FUTUREquipped

Health and Care Sector

Smart technology: Living Independently with Sight Loss

UNIT 2

Funded by:

Scottish Funding Council
Promoting further and higher education

Designed and delivered in collaboration by:

Construction Scotland Innovation Centre

Digital Health & Care Institute

Learning outcome

Developing an understanding of the use of Smart technology in maintaining independent living for individuals with visual impairment.

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Smart technology: The benefit of apps to maintain independence for individuals with visual impairment

Introduction

The use of sensory technology through mobile phones, iPads and wearable devices within the homes will allow people with visual impairment to achieve independence, but also enable Health and Care services to grow and adapt to the changing needs of our population.

Key drivers for smart technologies and living independently with sight loss

Following on from the key drivers in the introductory booklet Section 2, p.3, the following are specific to the topic of this micro learning unit.

Over two million people in the UK live with sight loss. That's around one person in 30. Of these, around 360,000 people are registered with their local authority as blind or partially sighted.

Follow the link to learn more:
https://metro.co.uk/2017/10/12/world-sight-day-how-many-people-are-blind-or-partially-sighted-around-the-world-6993141/

The UK population is aging and as we get older we are increasingly likely to experience sight loss. There is a growing incidence in key underlying causes of sight loss, such as obesity, stroke and diabetes.

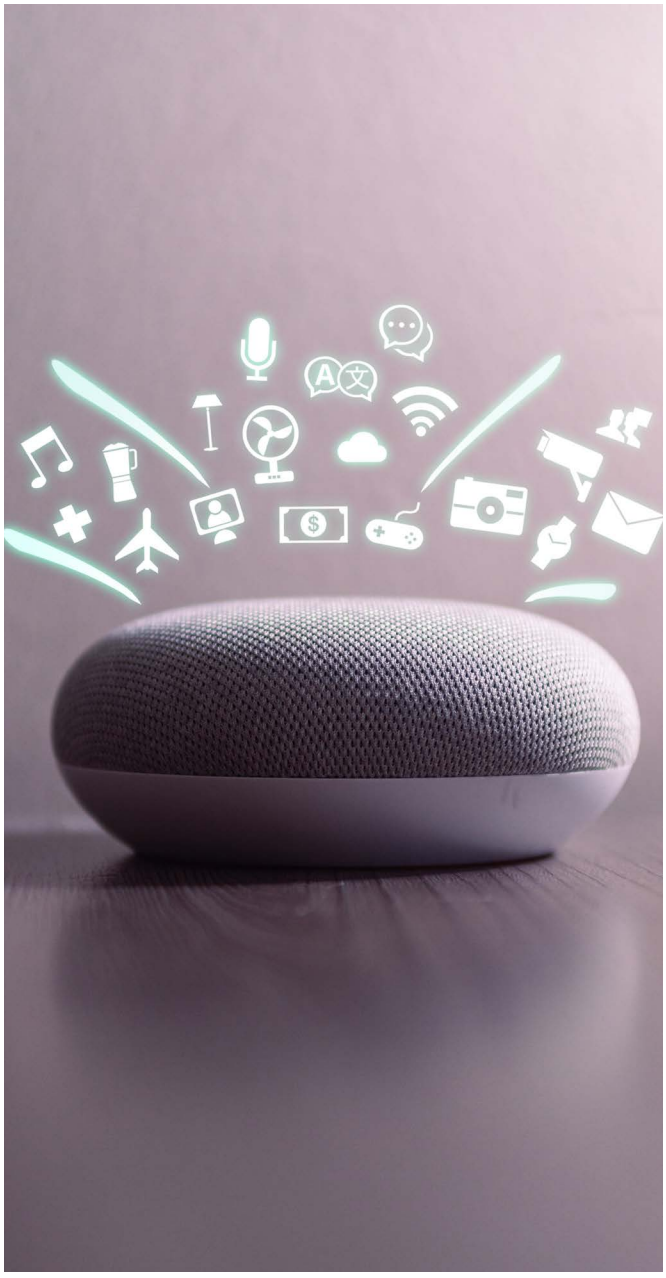
Follow the link to learn more:
https://www.rnib.org.uk/eye-health/eye-conditions/diabetes-related-eye-conditions

Who are the key players and what is their role / interest / level of influence?

Following on from the key players in the introductory booklet Section 3 p.4, the following are specific to the topic of this micro learning:

- Royal National Institute of Blind People (RNIB): offers advice and support to those living in the UK who have sight loss. They have a designated Technology for Life section which has guides and fact sheets that provide details of the various products that are available.

Follow the link below to learn more: https://www.rnib.org.uk/practical-help/technology-hub?gclid=Cj0KCQjw4qvlBRDiARIsAHme6otvaNhYzMBZbuE8wUZGNK4Kxy-WvigWGw7VIFfJZdkYM5TjbORGs8waAsgPEALw_wcB



Scottish Innovation Centres most closely linked to the theme

Following on from the Innovation Centres in the introductory booklet Section 4 p.5 the following are specific to the topic of this micro learning:

Digital Health & Care Institute (DHI) - Refer to Section 4 p.5.

CENSIS – Refer to Section 4 p.5.

The Data Lab - The data will also provide real time details in case of an emergency situation, for example if an individual has fallen and has not moved in some time.

Check out: https://www.armedprevention.co.uk/

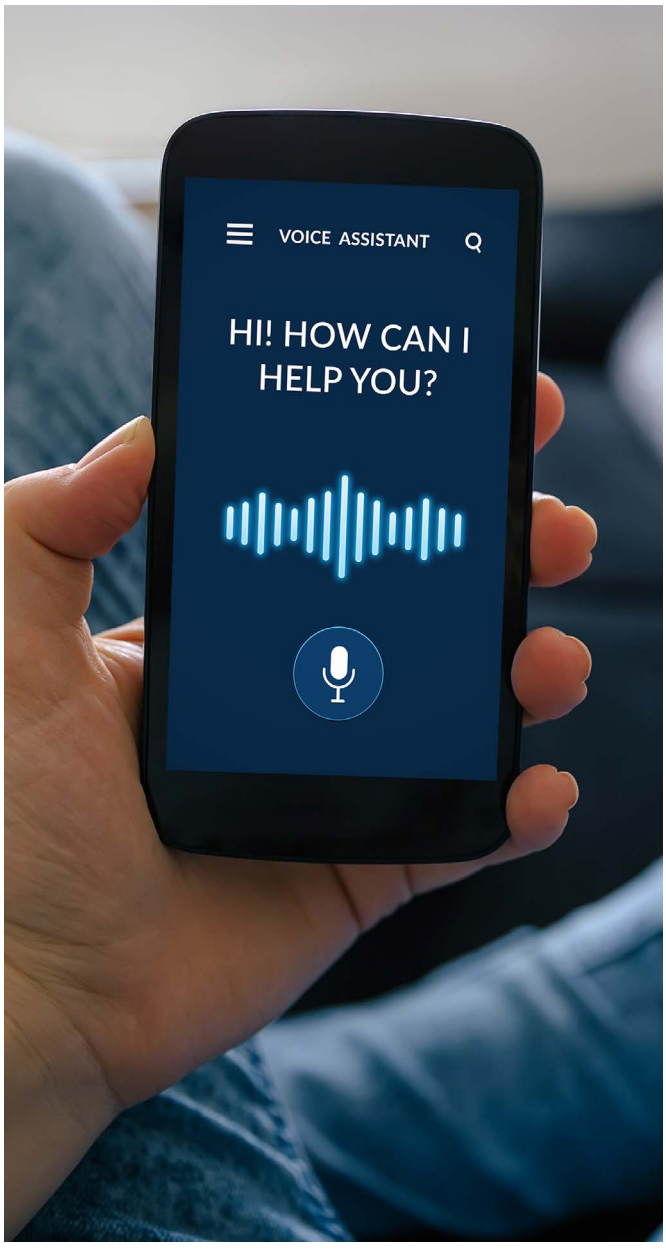
Desired outcome in relation to key challenges and opportunities for the development / adoption.

Following on from challenges/ opportunities in the introductory booklet Section 5 p.6:

A recent study by UK Centre of Aging Better (May 2018) found that people over the age of 55 make up 94% of non-users of the internet.

Follow the link to read more: https://www.ageing-better.org.uk/sites/default/files/2018-05/The-digital-age.pdf

Desired Outcome: The overarching theme is to allow management and independence for the visually impaired to maintain independence at home.



The following tasks will enable you to investigate SMART Homes and Assistive Technologies in relation to living with sight loss.

On completion of the following tasks you will be able to complete Assessment 1 and Assessment 2.

Task 1

Exposure to bright daylight within the natural 24-hour cycle of light and dark is very important to our health. It can be particularly difficult for older people to receive adequate exposure to bright daylight. On average, people over 65 and those over 85 spend 80 per cent and 90 per cent of their time at home, respectively.

Thomas Pocklington Trust (TPT) has designed a Lighting Guide to help visually impaired people improve lighting in their homes, increasing their independence, comfort and safety.

Please, see the link attached to Case study 1.

Case study 1:

Irene is 85 years old and has mobility problems, as well as sight loss caused by diabetic retinopathy.

Follow the link and go to p.10 in the document to read more about Irene and what adaptations have been done in relation to lighting. You can use the information gathered to assist with Assessment 2:

https://www.pocklington-trust.org.uk/wp-content/uploads/2018/04/Lighting-Guide-2018-PDF-1.pdf

Assessment 1

Multiple Choice Assessment (10 questions)

Download the KAHOOT App onto your phone, using your laptop/computer click the link https://play.kahoot.it/#/?quizId=b6167bc5-5857-4685-969b-c364611f5699

1. ***Open the APP on your phone Click Classic Play***
2. ***Enter Pin***
3. ***Choose a nickname***
4. ***Click OK, go***
5. ***Click START button on laptop screen***
6. ***Test your knowledge on what you have learned from the tasks above by clicking the corresponding colour/symbol on your phone that identifies the answer you wish to choose.***
7. ***After each question click NEXT to move onto the next question***
8. ***Have fun!***

Now move on to Assessment 2

Assessment 2 - Case Study 2

This assessment requires you to reflect on previous learning that has taken place within this unit.

Case Study 2.
In video clip 1.1 Jean Murphy is retired and enjoys keeping active with her husband. Jean has glaucoma and tells her story about what living with sight loss means to her.

Video clip 1.1: https://youtu.be/zU9W_rvpQLc

In video clip 1.2 Gloria Stuart, Senior Assistive Technology Specialist discusses examples of SMART Home products, what they do and how can they help people who are blind and visually impaired live more independently.

Video clip 1.2: https://youtu.be/jPO9zrMn78E

Use the knowledge you have gained throughout this learning unit to write a 500 word report to describe how the use of Smart technology could assist Jean to maintain her independence as her glaucoma progresses.

Digital Assets

1.Lighting in and around the home: A guide to better lighting for people with sight loss: https://www.pocklington-trust.org.uk/wp-content/uploads/2018/04/Lighting-Guide-2018-PDF-1.pdf

2. Jean Murphy: https://youtu.be/zU9W_rvpQLc

3. Gloria Stuart: https://youtu.be/jPO9zrMn78E

ARMED | Falls Detection Technology | Falls Prevention | Early Detection. (n.d.). Retrieved April 10, 2019, from https://www.armedprevention.co.uk/

Bhunjun, A. (2017, October 12). World Sight Day: How many people are blind or partially sighted around the world? | Metro News. Retrieved April 10, 2019, from METRO website: https://metro.co.uk/2017/10/12/world-sight-day-how-many-people-are-blind-or-partially-sighted-around-the-world-6993141/

Centre for Ageing Better. (2018). *The digital age: new approaches to supporting people in later life get online*. Retrieved from A Centre for Ageing Better website: https://www.ageing-better.org.uk/sites/default/files/2018-05/The-digital-age.pdf

Eye conditions related to diabetes - RNIB - See differently. (n.d.). Retrieved April 10, 2019, from RNIB - See differently website: https://www.rnib.org.uk/eye-health/eye-conditions/diabetes-related-eye-conditions

New England Low Vision and Blindness. (2018). *Smart Homes for People Who Are Blind or Visually Impaired*. Retrieved from https://www.youtube.com/watch?v=jPO9zrMn78E&feature=youtu.be

RNIB. (2017). *Understanding Glaucoma - Jean's story*. Retrieved from https://www.youtube.com/watch?v=zU9W_rvpQLc&feature=youtu.be

Technology for Life. (2016, September 22). Retrieved April 10, 2019, from RNIB - See differently website: https://www.rnib.org.uk/practical-help/technology-hub

Thomas Bocklington Trust. (2018). *Lighting in and around the home: A guide to better lighting for people with sight loss*. Retrieved from https://www.pocklington-trust.org.uk/wp-content/uploads/2018/04/Lighting-Guide-2018-PDF-1.pdf

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