

Leeds City Bus Next Stop Announcement Pilot Report on local DEEP group investigation

Introduction

Rica, experts in age and ability research, have been funded by the Peter Ellerman Foundation to develop and carry out consumer research with people with dementia. This 3 year project is in partnership with Innovations in Dementia (iD) and local groups developed through The Dementia Engagement and Empowerment Project (DEEP) which includes 9 local projects. Our research with the Bradford DEEP group to investigate the Leeds City Bus Next Stop Announcement Pilot is the second project.

iD is a social enterprise that works with people with dementia, as partners and volunteers, to develop and test ideas that will enhance the lives of people with dementia. iD facilitates DEEP which brings together over 50 local groups of people with dementia across the UK. These local groups all share a desire to change their communities to make them better for people with dementia. Many have expressed a desire to get involved in providing consumer feedback, but do not know how to achieve this aim. This partnership project between Rica, iD and local DEEP groups offers an opportunity to share expertise both locally and nationally to deliver real change for consumers with mild to moderate dementia.

Exec summary

Leeds City Bus Next Stop Announcement (NSA) was investigated by 6 members of a local DEEP group called Face It Together (FIT). They all had mild to moderate dementia and were asked to divide into two groups and take a journey on a City Bus with the NSA system fitted. Their thoughts and opinions

about the system were captured both during the journey by accompanying researchers and afterwards in a group meeting.

They thought the NSA could provide a welcome support for people with dementia when travelling on the bus. However, to get the most out of the system they suggested improvements in the design as follows¹:

- Making the screen more visible for everyone on the bus wherever they chose to sit.
- Improving the clarity of the audio announcements.
- Arranging the next stop information to be more consistent across different media.
- Making clear distinctions between, the stop just departed and the next stop on the route.

The FIT group members and supporting Bradford Alzheimer's Society both welcomed the opportunity to inform design of this system and thank First Bus for giving them the opportunity to investigate their system.

Background

In 2015, the Confederation of Passenger Transport (CPT), the trade association for the bus and coach industry, made Rica aware of a First Bus pilot on the Leeds City Bus service to provide audio and visual next stop information for bus passengers. The pilot was investigating travel for blind and visually impaired passengers. Rica felt that the service might potentially also benefit passengers with dementia and approached First Bus to carry out a joint work. This work supports First Bus's Equal Opportunities and Diversity Policy in providing inclusive services to all their customers.

It is important to note that this participatory research was undertaken in a spirit of collaboration with First Bus in Leeds and was not intended to take the role of an inspection.

¹ See the results and recommendations sections in this report for a more complete explanation.

The expert panel of reviewers

The panel consisted of six members [Ian, Mark, Stephen, Bill, Sally and Peter] of a local Bradford DEEP group called FIT ²‘Face it Together’ and three members of the local Bradford area Alzheimer’s Society [Frances, Emma and Tom], all live in and around Bradford which is approximately 15 miles from Leeds city centre.

Of the six FIT group members, five were men and one was a woman. They all had Alzheimer’s disease, or another type of dementia, with their ages ranging from the mid-50s to late 60s. All the names used in this report are pseudonyms.

Method

Prior to the day of the investigation into the Next Stop Announcement (NSA), members of the FIT group and the coordinators from the Alzheimer’s Society had an opportunity to review the proposed work scenario. This helped inform the scope and practicalities of the investigation and ensured we kept our focus on the NSA information system. The result of these discussions was to arrange the investigation into two parts:

1. A ride on the city bus

People split, as equally as possible, into two groups and boarded two consecutive buses with the NSA fitted. Each group was accompanied by two coordinators / researchers. The researchers were given a record card with four umbrella headings to lookout for during the journey: Positioning, Screen information, Audio Announcements and Timing between Announcement and stop.

It was important to allow the investigators to act as if they were boarding the bus of their own volition, making the journey in the first part as natural as possible. The bus driver was not informed of our investigation. We were interested in seating position and how it relates to the NSA visual and audio information.

² FIT group members are also called investigators in this report

Once settled the investigators were each given a unique card with the name of a bus stop written on it. They were asked to hand over the card to one of the researchers once the NSA had indicated the stop on the card to be the same as the one Announced on the display screen or by the audio speaker.

During the journey the investigators were probed by the researcher about their opinions of the NSA to find out what worked well and not so well. The researcher also asked the investigators to move seats so that the different spatial qualities of the NSA could be examined.

2. A group discussion

The two groups joined together in an informal setting for some light refreshment and a discussion reflecting on their bus journeys.

This discussion was facilitated by a researcher and supported with a flip chart and name tags. Other materials used were a: voice recorder, a map of the bus route and notes taken by the researchers during the bus trip.

The purpose of these discussions was twofold: firstly to get baseline information of our investigators' normal use (or otherwise) of buses and, secondly to explore our investigators' experiences and opinions of the NSA information system.

Results

The investigators and coordinators arrived at Leeds city centre train station shortly before midday on the 13th January 2016, where they were met by a researcher from Rica [Simon].

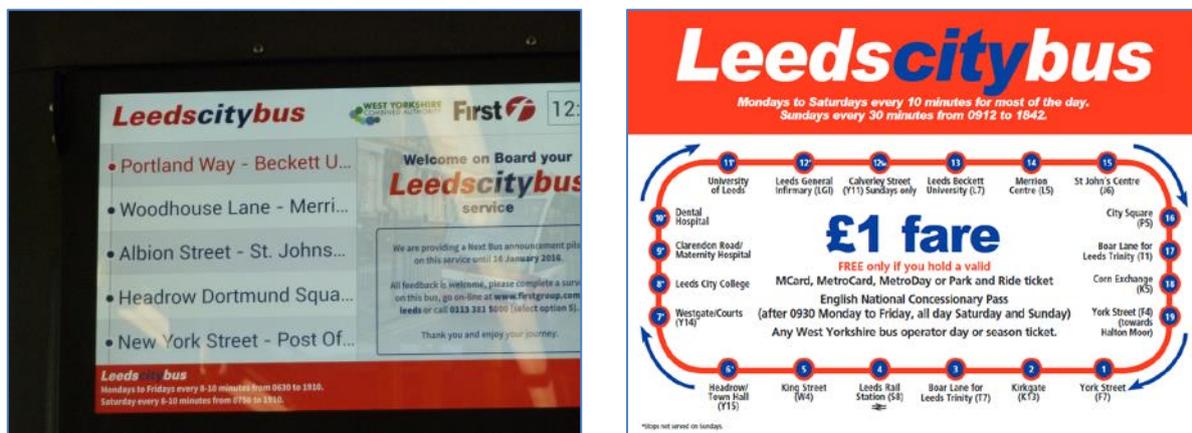
After gathering at a café in the concourse of Leeds central train station, we introduced ourselves to each other and checked the participant documentation was correct. The researcher gave an overview of what was to happen on the bus and split the group into two: Ian, Mark, Derrick, Emma, Simon; and Bill, Sally, Peter, Frances and Tom. The two groups took consecutive buses and met afterwards for our group discussion in a local hotel.

The following includes the collated responses from both the bus journey and the group discussion.

Card returns

There were mixed results with returning the cards with the stop names written on them to the researcher. Although some investigators returned them at the correct stop, many did not. This was primarily due to confusion over some of the stop names on the card being different to the ones Announced on the NSA system. The stop names on the cards were taken from the Leeds City Bus leaflet whereas the NSA primarily gave street or road names. Figure 1 shows the difference between the two.

Figure 1 Stop names



Investigator's use of buses

Five of the six investigators are regular users of the bus service with only one person using their car for transport. We asked those who use the bus service a few questions about their experiences:

Q. What do you do to ensure you don't miss your stop?

A. I would ask the driver to let me know when I have arrived.

Q. Where would you normally sit?

A. We got a mixture of answers from the five people who use the bus.

- They all said they would sit downstairs
- 3 said they would sit in the middle
- 1 said at the back
- 1 said near the front
- 1 said wherever the space is

Q. How many have been on buses with a NSA fitted?

A. Nobody said they had.

Positioning

Investigators

All of the investigators positioned themselves in the front half of the bus rather than at the slightly raised back of the bus. It was from these naturally selected seating positions that we asked them about their thoughts of the NSA system.

Approximately half way through the journey the investigators were asked if they minded sitting at the back of the bus. As before, we enquired whether or not they could see and hear about the NSA system.

Screen

Placing the screen at the front and on the right of the bus directly behind the driver meant the NSA screen was fully or partially obscured for certain seating positions (figure 2). This is more pronounced the further back and to the left the passenger sits because of the number of standing people and vertical support posts that get in the way (figure 3).

From the back of the bus our investigations noted the screen was too far away for the information to be easily read, all 6 reported they could not read it at all.

Figure 2 View of screen from a front left seat



Figure 3 View of screen from a rear left seat



Screen content

When asked on the bus if the information on the screen was readable the investigators said ...

“The print should be a bit bigger”

However when considering the contrast the investigators went on to say ...

“Text contrast seemed ok, when you can see it, it was clear”

Nobody remarked on the busyness of the screen and seemed quite happy with the advertising space on the right hand side.

Audio

All our investigators said they could not hear the audio announcements clearly. This was especially the case at the back of the bus where the diesel engine reverberated producing a drone box effect.

One investigator did not notice that there was an audio system that reflected what was on the screen. Another person wondered if there was a speaker at all in the back of the bus.

These problems with hearing what was being said over the audio system led to one of our investigators saying ...

“At the back you can hear something being said and people responding to it but if you are at the back you have no idea what has been said and it makes you wonder if you’ve missed something important”

Information

Consistency

The need to have information that is consistent across different media was noted by our investigators. In particular, if stop names are recorded differently on leaflets to that announced on the bus, the ambiguity can lead to feelings of distress and uncertainty.

Our investigators said they would often look outside to see where they are by recognising the local land marks or reading signposts.

Changing of stop notification on the screen

It was further noted the importance to have a clear reference of where our investigators were at any one point on their journey, i.e. what stop they had just left and what the next one was.

This was highlighted by Bill noticing that the stop information was kept on the screen after the bus had left the stop, which only seemed to change once the next stop was announced. It was also seen that the next stop highlighted in red on the screen was initially at the top of the screen and was kept there as the list of stops scrolled upwards. This seemed to change for the second half of the journey and the highlighted next stop tracked downwards.

This uncertainty about where the investigators were on their journey in relationship to the last stop was compounded by the bus not always stopping at every stop. Further to this, if there is no need to stop at a bus stop because nobody requested the bus to stop, the driver might pass the stop all together.

Timing

One of the investigators timed the gap between notification and the bus stopping to be 30 seconds which they thought was enough time to prepare and leave the bus.

Other

When asked if the investigators would actively seek out buses with the NSA fitted, the majority said they would. There was one participant who said they would not.

When asked if the principle of the NSA was something they agreed with, again the answers were predominately very positive. As Sally remarks below:

“It would give me confidence to know you’ve come to the right stop”

However none of the investigators had been aware of travelling on a bus with a NSA system fitted.

Recommendations

The majority of the investigators had a very positive experience during the City Bus journey reviewing the NSA. Their insights and suggestions are given in the

light of improving a system which they could already see the very real benefits of. These recommendations should not in any way be viewed as negative criticism but more as informative of positive design enhancements. These are as follows:

- Visual Display
 - Fit a larger screen.
 - Have two screens placed
 - Either side of the bus and near the middle.
 - One at the back and one at the front.
 - Ensure the text is larger.
- Audio
 - Improve the clarity of the audio perhaps through learning from the system used on trains. Use a woman's voice.
 - Place a second speaker at the back of the bus.
 - Make the announcement louder.
 - Ensure the system integrates into an audio loop on the bus.
- Information
 - Someway to know the name of the last stop.
 - There should be consistency of display and audio information across all media.
 - Although it was recognised that a smart phone app could be beneficial to the investigators, it was pointed out that a lot of people with dementia will not have, or cannot use, smart phones.
- Other remarks
 - Getting on and off the bus was a concern for many of the investigators who had to walk around railings and into the road to alight. Make the transfer from the bus to pavement more secure.

Further information

University of Stirling – dementia resources

<http://dementia.stir.ac.uk/>

DEEP guides to support the involvement of people with dementia.

<http://dementivoices.org.uk/resources/deep-guides/>

Innovations in Dementia

<http://www.innovationsindementia.org.uk/resources.htm>

The Housing Learning and Improvement Network

<http://www.housinglin.org.uk/Topics/browse/HousingandDementia/Design/>

Gov.uk

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/416780/HBN_08-02.pdf

Thanks

Central to this work is the willing collaboration of our investigators to express their thoughts and feelings freely and be open to further exploration of their opinions. We would like to thank all of our investigators from the FIT group who entered into this spirit of open discourse and were a pleasure to work with.

We would also like to thank First Bus in Leeds for supporting the running costs of the group discussion room and refreshments at the Queens Hotel Leeds.

Finally our thanks go to the Bradford Alzheimer's Society whose support was instrumental in making this work happen.

Partners

First Bus – in Leeds serve nearly 50m customer journeys a year. As a major employer in Leeds, with over 1,300 staff, First Bus is highly visible in the community. The company takes their responsibilities very seriously and works hard with passenger groups across the region to make public transport accessible for all. For further information or to make a comment please email getintouch@firstgroup.com

Innovations in Dementia – is a community interest company that works nationally with people with dementia, partner organisations and professionals with the aim of developing and testing projects that will enhance the lives of people with dementia. Innovations in Dementia facilitates the Dementia Engagement and Empowerment Project (DEEP), a UK network of groups of

people with dementia who want to influence policy and practice.

www.innovationsindementia.org.uk

FIT – is a service user involvement group facilitated by the Bradford Alzheimer's Society bradford@alzheimers.org.uk. The group is made of people with dementia from Bradford and their expertise helps to inform the health and social care services that they use, as well as the services and amenities that are in their local community.

Alzheimer's Society – works to combat stigma about dementia and calls for other organisations to help people with dementia make everyday choices.

www.alzheimers.org.uk/localinfo Tel 01622 747181

Rica

[Rica](http://www.rica.org.uk) is a national research charity, expert in age and ability research and dedicated to providing independent information. It researches and publishes consumer reports, based on rigorous research and providing practical information for disabled and older consumers. It also works with manufacturers, service providers, regulators and policy makers to improve products and services. Rica's aim is to increase their awareness of the needs of disabled and older consumers through specialist research.

Annex A.

Method

We wish you to experience and review the 'next stop announcement' system currently on trial on 3 of the 4 Leeds City Bus busses. This work is intended to increase awareness of dementia and encourage the provision of information, services and facilities to be accessible to people with dementia.

During the visit you will be joining other members of the local DEEP group and their helpers. You will also be met by a researcher from RICA, a consumer lead research institute of age and ability.

The visit is arranged in two parts:

- 1. A ride on a City Bus which has the 'next stop announcement' system.**
 - You will be given a card on with a bus stop written on it. When the bus gets to this stop you should hand the card to the accompanying researcher.
 - You will be asked your opinions about the 'next stop announcement' system. Things like: its' look and feel, the clarity and loudness of the announcements, the colours used and so on.
- 2. A meeting and open discussion in a room at the Queens Hotel at Leeds train station.**
 - We will have some refreshments
 - We will have an open discussion and review some of your thoughts about the system.

For this project you will be paid £50 which includes travel costs as a thank you for your participation.

We will be making some audio recordings of your time on the City Bus and in the meeting room afterwards.

All the data we collect throughout this study will be kept anonymous and your confidentiality will be preserved. Your personal details will not be shared.

The day of the inspection is 13th January 2016, meeting at Leeds central station at 11:45. We expect to be finished by 2:30pm.