Complete Guide to...

PROVIDING PASSENGER INFORMATION FOR BLIND AND VISUALLY IMPAIRED PASSENGERS **The 2017 Bus Services Act** has raised the profile of passenger information for blind and visually impaired passengers.

In the past, such passengers have been forced to "muddle through" with mainstream services – denying them access to mobility and opportunities offered by bus services, and straining Local Authority budgets by increasing reliance on Demand Responsive or Community Transport services.

THE **PROBLEMS** WE NEED TO **SOLVE**....

Obtaining travel information has long been a source of frustration for many partially sighted users of public transport. Broadly speaking, challenges here come in three forms:

Where's the nearest stop?

Partially sighted travellers often feel like they are rushing to make a particular bus, and locating unfamiliar stops is a source of concern.

When is my bus due?

Some authorities offer audio commands instigated by RFID fobs, but the equipment is expensive so tends to be limited to particular stops. Using audio also invites stigma and can pose a security risk for vulnerable passengers. **3** When do I get off? Knowing where and when to get off is an inconvenience – and often a source of panic. (This is also true for able bodied passengers in unfamiliar areas, of course). Public transport departments across the country clearly understand the need owners to ride the bus. But have we done enough complex challenge - but also one with huge potential: after all, if we can make public transport easier to use then we can increase ridership and perhaps also reduce reliance on other, more expensive forms of Local Authority transport.

One organisation ahead of the curve here is Gloucestershire County Council, where Transport Technology Officer Nick Bauer has overseen the development of a mobile app offering travel information to not only able bodied users but also partially sighted passengers, for whom use of public transport has historically been at best cumbersome and stressful; at worst dangerous or even impossible.

A VISION FOR ACCESSIBLE TRANSPORT **GLOUCESTERSHIRE** COUNTY COUNCIL'S **TALKING APP**

Cumbersome, stressful, dangerous

As many will already know, until now the most common solution for partially sighted passengers has comprised audio equipment installed at bus stops, which read out announcements when triggered by passengers' key fobs.

Having researched such solutions, Nick wasn't convinced: "We spoke to

many Local Authorities who historically had implemented this technology, but were concerned by stories of specification changes which render key fobs inactive, requiring replacement of all fobs in circulation Some users were apparently carrying three or four fobs, never quite sure which to use - far from ideal for someone who is partially sighted. "And of course that's without

considering the cost, both of the fobs themselves and the audio equipment at the stops. We have limited budget and we needed a solution for all 6,500 stops in the county, rather than for the handful where we could afford to deliver it." Nick says.

At the same time, Nick is quick to point out the limitations of the fob-based solution for the public: "Why should we ask passengers



to carry multiple fobs, or remember which the current one is? Why should they face 'pot luck' regarding whether their bus stop is one of those with the equipment installed? And how would you decide which area of the county and which bus stops are priorities?" he asks.

Besides all that, are at-stop audio announcements even the right approach? Some partially sighted people may not appreciate that information being advertised in such a public way.

A new approach

Nick decided to look for something new. "As Trapeze

already supplied our RTPI system, we asked them to design a solution without the high costs or risk; one that could be affordably delivered across every stop in the county," Nick explains.

The result is Gloucestershire's new Talking App, which benefits passengers in three key ways: firstly, by using audio commands to guide them to their nearest stop; secondly, by telling them when their chosen bus is due to depart; and thirdly, by warning when they need to alight the bus.

Many of the features (such as a planned development

to add a timer that warns passengers when their bus is a specified number of minutes away) will have value for all users, but speaking to Nick it becomes apparent that many of the convenient and userfriendly functionality we see in such apps – favourite locations, regular journeys and so on - are absolutely essential for those with disabilities.

Fitting bus travel into a regular day

To better meet these needs, the app was designed with input from the local disability group, Gloucestershire



Voices (it is actually the latest of several accessibility measures worked upon by the two organisations; one example is the Easy Traveling website, developed by Nick's colleague Natashia Reeves and designed to be easy to use, with a simple layout that makes is easier to obtain travel information and make informed journey plans).



"Partially sighted people often muddle through with bus travel, but they find timetables difficult and feel that they have no options; that they're always rushing to get to a bus," Nick explains. "We're making it easier to fit bus travel into their regular day, rather than forcing them to worry about building their entire day around travel.

"Our aim is to make bus travel much easier and less of an ordeal by providing complete information in an easy to read layout. Bus users should be able to access all the information they need regarding buses arriving at their stop, so they are not rushing to get the next bus. Maybe they have time to get a coffee, go to the bank, or buy that last minute item before catching the bus. And by putting this information into the palm of their hand, we're giving the user control over their travel."

One crucial element is the app's 'handholding' feature, which helps passengers understand where they are within their route: "It counts down to each stop, so you can see exactly where you are at each stage in the journey – and it's really responsive, which provides assurance and confidence," Nick explains.



Indeed, such is its intuitiveness, Nick even sees a travel training potential here: "Gloucestershire Voices already run a 'buddy system' to help people get used to bus travel," Nick says. "We hope the app will reduce the number of buddy journeys needed before someone can travel alone."

Intriguingly, if successful this

type of technology could even offer essential budget saving for Local Authorities by helping to transition passengers from demand responsive to mainstream services without extensive travel training schemes.

One app to rule them all

Interestingly, because Gloucestershire Voices represents more than 100 disability groups, there's also potential for future versions of the app to take on wider requirements, becoming a true mobility support tool for all. This, of course, is exactly as Nick planned it: "**The initia**l



version has been created for the partially sighted, but we want it to work for everyone; why have different versions for different groups? We want one app to rule them all!" he says.

"We are hoping to add some improvements in later versions so that with a couple of taps on the settings, the app can become even more user friendly for those with disabilities," Nick says. "For example, changing the background to yellow and lettering to black, which is a colour scheme favoured by RNIB and partially sighted users. We aim to continue to improve the app based on user feedback "

The app, which is available for iOS (iPhone), Android and Windows phones, is intended as a key part of a launch for Gloucestershire's improved RTPI system – which can now be accessed whenever and wherever required.

Nick concludes: "Travel information can be confusing for anyone, whether partially sighted or not. We're making it easier for everyone; encouraging them to use the bus by making sure they can get from A to B with a minimum of fuss.

"All kinds of people feel intimidated by bus travel – this app helps them all. I've

tried a number of apps, but none do what ours does.

Others don't speak to you or offer countdowns to each stop. Our app takes the best bits from all the others – and we know it's good because other authorities are already asking us about it."

He's right, of course. But the Talking App is also a significant step towards a more accessible public transport for all. It will be fascinating to see where it goes next.



www.trapezegroup.co.uk/lp/talking-app-resource-centre

A BETTER SOLUTION FOR VISUALLY IMPAIRED PASSENGERS?

with Gloucestershire County Council's Nick Bauer. In this interview (transcribed from a webinar published on the Trapeze website), Nick Bauer and Natashia Reeves (Gloucestershire County Council), and Babar Malk (Atkins) discuss the council's decision to utilise Smartphone Apps for communicating with visually impaired bus users. The council's App, GlosTalk, was launched in 2017, and saw the council shortlisted for the Transport Times' Local Authority of the Year award.

id you look at other options to support visually impaired passengers? (Speakers at stops, key fobs etc.) Nick Bauer (Gloucestershire County Council): We looked at all of those. The biggest thing was cost. It costs a lot of money to put those devices into stops. The second thing was accessibility: because of the cost, we'd only provide maybe 10, 20 maybe at the most How do we decide which 10 or 20 stops are the most important for blind and partially sighted people? Also, the specification could change, which means the

users need another key fob. So you then have a blind or partially person at a stop, hoping that this is a stop that's been fitted... tries one key fob: that doesn't work; tries another one, doesn't work: tries another fob... oh yes, that one works... and by the time they've done that the bus has come and gone. By using an app we can provide audio announcements at every single stop that we have in Gloucestershire

You worked with different groups regarding this project and functionality... how were they involved? Nick Bauer: We worked with Insight Gloucestershire (part of RNIB) and asked them questions like "How important is it to a blind and partially sighted person to have a mobile phone?" Apparently it's their lifeline. Their lives are run by this phone because it tells them when their appointments are, when to take pills. We wanted to feed into that. If they've got the device then we wanted to make sure they have our information at their fingertips.

Accessibility is a hot topic right now because of the Buses Bill. Were you ahead of the curve with this app? Nick Bauer: I think we are ahead of the game because there are other apps out there that tell you where the nearest bus stop is and what services leave from that stop. But none of them talk to you; none of them track you while you're on that journey to show you the stops and how far it is, and counts down to let you know when you're at your destination. So I think we are ahead of the game, yes. There's a team within the county council that helps vulnerable people, and one of the things they give is travel training. They go out for sessions with a travel buddy. In talking to this team, they

were saying that they thought the app was really good, in that it could take the place of one or two sessions – could probably cut two of them out, and they do the journey with the app, and then have the travel buddy waiting for them at the destination to congratulate them. Because it handholds you and tracks your journey, it lets you know where you are at any given point... so they would know exactly where they are. It's the same with someone who's getting on a bus who doesn't know the area: it tells them where the next stop is, so you know exactly where you are in the journey.

What has the feedback been like?

Natashia Reeves (Gloucestershire County

Council): It's been very positive... Especially the fact that it's on board: it's not just another real-time app; you can use it on the buses and track your journey.

Babar Malik (Atkins):

Colleagues have been surprised by it. They're amazed at what it can do

What would you say to others looking at this type of technology?

Nick Bauer: Do it. Don't delay; do it. You will be surprised... when we were in the very early days of this and someone suggested an app... we thought, why would we want to use an app? But the more we've gone into it the more we've thought, why didn't we do this before? Everybody we've met has been so positive; everyone who's used it has been so positive. It's been a really pleasant surprise. It's something we're going to continue doing for a very long time

Babar Malik: The cost benefit is really big... the app provides real-time passenger information to a much wider audience. You're on the bus: you've got it; you're at the bus stop: you've got it; you're away from a bus stop: you've got it. With typical cost for a display and shrinking local authority budgets, you're limited to how much real time is provided across your bus corridors... down the long term you're definitely making a saving.

Nick Bauer: We have 6,500 stops in Gloucestershire; there's no way we can afford to fit every single one out. And yet with this app we have fitted every single one out.

Why this app?

Nick Bauer: With our app the story continues when you

actually get on the bus – it tracks you. None of the other apps talk to you, so don't target the blind and partially sighted. We have to target them for inclusiveness. This app does all those things and more.

Why did you decide to develop on all platforms? (Android, iOS, Windows)

Nick Bauer: We wanted to make sure everybody could use the app. We didn't want anyone to be marginalised just because they made the wrong choice at the mobile phone shop.



Find out more about Talking App: www.trapezegroup.co.uk/lp/talking-app-resource-centre

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