we eradicate digital exclusion

Dáithí Clayton

Flemish Dementia Working Group member
Challenges and opportunities in the use of technology and AI in dementia

Introduction

- Good [morning/afternoon], everyone. My name is Dáithí Clayton, and I'm honored to be here today to speak about an urgent topic in dementia care—how technology and AI can both challenge and support LGBTQI people with dementia. As a nonbinary person living with dementia, I know firsthand the complexities faced by our community.

Challenges Facing LGBTQI People with Dementia

- - Social isolation and exclusion
- - Lack of inclusive dementia care
- - Misgendering and heteronormativity in care settings
- - Barriers to accessing technology

Current State of Technology & AI in Dementia Care

- - Remote monitoring tools
- - AI in early diagnosis
- - Communication aids and virtual companionship
- - Privacy concerns

Challenges of Technology for LGBTQI People

- - Lack of personalization for gender identity and sexual orientation
- - Algorithmic bias in AI tools
- - Data privacy concerns for vulnerable communities
- - Fear of exclusion in tech design

Opportunities: Technology That Honors Diversity

- - Inclusive design for all gender identities and sexual orientations
- - Safe online peer support platforms
- - Tailored virtual assistants for LGBTQI elders
- - Collaboration with LGBTQI dementia advocates

Case Study: Inclusive Technology Development

- - Collaboration with LGBTQI stakeholders
- - Examples: Speak Out With Dementia & Supersense Technologies
- - Positive user feedback

AI and the Future of LGBTQI-Inclusive Dementia Care

- - AI for personalized care solutions
- - Predictive models that respect diverse needs
- - Continuous feedback loops with LGBTQI users

Conclusion: Creating an Inclusive Tech Future

- - Center LGBTQI voices in tech development
- - Build trust and reduce bias
- - Promote equity through thoughtful design

- Thank you!

Bryony Evans

Network Growth and Activation Manager, Good Things Foundation
UK wide challenges and how to fix the digital divide

Together we can fix the digital divide

A world where everyone can benefit from digital

Good Things

Good Things Foundation

- A leading UK **digital inclusion charity**

- We campaign for digital inclusion and advocate to **#FixTheDigitalDivide**

- We work with community organisations that create impact locally and nationally as the **National Digital Inclusion Network**

- We provide free resources, support and services to address access and skills barriers: **National Databank and Learn My Way**

Good Things Foundation
#FixTheDigitalDivide

DIGITAL NATION UK 2024
FACTS & STATS TO FIX THE DIGITAL DIVIDE FOR GOOD

PEOPLE LEFT BEHIND
lack basic digital skills

24%
of those
not working

25%
of those with
**a disability
or health
condition**

48%
of those with
**no formal
qualifications**

37%
of those
over 65

CAPABILITY

CONFIDENCE

29

More data and research...

Only **72%** of those with a learning or memory impairment have Foundation Level digital skills, compared to 91% of those without (Lloyds Bank, 2024).

One in three people aged 65 and over either do not have, cannot afford, or do not use the internet at home (Centre for Ageing Better, 2023)

31% of carers said they don't know how to access medical records online for themselves, and **34%** said they didn't know how to access medical records online for the person they care for. (Carers UK, 2023)

Good Things

Good Things

Delivering our mission to Fix the Digital Divide – for Good

The National Digital Inclusion Network

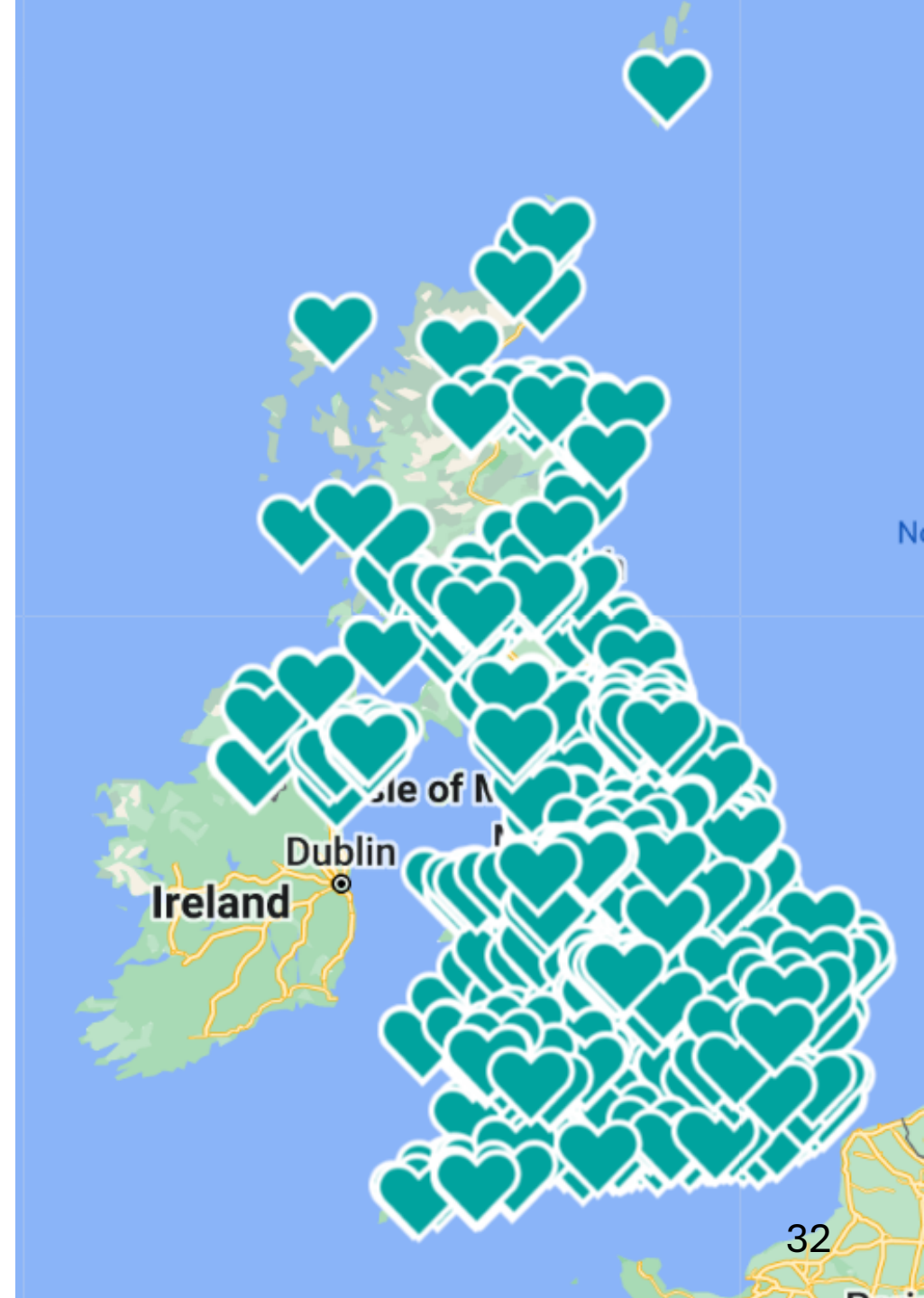The National Databank

The National Device Bank

Network Map

You can find existing members of the Network on our [map](#).

The map also shows services available at each hub including:

- Access to the National Databank
- Digital skills sessions

Introducing the National Databank

Like a foodbank but for mobile data, the National Databank provides **free mobile SIM cards** to help digitally excluded adults get connected.

There are over **2000 Databank hubs** across the UK, but more are needed to ensure everyone can access data locally.

33

"Since accessing the Databank… it's been a like a weight's been lifted"

"Every little bit of data helps to keep me well - and feel more connected to the outside world"

34

The Device Bank

- The **Device Bank** aims to tackle e-waste and get refurbished devices into the hands of people that can't afford their own.

- Donated devices are **refurbished** by our partner, Reconome.

- Once a good supply of refurbished devices are available, members of the National Digital Inclusion Network can apply for these to **gift to people** they support. However we know demand is still much higher than supply.

Good Things

Learn My Way

- A **free online platform** that helps people gain basic digital skills.

- **Bite-sized topics** are suitable for beginners, and cover staying in touch, managing health online, an introduction to AI and much more.

- **Resources available** to help organisations to use Learn My Way as a learning tool.

- **Explore Learn My Way** at

  https://www.learnmyway.com/

36

Other useful information...

[Digital for people living with dementia guide](#)

[Designing for digital inclusion in health care - seminar series](#)

[Supporting Dementia Care toolkit (London Office of Technology and Innovation)](#)

Stay in touch

Join the National Digital Inclusion Network

Contact us at hello@goodthingsfoundation.org

X: https://twitter.com/NDI_Network

Good Things

Ben Williams

Head of Innovation, Care City
Enabling community spaces to become more dementia friendly
for people with dementia using Augmented Reality

The Dorothy
Community

Care City

D Dorothy

TPXimpact

What is Dorothy?

The Dorothy App uses Augmented Reality (AR) to create a digital yellow brick road, helping people navigate with a dementia-friendly interface.

It uses Artificial Intelligence (AI) to remind users of daily tasks while keeping them connected to their caregivers. It uses large, high-contrast icons to overcome language and education barriers.

The Dorothy Community Discovery award winner

LONGITUDE PRIZE
ON DEMENTIA

Research

Knowing where I want to go

- **Identity-affirming spaces**
  - LGBTQ social spaces such as bars and community spaces
  - LGBTQ museums and exhibitions
- **Local and support groups**
  - Memory cafes
  - Dementia community groups
  - Council meetings
  - Sheltered housing
  - Clubs

- **Cultural spaces**
  - Museums
  - Exhibitions
  - Theatres
  - Concerts
  - Dancehalls
  - Cinema
- **Healthcare spaces**
  - Hospitals

- **Natural and outdoor spaces**
  - Nature walks
  - Parks
  - Country houses and gardens
  - Football games
- **Everyday spaces**
  - Pubs
  - Retail shops
  - Supermarkets

Understanding the practicalities of using Dorothy

Here are some of the places where we tested Dorothy:

Using Dorothy, I need:

As a person living with dementia, I need:

- To feel confident using both the physical device and the app
- To be able to use Dorothy regardless of my cognitive or physical impairments
- To feel confident that I have arrived at my destination
- A way to remind me to give the tablet back
- To not feel guilty if I forget to return the tablet
- An easy way to return the tablet if I have taken it home with me
- To feel safe from theft
- To feel safe from trips and falls
- To feel confident that I won't drop or break the device

Getting ready to visit a place	Travelling to the place	Arriving at the place	Navigating around the place	Leaving the place	Travelling home from the place

When people will use Dorothy

Dorothy pilot: Clodagh's story

"I need to know [shops] don't see me (as someone living with dementia) as something negative. I don't go out to feel rejected, but you get this feeling. I used to go to a lot of galleries."
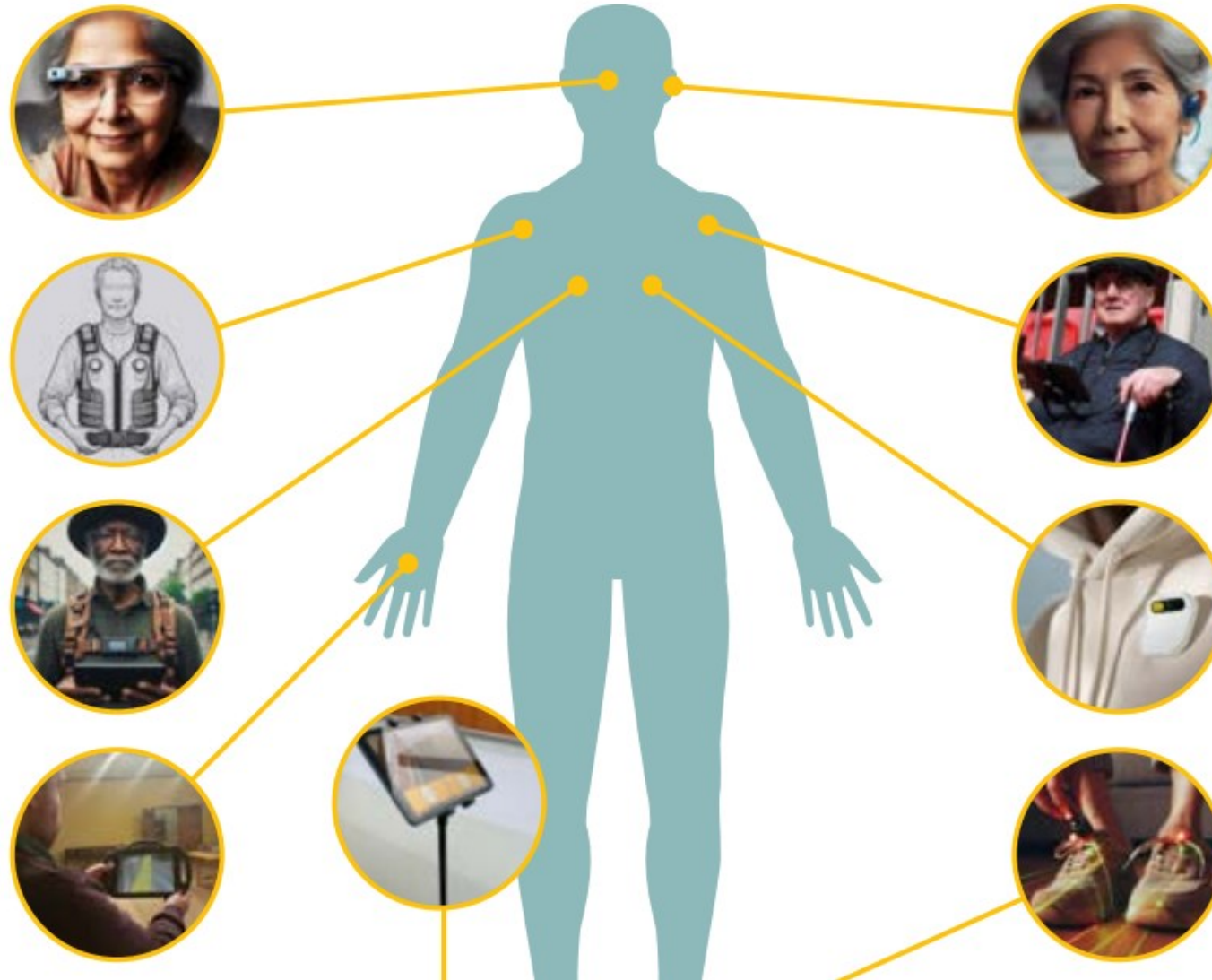
After using Dorothy:

"I feel optimistic. [People living with dementia] need help to do things we could do before. You're on the right track."

"It's so easy. The design is spot on. I just loved how [Dorothy] picked up where you ate. I could feel myself relaxing and trusting it."

46

Design

Overcoming barriers to the adoption of Dorothy

Overcoming barriers to the adoption of Dorothy

By far, the most popular aid was the Gooseneck
tablet holder, with the handheld
option coming a close second.
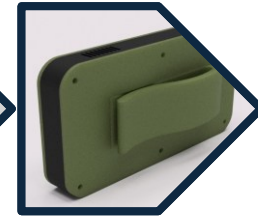
How do we see Dorothy being used?

We produced a video at Eastbury Manor House, to demonstrate how we envisioned Dorothy being used:

What's next?

The Dorothy Device

People had told us that they wanted to use Dorothy hands-free and preferred not to have a screen.

Contact us

Ben Williams

Head of Innovation

Care City Innovation C.I.C.

E ben.williams@carecity.org

Twitter @CareCityUK

Facebook facebook.com/carecity.london

Linkedin www.linkedin.com/company/carecity.london

Care City

carecity.london

How tech can support people with dementia

How

Alex Barker-Disability Consultant

2024

Who are we?

AbilityNet supports people of **any age,** living with **any disability** or impairment to use technology to achieve their goals **at home, at work and in education.**

We do this by providing specialist advice services, free information resources and by helping to build a more accessible digital world
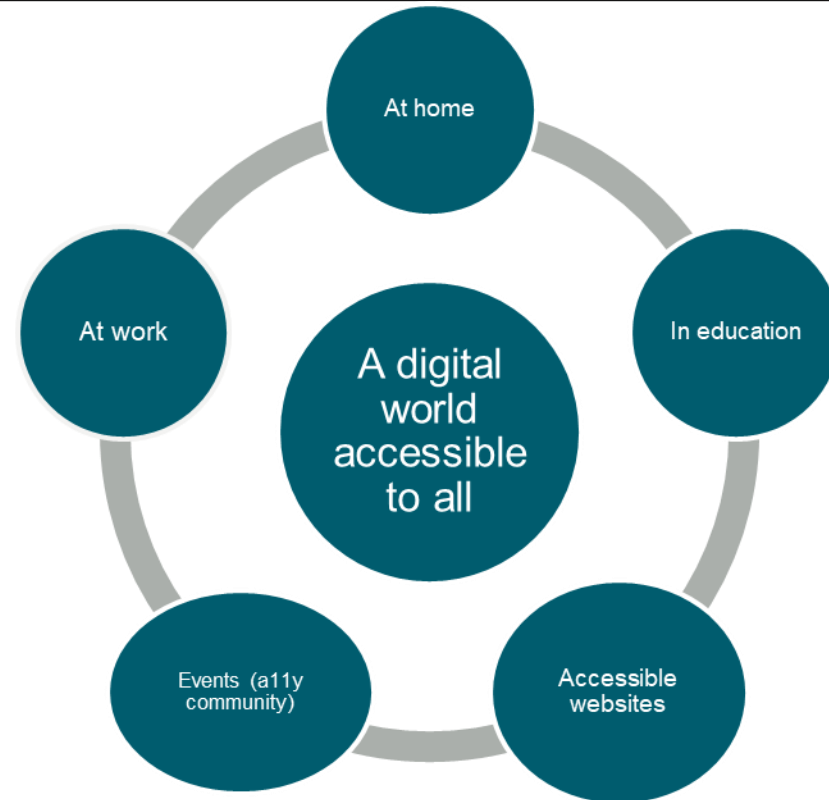
Free Resources

- 500 volunteers who can solve IT issues either remotely or F2F.
- Factsheets, webinars and "how to guides" all on our website
- ConnectingU scheme
- News and Blogs

About me

I have worked for AbilityNet for 20 years in two periods

I have a rare condition called Moebius Syndrome

I only have two fingers on each hand

I have a paralysed face. I cannot show any emotions

Without tech I wouldn't have a job, wouldn't have gone to college/university and studied abroad (USA, Sweden).

I met my wife online and she has the same disability as me. We met on Facebook. She lived in North Carolina, USA, and now lives with me and our dog Bella in Coventry

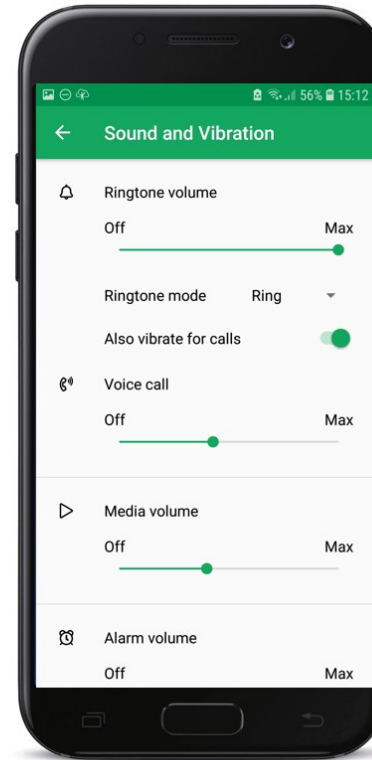I realise the importance of being able to use technology and how it can change lives. I can relate to clients.

57
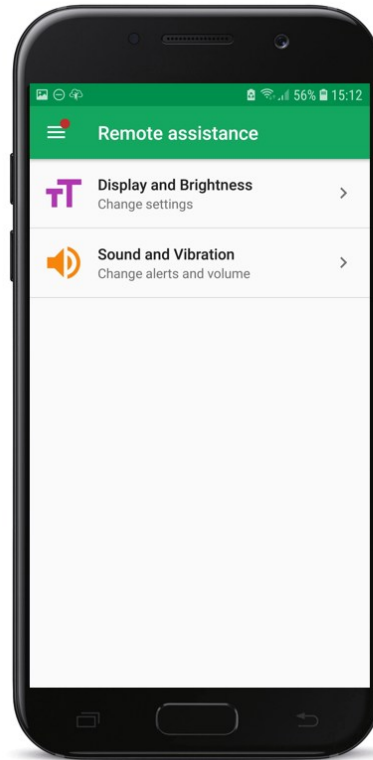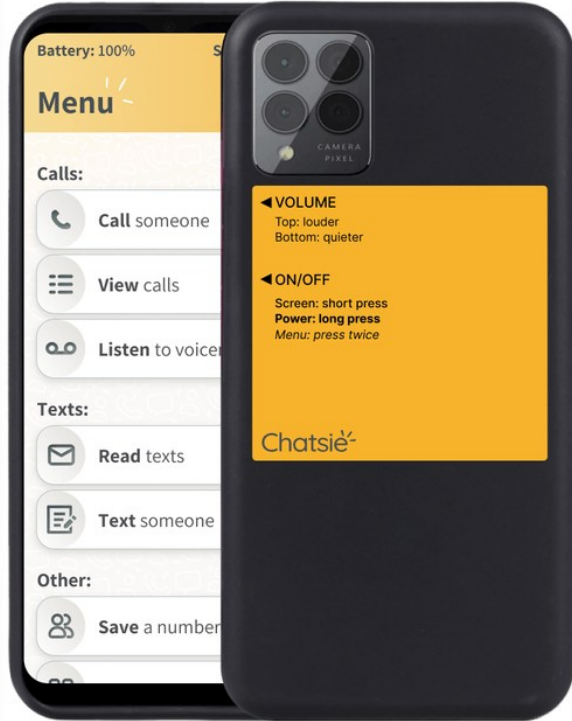
Apps
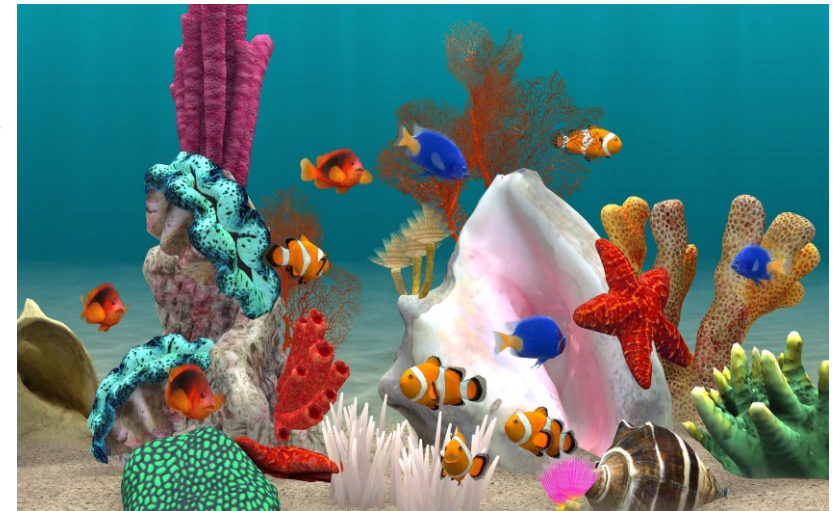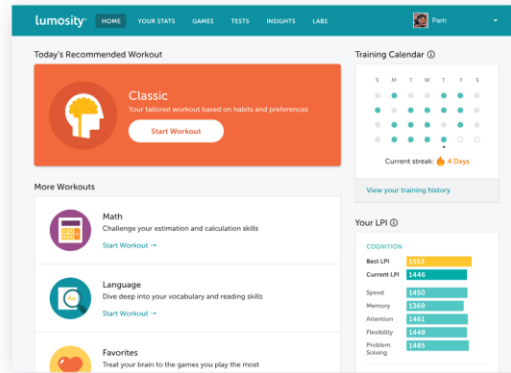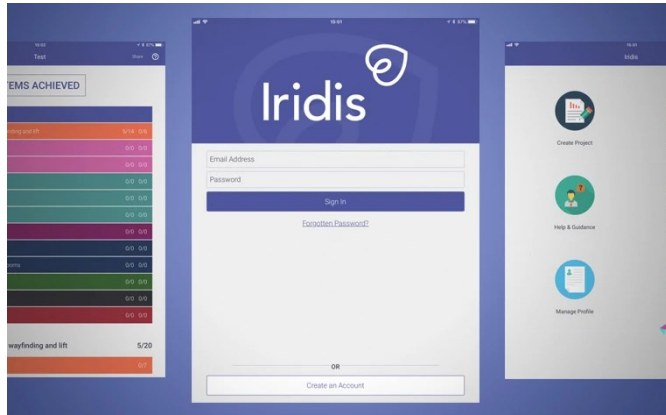
AbilityNet

Smart Technology

AbilityNet

Phones

60

Best technology?

Funding

- A lot of our queries are related to funding queries.

- We can point people towards our funding factsheet. (https://abilitynet.org.uk/factsheets/finding-funding-adapted-computer-system) but we do not have the ability to help clients apply for funding.

- Someone needs to help the client apply for funding.

What can our volunteers do?

- Fix internet connectivity issues.

- Sort out printer issues.

- Update Antivirus software.

- Basic support on email, internet use etc.

- Reassurance of clients.

- Set smart tech up.

- Set up mobile phones and landlines (within reason).

How to make a referral

To simplify the system we have now got a referral system in place.

https://abilitynet.org.uk/at-home/request-free-it-support-home

We will contact the client as soon as we can, and go through GDPR and then assign a volunteer to them.

You can also call us on 0300 180 0028 or email us at enquiries@abilitynet.org.uk to get some friendly and independent advice.

Contact us

- Telephone:0300 180 0028
- Email: alex.barker@abilitynet.org.uk

Ruth Eley

Chair, Tide and DHWG member
About DHWG

Panel discussion

Previous / upcoming webinars

DEMENTIA & HOUSING WORKING GROUP
Information | Insight | Influence

9 July 24
- Dementia friendly design
  https://www.housinglin.org.uk/Events/HAPPI-Hour-Housing-Still-Rising-to-the-Dementia-Challenge/

24 Sept 24
- Diversity and Dementia
  https://www.housinglin.org.uk/Events/HAPPI-Hour-Diversity-Still-Rising-to-the-Dementia-Challenge/

10 Dec 24
- Dementia friendly technology
  https://www.housinglin.org.uk/Events/HAPPI-Hour-Dementia-Friendly-Technology

Mar 25
- Dementia and Faith

We hope to see you again

www.housinglin.org.uk/housing-networks/dementia-and-housing-working-group/