



Railway Station Interchange Case Studies

Connected Places Catapult
Research Summary



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Background and research objectives

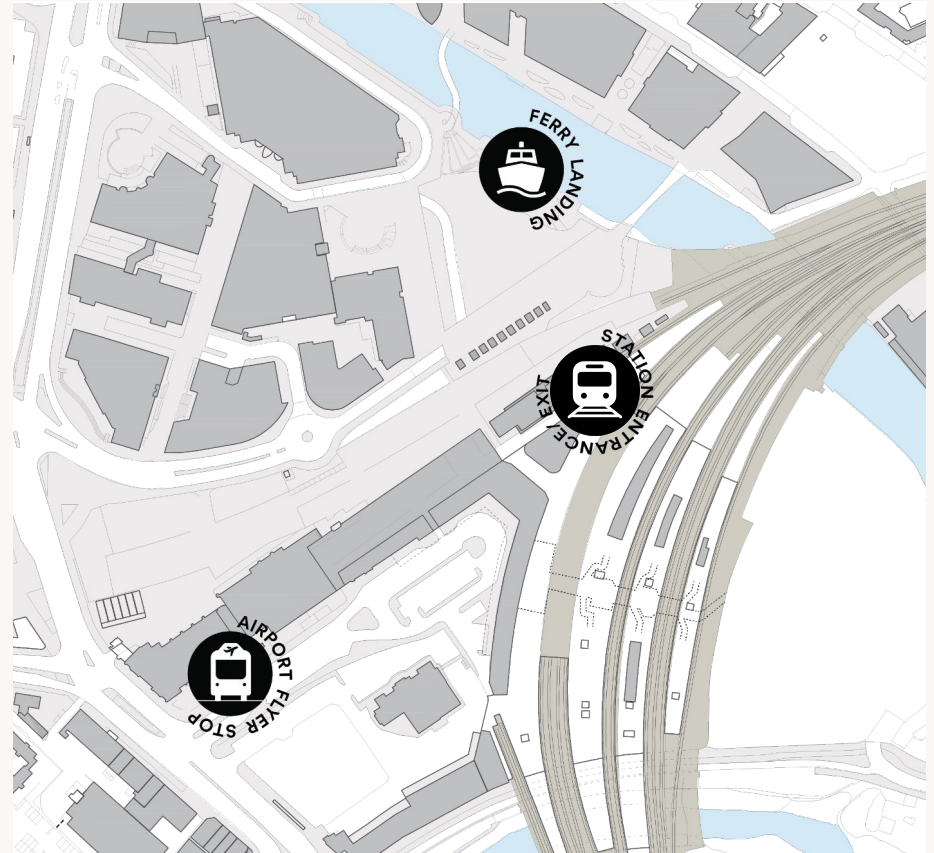
Our overall objective was to perform on-site research at Bristol Temple Meads station engaging with passengers and non-passengers to understand their journey and interchange experiences.

We utilised the research to create 3 user interchange case studies:

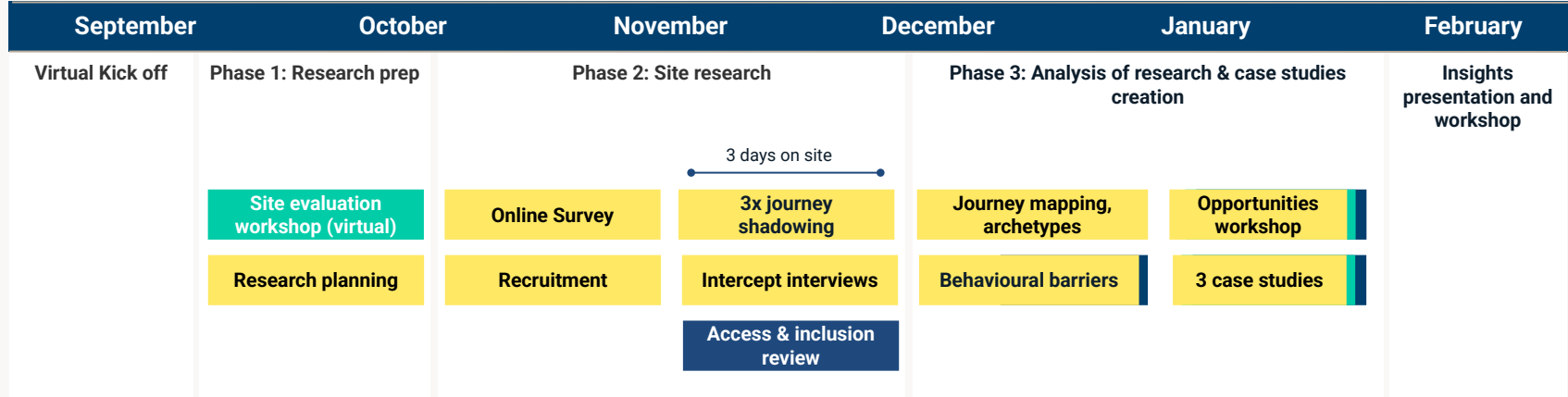
- **Bristol Ferry (via boat)**
- **Travelling to North Bristol (via train)**
- **Bristol Airport Flyer (via direct bus)**

These case studies deliver the following objectives:

- Understand how people's travel purposes may affect what they need from travel modes and interchanges
- Understand people's current experiences of these journeys
- Understand how BTM as a point of interchange can improve



Programme & timeline



Key:



Highlights and lowlights of the current experience

These represent the factors that impact how people remember the service and impact a decision to use a service again.

Highlights		
Interchanging to/from the Bristol Ferry	Interchanging to/from the Airport Flyer	Interchanging to/from Bristol North
Good for children	Affordable (compared to alternatives)	The best route for me - fastest, most efficient A>B
Great crew experience	Regularity + reliability of the service	Avoids Bristol traffic "nightmare" (driving)
Being able to decide on catching the ferry as you see it travelling down the river. Feeling of being in the right place, right time to get the ferry.	Convenient stop locations	'Goldilocks' interchange - where interchange connections align
	Comfort onboard	The heritage station architecture (external)
	Position right next to entrance of airport stop	

Lowlights		
Interchanging to/from the Bristol Ferry	Interchanging to/from the Airport Flyer	Interchanging to/from Bristol North
Perceived as 'not for me' by locals	Traversing cobblestones with heavy bags or in a wheelchair at BTM	Interchange anxiety during service changes
Confusing to understand the service, pricing, timetable, when it is running	Confusion of where to wait because of the position in relation to local buses (BTM)	Last minute platform changes
Lack of desirable seating	No weather protection / shelter by the Airport Flyer bus stop (BTM)	'Maze like' station interior
Access challenges	Same stop for buses in both directions can lead to passenger confusing (BTM)	Lack of comfortable waiting spaces
	Fatigue from flying and travelling with bags makes interchanging to public transport unappealing	Cannot be productive/occupied while waiting
		Difficulty finding the assisted travel meeting point - not clearly signed or named
		Regularity / changes to regularity of service

Quick wins

These represent things that BTM as the point of interchange might be able to implement short term through collaboration with stakeholders:

Quick wins		
Interchanging to/from the Bristol Ferry	Interchanging to/from the Airport Flyer	Interchanging to/from Bristol North
Improve directional signage to the ferry stop.	Improve ease of finding the Bristol Airport Flyer bus stop from the station entrance.	Consider trialling onward journey announcements for known connecting routes.
Include ferry times alongside bus departure times in the concourse area.	Provide clear guidance online about the journey between the Flyer and the train station for those who are looking up access information for the service.	Ensure there is clear signage to help passengers find the existing station waiting rooms.
Create awareness of the Spike Island ferry route and advertise it alongside bus timetables.	Communicate the difference between a 'A1 City Centre' and the 'A1 Airport' - avoid passenger confusion.	Accommodate "touchdown working" - ensure power charging points are working in the station waiting rooms.
Ensure online reference to accessibility is up to date.	Consider novel ways of formalising and enabling "remote waiting" undercover.	Review and improve the clarity of the passenger assistance meeting point naming and signing.

Key opportunities along each route

Opportunities		
Interchanging to/from the Bristol Ferry	Interchanging to/from the Airport Flyer	Interchanging to/from Bristol North
Clearly communicate the concept of different travel modes, how they work, and how they can be accessed.	Make planning, ticketing and pre-travel communication feel simplified - to reduce the effort and increase the perception of value.	Ensure that passengers are offered a comfortable environment to wait in so people can use their time productively, regardless of how busy it is.
Enable passengers to feel like they can 'Hop on and Hop off' different modes and brands of transport.	Ensure users can understand how the transport network as a whole integrates and works in this area.	Enable passengers to feel confident that there will be facilities when they need them along the journey.
Ensure services are salient, visible and available at point of interchange in both directions (coming from station and coming from ferry stop).	Ensure interchange between services is accessible and accommodates all passengers including wheelchair users and those with luggage or pushchairs.	<i>Interchange anxiety</i> : Enable passengers to feel relaxed, prepared and in control if there is a change to their service (e.g., platform change).
Provide clear directions and information (when, where, how) to enable passengers to feel confident transitioning between different routes.	Enable passengers to know when the next service is due, to reduce their interchange anxiety and feeling a need to rush.	Ensure that the conflicts between the needs of those dwelling vs those moving direct' and those going slower vs those going faster can be resolved.
Ensure connecting experiences are enjoyable for children and different group sizes.	Reduce the chance of confusion between similar services - ensure passengers can easily determine the right place to wait and the right service to catch.	<i>Interchange anxiety</i> : Reduce effort for passengers in the event of a delay or cancellation when they are interchanging between trains.

Key:  Bristol North  Bristol Ferry  Airport Flyer

Key opportunities across the three routes

When grouped by “theme” it is clear to see that there are synergies across the three routes - where innovation, focused on easing Interchange anxiety, Simplifying concepts, offering accessible and inclusive travel and comfort can improve the passenger experience.

Opportunities				
Address the ‘rush’ also known as interchange anxiety	Simplified concepts	Accessible & comfortable	Clarified interchange between modes	Integration of back end
<i>Interchange anxiety:</i> Enable passengers to feel relaxed, prepared and in control if there is a change to their service (e.g., platform change).	Clearly communicate the concept of different travel modes, how they work, and how they can be accessed.	Ensure that passengers are offered a comfortable environment to wait in so people can use their time productively, regardless of how busy it is.	Provide clear directions and information (when, where, how) to enable passengers to feel confident transitioning between different routes.	Enable passengers to feel like they can ‘hop on and hop off’ different modes and brands of transport.
<i>Interchange anxiety:</i> Reduce effort for passengers in the event of a delay or cancellation when they are interchanging between trains.	Ensure users can understand how the transport network as a whole integrates and works in this area.	Enable passengers to feel confident that there will be facilities when they need them along the journey.	Ensure services are salient, visible and available at point of interchange in both directions (coming from station and coming from ferry stop)	Make planning, ticketing and pre-travel communication feel simplified - to reduce the effort and increase the perception of value.
Ensure that the conflicts between the needs of those dwelling vs those moving direct’ and those going slower vs those going faster can be resolved.		Ensure connecting experiences are enjoyable for children and different group sizes.	Reduce the chance of confusion between similar services - ensure passengers can easily determine the right place to wait and the right service to catch.	
Enable passengers to know when the next service is due, to reduce their interchange anxiety and feeling a need to rush.		Ensure interchange between services is accessible and accommodates all passengers including wheelchair users and those with luggage or pushchairs.		

Key:



Bristol North



Bristol Ferry



Airport Flyer

Archetypes and persona tool

To help understand how travel purpose and other situational attributes impact how people travel, we created a series of archetypes.

Archetypes are very similar to personas and represent a group of users' needs, without any personal characteristics. For example, say you have a nervous traveller and a confident traveller. Both are taking a journey that requires interchanging at BTM for work but they may need entirely different services and support. This way of thinking does not rely on demographic information, but on user needs.

Through the research we asked participants questions about how they plan travel, how they feel when travelling, as well as if they typically arrive early or a late on this type of journey. Based on this information we developed 5 key archetypes.

In addition, we developed a persona tool. This persona tool further pulls together the elements we learnt in our research.

This is an important companion to the archetypes as it helps designers and innovators to keep in mind factors that can be situational and are not represented in the archetype - such as goals, motivations, access requirements and contextual elements like the weather.

Innovators can then apply both the archetypes and the persona tool to the different case studies (the Bristol Ferry, the Airport Flyer and trains to Bristol North). For instance, what would a passenger fitting archetype 'A' need during interchange at BTM when enroute to Bristol Airport?



Optimistically cautious



Gliders



Best intentions



In their own time



Deliberately prepare

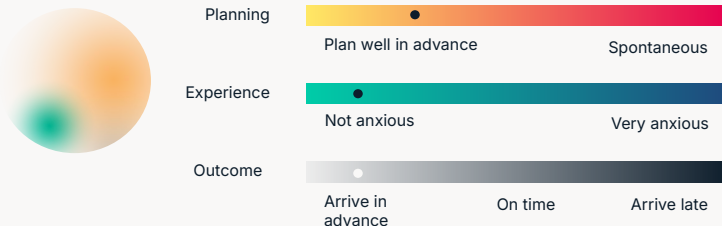
User archetypes

Optimistically cautious

Feel in control and have a plan. Typically leaving enough time based on their experiences they had before - we had multiple people describe leaving an extra 30 mins to get to their destination in Bristol.

Passenger we spoke to:

When there were train strikes his wife got affected by it. She would arrange for lifts or get a bus to Weston, resulting in a longer and earlier commute. He feels like he needs more certainty about the train times when he travels. Since moving to Bristol he knows the train routes and times. He advised that he usually plans in a 30 min buffer in case there are delays.



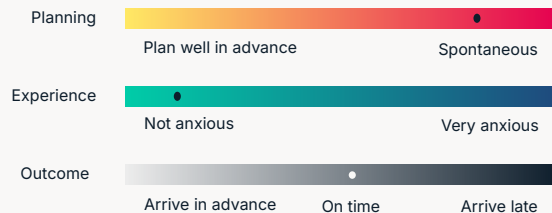
User archetypes (continued)

Gliders

No stress, know the system and glide through arriving on time. This behaviour might be typical on journeys people are really familiar with.

Passenger we spoke to:

"Work is just a 7 minute walk away from the Airport Flyer bus stop - really easy to get to the airport, I travel this route all the time."

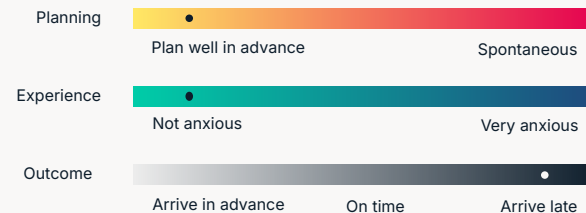


Best intentions

Plan in advance and are usually relaxed when travelling, they might arrive on time, but more typically arrive a little late.

Passenger we spoke to:

"Waited in a pub, then I went out and just missed one [Airport Flyer] then waited 12 mins - so frequent that it's no big deal."



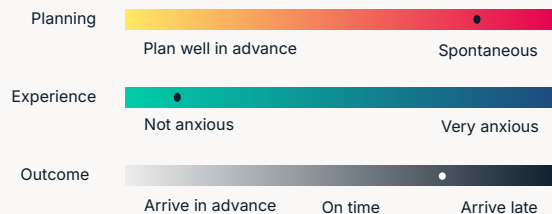
User archetypes (continued)

In their own time

Not planning in advance, not anxious - getting there when they get there.

Passenger we spoke to:

Relies on the internet to open up more spontaneous travel as a tourist. "I am spontaneous and work out the best route on the way, I don't go anywhere without internet, so expect I should find anything"

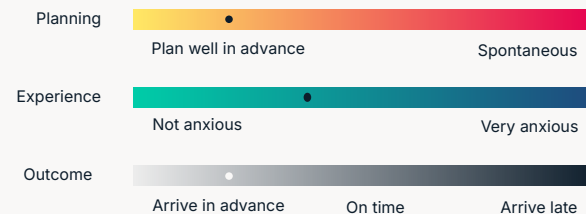


Deliberately prepare

Typically might be more anxious on transport and in interchanging - this often means that they take time to plan in advance of their journey, so that when travelling they can feel more prepared and confident.

Passenger we spoke to:

They had been travelling from Cornwall area, they knew there was a direct train they could take but thought travelling into Bristol the service to the airport would be more reliable. They seemed anxious while waiting, checking the time and waiting right by the Airport Flyer bus sign, even though it was cold/raining.



Persona tool






Goal of their journey

- To get to the airport and catch a flight
- To get home after returning on a flight
- To go to an event or scheduled activity (like a market or a church service)
- To run errands
- To commute to work / university / school
- To meet friends
- To explore

Primary reason they chose their route

- To live further out and utilise hubs for work and life
- Part of my experience
- Most direct / quickest
- It is the cheapest way
- I didn't feel I had another viable way
- Free from the responsibilities of other modes of transport (Parking, driving, traffic etc)
- I need to arrive at a time
- Require less of my energy
- Because it is convenient
- Because I feel unsafe on other routes

Different types of travellers

-  Optimistically cautious
-  Best intentions
-  Deliberately prepare
-  In their own time
-  Gliders

Contextual factors

Access requirements

Conclusion

This report has explored the ways we can improve the experience of travel by addressing the point of interchange. We looked at this by using Bristol Temple Meads as a case study - reviewing the experience of interchange on three key journeys: Train travel to the north of Bristol, the Bristol Ferry, the Airport Flyer.

The research explored travel purposes and behaviour and how this changes what people need, people's current experiences of these journeys, and opportunities to improve the interchange experience at BTM.

Key opportunities for improvement: Across the routes 5 key opportunity areas were identified.

- **Address the 'rush' & replanning (also known as interchange anxiety)** - this involves reducing the sense of urgency when interchanging and simplifying making a plan B when things change.
- **Simplified concepts** - make it easy to understand how services operate, their timetable, the pricing structure and how Bristol's transport network works.
- **Accessible and comfortable** - make access integrated across interchange routes and make waiting comfortable and productive.
- **Clarified interchange between modes** - make it easy to understand, identify options and find your way through the interchange.
- **Integration of back end** - make it easy to operate the behind the scenes functions - with an end goal to simplify and streamline the experience for customers.

In the final workshop with stakeholders the following opportunities were agreed and prioritised:

- Ensure interchange between services is accessible and accommodates all passengers including wheelchair users and those with luggage or pushchairs.
- Clearly communicate the concept of different travel modes, how they work, and how they can be accessed.
- Provide clear directions and information (when, where, how) and enable passengers to feel confident transitioning between different routes.

We recommend that this report is used as a guide for innovators to do the following:

- Identify and prioritise the challenges and opportunities they pursue by reviewing insights and opportunity areas.
- Utilise the archetypes and persona tool to test their ideas work for a range of user needs.
- Utilise journeys to establish if they are addressing end to end problems for users and solving critical pain points for passengers.

About this report

This report was commissioned by Connected Places Catapult and authored by Mima Group - a human-centred & inclusive design agency. Research Mima conducted for this project was delivered in collaboration with Weston Williamson and Partners.

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