Chapter 2
The Challenges of Accessible Tourism Information Systems for Tourists With Vision Impairment:
Sensory Communications Beyond the Screen

Vicky Richards
Cardiff Metropolitan University, UK

Nic Matthews
Cardiff Metropolitan University, UK

Owen J. Williams
Wales Council of the Blind, UK

Ziad Khan
Digital Accessibility Centre, UK

ABSTRACT

Developments in accessible tourism and the provision of information and communication technologies (ICT), mobile, and assistive technologies have arguably not resulted in equitable opportunities for vision-impaired people. This chapter outlines accessible information needs of vision impaired tourists, drawing upon a small-scale project of nine telephone interviews conducted by Wales Council of the Blind. It considers user experiences in the context of ICT to help vision impaired tourists navigate information systems such as travel apps, social media, and websites, assessing how these technologies meet user needs. Interviews focused on information provision, pre-planning and travel stages of the tourism system, and the challenges for universal design. Designers and tourism providers have roles as facilitators of accessible tourism, enabling vision-impaired tourists to feel included in experiences. This requires collaboration across the tourism ecosystem from digital developers and marketers alongside disabled people as active stakeholders.

INTRODUCTION

The tourism 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, 2020). 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. Thus, whilst the industry talks of the value of the 'purple pound' (disabled people), disabled citizens continue to encounter barriers to their participation in tourism experiences. These range from choosing and booking a holiday, to accessing screens while travelling and interacting at visitor attractions. Yet the travel motivations of people with disabilities mirror those of people without disabilities and it has been long recognised that *every* tourist has diverse needs (Yau, McKercher, & Packer, 2004).

This chapter provides an insight into the accessible information needs of vision impaired tourists. It will consider their user assistive technologies (mobile phones, tablets, speech, and magnification) within the context of the development of Information and Communication Technologies (ICT) to help vision impaired tourists navigate the tourism information systems. These include but are not limited to booking sites, information boards, travel apps, social media and websites. The chapter examines how forms of technology and the adaptations of these technologies meet (if at all) the needs of vision impaired users. By presenting their experiences, it brings into focus what needs to be delivered to ensure information systems within tourism are accessible. It will draw upon a small-scale research project by the *Wales Council of the Blind*, that included nine telephone semi-structured interviews, alongside expertise from the Digital Accessibility Centre. The interviews focused on assistive technologies, information provision through the pre-planning and travel stages of the tourism system.

BACKGROUND

Tourism is characterised as a period of fun, free time and of escape, yet it is an activity that requires work and preparation (Richards, Pritchard, & Morgan, 2010). It encompasses pre-planning, negotiating travel and in-destination tourist activities (attractions, transport and hospitality experiences). Buhalis and Darcy (2011) in adapting Leiper's tourism system added accessibility to five areas of amenities, attractions, ancillary services, activities and available tourism packages. Hence, tourism is more than an access issue (Yau et al., 2004). 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, p.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'. Here there are very specific issues for people with vision impairment as information is a point of access to the outside world and is evident in all aspects of daily life.

By comparison to other people with disabilities vision impairment creates an additional barrier in that information is often not in an accessible format. For instance, the Wales Council of the Blind (cited in Richards, 2013) reported that 85% of people with sight problems in Wales cannot read their own post. Yet regardless of the advancements in technology, vision impaired people are still relying on a sighted person to read information for them which according to Royal National Institute of the Blind (RNIB)

Related Content

Ambient Assisted Living for People with Motor Impairments
Ilia Adami, Margherita Antonaand Constantine Stephanidis (2014). *Disability Informatics and Web
Accessibility for Motor Limitations (pp. 76-104).*
www.irma-international.org/chapter/ambient-assisted-living-for-people-with-motor-impairments/78636

Intellectual Disability, Identity, and the Internet
Darren D. Chadwick, Chris Fullwoodand Caroline J. Wesson (2014). *Assistive Technologies: Concepts,
Methodologies, Tools, and Applications (pp. 198-223).*
www.irma-international.org/chapter/intellectual-disability-identity-and-the-internet/80613

Use of Audio-Based Mobile Assistant for Reading Texts as Support for Blind Users
Alfonso Sánchez Orea (2020). *User-Centered Software Development for the Blind and Visually Impaired:
Emerging Research and Opportunities (pp. 116-136).*
www.irma-international.org/chapter/use-of-audio-based-mobile-assistant-for-reading-texts-as-support-for-blind-
users/231086

Microswitch-Based Programs (MBP) to Promote Communication, Occupation, and Leisure Skills
for Children with Multiple Disabilities: A Literature Overview
Fabrizio Stasollaand Viviana Perilli (2015). *Recent Advances in Assistive Technologies to Support Children
with Developmental Disorders (pp. 195-216).*
www.irma-international.org/chapter/microswitch-based-programs-mbp-to-promote-communication-occupation-and-
leisure-skills-for-children-with-multiple-disabilities/131335

Design and Control of a Hand-Assist Robot with Multiple Degrees of Freedom for Rehabilitation
Therapy
Haruhisa Kawasaki, Satoshi Ueki, Satoshi Itoand Tetsuya Mouri (2016). *Virtual Reality Enhanced Robotic
Systems for Disability Rehabilitation (pp. 199-234).*
www.irma-international.org/chapter/design-and-control-of-a-hand-assist-robot-with-multiple-degrees-of-freedom-for-
rehabilitation-therapy/143484