

The Challenges of Accessible Tourism Information Systems for Tourists with Vision Impairment.

Sensory communications beyond the screen

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Session Outline

- Accessible Tourism
- Digital Marketing
- Information Communication Technology for tourism
- Assistive Technologies for vision impaired people
- Wales Council of the Blind qualitative research findings
- Implications and Recommendations



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The **Industry** has experienced continued expansion and diversification to become one of the largest and fastest-growing economic sectors in the world (United Nations World Tourism Organisation, 2017). Despite this economic success, coupled with the social significance of tourism experiences and the legal requirements set out in the UK through the Equality Act (2010), the industry is still working towards equal participation for disabled people.

Social Responsibility and

Legislation: Disability discrimination legislation in many countries; UN Convention on the Rights of Persons with Disabilities; Sustainable Development Goals have all contributed to changing perceptions of disability and the increasing removal of barriers to the participation of disabled people in everyday life (Shakespeare, Lezzoni and Groce, 2009).

The Tourism Industry and Disabled People



The tourism industry talks of the value of the '**purple pound**', (disabled people); but disabled citizens still encounter barriers to their participation in tourism experiences just as amongst other areas of life despite Equality legislation (Equality Act 2010)

Business Case:

- The '**purple pound**' estimated to be £80billion, (Michopoulou & Buhalis, 2013);
- VisitEngland (2018) suggests that 430,000 British adults with impairments did not take a domestic holiday as a result of accessibility issues, missing out on a potential £116.7 billion).

Disabled People and The Purple Pound

Accessible Tourism



“Accessible tourism enables people with access requirements, including mobility, vision, hearing and cognitive dimensions of access, to function independently and with equity and dignity through the delivery of universally designed tourism products, services and environments. This definition is inclusive of all people including those travelling with children in prams, people with disabilities and seniors.”

Whole of Life Approach (Darcy and Dickson, (2009)

Therefore a Universal design approach...

The design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaption or specialised design...The intent of the universal design concept is to simplify life for everyone by making products, communications, and the built environment more usable by more people at little or no extra cost. The universal design concept targets all people of all ages, sizes and abilities.

UNIVERSAL DESIGN



Making design accessible to everyone in society



Access to Information

Tourism is more than an access issue (Yau, McKercher & Packer, 2004), as the foundation of any tourism experience is the combination of an accessible destination (Israeli, 2002), appropriate accommodation (Darcy, 2010) and accessible and appropriate information.

Darcy and Dickson (2009:41) suggest that 'destinations must have knowledge management in place that presents information in a way that allows individuals with access considerations to make informed decisions for their needs.'



- Can enable the travel ecosystem and allow for 'traveller centricity'; optimising the customer experience by understanding their travel habits, preferences and decision-making processes
- The challenge for developing accessible tourism is to continue to monitor the extent to which the information systems are responsive to travellers with diverse or complex needs.

- Data analytics are important to operators.
- Data are only as good as the ICT systems allow.
- Understanding the tourists' experience of and interaction with such systems is key to enhancing their utility and ensuring that they function for all users.
- Understanding the situational needs of the individual traveller is beneficial in helping the sector use technology in a way that could transform products and services for all.



85% of people with sight problems in Wales cannot read their own post (Wales Council of the Blind, 2010). Regardless of the advancements in technology, vision impaired people are still relying on a sighted person to read information for them (RNIB, 2015).

Accessibility of information is heightened due to a reliance on and assumed access to emerging technologies through mobile applications, websites and Apps. According to research (Byron, Blake and Bridges, 2013; Flynn and Lord, 2015 cited in RNIB My Voice Research, 2015) the increased use of computers, mobile phones, internet and social media, suggests that visually impaired people may have been affected more by these changes than other disabled people, and those without any impairment.



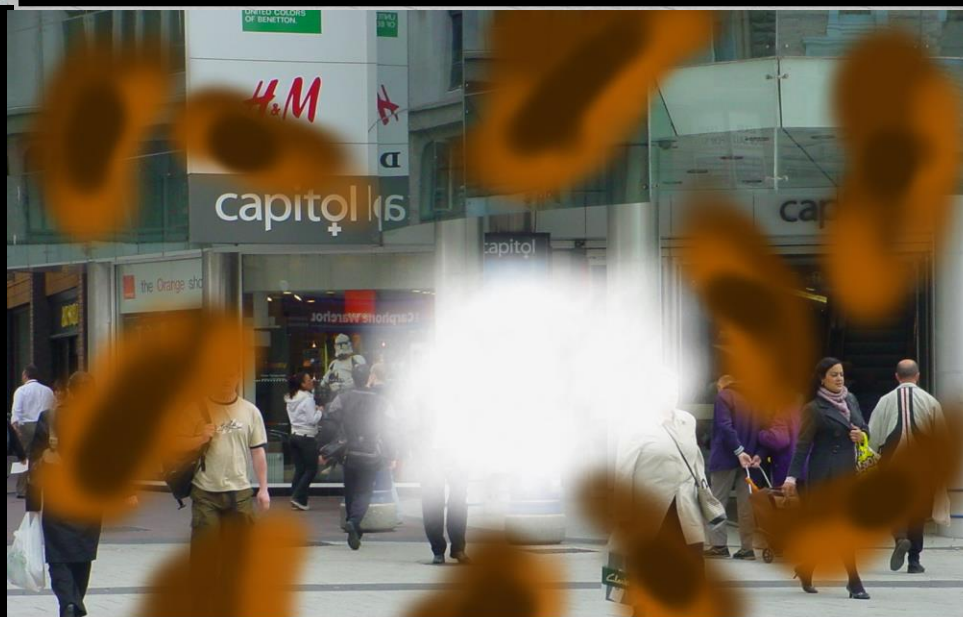
perfect vision



macular degeneration



glaucoma



diabetic retinopathy



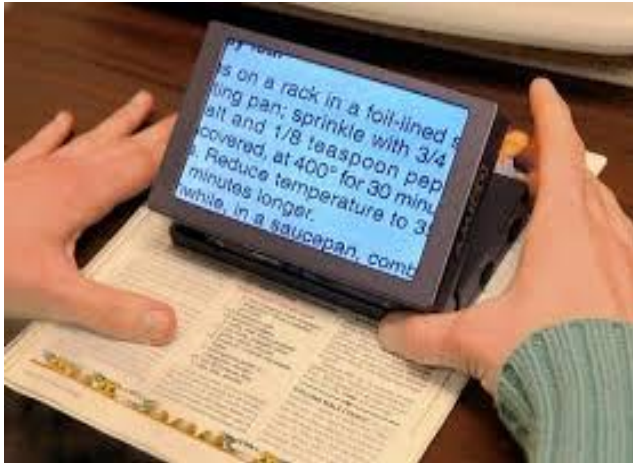
Tourism Information Systems

- Websites; Apps; social media
- Touch screen digital information boards
- Live flight/train information boards
- Hotel/train ticket consoles

Assistive Technologies

Low Vision Aids

Portable magnifier, CCTV



Electronic note takers and Braille Devices



Smartphones

In-built, GPS software, Apps



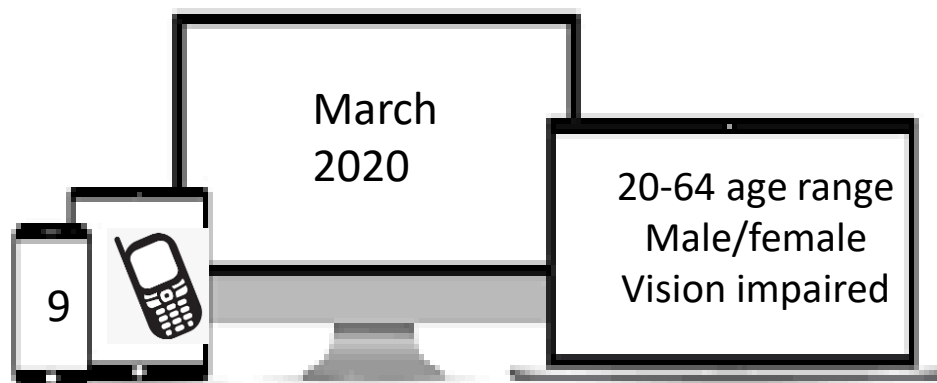
Computer Accessibility

Screen Magnification, Speech, Software.

Research Team:
Owen Williams (WCB)
Ziad Kahn
(Digital Accessibility
Centre)
Vicky Richards
(WCTR, Cardiff Met)

- Emancipatory disability research paradigm
- Participants as co-researchers
- Led by WCB vision impaired staff
- Telephone Interviews
Questions jointly devised by research team

A small-scale research project
conducted by Wales Council of the Blind





Positives

- Use of the smartphone and Apps
 - Inbuilt accessibility software
 - Access train & bus times
 - Train Platforms
 - Booking tickets
 - Google maps in unfamiliar places to plan journeys
 - Find seat & nearest toilets (in airports)
- UK ticket consoles accessible with headphones
- E-tickets
- Boarding passes
- Smartphones magnifier apps
- Voice over assistance feeds back the info
- Internet to check gate no. & departure
- Travel agent confirmations on App

Challenges

- Difficulty finding the language selector on websites
- Automated screens, not fully accessible
- Confusing technology
- Timing out
- Clicking incorrectly
- Hotels & attractions websites – different contrasts on websites
- Apps not updated regularly; sometimes incorrect information
- Information boards can often be in inaccessible places, therefore the magnifier doesn't work
- Voice over doesn't pick up visually highlighted text e.g. the warning sign needs text detail
- Inconsistency of design and accessibility across countries
- Digital platforms are not enough alone - rather speak to a person (at least as back-up / to supplement)

'It [the smartphone] allows me to access information on train times and platforms, flight information, bus timetables, e-tickets, boarding passes and Google maps for navigating new places. It also allows me to access signs and information boards through magnifier apps.'

Participant A

'When looking at booking a trip I would usually use apps rather than websites such as Airbnb, booking.com, Trainline or Sky scanner because visually the formats of the apps are easier to navigate than websites.'

Participant H

Using consoles are impossible (I hate those) I always ask for assistance. I am anxious of holding the queue up and failing causing. Technology solution for many but not for all. I would far rather find a nice person to help me.

'I use the Internet to see when my plane is due to leave and from which gate as I cannot see the terminal screens within the airport and a challenge is that gates aren't always announced as they open and you are relying on hearing your announcement and this means that you are always on edge and unable to relax. This way I can use my iPhone and feel in control more.'

Participant B



'Navigating websites such as Expedia prove quite tricky to get the information that is required without being bombarded with visual clutter. This medium makes choosing destinations more convoluted and causes unnecessary visual confusion when researching flights and accommodation. There is a minefield of information to go through; aspects of it being relevant but most not.' Participant A

'More often than not a traveller is encouraged to access a service providers booking portal online or by an app. But, more often than not you find when accessing these booking portals a confusing layout and inaccessible functionality. Trying to book a coach transfer using a downloaded app left me unable to complete the enquiry and transaction because of not being able to select an option from the displayed timetable. Therefore, a reliance has to be made on a sighted helper, or a costly phone call to customer services on usually a premium rate telephone number.'



Basic Expectations/Universal Design



- ✓ Trained staff / providers / designers / tourism staff
- ✓ Agreed font size; Clear text; colour contrast
- ✓ Standardise e.g. booking systems
- ✓ Voice recognition
- ✓ Considerate positioning of screens
- ✓ App notifications for transport announcements
- ✓ Tutorials for using Apps
- ✓ Simplicity
- ✓ Screens, voiceovers (& translate into different languages)
- ✓ Providers ask for customer preferred format
- ✓ Websites tested for accessibility regularly.
- ✓ Employ more people with disabilities/vision impairment in marketing, tourism and digital technologies (paid rather than voluntary).....

Final Thoughts



- Understanding tourists' experience of and interaction with systems is challenging for the tourism sector, given the 'idiosyncratic quality of tourism decisions' (Gretzel, 2011, p. 760).
- 'Tourism is an idealised commodity that is only accessible to some' (Hall, 2010:34)
- Co-ordinated approach; Change of mind set
- Design with disabled people in mind – "nothing about us, without us".
- Build in accessibility rather than add on
- Don't assume that if it's electronic it's accessible. Talking to someone still proves the most accessible solution.

'Technology giveth, technology taketh away.' (Rae, 2020)



The Internet's great
promise is to make
the world's
information
universally accessible
and useful.

Gary Wolf

www.erosanymc.com

Diolch yn fawr
Thank you

Vicky Richards PhD

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