

USER EXPERIENCE PROJECT

Design Brief: The Commute

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Hannah Williams



Design Brief
The Commute



Name
Hannah Williams



Age
21



Location
Brighton & Hove



Level of Technical Comfort
Proficient, happy and able to use phone for their commute



Bio

Hannah is a final year Computer Science student at the University of Sussex, and commutes to university 3-5 times a week. She gets frustrated having to use multiple apps during her commute and the inaccuracy of timings which often leads to her missing the intended bus. She can feel anxious travelling alone during the darker hours of the day, prefers to be able to sit on her journey, and dislikes overcrowded buses. She's comfortable trying new apps to make her journey more enjoyable, and has recently been listening to podcasts to relax.

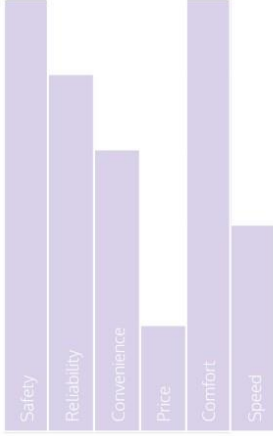
Frustrations

- Missing buses from them being very busy.
- Unable to sit down and enjoy her commute.
- Missing stops.
- Lacks connection to her fellow commuters

Goals

- To minimise stress on her commute
- To be able to feel safe on her journey
- To enjoy her journey and feel more connected to the people around her.

Motivations



Existing Practices

- She commutes into university on weekdays, using the Brighton & Hove bus app to plan journey times, buy tickets, and track busses
- She uses Spotify to listen to music and podcasts to distract herself from the stressful journey
- She sometimes uses messaging apps like Whatsapp to alert her friends that she might be late due to her bus

Context Scenario

This is an example of the first iteration of a context scenario for our primary persona for an app that improves the commute experience to university. Our persona is Hannah Williams, a Computer Science at the University of Sussex, whose goals are to minimise stress on her commute, feel safe on her journey, and enjoy her journey and feel more connected to the people around her.

Hannah's Context Scenario:

1. Hannah uses her smartphone before leaving the house in the morning to plan her journey. She opens up the commuting app deciding on her commute for today. She wants to know her journey times before she starts and doesn't like waiting too long at the bus stop. This way, she doesn't need to worry about bad service causing her to lose her journey information.
2. Hannah selects a journey from the saved journeys and begins her walk to the bus stop.
3. She gets to the bus stop and boards the bus. To access the journey-specific music, entertainment, and information, she scans the QR code from the bus to tell the app which bus she is on.
4. She feels stressed, so she'd like a relaxing playlist to listen to on her journey. After opening the music portal, she filters for Mood and Journey Length, and the app suggests a playlist that has calming and tranquil music that's the length of her journey. Meaning she won't need to go on her phone again to change her music.
5. As Hannah is approaching her stop, the music quietens down to allow her to hear the announcement and prepare to depart the bus.
6. The app detects that she has departed the bus and asks whether the playlist suggested was right for her journey and how she's feeling.
7. Hannah's day at university is over, so she prepares for her commute back home. She's in a much better mood and would like a more upbeat experience going home.

8. She decides on her journey home and walks to the bus stop. The app sends Hannah a notification that the upcoming bus is very full (with only a few seats remaining) but the one afterwards is significantly emptier. Hannah would prefer to wait than to be on a crowded bus and waits for the next one.
9. The next bus arrives, with many available seats. She boards the bus and scans the corresponding QR code.
10. Since she's in an upbeat mood, and she'd like to connect with other people on the bus. She selects the "Communal" playlist, which plays the music that the other commuters using the app are listening to. She is enjoying the playlist, so decides to add a song which she thinks would match the style to the queue. She receives a notification that another commuter has given her a thumbs-up regarding her song choice and feels happy that someone liked her music!
11. The music quietens as Hannah approaches her stop. She appreciates this because she's been enjoying this playlist and forgot to look out for her bus stop.
12. As she leaves the bus, the app asks if she would like to continue listening to the playlist. She decides to continue to listen.
13. Once Hannah arrives home, the music ends, and the app asks whether she thinks the playlist was right for her mood, she says yes and decides to save the playlist.

Design Requirements

1. View the departures/timetable for her bus stop.
2. Select the journey for today's commute from her saved journeys.
3. Scan the QR code to check-in to the bus she's on
4. Set the filters for the playlist selection tool.
5. Select the correct playlist to suit her mood.
6. Add a new song to a specific mood playlist.
7. React to the current song playing on the communal playlist.
8. Toggle the "volume-down" announce mode on or off.
9. Save the playlist she has listened to, to listen to again.
10. Respond to the journey evaluation question to improve the app's suggestions.

Lo-fi Prototype

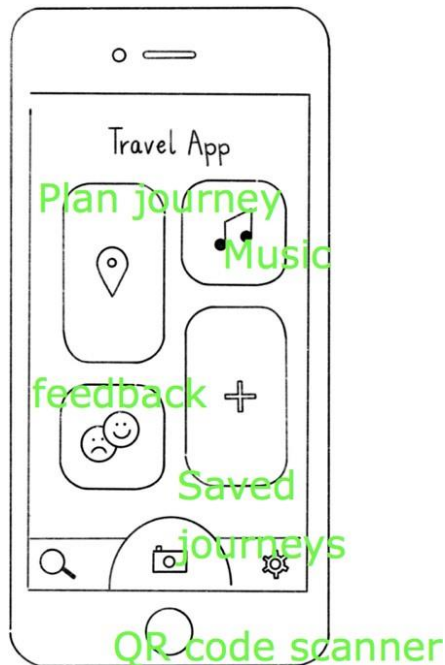


Figure 1. This is the opening page of the lo-fi prototype. On this page, we can see the buttons for navigating to the journey planning, music, feedback and saved journeys. As well as in the menu bar at the bottom has a search feature, a QR code scanner and a settings cog.

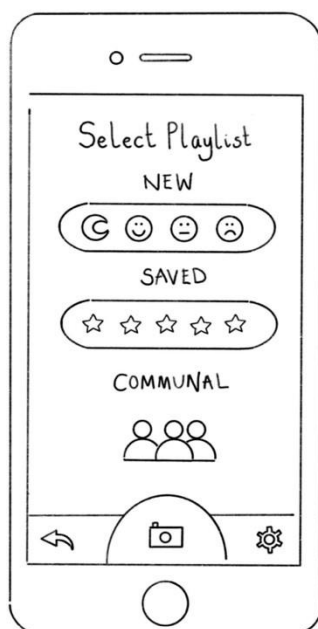


Figure 2. This is the playlists page. This can be accessed by clicking the music icon on the first page. This page allows the user to select from numerous playlist options, including the creation of a new playlist to suit a mood of their choice. Moreover, the user can also choose one of the saved playlists that they may have saved during previous journeys. Finally on this page is also the communal playlist. This is a playlist accessed by scanning the QR code when getting on the bus. By interacting on these buttons the user will be taken to a music page.



Figure 3. This is the music page. This is the page you will be taken to when accessing any playlist. On this page, you can see the current queue of songs that will be played. You can ‘upvote’ or ‘downvote’ any of these songs. This is intended to curate playlists better for future playlist creations. You are also able to add your own songs to the playlist with the add songs button. Moreover, you can also save a playlist to appear in the saved playlists widget as seen in figure 2. There is also a play and pause music button.

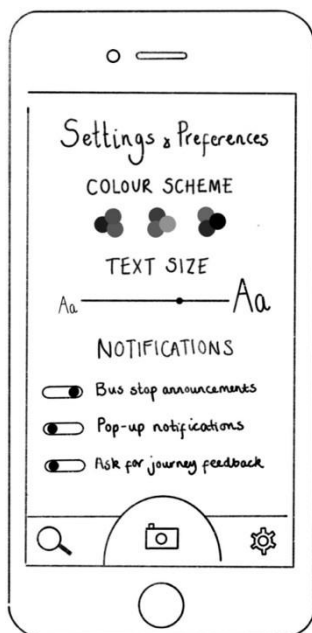


Figure 4. This is the settings page. This is accessed by using the cog icon that is seen on all pages. On this page, the user can access accessibility settings such as colour-blind modes and text sizes. Moreover, it also gives the user the ability to access their notification settings. This allows a user to easily define their experience inside of the app.

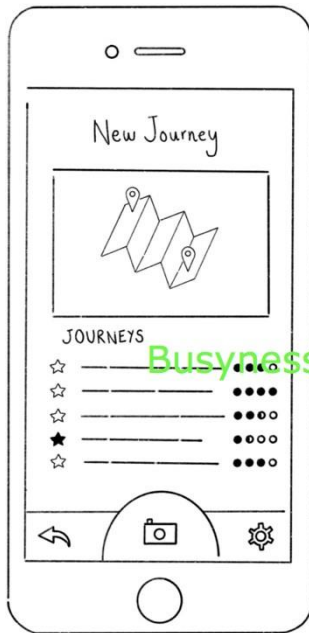


Figure 5. This page is dedicated to the creation of new journeys. Users can create a new route (journey) by clicking on the bus stops of the two locations that the user wants to access. After this, a list of journeys will appear with the journey times and also the busyness of the bus shown. The busyness is denoted by a grading system of filled circles. The user also has the ability to save a route for later use.

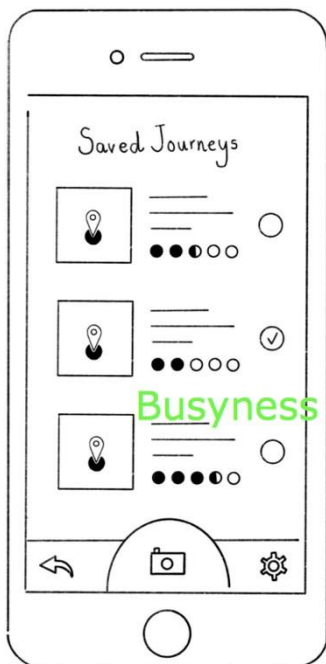


Figure 6. This is the saved journeys page. On this page, the user can access journeys for specific locations and times that they have previously saved. A user can select a journey to take by clicking the bubble on the right. They can also see the busyness level of the busses on this route denoted again by a graded system of filled circles.

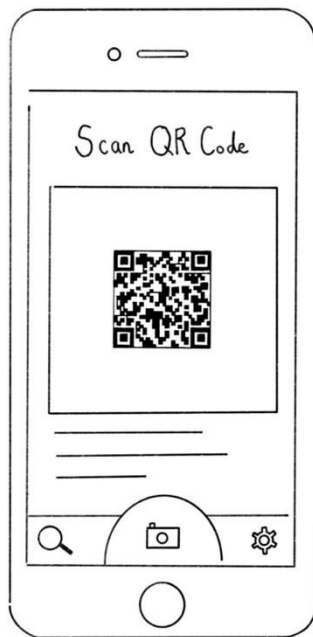


Figure 7. This is the QR code scanning page. This is accessed by swiping or clicking on the camera button on the menu bar at the bottom of the screen. When a QR code is scanned some text feedback will be given to the user confirming they have scanned the QR code and the bus they are travelling on. By doing this step the user has access to the communal playlist of the bus (figure 3).

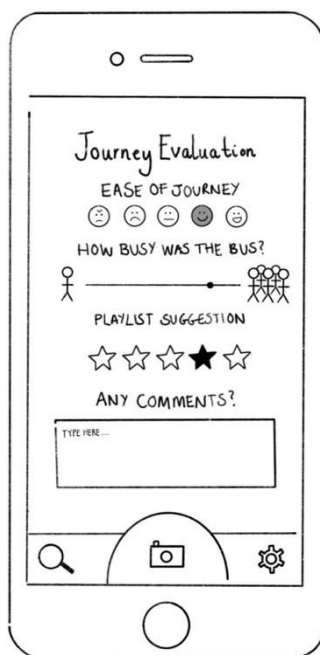


Figure 8. This is the journey evaluation page. This is accessed by either clicking the feedback button (figure 1) or by a pop-up at the end of the journey that can be toggled in the settings. On this page, the user can rate their journey, as well as the busyness of the bus. Moreover, in connection with the playlist feature (figure 2), users can rate the playlist selection for enhanced playlist suggestions. Finally, the user can also submit comments about the journey. This can be used to report any incidents on this bus for increased safety or to just give general feedback.

Usability Test Plan

The Usability Test Plan is on the following page, below are the user test tasks we created.

User Test Tasks

1. You're about to leave the house for your daily commute to university
 - a. Select the least busy journey from your previously saved journeys for the commute from home to university.
 - b. You get on the bus. Scan the QR code to get connected and then join the communal playlist.
 - c. You're enjoying the current song. Upvote it to show your support!
 - d. An incident happened that made you feel unsafe while on your journey.
Report the incident.
2. One of your friends is having a party. You're about to leave to travel there
 - a. Before starting the new journey, you wonder when the departures are. View the departures from your local bus stop.
 - b. Select a playlist to suit your pre-party mood!
 - c. You're enjoying this playlist, but you think you have a great song to add to it.
Add a song to the mood playlist you're enjoying.
 - d. You're nearly at the party. Save the playlist for listening to on the journey home.
 - e. You're on your way back home and one of your favourite songs is on. You don't want to be distracted when you near your stop. Toggle off the volume down announcement.

<p><u>Product Under Testing</u></p> <p>We are testing an app that allows for a simpler less stressful commute using buses. The app needs to:</p> <ul style="list-style-type: none"> • Allow the user to view the departures/timetable for her bus stop • Select the journey for today's commute from her saved journeys • Select bus based on busyness levels • Set the filters for the playlist selection tool • Select the correct playlist to suit her mood • Add a new song to a specific mood playlist • Save the playlist she has listened to, to listen to again • React to the current song playing on the communal playlist • Scan the QR code to check-in to the bus she's on • Respond to the journey evaluation question to improve the app's suggestions • Toggle the "volume-down" announce mode on or off. 	<p><u>Participants</u></p> <p>We interviewed 3 users who study on our course.</p> <p><u>Equipment</u></p> <p>We used the printed and laminated lo-fi prototype(s) with separate laminated icons/buttons and a 'hand' which was equivalent to how the user would 'press' a button. Bluetooth was used to show how buttons would change when pressed.</p>	<p><u>Test Tasks</u></p> <ul style="list-style-type: none"> • You're about to leave the house for your daily commute to university. <ul style="list-style-type: none"> ○ Select the least busy journey from your previously saved journeys for the commute from home to university. ○ You get on the bus. Scan the QR code to get connected and then join the communal playlist. ○ You're enjoying the current song. Upvote it to show your support! ○ An incident happened that made you feel unsafe while on your journey. Report the incident. • One of your friends is having a party. You're about to leave to travel there. <ul style="list-style-type: none"> ○ Before starting the new journey, you wonder when the departures are. View the departures from your local bus stop. ○ Select a playlist to suit your pre-party mood! ○ You're enjoying this playlist, but you think you have a great song to add to it. Add a song to the mood playlist you're enjoying. ○ You're nearly at the party. Save the playlist for listening to on the journey home. ○ You're on your way back home and one of your favourite songs is on. You don't want to be distracted when you near your stop. Toggle off the volume down announcement. 	<p><u>Responsibilities</u></p> <ul style="list-style-type: none"> • Meg was responsible for finalising the prototype and demonstrating 'interactivity' • Liv was responsible for giving tasks and asking follow-up questions. • Jacob was responsible for taking notes during the usability test and interview. • Christy was responsible for the Usability test plan • Alex was responsible for formulating the user tasks. <p><u>Location & Dates</u></p> <ul style="list-style-type: none"> • User 1's test took place on-campus in Seminar 7 (Thursday 11th November). • User 2's test took place off-campus on Thursday 18th November • User 3's test took place off-campus on Saturday 20th November
<p><u>Procedure</u></p> <div> <div>Navigate to the saved journey page and choose the saved journey with the lowest busyness.</div> <div>Select the camera icon to open the QR scanner page and scan the code to connect to the bus.</div> <div>Navigate to Playlist page and select either Communal, Saved or Mood playlist. Save playlist, upvote a song and add a song from the playlist.</div> <div>Report an incident, such as feeling unsafe, on the evaluation / feedback page.</div> <div>View departures from a selected bus stop using the new journey page and select journey according to busyness level.</div> <div>Navigate to settings and toggle the bus announcements option to hear announcements when listening to music.</div> </div>			

Introduction Script

We are designing an app for improving the commuting experience. We are going to give you an interactive paper prototype and some tasks to complete, and see how you are able to interact with the app. Would you be happy to take part in a user test and then answer some questions about the experience? If you change your mind, you are free to withdraw from the testing and interviewing process. If you'd like to not answer a question at any time you can say "I'd prefer not to answer" and we will move on. Any questions before we begin?

Post-test questions

1. What do you think of this app?
 - a. If they did only say positives or negatives, ask for the reverse.
2. Can you see yourself using this app on your daily commute?
 - a. Why?
3. Do you think using this app would improve your commuting experience?
4. How does this app compare to other apps tailored to your commute?
5. What were the easiest and hardest things to do in the app?
6. Was there any functionality missing?
7. Is there anything that was unclear when using the app?
8. How would you improve this app?
9. Do you have any questions for us or our product?

Debrief-script

We hope you enjoyed taking part today, and we appreciate your participation to help the development of our app!

User Testing

1 = Problem found during lo-fi prototype testing

2 = Where was the problem found?

3 = Which users found the problem?

4 = Was the problem found during testing or interview?

5 = Severity of the problem (1-4)

6 = How would this problem be fixed in the high-fi prototype?

1	2	3	4	5	6
Confused about where to find QR scanner	Home Page	User 1	Testing	3	Maybe a help section in the app. Could have a QR code icon instead of a camera icon
Confused by the unclear buttons for 'upvoting' a song, assumed it would be a thumbs up and not an arrow	Edit Playlist Page	User 1	Testing	4	More universally understood buttons, with text descriptions able to be added if required. Colouring, such as red for 'downvote' and green for 'upvote' could also make this clearer.
Confused about the 'New Journey' and 'Save Journey' button	Home Page	User 1, User 3	Testing, Post-test Interview	3	Text on the home screen to show what each button means, and potentially changing the icons to more universally understood.
Difficult and unclear to select locations for start and end points on the map	New Journey Page	User 1, User 2, User 3	Testing	4	Text-based 'From' and 'To' options would be easier than selecting on a map
Was confused about how to toggle sound notifications on and off, thought it would be done through phone volume buttons	Settings Page	User 1, User 2	Testing	3	Help section in the app would help if they were confused, or a tutorial on how to use the app when first opened/downloaded.

No communication between other app users they know	App	User 1	Post-test Interview	2	Add in functionality to add 'Friends' on the app so you can follow their journey and know when they're supposed to get home (for safety reasons)
Map is not interactive and too simple to understand	New Journey Page	User 1, User 3	Post-test Interview	3	An interactive map will be implemented in the high-fi prototype
Confused about which icon corresponded with each playlist, and the difference between Saved and Mood playlists	New Playlist Page	User 2, User 3	Testing	2	More detailed buttons with text descriptions. Make it clear that the playlists with icons are 'Mood' playlists and are different to your personal 'Saved' playlists
Unclear about how to select the current song and which end of the 'queue' of songs is first and last.	Edit Playlist Page	User 3	Testing	3	Add text to the 'current playlist' page which identified the current song in the queue and the last song in the queue for clarity
Was not able to confirm text-based answer about journey feedback, did not know if it had been submitted and recorded	Journey Evaluation Page	User 1, User 2	Testing	4	Add a 'Submit' button, which shows a 'check' or displayed 'Submitted' once the feedback has been sent
Checking departures was confusing and didn't know how to see the list of busses	New Journey Page	User 2	Post-test Interview	2	More text on the app to explain which icon would correspond. Alternatively, could have a separate 'Departures' page which would allow you to check departures from a bus stop.
There is no way to communicate with the bus driver	App	User 3	Post-test Interview	3	Bus driver has an 'driver account' on the app which allows the driver to give real-time updates as well as passengers

Busyness levels were a bit confusing to understand as the scale used in select journey page is not the same as the one on the journey evaluation page	New Journey & Journey Evaluation Pages	User 3	Post-test Interview	4	Have consistent icons and writing across all sections of the app, so the icons for busyness stay the same.
Difficult to know which is your 'local' bus stop and you have to re-select your bus stop every time for New Journeys	New Journey page	User 2 and 3	Testing, Post-test interview	3	Add in functionality to have 'saved stops' such as the bus stop nearest to your house, and the one at university so that you don't have to select every time if you are doing a new journey, but from same stop

How well did the prototype achieve the users' goals?

Our current lo-fi prototype failed in several ways, however, also succeeded in many others. One of the main issues that this prototype faced was a lack of descriptions of certain buttons did. While this is a major issue in the lo-fi prototype as users struggled to navigate the app, however, it seems to be fixable through better annotations more universal symbols and colours to make the user more intuitively understand where to navigate. The app did, however, overcome many of the frustrations that users had originally. One of those is overly crowded busses and also missing busses with the feature of music turning down when their stop is reached.

Moreover, there were several other positives with this prototype. Many users exclaimed that they enjoyed the music system and how simple it was and added to the journey. This satisfies the users' requirements of connecting with the people around them as the communal playlist was easy to access and use and was popular with the usability test group. Furthermore, users also stated that they enjoyed the busyness level indicators, even if they were confusing at the time. This is because they felt like it would help with stress management when commuting. Therefore, this satisfies the requirement for a less stressful and more comfortable journey. Finally, users enjoyed the ability to be able to easily give

feedback. While the feedback page does still need work with a to submit button missing and calls for being able to send feedback to the driver or to give more information to users about the situation of the current bus, overall it was a well-received product. A user said that it felt like it would keep them safer and stress-free, especially after some of the inclusions mentioned above. Consequently, satisfying the final goal of feeling safer on their journeys.