

## Assignment 2: Understanding People

SENG 310

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## Participant Summary:

The goal of our participant selection process involved selecting individuals that have been impacted from construction delays. We also wanted a variety of different types of commutes to give us a diverse dataset. This includes different lengths of commutes, starting points, destinations, mode of transportation, and so forth. As per assignment requirement, we selected these individuals from people we already know such as friends and family. Overall we ended up collecting data from five participants by process of interviews and ethnographic studies.

### Participant 1:

Mr. A is a colleague I befriended recently in a part time job, he usually drives to work by car, and mentioned that some roads near his residence are currently under construction, which has been causing trouble for him to drive around. I think his experience is most relatable and common among the potential user base of our project, and therefore we will be able to improve our interface design for common users by using the data he provided.

### Participant 2:

Mr. B, is a student at the University of Victoria and lives near the campus. He frequently takes the bus to commute to and from school. He has experienced situations where bus stops were closed due to road construction, forcing him to change his route at the last minute. This makes him an ideal case for studying student users who rely on public transportation.

### Participant 3:

Mr. C is a student who works part-time as a food delivery driver for Uber. His job requires frequent travel around the Gordon Head area. Due to unexpected road closures, his life has been significantly disrupted, causing delivery delays and even job warnings. His situation is a typical example of time-sensitive gig economy workers.

### Participant 4:

Mr. D is my neighbor who works night shifts at McDonald's every weekend with an uncertain end time. He lives far from his workplace, and public transportation options are extremely limited late at night. Road construction sometimes disrupts his already scarce bus routes. He represents working individuals with irregular schedules who are highly vulnerable to sudden route changes.

### Participant 5:

John Doe is a 40-year-old office worker who lives in downtown Victoria with his wife and two children. Every morning, he drives his kids to school in Saanich before heading to work. His commute is tightly scheduled, and road construction frequently causes delays. He represents the typical weekday 9–5 family commuter with fixed responsibilities and limited flexibility.

These participants helped inform our research by learning about the impact of construction for various types of commuters. In addition, we were able to learn what strategies they employ to plan commutes and combat delays from construction. This information allows us to know if we are missing any user requirements and whether there are improvements.

## Research Methods:

### Interview Method:

By conducting interviews with our participants, through which we asked how they attempted to solve the issues that road constructions have brought and why they are not satisfied with their current methods, we find out although in general they did begin to search for information on road constructions as well as plan for alternative routes after experiencing the annoyances several times, they often found the search tedious and at times the alternative routes they have planned went under construction as well the day after. Some of them would also forget to search and plan ahead due to busy schedules, and ended up being caught in heavy traffic the next day. In conclusion, they think their methods help but don't think they fully solve the problem. Some of them mentioned using the built-in function of Google Maps on notifying ongoing road closures, but since it doesn't cover the future projects, oftentimes they would find themselves already stuck on the road when a notification arrived.

The interviews are very informative, and we think the data they provided will be useful in designing the interface, but in terms of the interview questions, we often end up focusing too much on the research method and not enough on their experience driving on the road, and for some participants we asked too many questions that would yield similar answers. Next time when we conduct interviews, we should ask questions with more variety and efficiency.

### Ethnography Method:

We asked participants to demonstrate how they typically search for construction updates and plan their routes. These sessions revealed several common patterns: users would often start by searching for "road construction near me" on a browser, then switch between city websites and Google Maps. Some participants had multiple tabs open, comparing different sources of information. In one case, a user manually marked road closures on a printout of their regular delivery route.

These observations highlighted the fragmented and inefficient nature of current planning methods. We noted that users invested significant time and mental effort in checking for disruptions, yet still faced unexpected issues due to outdated or incomplete information. Participants showed frustration with the lack of centralized, up-to-date, and visual construction alerts.

While the ethnographic sessions provided valuable real-world insight, we encountered a few limitations. Because participants were aware they were being observed, some behaviors may have been influenced by performance bias. In the future, we would consider asking participants to record their real-time planning routines or screen activities over several days to collect more authentic data.

## Task Descriptions:

#### Task description 1:

David is a 23 year old college student with a part-time job at McDonald's, where he works on a late night shift every weekend. Since he has no driver license, and his residence is far away, he usually travels by bus. At times, David would find his planned bus routes weren't available due to road construction, and with his already limited options and timetable, he could miss buses and end up going back home late.

To solve this issue, after his last class ends at 5 pm on Friday, David would check websites for roads that are currently under construction, and match them with his usual bus routes on google map, he would then plan his schedule on weekends based on that and double check the next morning.

#### Task description 2:

John is a 40 year old office worker in downtown Victoria and has a family composed of himself, his wife, and two children. John's typical commute in the morning involves dropping off his children to their school in Saanich and then driving to his office downtown. John is working on a tight schedule so road delays and construction around the city can easily make him late.

His typical commute involves leaving his house at 8am from downtown Victoria and driving his kids to school for 830am in Saanich. To avoid construction delays John talks with his coworkers and listens to the local radio during his commute to be informed. If he learns about construction along a certain road, he will take an alternative route for the next week to be safe and prevent delays. After dropping off his kids, he then takes a similar route back to downtown for his scheduled office shift at 9am. At the end of his shift at 5pm, he then drives home to be on time for dinner with his family at 530pm.

#### Task description 3:

Jack is a third-year UVic student living in the Cedar Hill area. He walks to the bus stop daily and relies on public transit to get to campus. One day, his usual bus stop was unexpectedly closed due to road construction. Without prior notice, he had to rush to a farther stop and ended up missing the bus and arriving late.

After the incident, Jack realized that he hadn't received any notifications about the road construction. He checked the city's website but found it cluttered and unhelpful. He then turned to Google Maps, which only showed that his usual bus stop was unavailable and gave no info on when service would resume. Since then, Jack manually checks his route every morning, which he finds repetitive and frustrating.

#### Task description 4:

Connor is a student at the University of Victoria who works part-time for DoorDash. Connor regularly travels between food services and residences all over the Gordon Head region to

complete his deliveries. He wants to quickly complete all of his orders so he may go home to study.

Unfortunately, Connor's regular travel route to common restaurants and services has been closed due to road construction. Now his 25 minute trips take 45 minutes.

The first time the road was closed, Connor did not know beforehand of the closure and ended up nearly 30 minutes late to a delivery. A complaint was filed and Connor was issued a warning from DoorDash that his lateness could result in termination if repeated. To prevent this from happening again, Connor stays up to date with all of the construction planning on the Greater Victoria website but finds this overwhelming and stressful.

### Persona:

#### Persona 1: Working-class 9-5pm driver

Type of user: Primary

Description: This is the user that drives Monday to Friday during business hours. This type of user commutes during this time to get to work or has a job that relies on driving a vehicle. Due to driving during typical construction hours they are easily impacted by delays. Theoretically this user would be a frequent user of a construction notification system. This user is typically familiar with basic web browsing, email, and texting.

#### Persona 2: University/College Student

Type of user: Primary

Description: This user frequently commutes from their residence to campus. Usually this type of user needs to travel during common school hours and constantly has to treat time as a commodity. This user has frequent issues with arriving on time due to the high scale traffic during these common hours and is even more severely impacted by any road delays. This user type is likely to engage with this notification interface multiple times a day. They are highly familiar with this system from other applications that implement a similar style of notifying users.

### Journey Map:

## NN/g CUSTOMER JOURNEY MAP TEMPLATE


 <b>PERSONA</b> <u>David</u>		<b>SCENARIO</b> <u>David wants to go home as soon as possible after his late night shift ends</u>		<b>USER EXPECTATIONS</b> <u>Proactive planning</u> <u>Easy to use map for checking bus routes</u>	
<b>PHASE 1</b> <u>Start planning the day before</u>		<b>PHASE 2</b> <u>Matching</u>		<b>PHASE 3</b> <u>Plan the schedule</u>	
<b>DOING</b> <u>check websites for road closures</u>		<u>Matching closed roads with his available bus routes</u>		<u>plan the schedule on weekends night</u>	
<b>THINKING</b> <u>I need to plan ahead to prepare for tomorrow night</u>		<u>This is tedious, if only it can be done automatically</u>		<u>Several routes are blocked, have to take a further one</u>	
<b>SAYING</b> <u>A lot of constructions around the area.</u>		<u>Is my usual bus route available?</u>		<u>Look like it's good this time</u>	
<b>INSIGHTS</b> <u>User desires more efficient way to match routes</u> <u>Having to double check for unexpected closures</u> <u>Having to spend a lot of time plan ahead</u>				<b>INTERNAL OWNERSHIP</b> <u></u> <u></u> <u></u>	

Figure 1. Journey map of task description 1:

## NN/g USER JOURNEY MAP


 <b>PERSONA</b> <u>John Doe</u>		<b>SCENARIO</b> <u>John wants to drop off his kids on time to and not be late to work for his commute</u>		<b>USER EXPECTATIONS</b> <u>- Should be clear when there are delays</u> <u>- Easy to plan for construction delays ahead of time</u>	
<b>PHASE 1</b> <u>Identify road disruptions</u>		<b>PHASE 2</b> <u>Compare</u>		<b>PHASE 3</b> <u>Commute</u>	
<b>DOING</b> <u>1. learn about construction delays from coworkers or from local radio</u>		<u>2. Consider if normal route for daily commute will have too many delays</u>		<u>3. takes pre-planned route for his commute</u>	
<b>THINKING</b> <u>"There must be an easier way to get this information"</u>		<u>"I wonder which route I should take instead"</u>		<u>"can i look up this information somehow?"</u>	
<b>SAYING</b> <u>"I wonder if there will be any delays along my route"</u>		<u>"I heard from steve that are delays on along the route, I best go another way"</u>		<u>"I guess I will keep taking this route for the rest of the week and see if construction finishes"</u>	
<b>INSIGHTS</b> <u>- Need to find information easily about different construction delays</u> <u>- Ability to find alternative routes</u> <u>- Ability to plan and schedule how long to take alternative route</u>				<b>INTERNAL OWNERSHIP</b> <u></u> <u></u> <u></u>	

Figure 2. Journey map of task description 2


<b>PERSONA</b>  Jack		<b>SCENARIO</b> Jack wants to get to school on time but his usual bus stop was unexpectedly closed due to road construction.		<b>USER EXPECTATIONS</b> Get clear, mobile-friendly updates about closures Avoid last-minute commuting changes	
<b>PHASE 1</b> Leave Home		<b>PHASE 2</b> Discovers Road Closure		<b>PHASE 3</b> Reroutes but Still Arrives Late	
<b>DOING</b> Leaves home at his usual time without checking any apps or websites		Arrives at usual bus stop, finds it shut down		Rushes to a farther bus stop, misses bus or barely catches it	
<b>THINKING</b> "Everything should be fine. I take this route every day"		"What happened? I had no idea this was closed."		I really hope I'm not going to be late	
<b>SAYING</b> I've got plenty of time before the bus comes		"Wait—why is this stop closed?"		I wish there was an easier way to know these things	
<b>INSIGHTS</b> Users like Jack rely heavily on routine and expect consistency in transit systems Lack of timely, mobile-friendly notifications is a major barrier Unannounced disruptions cause significant stress and lateness				<b>INTERNAL OWNERSHIP</b> 	

Figure 3. Journey map of task description 3


<b>PERSONA</b>  Connor		<b>SCENARIO</b> Connor wants to complete his DoorDash deliveries efficiently and on time so he can avoid penalties and have enough time to focus on his university studies.		<b>USER EXPECTATIONS</b> Real time notifications for road delays to make planning ahead easier Easy and safe to use during deliveries if need be	
<b>PHASE 1</b> Sets out for pickup		<b>PHASE 2</b> Discovers Road Delay		<b>PHASE 3</b> Completes Delivery incredibly late	
<b>DOING</b> Accepts a pickup order and heads out from home to complete it		Hits unexpected road close. Has to re-route which causes delivery to take longer.		Completes delivery order nearly 20 minutes late. Customer's complaint results in a warning from DoorDash.	
<b>THINKING</b> "I need to go quickly, this order is far away and I need to get home and study fast!"		"Oh no! I am going to be late now. Why did I not know about this sooner?"		"I can't believe I was late, it was not even my fault! How am I supposed to expect road closures?"	
<b>SAYING</b> "I know the fastest way there, I can get there fast."		"I can't complete this delivery on time anymore. I have to drive as fast as I can!"		"That wasted so much time, I usually do 3 deliveries before going home to study. I have to go home after one more because of that delay."	
<b>INSIGHTS</b> User needs a real time notifier of any delays and changes to common routes A way to change routes on the fly as time is delicate Overwhelmed by the current best method to avoid road delays				<b>INTERNAL OWNERSHIP</b> 	

Figure 4. Journey map of task description 4

## Design Requirements:

### Must be met:

#### 1. Advance Notification of Road Disruptions

The system must notify users in advance about any road construction or closures along their saved or commonly traveled routes.

Justification: Every participant interviewed expressed frustration about only discovering disruptions at the last minute. Advance alerts are crucial to prevent delays and support proactive commute planning.

#### 2. Personalized Alerts via Email and/or SMS

Users must be able to subscribe to notifications using their preferred communication method (e.g., text message or email).

Justification: Participants indicated that they often forget to check for updates unless prompted.

### Should be met:

#### 1. Interactive Map Visualization of Affected Routes

The interface should include an interactive map showing current and upcoming disruptions, including markers for road construction, closed intersections, and detours.

Justification: Many users prefer seeing routes rather than reading lists. An interactive map provides clarity and supports quicker decision-making.

#### 2. Real-Time Lookup Functionality

Users should be able to manually search any route and view its current or future status in real time.

Justification: This allows users to plan flexible commutes beyond their usual routes and supports on-the-fly decision-making, particularly important for delivery workers or drivers with variable destinations.

### Could be met:

#### 1. Detailed Construction Descriptions

The system could display detailed information about the disruption:

- Type of event (construction, full closure, partial delay)
- Estimated duration and reopening time
- Severity level (e.g., slow traffic, total closure)

Justification: While not critical for basic rerouting, this level of detail empowers users to make more informed decisions.

#### 2. User Feedback Mechanism

The system could include a feedback button that allows users to report inaccurate information or unexpected delays.

Justification: This feature could help keep the system up-to-date and build a community-driven data verification loop.