Countdown and Live Next Bus Research
Debrief
10th April 2013
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Bus users in London currently have a range of different information sources and channels available to them to determine bus arrivals

• Key channels are Countdown at stops vs online sources

Previous research has indicated that levels of awareness and usage of different resources (eg Countdown at bus stops) are relatively high, but there is a need to better understand customer patterns of usage

Research was commissioned to explore and understand how customers interact with and use different sources of bus information to better deliver against their information needs
Detailed research objectives

To understand customer awareness and usage behaviours of different bus information channels and sources

As part of this overall objective there are a number of key areas for exploration

- Triggers and barriers to usage of channels
- What value is placed on different channels
- What factors determine which source/channel used
- Factors that might increase awareness/usage
- Usage patterns and frequency in different situations
- Whether customers have source preferences and what drives these
- Understand how much is information used/sought on how the service is running
- The impact sources and channels have on propensity to use buses
- Any areas for improvement
- The impact of sources and channels on TfL’s reputation
Research approach

An iterative approach was adopted to answer the research objectives and provide key insights and direction for The Technical Services Group.

1. **Observations/Intercepts & Accompanied Bus Journeys**
   - Accompanied trips to capture needs in as close to a real life scenario as possible
   - Observe users in broader context of *in-the-moment* needs

2. **Pre task**
   - Auto-ethnography to capture thoughts and experiences of bus use/information needs prior to groups

3. **Focus Groups**
   - To delve deeper into personal experiences and attitudes
   - To explore motivations/triggers for using bus arrivals information and impact on bus use

4. **Post tasks**
   - Some asked to record experiences & attitudes to a range of channels and sources of bus arrival information
Research method

- Method included:
  - 4 x Observations/intercepts
  - 4 x Accompanied journeys
  - 6 x 1hr 30 minute group discussions

- Research audience split into:
  - Users of travel apps and websites
  - And Non Users

- Groups were segmented by:
  - Age - Spread of age across the sample (20-75)
  - Type of journey – Commute and Leisure
  - Location - Inner and Outer boroughs
  - Bus Frequency - High frequency vs low frequency routes
  - SEG - BC1 / C2DE

- Each group contained a mix of gender and travel competencies/attitudes

Detailed sample in appendix
Executive Summary
By and large customers feel that the **Bus service delivers against their transport needs** and are broadly satisfied with the service

On this evidence here are currently **few overt un-met needs** in terms of

- Service provision (service broadly felt reliable)
- Information on service

Information relating to bus arrivals is **not often proactively looked** for, particularly for more familiar journeys; customer behaviours for these journeys are habitual

- Customers more likely to **look for information when planning less familiar bus journeys** (and typically detail required relates to route information & journey length vs. arrival times)
- This said, customers do appreciate & **employ sources ‘in-the-moment’** (at the stop) to help determine buses are going to arrive (if there’s a need to optimise time)

On balance **Countdown is the preferred information source**; if unavailable customers default to a range of sources (typically paper resources at stops, bus arrival apps or web based information)

Customers are **generally unaware of the full range of sources provided by TfL** but appreciate new sources to compliment existing repertoire.

However, customers **want to be directed to alternative / additional information resources** rather than search for them. An on going campaign at stops could potentially drive awareness and usage of sources.
The customer context: Bus usage
Bus service delivers against transport needs

- Most customers use system and **with few issues or problems**

- Generally the service is believed to have improved over time
  - More reliable
  - Technological advances / improvements spontaneously mentioned that help in planning and overall journey experience

- Crucially, bus as a mode also **delivers emotional benefits** that other modes do not always (though this depends on nature of travel and time of day)

- This said, **some common complaints** regarding
  - Overcrowding
  - Unreliability of specific routes
  - A lack of control (subject to vagaries of traffic)

**Currently no unmet needs in terms of how to plan for journeys or for bus arrival information**
Journeys undertaken are consistent and inform attitudes to service

- Across this sample, most are journeys are familiar:
  - Bus an integrated part of commute/leisure journey
  - Routes used largely familiar

- As such, most adopt a ‘habitual’ attitude/behaviours in terms of use and travel information needs
  - Needs broadly met so few actively interrogate needs and how service delivers

- Most are happy with the service and find it hard to identify specific issues / unmet needs
  - Customers more likely to interrogate needs (service and information) for less familiar/regular trips
Customer information needs
Information needs determined by journey type

Unfamiliar journeys

- With new journeys, there is a greater a need for information
- Customers require information about
  - Route detail (stops along route, bus route)
  - Journey length
- Typically arrival / departure times less critical and required
  - Most happy to have estimated times
- Usually done at pre-plan stage and rarely ‘in the moment’
- TfL Journey Planner most commonly mentioned resource in this context

Familiar journeys (commute & leisure)

- Deep-rooted heuristic behaviours associated with this type of journey means customers less likely to need / use information
- Information on arrivals not considered crucial unless time dependent
- Typically only looked for when customers need to optimise time
  - More likely done ‘in the moment’
  - But some pre planning while in home / at office
- Resources most often used include apps or websites (where tech savvy) timetables (for less tech savvy)

More proactive in search for planning info for irregular journeys but arrival detail not essential
On balance arrival time rarely sought out

- For customers making familiar journeys - particularly where customers feel well served in terms of frequency and/or routes - bus arrival information is not a priority.

- For these audiences, waiting for and catching buses a low-involvement activity that rarely necessitates proactive sourcing of information.

- Customers who feel that they rely more on the bus as a mode claimed they were more likely to seek out information that could help them react accordingly.

- When looked for, arrival time is typically sought ‘in-the-moment’ (at stops, while carrying out journeys) vs at home/office pre-planning moments.

- One factor that can influence sourcing of arrival time information are time of day (particularly night buses and travelling alone).

There always loads of buses and loads of options for going to the same place. Unless you’re in a hurry, why bother looking up when it’s gonna be there

20 – 35, C2DE, App users, Suburban (Croydon)

You don’t give it that much thought. It’s not like a train. You just turn up at the stop and wait

20 – 35, BC1, App users, Central

Were we are (Ilford) there are less public transport alternatives [. So I feel I need to know when my bus will be here pretty happy with it.

36 – 50, BC1, Suburban (Ilford)
Disruptions / delays rarely a trigger for sourcing arrival information

- Disruptions are an expected part of London travel
  - An understanding that we live in an old city, with old roads
  - Traffic an undeniable ‘reality’ that impacts on the service

- A desire to take control of their own journey

- An overt ‘get on with it’ attitude among customers, even when finding out about the disruptions/diversions en-route
  - Generally people are in a mid journey mind-set and so the most **important thing is getting from A to B**
  - React in a variety of ways – stay on, reroute, walk diversion etc.
    - In central London – lots of other modes available; further out – customers more often familiar so know area / options better

- Bus arrival information rarely accessed when disruptions/diversions occur, though some use **Countdown to see when another bus along the same route was due**

Customers are often quite savvy about how to get around
Bus diversions / disruptions can force all customers into an ‘unfamiliar’ journey mind-set

- All bus users experience a ‘new’ journey when a bus is diverted / disrupted

- Often **little awareness pre-journey that the diversion is happening** so haven't pre-planned

- This moment of uncertainty can cause a level of emotional disruption for customers
  - Frustration that journey is going to take longer than usual
  - Feel disempowered
  - Confusion can be heightened in central London where environment can be chaotic

- In the moment, some claim **they want support and information to help them to navigate the diversion** in order to minimise frustration and not information on what has caused the delay
TfL planned diversion notices are referred to in the moment

- All recognise the value of the notices and these are referred to for both familiar and unfamiliar journeys - **Maps displaying alternative stop(s) essential in starting journey**

- Customer mind-sets and engagement with diversion comms depend on journey type

1. Pre journey
   - **Familiar**: unengaged with habitual journey, no planning
   - **Unfamiliar**: more engaged with journey - some plan journey

2. Street level: closed bus stops
   - **Familiar**: often zoned out, not looking for info
   - **Unfamiliar**: looking for information about which bus to get and checking route

3. Street level: bus stops before diversion
   - **Familiar**: often zoned out, reading or listening to MP3
   - **Unfamiliar**: looking for reassurance about route, am I on right bus?

Currently, planned diversion notices deliver the relevant information customers want
Understanding information source use
Countdown the preferred and most relied upon source of arrival information

- Countdown often referred to spontaneously as a TfL innovation emblematic of improvements to the service
  - Widely used and appreciated for providing practical, real-time information
  - No need to proactively seek out information
- Countdown is well liked and few (unprompted / prompted) suggestions regarding improvements
  - Consistent calls to expand coverage across the London Bus network (esp. those in low frequency routes)
- This said there are some complaints re:
  - Accuracy of RTI
  - ‘Phantom’ buses that drop off screen
  - Perceived focus on central locations vs. outer
- Countdown also delivers emotional benefit and suggests stops are ‘connected’ to the wider network

Fits in with low level involvement of mode and appreciated for allowing passive consumption of information
Countdown the preferred and most relied upon source of arrival information – pre task

Another Croydon bus stop with no countdown….sigh…
20 – 35, C2DE, App users, Suburban (Croydon)

I took this photo to show this bus actually arrived on time based on the countdown display for 133. I deliberately waited for the next bus as I was early to show that it was on time
35 – 50, BC1, App users, Inner London
Paper timetable at stop still relevant

- Paper timetables (and other route information at stops) are still an important resource and included as part of their repertoire of information, particularly:
  - For customers yet to adopt smartphone technology (but also for those who had access to these technologies)
    - Allows them to estimate arrival of next bus
  - Travelling at night (for security reasons – a reluctance to use phones for fear of theft)

- Crucially, paper resources at stops allow for quick and easy access to information (in keeping with the low-involvement behaviour associated with bus travel)

- A proportion of customers feel scheduled detail less useful (particularly given the unpredictability of London traffic) and think these are broadly obsolete

- The route information is also used for less familiar journeys to:
  - Asses journey time; Find alighting stop; Plan onward journeys (if service disrupted)
Paper timetable and route information at stop – pre task

Showing updated timetable. I do use these to check when buses are due if there is no ‘live’ sign
20 – 35, C2DE, App users, Suburban (Croydon)

I use these so I know when to get off and time how long it will take
20 – 35, C2DE, App users, Suburban (Croydon)

Bus information I use at this stop to show direction of bus and others in area just in case this one doesn’t run.
20 – 35, BC1, App users, Central London
Bus apps valued but used in absence of Countdown rather than ‘in place of’

- Widely used particularly by younger and tech savvy/confident but less appeal to older/less technically confident

- Users typically default to apps if no Countdown available and ‘in the moment’
  - But also used in planning (to avoid standing at stop if weather inclement)

- Provides benefits of: RTI on arrivals; GPS to find stops (can be used for planning for less familiar journeys or for ‘time optimisation’); Free!

- Some issues regarding reliability depending on app supplier:
  - Little ‘loyalty’ demonstrated and evidence of rotation and change to different providers

- A sense that users trust information as long as it is accurate in-the-moment
  - Most aware that data provided by TfL to 3rd party

- Some surprise that TfL have not developed their own app

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I use mine late at night when I’m about to leave a mate’s house. So I can avoid the cold
20 – 35, C2DE, App users, Suburban (Croydon)

When I have no other options for route information and need more information. It also gives me reassurance of timescale of bus arrivals
35 – 50, BC1, App users, Inner London

I don’t use it if there’s a Countdown at the stop. I also don’t want to take my phone out at stops late at night
20 – 35, BC1, App users, Central
Staff deliver against specific information need

- Drivers are considered and used as a source of information on next bus arrivals in very specific cases:
  - When bus pulled out of service for mechanical problems
  - When bus terminates unexpectedly
    - In these instances, a proportion of customers will ask drivers if they know when next bus will arrive as they are alighting

- Customers assume that drivers are ‘wired into’ the network and in contact with
  - ‘Controllers’ at depots
  - Other drivers on the same route

- A significant number do not feel drivers a reliable source of information
  - Seen by some as standoffish and not customer focussed
  - Less knowledgeable about the network than they should be

It doesn’t happen that often but when a bus stops short of my stop, I’ll ask the driver if there’s another bus behind him
35 – 50, BC1, App users, Inner London

I presume their in contact with other drivers or the depot. They have radios don’t they?
36 – 50, BC1, Suburban (Ilford)

I’ve directed a driver around my local area when he was on diversion
51 – 65, C2DE, No app use, Inner London
Journey Planner use integral for unfamiliar journeys

- Use of TfL Journey Planner high across the sample (even among older customers)

- Typically Journey Planner used for
  - Planning for multi-modal and unfamiliar journeys
  - Timetabling familiar Overground (and train) journeys

- Arrival and departure detail less critical (unless cross modal journey includes train timetable)
  - And most aware that data on Journey Planner is based on scheduled times and not RTI

TfL Journey Planner less relevant for predicting bus arrival times
Information preference overview: Familiar Journeys

1. Countdown Screens
2. Printed Bus Info
3. Bus Tracking Apps
4. Live Bus Info (mobile)
5. Countdown SMS

Less Tech savvy
More Tech Engaged
Information preference overview: Unfamiliar journeys

1. Journey Planner
   - Countdown Screens then used at stop to see when alternative routes (if available) will arrive if bus missed

2. Printed Bus Info

3. Bus Tracking Apps

4. Live Bus Info (mobile)

Unfamiliar Journeys

Less Tech savvy

More Tech Engaged
Responses to existing TfL resources
Range of TfL resources can have a positive impact on perceptions of TfL

- On the whole, customers **unaware of resources they have not integrated** into their repertoire
  - As noted, there are no calls for an increase in information sources (esp. Bus arrival information)
  - People are content with what they currently use → **no strong triggers to search for more**

- Those who **use Buses often typically more aware of other resources** but as generally happy with existing info sources they too are less interested in experimenting

- This said, most see value in expanding repertoire (or at least knowing about different resources) to ensure they have a **range of ‘fall back’ resources** should they ever need them

- When presented with full range of resources, **most are impressed** and feel they warrant more publicity

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**TfL information offer supports TfL reputation drivers:**
- What TfL stand for; Experience; Progress & Innovation

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I never realised there was so much information available – they’ve covered pretty much everything

51 – 65, C2DE, No app use, Inner London

There’s actually quite a lot of things I could use here. They (TfL) don’t tell us these things are there though. Not that I’ve noticed

20 – 35, C2DE, App users, Suburban (Croydon)
A belief that TfL could work harder to highlight resources

- Poster dedicated to more information at stations
- Complete list of all platforms
- Sets out relevant detail of resources by platform
  - Twitter feed
  - Phone Number
  - Web address

VS.

- Perceived recessive notice on shared communication/platform
- Incomplete list of resources
  - Missing Twitter feed
- Perceived lack of detail on resources
  - Web address
  - No explanation of SMS process

Customers want all resources ‘pulled’ together and linked rather than have to piece it together for themselves
A belief TfL could work harder to highlight resources

Live Countdown is great on the computer and I’d probably use it for journey planning, especially now that I’ve bookmarked it. I know it’s on the homepage of TfL, but it’s not as immediately obvious as the journey planner.

35 – 50, BC1, App users, Inner

I never look up there! That’s not even in my field of vision. Accompanied journey - 36 – 50, C2DE Outer

I’ve never seen that. How long have they been up there for? Accompanied journey - 66 – 75, BC1 Outer

Customers unlikely to be proactive in search for alternative / additional information resources
Response to TfL resources positive but some barriers to use

Live Departure
- Well liked and thought a useful addition to info sources (particularly for planning)
- Specific features that appeal include: Live disruption notices, RTI on arrivals, map of route(s)
- Not obvious site can optimised for mobile devices - greater awareness of mobile optimised site could prompt trial

Countdown SMS service
- Some low level awareness of service (friends/family have used)
- RTI (and accuracy) impressive; ability to filter by route also appeals
- Broadly seen as a ‘fall back’ when (no 3G and / or Countdown)
- But cost seen as the biggest barrier to use

TfL Bus Alerts on Twitter
- Twitter feed provokes mixed responses
  - Twitter uses see value and understand how they would integrate resource; less appealing to non-Tweeters
  - Thought to have limited use appeal (only relevant for disruptions in the moment) & fails to provide alternative options
Response to TfL resources positive but some barriers to use

**Live Travel News Online**

- Concept well received but thought to have limited use appeal
  - Customers felt they are unlikely to look for ‘planned disruptions’
- Nature of travel by this mode does not lend itself to checking on reliability of familiar journeys
- Some feel more likely to use for pre-planning for unfamiliar journeys

**TfL Customer Services**

**Travel Information Call Centre**

- Awareness of call-centre relatively high
- More likely used for pre-planning and route info rather than arrival
- But increasingly seen as a less relevant channel
  - Phone (apps & web enabled tech) more likely used
  - Cost of calls a barrier to some
Conclusions
Customers feel well served for arrival information

- As noted, arrival time is not a specific priority for customers for both familiar and less familiar journeys.

- This said, Countdown and secondary information sources (particularly information that can be easily accessed at stops) largely deliver vs. information needs for bus arrivals.

- As such, customers can struggle to suggest any meaningful improvements to the service to better meet their needs.

- Customers do, however, express a desire to have more Countdown signs across the Network as these have become an integrated part of their journey experiences, delivering both practical and emotional benefits.

- Countdown is the preferred source of information and unlikely to be replaced by other sources.

Customers favour greater Countdown coverage vs. looking to replace the resource.
Customers will need to be driven to resources

- Customers awareness of TfL resources they have not integrated into their repertoire of bus arrival information is low

- But as noted most see value in expanding repertoire to ensure a range of ‘fall back’ resources in the instance their preferred resource is unavailable

- Information on available resources can prompt appraisal, trail and relevance across all audience

- Crucially, consumers want information presented to them vs. (re)searching for detail

- A clearer and consistent profile of information (particularly in-the-moment as this is when information is most likely accessed) is required by customers to help raise profile and rationale of all resources in TfL ‘stable’

- More effective and consistent marketing will build relevance and trial but can also deliver vs. key TfL reputation drivers – What TfL Stands For and Experience

Clearer signposting of TfL information sources can build relevance
Appendix
Sample summary - Groups

Demographics:
- An equal mix of gender in each group
- A mix of leisure and commuter bus users per group (weighted in favour of a commuters)
- Inclusive sample to be recruited – included an ethnically diverse audience

<table>
<thead>
<tr>
<th>Group</th>
<th>Age</th>
<th>SEG</th>
<th>Inner/outer London</th>
<th>Bus frequency</th>
<th>Travel app use</th>
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<td>Central</td>
<td>High</td>
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<tr>
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<td>C2DE</td>
<td>Outer</td>
<td>Low/High</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>36-50</td>
<td>BC1</td>
<td>Inner</td>
<td>Low/High</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>36-50</td>
<td>BC1</td>
<td>Outer</td>
<td>Low/High</td>
<td>To fall out</td>
</tr>
<tr>
<td>5</td>
<td>51-65</td>
<td>C2DE</td>
<td>Inner</td>
<td>Low/High</td>
<td>N</td>
</tr>
<tr>
<td>6</td>
<td>66-75</td>
<td>C2DE</td>
<td>Outer</td>
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## Sample summary – Accompanied journeys

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<tr>
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<th>Gender</th>
<th>SEG</th>
<th>Inner/outer London</th>
<th>Travel app use</th>
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## Route locations

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<td>Park Lane</td>
<td>Group 1</td>
<td>High Frequency</td>
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<tr>
<td>Victoria</td>
<td>Group 1</td>
<td>High Frequency</td>
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<tr>
<td>Piccadilly</td>
<td>Group 1</td>
<td>High Frequency</td>
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<tr>
<td>High Street Kensington</td>
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<td>High Frequency</td>
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<td>Kings Cross</td>
<td>Group 1</td>
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<td>High Frequency, Corridor Routes</td>
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<td>Orpington</td>
<td>Group 6</td>
<td>Low Frequency</td>
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</table>
Countdown at Bus Stops

- Countdown signs provide real-time information at 2,500 stops in London

- Dot matrix sign at bus stops reveal:
  - The route numbers of the next buses to arrive
  - Their final destinations
  - The number of minutes they are due to arrive at that particular bus stop
  - Service disruption information
Countdown SMS

• Text special bus stop code (a 5 digit number that identifies where you are) from your mobile phone to the number: 87287
  • These codes are displayed on bus stops above the timetable or can be found by searching the Tfl site

• On receiving the text, TfL will send you a text message back containing the arrival time(s) of the next bus(es) at your bus stop, based on the special bus stop code you provided

• The arrival time that is sent is based on real-time information rather than the time shown on a published bus timetable.

SMS Service to you at a charge of 12 pence over your standard network rate
Countdown Online

• Using your PC or mobile web via your Smartphone go to Live Bus Departures at countdown.tfl.gov.uk

• Enter one of the following: street, postcode, route number or bus stop code

• Select which stop you are / will be using (you will be given a list of options on the route)

• Look up the arrival time(s) of the next bus(es) at your bus stop
Countdown Online ii

- Using your PC or mobile web via your Smartphone go to Live Bus Departures at [countdown.tfl.gov.uk](http://countdown.tfl.gov.uk) you can get disruption notices online.
Live Travel News Online

- Using your PC or mobile web via your Smartphone go to Live Travel News at http://www.tfl.gov.uk/tfl/livetravelnews/realtime/buses/default.html you can check for planned disruptions.
Printed planned diversion notices

- Printed information on planned diversions at bus stops that includes:
  - Dates of diversion
  - Routes diverted
  - Stops not in use
  - Nearest alternative stop

![Printed planned diversion notice example](image-url)
Online Journey planner

- Using your PC or mobile web via your Smartphone go to TfL Journey Planner at journeyplanner.tfl.gov.uk

- Enter:
  - Start location
  - End location
  - Date and time of arrival / departure

- Click on ‘Plan Journey’ to get detail on:
  - Route
  - Journey time
  - Departure and arrival times

- The data on Journey Planner is based on scheduled times and not ‘real time’
TfL Bus Alerts on Twitter

- Using your PC or mobile web via your Smartphone users can follow TfL bus alerts on Twitter

- Official TfL Bus alerts Twitter feed provides real-time London bus updates by Transport for London. Operated 24 hours a day

- Feeds provide information on delays / disruptions / diversions by route number across the TfL Bus Network
Bus arrival apps

- Download to your Smartphone users can get up-to-date arrival information

- Apps provide:
  - Searchable list of local bus routes
  - Live bus arrivals
  - Real-time map of nearest bus stops
  - Route maps

- Apps are produced by 3rd parties (like Bus Checker) using TfL data but are not official TfL products
Paper timetable at Bus stop

- Information at bus stops that include:
  - Bus arrival (times are approximations)
  - Stops along the route
  - Journey time to each stop along the route (times are approximate)
Staff

- All drivers carry bus route information on the TfL Bus network