Cert. in Fundamentals of User Experience Design

Dublin Bus Mobile App
User Experience Research

Wagner Rosati da Costa Carvalho
DL122_Y6 Fundamentals of UX Design
Student Id: N00182729

1- Introduction

Every day thousands of commuters use the Dublin Bus, since kids to elder people, from Dublin citizens to tourists.

The Dublin Bus app aims to help them to get to their destination and make journey plans and get updates from the Dublin Bus about new routes.

The experience by using the current Dublin Bus app is making users frustrated by not having what they expect.

We've noticed they were confused by the homepage being the Real Time Information page.

The prominence of the Real Time Information menu led users to believe this was the main nav, they missed the hamburger menu totally.

They had to go back and forth between the Search by Route and Search by Address function which caused frustration.

When using Route Planner it was hard to search for the known location, if you weren't familiar with the area and it was hard to know which side of the street to get the bus on.

When the route planner is found by users the task is easier, they felt this should be given more priority on the homepage.

2. Research methodology

Two methods of User Research was undertaken: Questionnaire and Observation/Interview.

A questionnaire using Google Docs was sent out to the public through email and social media platforms.

Demographics, Impression of the app, App features, Desires, and limitations were all covered.
158 responses were received.

Consent was requested at the start of the survey.

Key Findings:

Positives

- Overall the app rated fairly well,
    - 45.1% awarding a 4 Rating and
    - 30.7% awarding a 3 Rating
- The app rated easy enough to use with 43.8% awarding a 4
- 60.1% rated Dublin Bus Real Time Information as the most used feature
- Favorites and Timetables seem like important features as well

Negatives

- The features that got the lowest rating was:
    - Fare calculator
    - Bus it To Event
    - Latest News
    - Newsletter

Desires/Limitations

- Latest news/twitter feed for updates was a common desire
- Better map functionality ie. link it to google maps
- Showing how full a bus is for example bums on seats, wheelchair space taken etc
- A desire for the Dublin Bus App to be linked to

the leap card app

- Typing a destination to get recommended route would be a nice feature
- Dublin bus pal app seems widely used instead
- Timings and length of the journey

Google maps and my RTI Journey are the most used alternatives

Observation/Interview

- We created an Observation/Interview template for us all to work off
- 2 Observation/Interviews were carried out by each of us, totalling 8
- General questions about usage and familiarity were asked
- 2 scenarios were put to the user and they were asked to use the Dublin Bus App to plan their journey
    - Move from an unknown location to a known location in real time
    - Plan a future journey from one location to another location with times

Key Findings:

- Users were confused by the homepage being the Real Time Information page
- The prominence of the Real Time Information menu led users to believe this was the main nav, they missed the hamburger menu totally
- They had to go back and forth between the Search by Route and Search by Address function which caused frustration
- When using Route Planner it was hard to search for the known location, if you weren't familiar with the area and it was hard to know which side of the street to get the bus on.
- When the route planner is found by users the task is easier, they felt this should

be given more priority on the homepage

Desires/Limitations

- Prominence to the Route Planner should be given on the home page
- A start field and destination field like google maps is needed
- A highlighted route on a map view would be desirable
- The app needs to connect the dots for the user, how long a walk between bus stops etc.

3- Context Review

From the User Research conducted, was investigated similar apps and services

- Google Maps App
  - An A to B field that finds the best route and details walking distances between stops and locations. Clear visuals of transports numbers and times. Filters to refine the journey method.
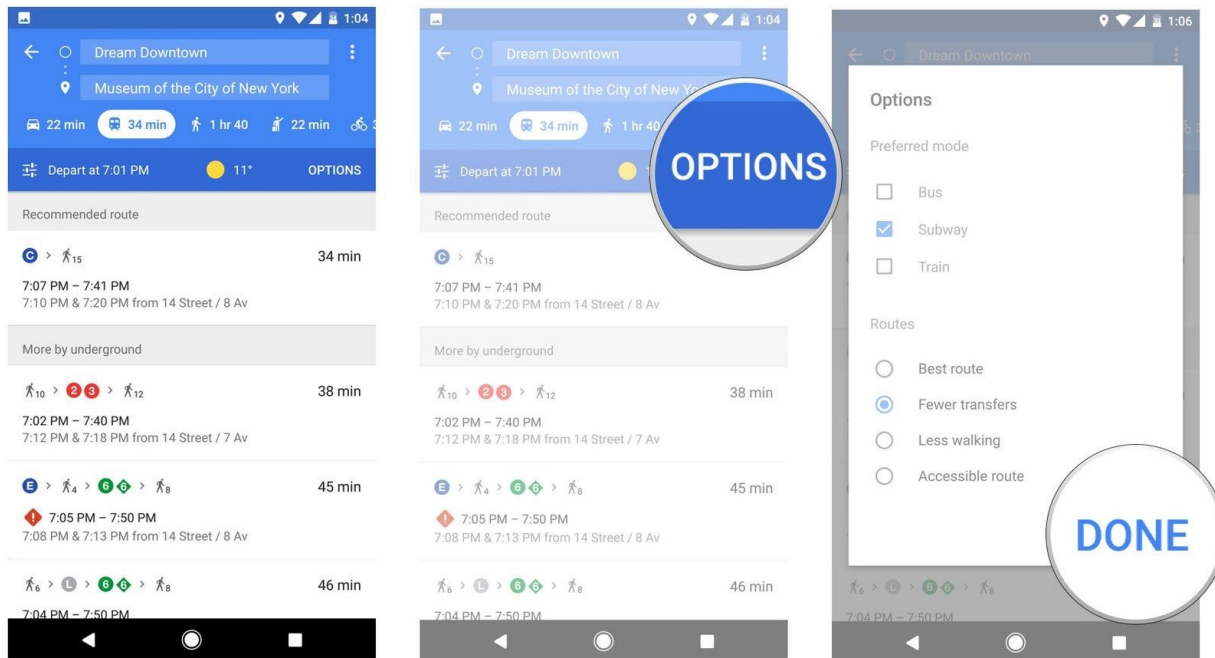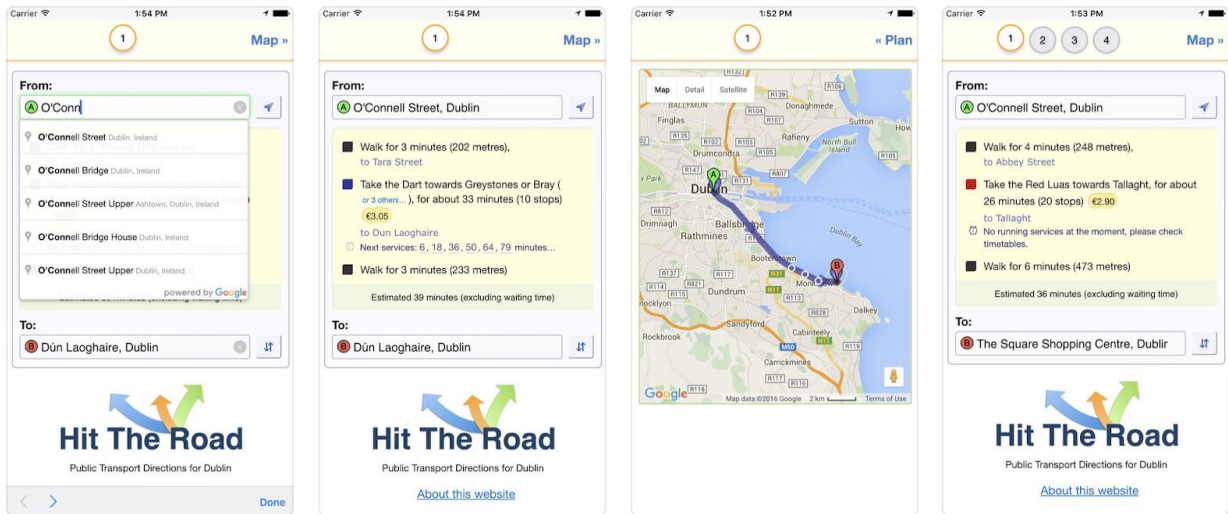
- TFI Journey Planner
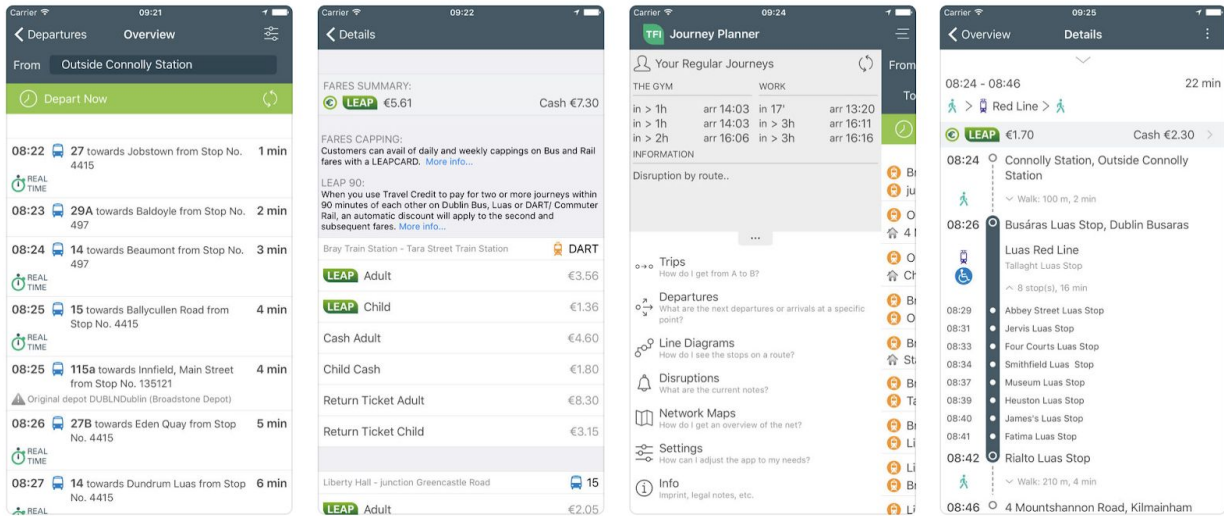
Location bus departure times	Leap card and fare integration	Personalized trip information and history	Detailed journey planner including walking distances, journey times and fare.

- Hittheroad.ie App

| From and to field to		Clearly highlighted	Detailed text directions

quickly identify the route. Autosuggestion for ease of finding locations.		route on the map, uses google maps functionality.	to and from the transport method.

- ## Realtime Ireland App
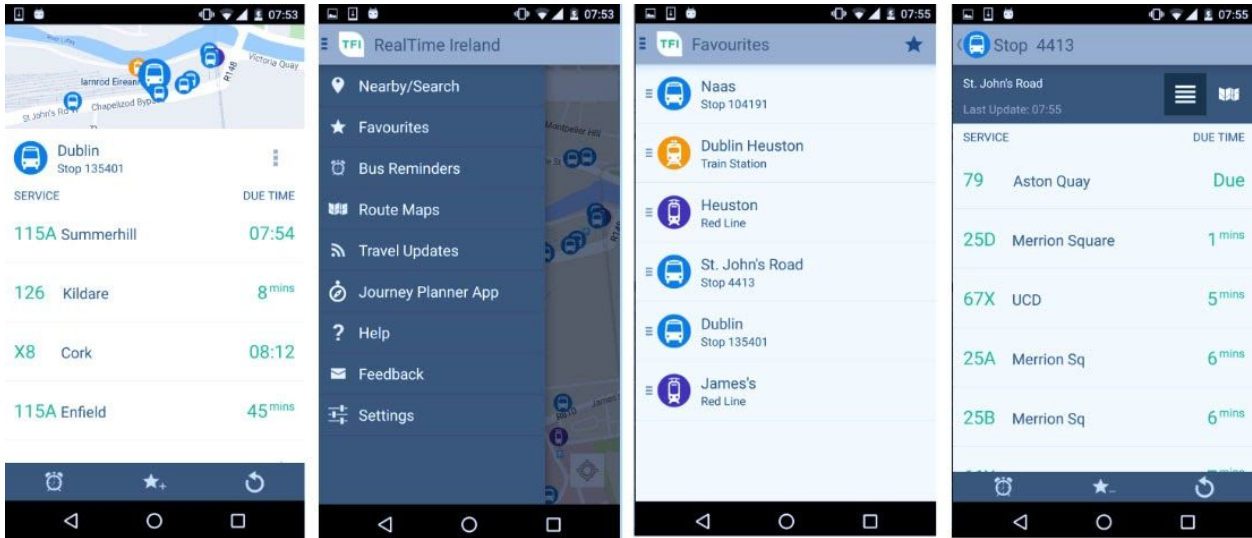
Real-time feature combines time information and map location feature.	Collapsable menu.	Favorite section.	Specific stop details and transport running through the stop.

- Swords Express App
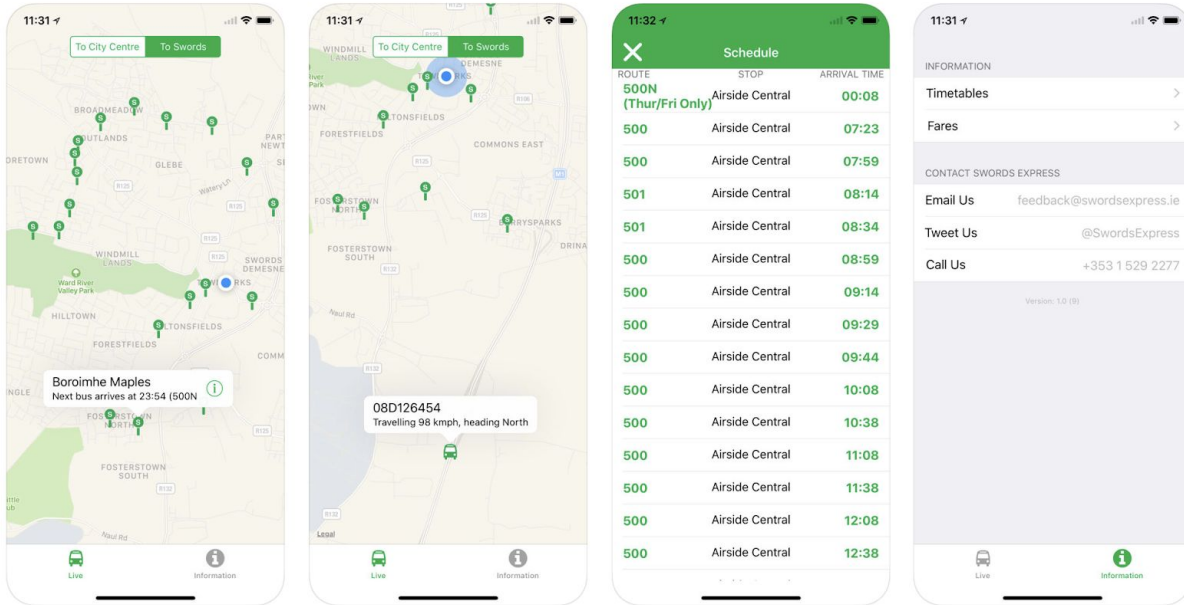
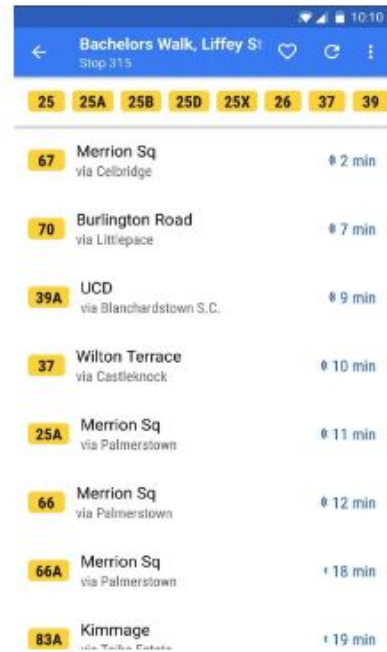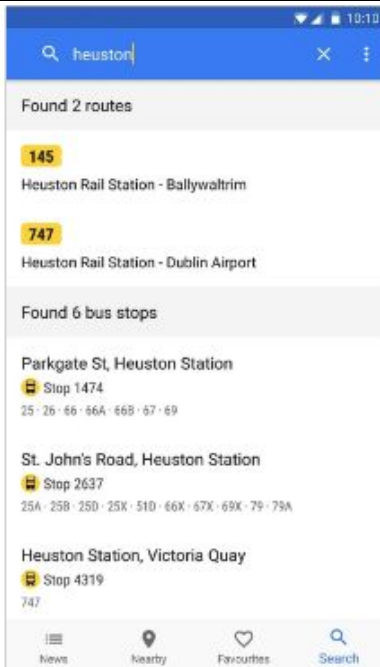| Stop location clearly identified on the map.	Realtime gps tracking on map view showing user location and bus location, speed and direction.	Realtime displays stop number and estimated time of bus arrival.	

- Dublin Bus Pal App

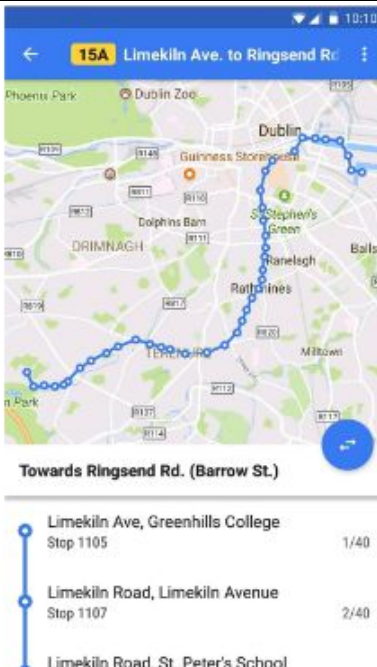| Google Maps functionality and view of clearly defined bus stops. | View nearby stops shows what is within walking distance and keeps user on map. | Clear visual of what buses pass a certain stop and when. |

| Simple search functionality, type a keyword and routes linked to it come back. | Clear route view highlighting stops with a textual description. | Linking to Twitter for updates and news feed for people who need it. |

4- Personas

Two key Personas from our research was identified

● ***Persona 1: The Commuter***

Uses the bus daily for getting to/from work

Desired features

I always check Twitter for any delays to buses as they respond quicker there, it would be good if it could be done through the app.

● When buses are full and not taking more passengers I'd like to not see them in the RTPI/or mark as such
● Traffic delay expectations
● Reminder/update that my bus is approaching my stop (or delayed)
● A reliable bus time app, so many buses don't turn up even though they appear on the app
● Notifications in case of closures

Think and Feel

● Very convenient to have, mainly for RTI
● Map function is frustrating to use, hard to zone in on specific stops
● Awkward to find bus stop number if you don't know it already

Hear

● The Real time information when it works is good
● RTI can be inaccurate at times
● Some Bus routes are under-serviced

See

● Simple button design on RTI
● Hamburger menu hides other functions
● Route planner not obvious enough
● Latest news bulletins more visible
● Unsure why it launches RTI first

Say and Do
- A route planner more like Google's A to B planner
- Information on how full the bus is
- Unaware there is a route planner function

Pain
- Inaccurate RTI
- Poor map functionality
- Jumping between search functions frustrating

Gain
- More notifications and updates
- Better map interaction
- Timings and journey lengths displayed
- Auto-suggestion on typing

- ***Persona 2: The Social User***

Uses the bus more occasionally, for nights out, socializing, etc.

Desired features
- Better map functionality. Open on a map view like Uber to show what stops/routes are nearby. Link it to Google maps so you can get exact directions to your bus stop
- Proper timetable search rather than a list page, links to relevant timetables from the l time info stop pages
- Route planner where multiple buses are required. A bus-stop or journey planner search that is based on road names (especially ones without bus stops), or local landmarks & amenities, rather than just on an exact match on a bus stop name.
- A journey planner section. So you can look up bus times for later in the day or tomorrow. Like the Irish Rail app uses.
- A clear map of the route. A feature, like Google Maps, to know what buses you need to get to get from point A to point B. Seeing where stops are on map in a

Google Maps style. I find it difficult to figure out the direction in which a bus is headed if the two bus stops are close together on the map

Think and Feel
- I don't want the exact bus stop I want roads they are on
- I want to search timetables rather than scroll static pages
- Unaware there is a route planner function

Hear
- There are better apps to use
- Just use google maps
- Only good for RTI

See
- Simple button design on RTI
- Hamburger menu hides other functions
- Route planner not obvious enough
- Latest news bulletins more visible
- Unsure why it launches RTI first

Say and Do
- A route planner I can plan multiple buses on
- A journey planner to planning trips in advance
- Highlight the route better on the map with clear direction

Pain
- Clunky timetables
- Awkward map
- Can only plan one bus at a time

Gain
- Better map functionality
- Timings and journey lengths displayed
- Better route and journey planners

5. Scenarios/task descriptions

Scenario 1: You are in an unfamiliar area. You want to take a bus that will get you to the Walkinstown roundabout. Please proceed to use the Dublin bus app to find a bus/buses that will take you there, the nearest bus stop to your current location, and the time that you will arrive at.

AS IS: Dublin Bus features which would achieve this:
- Stops Near Me - Real Time Information
- Route Planner

Scenario 2: You are going to a concert later this evening, at the RDS in Ballsbridge. You will be traveling from your home near Drumcondra rail station. Please proceed to use the Dublin bus app to plan your journey from A to B, and the time you will expect to arrive at.

AS IS: Dublin Bus features which would achieve this:
- Route Planner
- Search by Address - Real Time Information

Rationale

These two scenarios were chosen as they are

- Realistic

- Relatable

- Simple

- Should force the User to use different features of the app, as well as the same features in different ways

Observations regarding the User's actions were recorded, as well as the comments they made while performing the tasks.

After the tasks were completed, the User was asked if they would normally complete these tasks in another manner.

Interim Results

- Both persona-types tended to not know about the Route Planner function

- After being prompted to use Route Planner, both persona-types remarked that this feature should be more prominent and user-friendly
- Likewise, both had difficulty using the Real Time search functions appropriately. A lot of guesswork and prior knowledge was required to complete the tasks
- Comparisons between Google Maps functionality was prominent
- Majority users were unable to complete the tasks fully: frustrated

6. Reflections

The project group was productive in working together. As a team we shared ideas and solutions, gaining valuable information for our research.

We created the questionnaire using Google Docs and sent it out to the public through email and social media. We received over one hundred responses, a significant goal which allowed us to gain meaningful insight into the Dublin Bus app.

The user research was conducted individually with each group member responsible for the observation and interview with the app users. Overall it was a positive experience working together and I was satisfied with the results achieved.