

Journey Planning

NCBI Position Statement

Journey planning is a vital component of safe and independent travel for people who are blind or vision impaired. Travelling and navigating multiple forms of transport can be complex and challenging. Accessible digital technologies have proven to be invaluable in making independent travel significantly safer and more achievable for people who are blind or vision impaired.

However, digital technologies such as navigational apps and booking websites that are not fully accessible make travel unnecessarily stressful and complicated for people who are blind or vision impaired.

Why is it Important?

Accessibility issues can negatively affect every step of the journey planning and travel process, from booking accommodation online, navigating public transport and arrival at the destination. This can lead to serious safety issues for passengers who are blind or vision impaired and make independent travel much more difficult than it needs to be.

Accommodation booking websites that are not compatible with screen reading software or contain inaccurate information about accessibility cause inconvenience and distress for the traveller.

Mapping or wayfinding apps offer audible callouts of directions, but these directions are frequently imprecise and/or not detailed enough to ensure safe and consistent wayfinding for people who are blind or vision impaired.

Public transport apps and vehicles are not always accessible. Real-time public transport timetables frequently can be inaccurate. Signs within buses and trains often do not display the names of the next stop or the route overview. Audio announcements, which frequently use low-quality or low-volume audio, often malfunction, are inaudible, or may not be used at all. When they are operating, audio announcements often do not announce pertinent information on arrival times, delays, or important safety measures.

This results in passengers who are blind or vision impaired struggling to figure out which stop they are approaching, and they may either miss their desired stop, or get off on the wrong stop, increasing the likelihood of being delayed or becoming confused or lost on their journey.

Accessibility Standards

United Nations' Convention on the Rights of Persons with Disabilities (UN CRPD), 2006

Ireland has signed and ratified the Convention, and hence is bound by the obligations that it establishes.

Article 9 of the Convention states the obligations of State Parties to enable persons with disabilities to live independently and participate fully in all aspects of life. Subsections 1a and 1b of Article 9 also specify that:

“1. To enable persons with disabilities to live independently and participate fully in all aspects of life, State Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas. These measures, which shall include the identification and elimination of obstacles and barriers to accessibility, shall apply to, inter alia:

- a)** Buildings, roads, transportation and other indoor and outdoor facilities, including schools, housing, medical facilities and workplaces;
- b)** Information, communications and other services, including electronic services and emergency services.

This position statement also follows the principles described in Article 9, section 2 of the same Convention. Specifically, within subsections 2f to 2h, which state that:

“2. State Parties shall also take appropriate measures:

f) To promote other appropriate forms of assistance and support to persons with disabilities to ensure their access to information;

g) To promote access for persons with disabilities to new information and communications technologies and systems, including the Internet;

h) To promote the design, development, production and distribution of accessible information and communications technologies and systems at an early stage, so that these technologies and systems become accessible at minimum cost.

Best Practice Recommendations

This position statement does not attempt to list all the technical details of regulations but does highlight in practical terms those issues which need to be addressed in considering best practice duties.

- Encourage accommodation providers to make accessibility considerations that relate to blindness and vision impairment including providing orientation to the premises, provision of adjustable lighting and sufficient contrast on stair nosing's.
- Improve accessibility within booking sites by ensuring they are fully compatible with screen readers and other assistive technology.
- Ensure public transport apps are fully accessible and provide detailed information on any unexpected events, including closures, early arrivals, and delays.
- On-board public transport announcements to provide detailed information including, but not limited to, stop names, information on delays, exit instructions such as the side of the vehicle on which doors will open at the next stop, any pertinent safety information, etc.
- Improve the audio quality and increase the volume of public transport announcements, both within vehicles and at stations and stops.

- Provide audio announcements at stations and stops, not just on-board public transport vehicles.
- Mapping apps need high-quality and consistent detailed audio instructions that can be used both inside and outside of buildings. These apps also need to communicate the information on a three-dimensional plane (particularly when it comes to indoor travel) to assist individuals who are blind or vision impaired with more intricate wayfinding.
- Mapping apps do not currently report pertinent information, such as accidents, large gatherings, or events that may affect the conditions of pedestrian footpaths, much like how they already report on road traffic issues.

Summary

People who are blind or vision impaired largely rely on public transport to facilitate independent travel. This requires high level skills in journey planning, and the use of digital technologies which are often not fully accessible for screen readers and other assistive technologies.

Improving the accessibility of booking platforms, wayfinding apps and most importantly public transport apps is imperative to ensure that people who are blind or vision impaired can effectively use these platforms to confidently plan journeys. Improving audio announcements and public transport accessibility will then further support the ability of the people who are blind or vision impaired to implement journey plans travel safely and confidently wherever they choose to go.

About NCBI

NCBI, the National Council for the Blind of Ireland, provides support and services to over 55,000 people nationally. Offering technology solutions and innovative programmes to support people in education, the workplace, and wider society. NCBI advocates for a barrier free and accessible society for people who are blind or vision impaired.

NCBI's Possibility Lab is an innovative, solution-focused access and mobility consultancy offering bespoke training, design advice and fee-based access consultations to key stakeholders and businesses who

share our vision for a barrier free and accessible society for people who are blind or vision impaired.

If you require any further guidance, please contact NCBI via hello@possibilitylab.ie

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