

# Define & Ideate: Needs in Transportation

Darynne Lee, Odin Farkas, Merve Ondogan, Andreas Lorgen



# Meet Our Team: The Navigators



**Darynne Lee**



**Odin Farkas**



**Merve Ondogan**



**Andreas Lorgen**

# Recurring Themes

Safety, Comfort, Price and Time

Public Utility Search

Group vs. Alone Preferences

Public Transport Limitations

Parking Stress and Adaptation



# Original Problem Domain

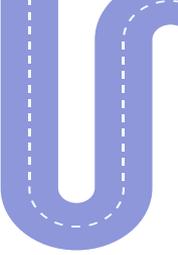


TRANSPORTATION

# Revised Problem Domain



ONE-OFF TRANSPORTATION AND  
FRUSTRATING SCENARIOS



# Table of Contents

01

## New Interviews

Dive deeper into needfinding  
in one-off transportation?

02

## Analysis

Synthesizing insights,  
POVs, and HMWs

03

## Solutions

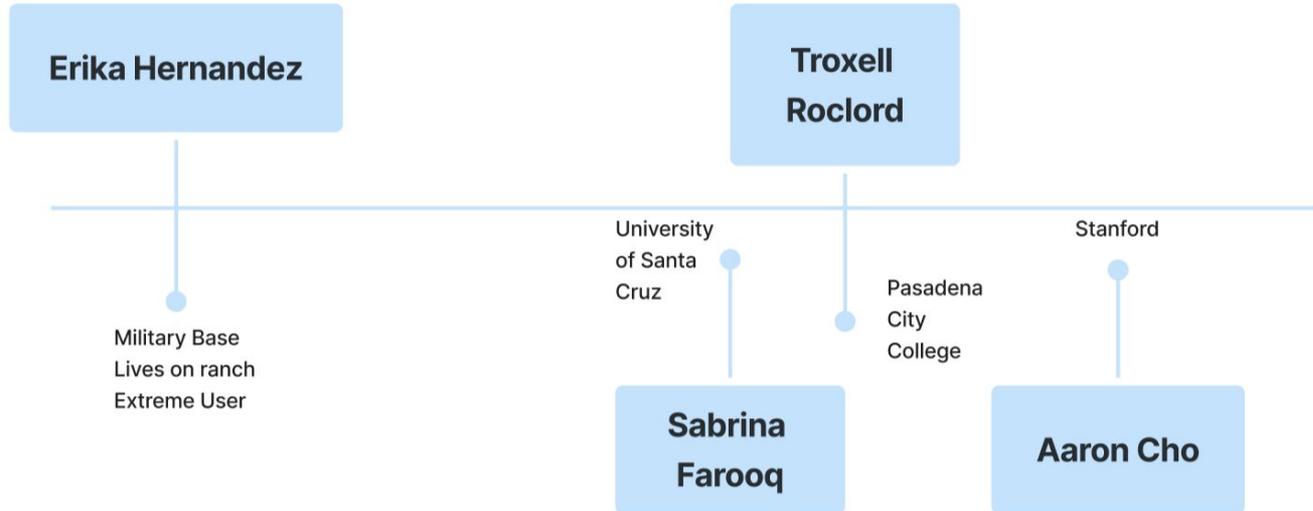
Reactions to our assumptions &  
prototypes



# Meet the Movers

Compensation: Coffee

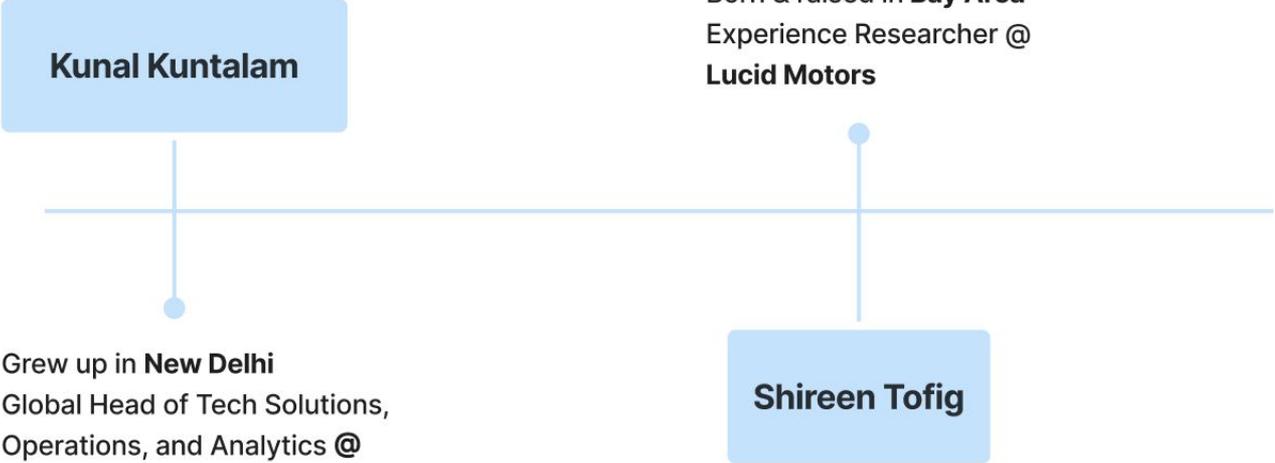
Apparatus: MacBook for notetaking, iPhone for recording



# Meet the Movers

Compensation: Coffee

Apparatus: MacBook for notetaking, iPhone for recording



**Kunal Kuntalam**

Grew up in **New Delhi**  
Global Head of Tech Solutions,  
Operations, and Analytics @  
**Uber**

Born & raised in **Bay Area**  
Experience Researcher @  
**Lucid Motors**

**Shireen Tofig**

# Interview #1: Kunal K.

## (expert POV)



- Global Head of Tech Solutions, Analytics & Operations at Uber
- At Uber since 2018 - Uber India from 2018-2020
- Expert insights into human behavior and data analytics in the ridesharing industry
- Connected through NextDoor listing
- 90 min interview @ Menlo Park



# Say

After showing an ad, cancellation rate for Ubers goes down	Uber only shows one ad per ride	Ride-sharing frequently faces regulatory changes.	Uber rideshare behavior is predictable, grocery isn't.
Grocery delivery has razor thin margins.	A lot of users treat Uber as "last-mile" transportation	Uber teens lets children have accounts under parental ones	Uber teen drivers have additional checks on them
Some users accidentally book shared rides.	Uber internally had a lot of pushback against ads.		

# Kunal

Ads causing a decrease in cancellation likely due to distraction	Showing multiple ads during a ride can be off-putting for riders.	Grouping shared rides by any sort of traits is inherently discriminatory.	Users are used to ride-sharing and no longer struggle to understand it
Ads are the key to creating profit in razor-thin profit business like grocery.	Uber can be used for malicious purposes	Some users don't understand shared Ubers add time to ride.	Uber is one of the best sources for classifying user profiles for ads.
Community based ridesharing service requires large concentric circles.	Uber connects the digital world to the physical world.		

# Think

Travels 2-3 times per month.	Uses Uber to travel to airport and in new city.	Takes 10 Ubers monthly.	Would Uber from Caltrain station to work
Uses Uber's reservation service for early flights	Once Uber gave him parking, he decided to drive to work	Drove for Uber to test, had a bad rating.	Is willing to walk to a better pickup spot for a shared ride
Doesn't use micro mobility a ton	Was willing to return to India in order to work for Uber		

Very optimistic about micro-mobility, like Lime scooters.	Optimistic about rideshare-esque services being used for delivery of non-food.	Anxious when he doesn't schedule an early morning uber for a flight	Super excited about the release of uber teens
Acknowledges real safety concerns of ridesharing, need for Uber teens	Proud when Uber shows a good ad	Personal data regarding hospital or doctor visits is immoral for advertisers to use	Taking an Uber is the most convenient, pleasant way to travel intricate routes.
It's unfair to have community based ridesharing as it excludes those without those communities.	Rides must be affordable for Uber customers		

# Do

# Feel

## Say

After showing an ad, cancellation rate for Ubers goes down



A lot of users treat Uber as "last-mile" transportation



Uber teens lets children have accounts under parental ones

## Think

Community based ridesharing service requires large concentric circles.

Grouping shared rides by any sort of traits is inherently discriminatory.



Users are used to ride-sharing and no longer struggle to understand it

## Do

Uses Uber's reservation service for early flights

Once Uber gave him parking, he decided to drive to work

Would Uber from Caltrain station to work

## Feel

Optimistic about rideshare-esque services being used for delivery of non-food.

Anxious when he doesn't schedule an early morning uber for a flight

Acknowledges real safety concerns of ridesharing, need for Uber teens



# Key Insights

- Shared rides depend on **affordability** for customers and making the service **attractive** for drivers, but **confusion** around shared rides (e.g., **added time**) remains an issue.
- Discriminatory approaches are avoided while matching users and drivers
- Uber collects vast amounts of data (location, trip frequency) for **behavioral targeting**, raising concerns about privacy and non-discriminatory practices.
- Ads within apps don't just serve commercial purposes, but can subtly **influence** user behavior, indicating **non-drive related engagement** might improve the riding experience



# Interview #2: Shireen T.



- 34
- Major surgery 2 months ago
- User Experience Researcher at Lucid Motors (recently laid off)
- Palo Alto local
- Recent shift from car to public transportation
- Nextdoor listing, interview at CoHo



# Shireen

## Say

"I'm pro public transit"	"If I'm driving from here to LA - charging is a huge issue"	"For a beach hang with a friend, I don't need to be on time"	"Bart is loud and noisy"
"Every app is telling me a different charging station"	"Short/long trip doesn't matter I she has to charge"	"During my LA trip, I lost trust in the charging situation"	"I don't see a big difference in riding with friends vs. strangers in public transit"...
	Cleanliness, where the transit goes, does it allow me to do my day to day activities	"I am not gonna walk on the Caltrain for this wedding in a cocktail dress and heels"	

## Think

People don't know how to charge the car	People don't know how to use the charging app	Communal spaces / public transit it healthy for society	No socializing aspect to ridesharing in an Uber
The rides are more about relaxation	CalTrain is mostly reliable but not completely (delays)	Transportation depends on what event she's going to	Transferring in between public transit is hard "Transferring TO Bart"...
	Safety is important for parking	Drinking before transportation is a point of consideration	"Clothing matters in public transit because of comfort and her chance of being harassed opens"

## Do

Airport she always takes a...	She takes morning flights for less delays	Randomly picks between Uber and Lyft	Doesn't talk to people that often on CalTrain
Pro-sitting and doing nothing	Transportation affects her planning in SF	Changes the activities she wanted to do with a friend because of public transport	Doesn't want to drink in bars and then going back with public transit - not concerned about safety
	Used micro-mobility for fun	Changed her pharmacy from town & country to another area just not to deal with the parking etc.	

## Feel

Feels guilty every time she takes an uber	Likes communities that use third spaces	She accepted being verbally harassed in public transit occasionally	Likes the idea of a "communal" space
Likes the "potential" of talking to a stranger on public transit	Frustrated with transportation methods around Bay Area	As a researcher, confused with what charging station works for her car	Charging your is a nightmare
	Worried about the transportation aspect of an upcoming wedding	As a researcher, confused with what charging station works for her car	

# Shireen

## Say

★  
“During my LA trip, I lost trust in the charging situation”

“I am not gonna walk on the Caltrain for this wedding in a cocktail dress and heels”

★  
Where the transit goes matters, does it allow me to do my day to day activities

## Think

★  
Communal spaces / public transit it healthy for society

No socializing aspect to ridesharing in an Uber

Transferring in between public transit is hard  
“Transferring TO Bart”

★  
Drinking before transportation is a point of consideration

★  
“Clothing matters in public transit because of comfort and her chance of being harassed opens”

## Do

Doesn't talk to people that often on CalTrain

Doesn't want to drink in bars and then going back with public transit - not concerned about safety

Changes the activities she wanted to do with a friend because of public transport

Changed her pharmacy from town & country to another area just not to deal with the parking etc.

?

Feels guilty every time she takes an Uber (because of cost and public transit options)

She accepted being verbally harassed in public transit occasionally

As a researcher, confused with what charging station works for her car

Likes the “potential” of talking to a stranger on public transit

## Feel

# Key Insights

- She likes the potential of public transport as a social "third space", but rarely engages with passengers
- Public transport is **reliable but not consistent**, causing frustration, especially when timely arrival is crucial (e.g., for work or events).
- Public transportation options in San Francisco **limits her ability to attend social events** and plan activities with friends
- Health and personal circumstances can impact transportation choices (Surgery)



# POV #1

## Initial POV

**We met** Erika M., an anxious driver who lives on a ranch.

**We were surprised** to notice she goes back home if she can't find parking

**We wonder** if this means people act different when driving conditions are difficult

**It would be game-changing** to make parking easier and less anxiety-inducing.

## Revised POV

**We met** Erika M., a 23 year old anxious driver who lives on a ranch in Salinas and works at a military base.

**We were surprised** to notice she will drive back home if she doesn't find easy parking when she has errands to run.

**We wonder** if this means anxiety in public places alters driver's behaviors and choices.

**It would be game-changing** to ease anxiety around driving in complicated environments.



# Selected HMW

HMW ease the anxiety around navigating in unpredictable environments?



# POV #2

## Initial POV

**We met** Sabrina F., a 26 year old driver from Los Angeles.

**We were surprised** to notice she struggles finding public restrooms.

**We wonder** if this means finding public restrooms is challenging.

**It would be game-changing** to make public restrooms more accessible.

## Revised POV

**We met** Sabrina F., a 26 year old driver who has lived in New York, LA, and The Bay.

**We were** surprised to notice how upset she is with the struggle of finding public restrooms in cities.

**We wonder** if this means peeing in cities is inconvenient and degrading.

**It would be game changing** to ease stress around needing to pee in cities.



# Selected HMW

HMW make the search for public utilities less degrading / stressful?



# POV #3

## Initial POV

**We met** Shireen T., a user experience researcher at Lucid Motors from Palo Alto.

**We were surprised** to notice transportation affects what she planned to do with her friends.

**We wonder** if this means she doesn't want to take public transportation to some events.

**It would be game-changing** to make transportation to some events easier.

## Revised POV

**We met** Shireen T., a user experience researcher at Lucid Motors from Palo Alto, who is not allowed to drive due to a recent surgery.

**We were surprised** to notice that ease of transportation affects what she plans to do by herself and with her friends.

**We wonder** if this means there are missed opportunities in life solely because of the inconvenience of public transportation.

**It would be game changing** to help people not miss out on these opportunities.



# Selected HMW

HMW minimize the constraints of transportation options on your plans?



# Top 3 Best Solutions

An app to let people in the same community share rides / rideshares.

An app to help you locate public restrooms near you.

An app for people to sublet their driveway to people that need to park.

\*all solutions are apps given that we are also in 147L



# Assumptions Being Tested

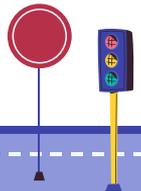
People are willing to rideshare with strangers to save time.



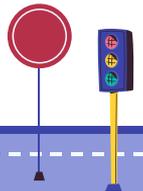
# Prototype #1



“Stranger danger?”

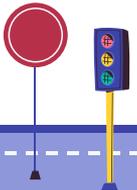


# Prototype #1



# Prototype #1

- People look for trust & credibility
- Time is an important factor -> Don't want to wait
- Commonalities & similarities increase trust
- Kunal's interview -> Is there a way to do this without discrimination?
- "Stranger danger"
- Valid assumption?

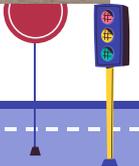


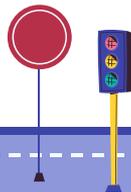
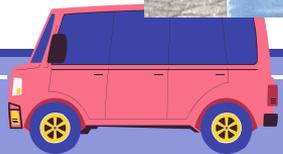
# Assumptions Being Tested

People are struggling to find the restroom and would use assistance if offered.



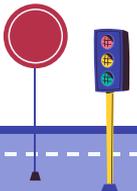
# Prototype #2





# Prototype #2

- This is a huge need
- Most successful experience prototype -> multiple people approached us within seconds
- Hesitation or embarrassment to have a stranger walk you to the restroom -> The guy that came back
- Valid assumption?

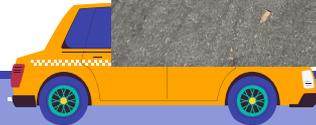
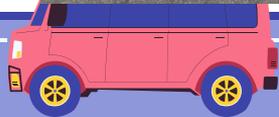


# Assumptions Being Tested

People are willing to spend 10 seconds of their time to guarantee a parking spot in a preferred location.

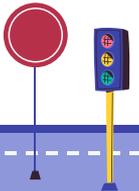


# Prototype #3



# Prototype #3

- Harder to implement & test
- Uncommon idea
- Someone just stopped to play :D
- Rock paper scissors -> Creating friction in the exchange
- Figuring out logistics
- Available market
- Valid assumption?



# What's Next?

## Solution We'll Move Forward With

Community Carpooling: A service for matching people in a community with each other to **save costs** and **increase social interaction**.

Why?

- Multiple interviews led us to believe this could solve their problems.
- Experience prototype indicated our initial assumption wasn't baseless.
- We see the potential for this to provide value on Stanford's campus.



# Ethical Implications

What are the ethical implications of this solution?

**Privacy & Safety:** Sharing travel details with strangers poses privacy and safety risks; needs strong data security and safety features.

**Equity:** May exclude low-income or less tech-savvy individuals.

**Liability:** Accidents or disputes could raise concerns about legal responsibility and insurance coverage.



# Ethical Implications

## Who does it serve?

- **University Community:** Students, faculty, staff needing cost-effective, shared rides.
- **Cost-Conscious & Eco-Friendly Users:** Users looking to save money and reduce environmental impact.

## Who might it leave out?

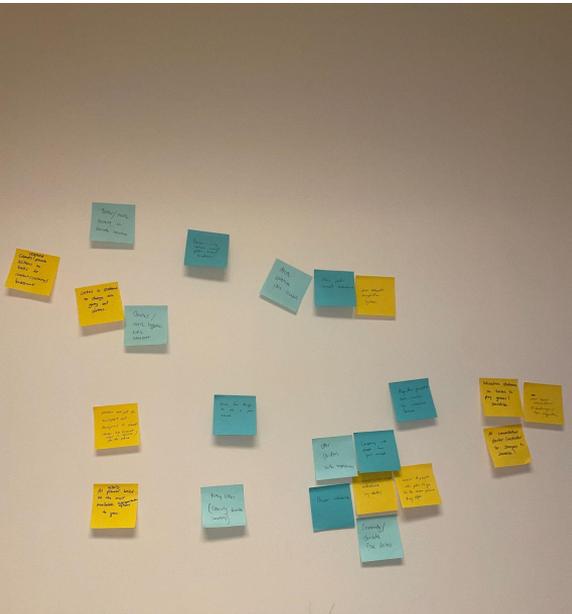
- **Accessibility Needs:** Individuals requiring special accommodations.
- **Privacy-Conscious Users:** Those uncomfortable with sharing rides with strangers.



# Appendix 1: Solution Brainstorming

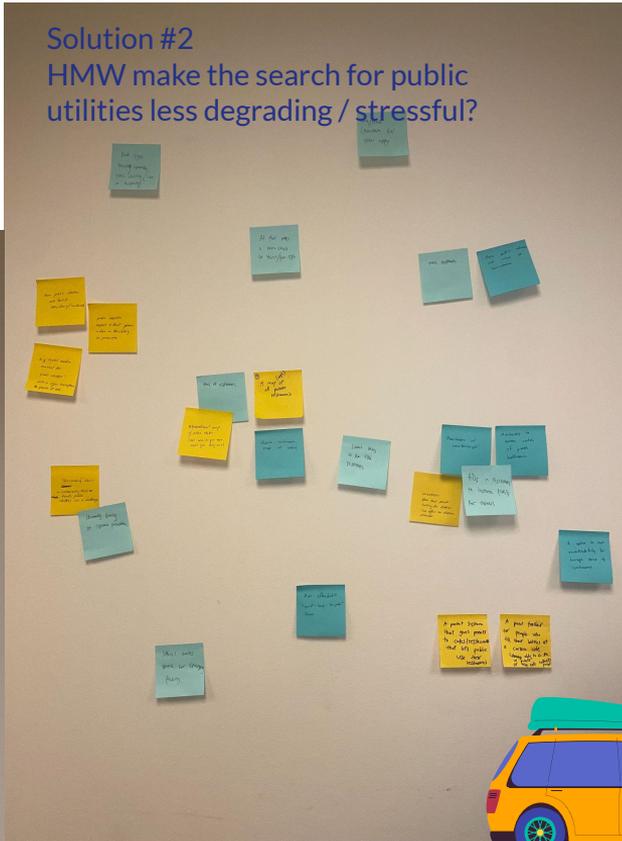
## Solution #1

HMW ease the anxiety around navigating in unpredictable environments?



## Solution #2

HMW make the search for public utilities less degrading / stressful?



## Solution #3

HMW minimize the constraints of transportation options on your plans?



THANK YOU!

**QUESTIONS?**

