

## How can AI help us to keep our independence, if we have impaired vision, hearing or mobility?

- What can YOU do right now? Hear some practical examples
- Share your experiences, ideas and questions with us.
- Once you know what's out there, try it!
- Find out who can help you, if you need it.



Presented by the u3a national AI team  
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# AI Helping our mobility

Getting around, getting things done!



**Mobility = independence**

**Mobility changes over the years and  
we often do not pay enough attention  
to ourselves**

***If you do not use it  
you lose it.....***



# Getting around *outside* your home

## Identifying accessible places to go

Descriptions, locations, timings and help available

## Smart accessibility

Routes with fewer steps, lighting, benches, facilities, step-free access

## Real-time travel assistance

Identifying and booking mobility assistance (train stations, airports)

Live updates on delays, platform changes, traffic and quieter routes



# NO TITLE ?

## Voice-guided walking support

hands-free directions, e.g. *“turn left in 10 metres”*

## Ride Services

Taxi booking via voice or app

## Safety and reassurance features

Fall detection, location sharing with others, and “check-in” alerts



# Getting things done – without needing to move from your chair

## Voice assistants managing daily tasks

Set reminders, send messages, check weather or organise the day

## Voice-controlled home environments

Lights, heating, curtains, and appliances controlled without getting up

## Online shopping with AI recommendations

Food shopping, prescriptions, and essentials delivered.

## Health and remote appointments

GP consultations, monitoring, and follow-ups done from home.

# More help is imminent-ish

- Self-driving cars
- Smart homes designed with accessibility as a core feature
- GoodMaps Indoor Navigation
- AI-powered home robots



# AI help for your hearing



- Age-related hearing loss
- Why we need to take action
- How AI can help
- The Future for people with hearing loss

# Age-related hearing loss

- One in five people in the population experience hearing loss at some time in their lives; 50% are over the age of 50.
- Above 55 years, 50% have some degree of hearing loss
- Above 70 years, 80% are affected.
- Most of these have mild or moderate hearing loss
- Only a few are severely/profoundly deaf
- 2 in 3 people who could benefit from hearing aids don't have them, or don't wear them.

# Why we need to take action

Recent major research studies have identified hearing loss as the largest **modifiable** dementia risk factor.

However, hearing loss itself cannot be said to **cause** dementia.

So... **what's the connection?**

**unaddressed hearing loss**



**increased cognitive load  
& changes in the brain**



**fatigue or withdrawal**



**social isolation**



**dementia**

**Caution!**

# What about those who don't or won't wear hearing aids?

The smartphone in your pocket includes a selection of AI tools that can make it easier for us to understand speech in our daily lives, reduce strain on the brain and help us to stay connected and involved. It can do this by...

1. amplifying sound, using its microphone, sound-controls, headphones, speech-enhancing earbuds, etc.
2. compensating for hearing loss by enabling other senses to be used to support for understanding.

# Compensating visually for sounds you can no longer hear

Standard Email, SMS text, video calls, Whatsapp, etc. , but also...

## Live transcribing:

- Live speech, including telephone calls and recorded messages.
- Providing captions for videos, films, podcasts.
- At reception desks, for public announcements. etc.
- Allowing contact by text with emergency services
- It can transcribe in other languages too!

# Providing alerts, using vision and touch

Your phone can use flashing lights, pop-up messages and/or vibrations to alert you to sounds you need to hear e.g.

- your name being called in a waiting room
- someone at the door
- the telephone ringing
- kitchen appliances needing attention

# The Future for people with hearing loss



**More hearing aids powered by AI**

**Aids incorporating health monitoring, stability, etc.**

**Live captioned glasses**

**Cochlear implants fully implanted**

**Auracast systems in public venues**

**Perhaps, even, better captioning on TV!**

# See better with AI



What do you want to do?

→ *See text more clearly*

→ *Talk rather than type*

→ *Have text read to you*

→ *Operate appliances easily*

→ *Recognise your friends*

→ *Get help when you need it*

# Finding things hard to see?

1. You can get a document read to you:

e.g. **MS Word**: go to REVIEW, click **Read Aloud**

Check your **Accessibility** settings

2. We talked about captioning –  
there's also **Audio description (AD)**

commentary describing what's happening on screen. All broadcasters have it for at least 10% of their output.

Look for an **AD** button on your remote.

3. Can also have **voice-activated remotes on TVs..**  
Samsung leads the way.

## DIRECTIONS:



TAKE 1 TABLET BY MOUTH  
TWICE DAILY.



TAKE WITH A FULL GLASS  
OF WATER.



TAKE WITH OR AFTER FOOD  
TO AVOID STOMACH UPSET.



DO NOT EXCEED THE RECOMMENDED DOSE.  
SEE YOUR DOCTOR OR PHARMACIST IF YOU  
HAVE ANY QUESTIONS.

## Enlarge your default text

- Go to **Settings**, change it
- Use inbuilt magnifier, or

Use a **MAGNIFIER** app

Use **high-contrast settings**:  
*B&W or black on yellow*

# What's possible and useful – right now?

**You can talk to your PC or MAC or Ipad and it will send an email for you**

e.g. on PC, Open Outlook, New email. Go to Message tab: select Dictate

If you have an Apple iPhone or iPad, your on-screen keyboard will give you the option to dictate or “**talk to text**” with one tap – provided that you have a recent model.

## **Talk to your appliances!**

**COBOLT** offer appliances for sight-impaired people: oven; air fryer, kitchen scales, Microwave £199. The oven tells you when the door is opened or closed and what function's operating and cook time. Time remaining is spoken at the press of a button

If you have a **Smart Home**, you can operate all your internet-connected devices—washing machine, lights, security systems, heating – from one place, using a voice assistant like Alexa. *“Alexa, turn the heat up to 22 degrees”*

PS. Talking to your computer is nicknamed “**voicepilling**”: how annoying?

# Latest wearable tech: Meta Ray-Bans:

Look just like a pair of Ray Ban sunglasses – £224-£459 per pair, 1st or 2<sup>nd</sup> generation

Can include prescription lenses; have charging glasses case

Have a camera & microphone built-in: can record video, take photos, work with apps.

*Hey Meta, can you see my friend coming towards me?*

*Hey Meta, what's the sell-by date on these eggs?*

*Hey Meta, open the "Seeing AI" app for me*

*Hey Meta, play "Hey Jude" by The Beatles*

You can answer calls & access apps hands-free, etc.

There's a list of all the possible commands

Work with Android and Apple devices.

[\*\*TRY THEM AT THE u3a FESTIVAL\*\*](#)

# The most popular apps, says RNIB

BeMyEyes, Envision, ZapVision, and MS Seeing AI (*FREE, on Apple & Android*)

**Be My Eyes** app is staffed by sighted volunteers

connects sight-impaired people who need help, with sighted volunteers via live video & AI. FREE and runs 24x7. Can use it to find things, check labels etc.

**Seeing AI app** narrates the world for people with low vision; uses AI to instantly describe people, objects, currency, colours, photos, email, handwriting ...

**Text recognition:** it reads text instantly, in real time

**Bar codes:** Helps people scan "ordinary" barcodes and hear the result

**Recognise your friends & family:** upload photos and it'll match them & report

# Where can I get help with all this tech?

**Locally:** Your **library** can provide access to the internet, a computer, and help: most have DBS-checked digital helpers who can advise on any IT issue.

**Nationally:** AbilityNet FREE IT Helpline **0300 180 0028** 9am–5pm, Mon–Fri.

If you are disabled, they can also offer at-home face-to-face help: call & ask!

**RNIB, RNID websites; GARI *Global Accessibility Reporting Initiative***

helps you find devices with the accessibility features that you need

**Be My Eyes app.** FREE, 24x7, help from sighted volunteers via live video

Google the words [u3a AI for Everyone](#) for more information about AI

**We're sending a short doc out after the session, with more details.**

# Your Questions & Comments?

Please put your ideas and queries into the CHAT. Thanks.

