

Understanding and addressing the gap in transport accessibility data

Insights Report

National Centre for Accessible Transport, January 2025



About ncat



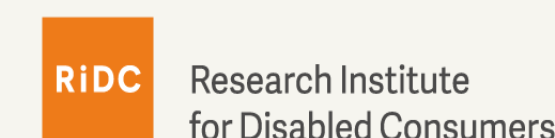
The National Centre for Accessible Transport (ncat) works as an Evidence Centre developing high-quality evidence, best practice, and innovative solutions to inform future disability and transport strategy, policy, and practice by:

- Engaging with disabled people to better understand their experiences and co-design solutions
- Amplifying the voices of disabled people in all decision making
- Collaborating widely with all transport stakeholders
- Demonstrating good practice and impact to influence policy

ncat is delivered by a consortium of organisations that includes Coventry University, Policy Connect, The Research Institute for Disabled Consumers (RiDC), Designability, Connected Places Catapult, and WSP. It is funded for seven years by the Motability Foundation.

For more information about ncat and its work please visit www.ncat.uk

To contact ncat, either about this report or any other query, please email info@ncat.uk



Why did we do this work?

Disabled people make 38% fewer journeys using transport than non-disabled people, a statistic that has not changed for over a decade.¹

This report is part of a series of research conducted by the National Centre for Accessible Transport (ncat) since its launch as an Evidence Centre in early 2023. Whilst this is a standalone report, we would recommend it is considered alongside other ncat research published from late 2024. As ncat progresses further, reports and insights will also be published on our website www.ncat.uk

There are significant gaps in available accessibility data, which prevent disabled people from planning and travelling easily. A survey conducted by the National Centre of Accessible Transport (ncat) in 2023 found that 23% of disabled people stated that information on vehicles is unavailable or inaccessible, and 21% mentioned limited accessibility information when planning journeys.

Previous efforts have failed to address these gaps, leaving disabled people without essential travel information. This report focuses on identifying and suggesting new sources of data. It aims to provide recommendations on how this data can be integrated into journey planning solutions.

1. [The Transport Accessibility Gap Report, March 2022](#)



I need to know about
disabled access, toilets, lifts,
accessible parking and so on.
Often the information
provided is inaccurate or
incomplete.”

Anonymous survey participant



What did we do?

Over 1,200 completed a survey about the types of data they currently use and would like access to.

Our research followed three main stages before identifying actions:

- **Desktop review of existing accessibility data:** We reviewed over 30 data sources (apps and websites) to evaluate accessibility data quality based on several quality criteria (such as how precise and correct the data is, how quickly the data is updated, whether the data includes all necessary details, etc)
- **Survey of over 1,200 disabled people:** The survey identified types of data disabled people currently use and would like access to, covering journey planning and travelling data.

Categories included general information, service details, terrain, and location specifics.

- **Comparison of requirements and actual data:** We analysed how well various sources (e.g., Google Maps, Apple Maps, local authority apps) met the needs of disabled people, scoring them from 'Poor' to 'Excellent' for each data type.

We determined the next steps by first considering types of data where more than 20% of survey respondents wanted access to. This equated to 17 types of data. For each data type we set out actions to fill in any gaps in current accessibility data provision. These actions have been assigned to different organisations, such as facility or service operators, or ourselves as ncat.



How do disabled people plan journeys?

Digital tools are essential for journey planning and payment.

62% of disabled people use websites and 57% use apps for journey planning. These digital tools are key, especially for those who may find it challenging to visit physical locations for information. Websites and apps provide a level of independence and convenience that is crucial for disabled people, allowing them to plan their journeys from the comfort of their homes.

Despite the high usage of digital tools, 30% of disabled people still rely on friends, family, carers, or personal assistants for planning their journeys. This reliance indicates that while digital tools are available, they may not always be user-friendly or comprehensive enough to meet all needs.

There is the need for more intuitive and accessible digital solutions that can be easily navigated by disabled people themselves.



“Family members book online using a list of questions I provide for them, and if necessary, when they have booked, I make enquiries about the journey on the phone.”

Anonymous survey participant



What accessibility data currently exists?

The perfect accessibility dataset doesn't currently exist.

66% of disabled people trust Google Maps the most for journey planning, reflecting its widespread availability and ease of use. However, 31% of respondents who voted the app least helpful find the data provided by Google Maps to be inaccessible or incorrect.

This discrepancy underscores a significant gap between the availability of digital tools and the quality of the data they provide. Inaccurate or incomplete data can lead to frustrating and sometimes dangerous travel experiences for disabled people.

One user recounted a particularly troubling experience:

"Very often no accessibility information or incorrect information - one time a walking route directed me to go where there was no path then walk across a roundabout on a dual carriageway with no crossing point or anything safe for even a [non-disabled] pedestrian."

Such instances highlight the critical need for accurate, reliable, and comprehensive accessibility data to be integrated into widely used digital tools.



What accessibility data do disabled people need?

Accurate and reliable real-time updates are essential for effective travel.

Between 22% - 29% of respondents expressed the need for access to real-time data on assistance staff, priority seating, vehicle overcrowding, accessible toilets, lift operational status, spaces for mobility aids, and the availability of ramps.

Real-time data is essential in ensuring disabled passengers can trust the information provided and travel with greater confidence.



“It would be nice to have proper confirmation that disabled assistance is available and that it will be provided before I travel (have been let down so much in the past and had to rely on other passengers to assist me or get left on a train or not boarded one).”

Anonymous survey participant

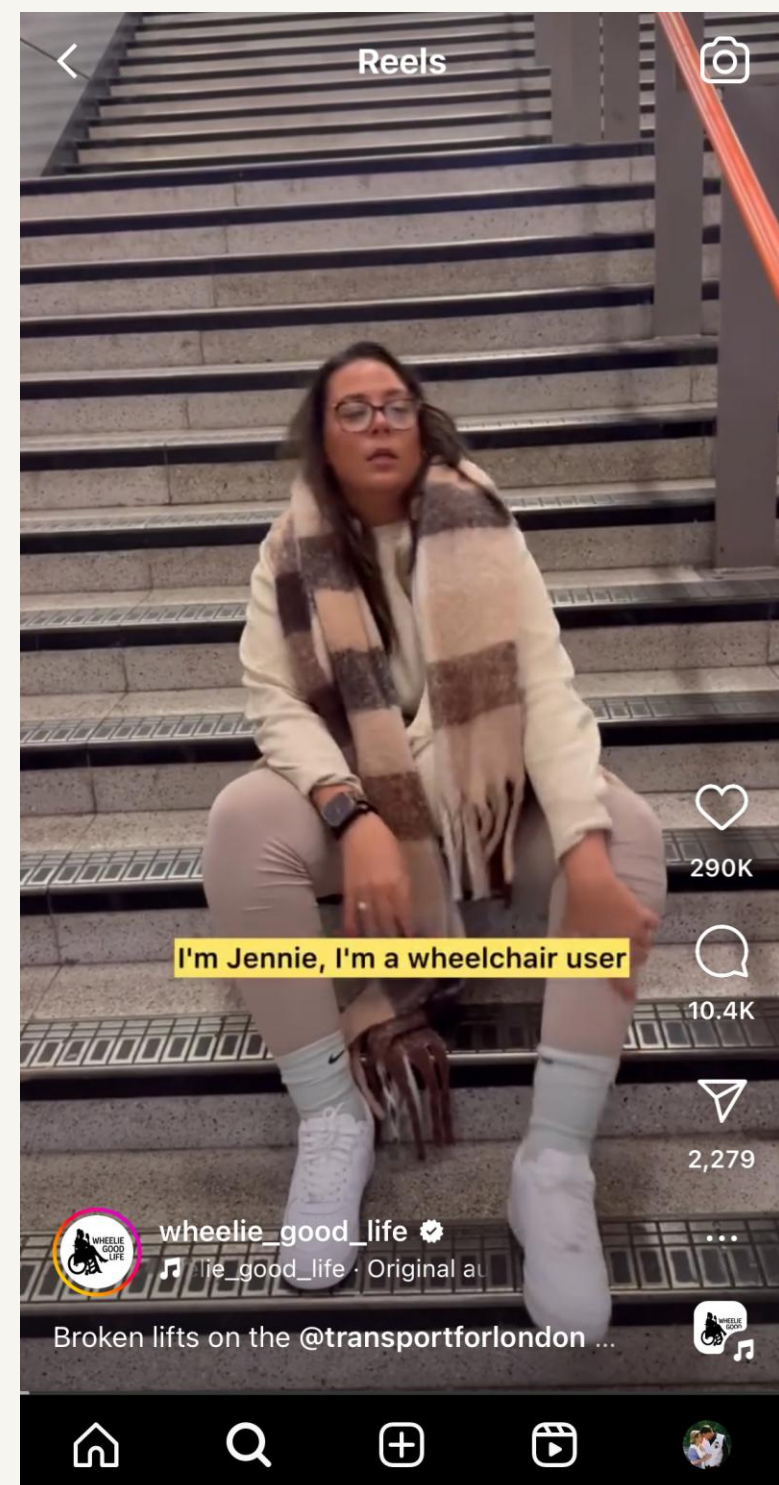


What accessibility data do disabled people need?

- **Assistance staff availability:** Respondents shared the frustration of being let down by promised assistance, resulting in relying on fellow passengers for help or being left on a train. Improving the visibility and collaboration of apps like Passenger Assistance was recommended.
- **Priority spaces and seating:** Issues with pre-booked spaces already being occupied were common. For instance, one respondent often finds the reserved spaces taken despite making advanced reservations.
- **Vehicle overcrowding:** Current sources like Google Maps rely on user feedback, which can be unreliable. Technological solutions, such as sensors used on some train services, should be extended to improve accuracy.
- **Accessible toilets and changing places:** Instances of toilets being out of order were problematic, and no reviewed data sources currently provide this information. Implementing sensors or staff reporting could fill this gap.
- **Lift operational status:** Local authority apps sometimes provide this information, but it is often outdated. Real-time updates could prevent scenarios where disabled people find unexpected barriers.
- **Mobility aid spaces:** Spaces are frequently occupied by prams and pushchairs, highlighting the necessity for accurate information through the development of sensors.
- **Availability of ramps:** Pre-booked ramp assistance is common, but real-time updates would offer greater reliability.

Personal stories: Jennie Berry (part 1)

Jennie Berry is a disabled content creator and wheelchair user who runs a blog ‘Wheelie Good Life’. In February 2024 she posted on her Instagram page of a recent experience she had at Dalston Junction in London.



She said:

“As a wheelchair user, I’m unable to use the whole tube network as only around 30% of stations have WC access. Out of that 30%, a lot of the time, lift access is poorly maintained, meaning you often get to one end and you’re stuck.

Last night I got to Dalston Junction (end of the line) pretty late, with no prior warning that the lift was broken....

I arrived at Dalston junction and no staff around to assist. My hotel was literally right outside this station, it was late and it was also pouring down.

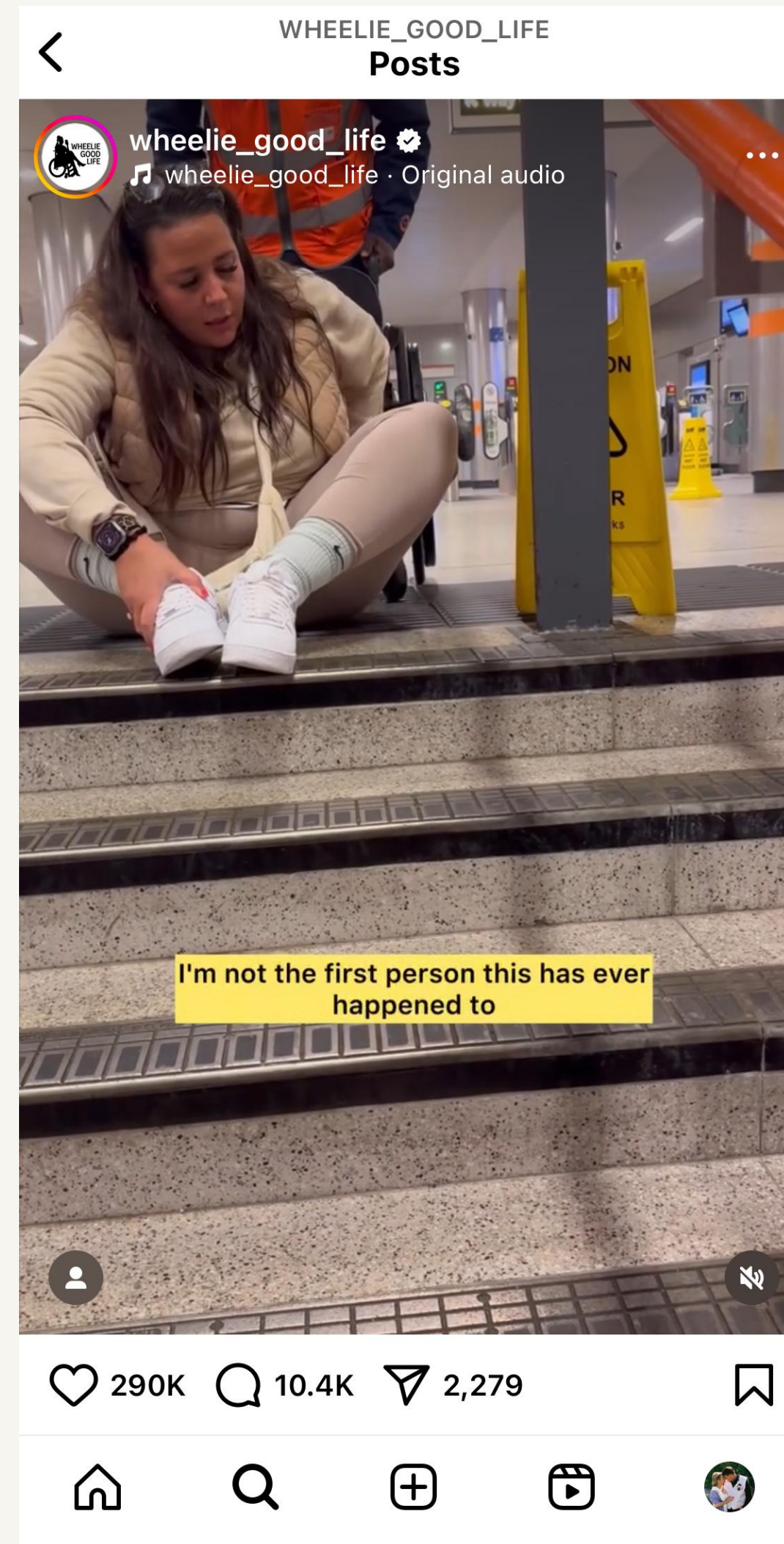
The prospect of getting back on the train and going in the complete opposite direction to find another accessible station, and then find a working lift, and then figure out how I was going to get home from there in an unfamiliar area, just wasn’t something I had the time/energy to do.”

Personal stories: Jennie Berry (part 2)

Jennie said:

“I crawled up the stairs and staff appeared when I was 3 steps from the top. They informed me that the lift has been broken for a month & ‘didn’t you know?’. I explained I’m not from here & surprisingly I don’t keep a log of functioning lifts in London.

At the top of the 15 minute climb, the lift technician decides to announce that he’s actually got the lift working. The two staff members behind me think this is hilarious and you can hear them laughing on the video about it.”



“I literally just wanted to get back to my hotel before a busy day of work like everyone else.

As a disabled person, this is a common occurrence and I was lucky enough to be able to do this - but lots of people aren’t. [To be honest] I’m more annoyed at how staff treated me than the actual fact I had to crawl up the stairs, as at this point I’m used to this level of inaccessibility. The way I’m treated always seems to surprise me the most.”



What accessibility data do disabled people need?

Detailed landscape information (e.g. terrain, steps, slopes, surfacing and other physical features) is vital for journey planning.

26% of respondents expressed the need for detailed information about the steepness of slopes, surfacing types, and the number of steps. This level of detail is essential for disabled people to assess the accessibility of their routes and avoid potential obstacles. For example, wheelchair users or those with mobility impairments need to know whether a route includes steep inclines or uneven surfaces, as these can significantly impact their ability to travel safely and comfortably.

One respondent stated:

“I recently went to a disabled beach, boardwalk, the gradients were crazy. Only very fit and experienced manual chair users could have attempted the slopes and turns.”

This example illustrates the potential dangers and frustrations that can arise when detailed terrain information is not readily available. By providing comprehensive and specific details about the physical characteristics of paths and routes, travel can be made much more predictable and manageable for disabled people.



What accessibility data do disabled people need?

Disabled people need better access to wayfinding, audio announcements, and visual displays.

Effective wayfinding is important to nearly a quarter of respondents (23%). This includes clear signage, audible announcements for those with visual impairments, and visual displays for those with hearing impairments.

One person shared, **“I *wish* our buses, tubes and trains displayed the route and the current stop like so many European operators do because you cannot rely on a driver to tell you when you have reached your destination.”**

Although Passenger Assistance provides such information, its lack of awareness among disabled people limits its usefulness.

Enhancing visibility and usage of wayfinding resources is crucial for better travel experiences.

“Information is often given on boards, and the disabled person may not be able to walk to look at that board. There should be a website reflecting the details on the board so that they can check online at the same time.” commented one survey participant.



What accessibility data do disabled people need?

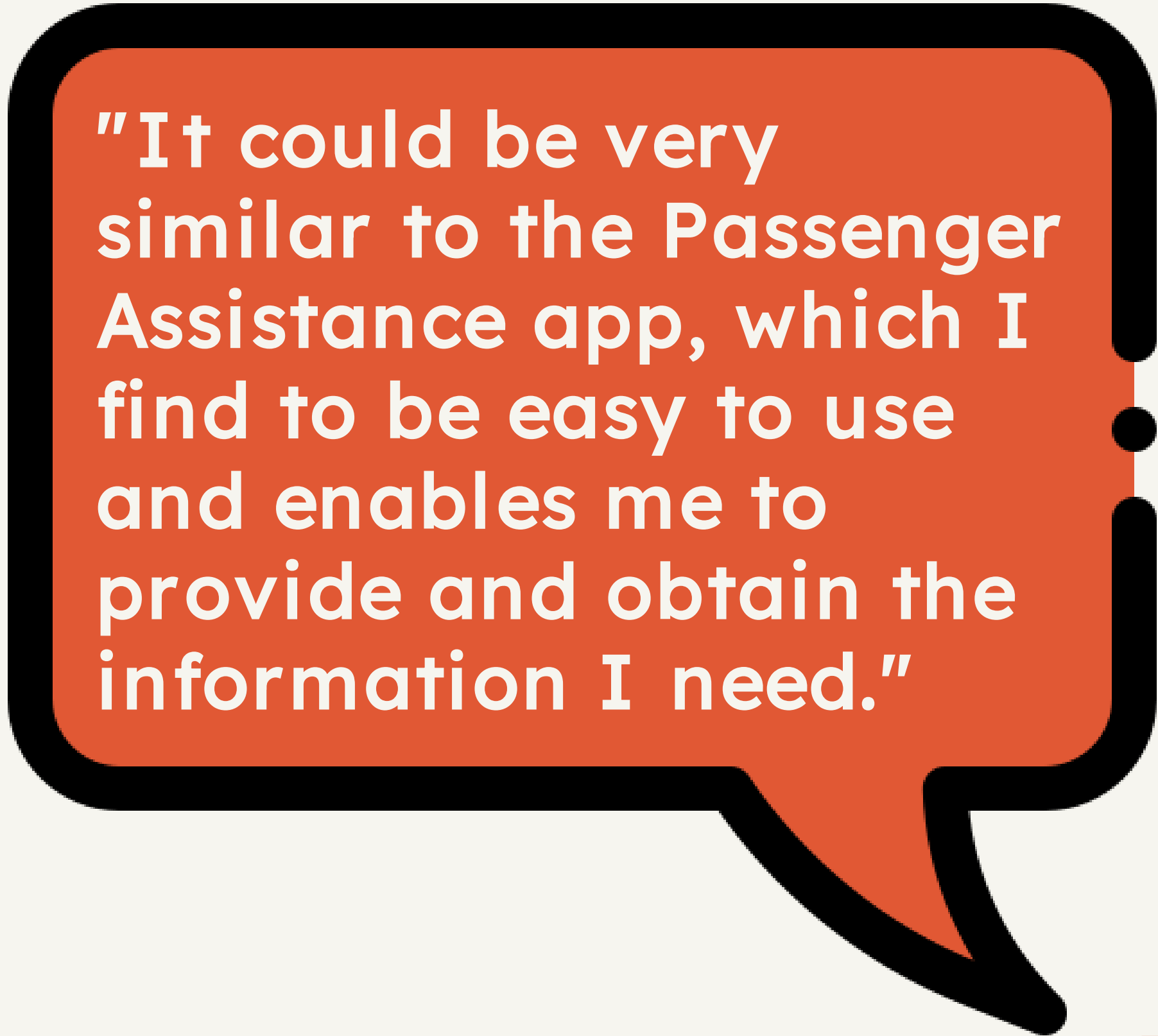
There is a need for personalised journey information.

29% of respondents said they would like personalised information tailored to their needs.

Personalised journey information can significantly enhance the travel experience for disabled people by providing relevant and specific details that cater to their unique requirements.

This can include information about accessible facilities, preferred routes, and real-time updates on potential disruptions.

One respondent suggested:

A large orange speech bubble with a thick black outline, pointing towards the bottom right. It contains a quote in white text. In the bottom right corner of the slide, there is a large, solid orange asterisk-like symbol.

"It could be very similar to the Passenger Assistance app, which I find to be easy to use and enables me to provide and obtain the information I need."

How can accessibility data be improved?

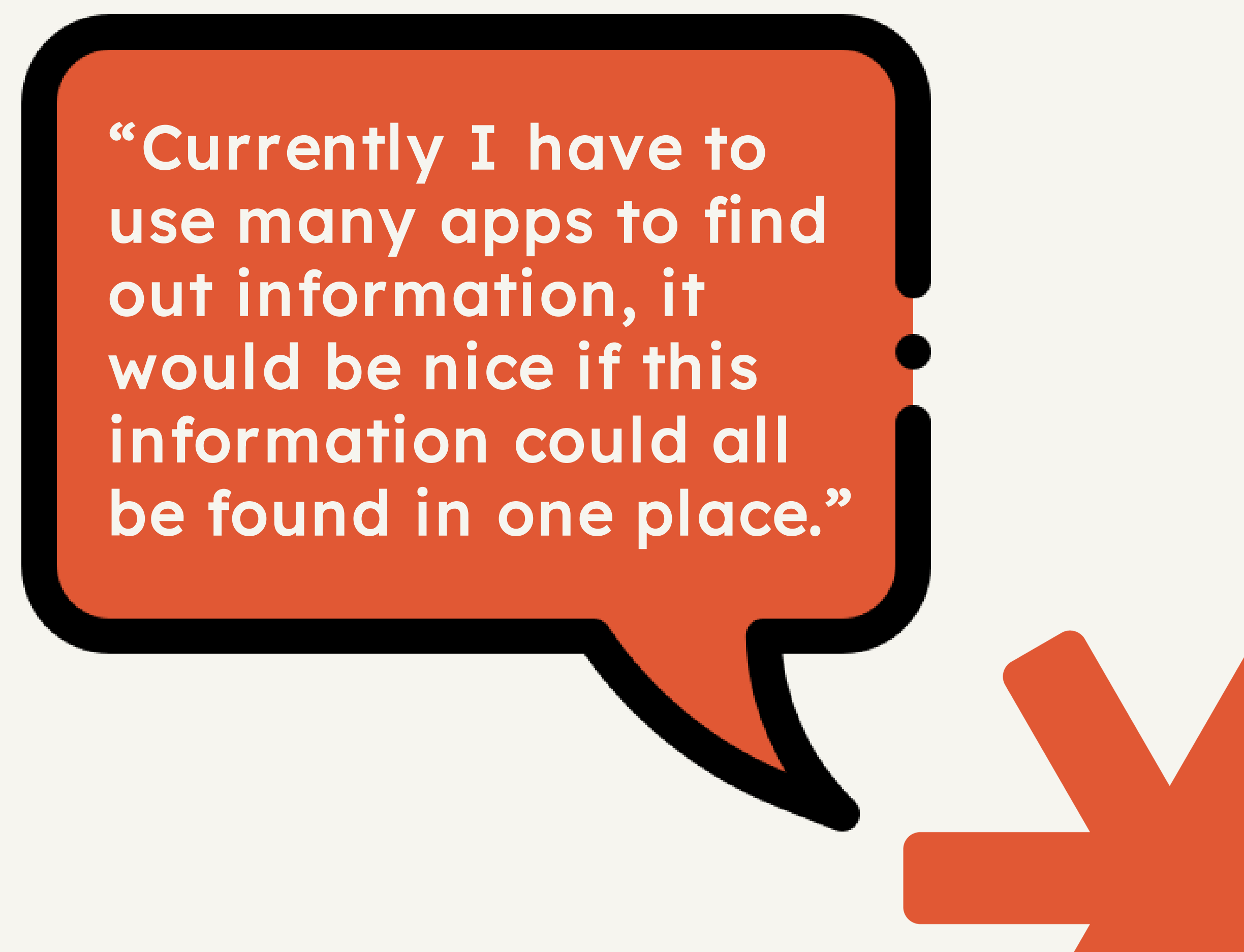
Accessibility data should be standardised across the industry.

The quality and availability of accessibility data vary significantly across different sources.

While Google Maps is trusted by 66% of respondents, only 23% have confidence in local authority apps. This inconsistency makes effective journey planning challenging for disabled people.

Integrating data from various operators and sources into a single dataset would enhance reliability and streamline processes for disabled people.

As one respondent highlighted:



“Currently I have to use many apps to find out information, it would be nice if this information could all be found in one place.”

What conclusions did we come to?

More reliable, accessible, and real-time data is needed to meet the needs of disabled people effectively.

Key insights include:

- 62% and 57% of disabled people use either websites or apps to plan their journeys.
- Most respondents (66%) trusted Google Maps, despite gaps in accessibility data.
- Local authority apps were considered the least helpful (23% of respondents)
- 23-38% book their journeys through apps or websites.
- 54% prefer using bank cards for contactless payments.

The top five types of data people would like access to are:

- Real-time location/availability of assistance staff (29%)
- Journey cancellation/delay process (29%)
- Location/availability of waiting rooms/shelters (28%)
- Real-time priority spaces/seating (28%)
- Real-time vehicle overcrowding (28%).

Integrating and standardising accessibility information across transport services and digital platforms can significantly improve the travel experience for disabled people.



What should happen next? What can ncat do?



For change to happen, there needs to be co-operation between existing data sources, transport operators, and facility operators.

What will ncat do? Raise awareness by engaging with DPOs to provide best practice by:

- **Promoting best-practice apps** by providing a list of recommended apps on their websites.
- **Promoting the standardisation of overcrowding technology** across different operators.
- **Supporting app developers** by sharing research outputs to enable them to improve the accessibility of information on the steepness of slopes, integrate data from community reporting for steps and dropped kerbs, and enhance the reliability of wheelchair accessible routes.

Produce a funding call that could provide funding to:

- **Develop sensors** that can detect real-time availability of space for passengers and their mobility aids, or occupancy of toilets and changing places.
- **Collect and visualise surface data.**
- **Conduct research** with facilities operators and staff to understand existing issues with tracking availability of ramps.
- **Integrate real-time data** from local transport authorities on accessible routes in Google Maps and other sources.



What should happen next? What can others do?

Government support is crucial to achieving the recommendations we provide.

What can service and facility operators do?

- **Integrate real-time data feeds for waiting rooms/shelters to provide up-to-date information.**
This will help passengers find available waiting areas.
- **Install real-time monitoring systems for lifts to ensure they are operational and available.** This will provide essential accessibility information for passengers.
- **Increasing visibility of maps and wayfinding through accurate signposting.** This ensures more people know about and use these helpful resources.
- **Install text-to-speech systems for audible announcements at stops and stations.** This will ensure visually impaired passengers receive real-time information.
- **Determine onboard catering facilities and develop interactive maps to find facilities at stops.** This will provide passengers with essential information about food and drink availability.



References

- 1 [The Transport Accessibility Gap Report, Motability, March 2022](#)
- 2 [Berry, J. \(2024\) wheelie_good_life, Instagram](#), 9 February. (Accessed: 6 November 2024).



Key insights

This report just gives key insights.

The Full Report as well as Easy-Read and BSL versions of the highlights are available at www.ncat.uk/what-we-do/projects

ncat encourage you to freely use the data available in this report for your research, analyses, and publications. When using this data, please reference it as follows to acknowledge ncat as the source: 'ncat (2025). 'Understanding and addressing the gap in transport accessibility data'.

Available at www.ncat.uk

