HELLO, I'M

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Scale Positive Impact
In Cities We Serve

Lyft APM Assignment

Identify | Ideation | Implementation | Execution

Identify

GOALS

Lyft's mission is to improve people's lives with the world's best transportation. Lyft is determined to integrate transportation and technology to envision a future that is community-driven and brings people together. We're serving the people in our communities and aim to focus on issues that impact the cities we serve. One problem that communities in large cities face is the ongoing congestion. From cities like San Francisco to Boston, traffic volume are returning to pre-pandemic highs. This can have alarming detrimental effects to the environment, economy and most importantly communities.

USER AND THEIR NEEDS

Riders

- Find the most fastest and comfortable way to travel to destination
- Travel to destination within their budget/means
- Reduce anxiety while traveling
- Getting to destination in a safe way
- Recognizing the car that will pickup rider

Drivers

- Reasonable pay
- Consistent schedule
- Drivers commuting in short distances to get to rider
- Driver safety

SO WHY TACKLE TRAFFIC CONGESTION?

Transportation is an integral facet to everyone's day to day. As cities become denser and we go back to our pre-pandemic way of living, we depend on different modes of transportation including personal vehicles, mass transit, ride-sharing services and bicycles. This also means an increase in congestion can impact our safety, time and our communities. But let's look at the data!

Congestion Costs Every American Annually

Boston, MA — MOST CONGESTED U.S CITY

97 HOURS PER DRIVER

$1,348 PER DRIVER

Source: INRIX [1]

Annually traffic congestion accounts for economic losses in major U.S. Cities. But this isn't the only area of impact, the environment, productivity and even our users.

An MIT study also revealed that ridesharing services led to an increase of road congestion by 1% and the duration increased about 4.5% [2]

PAIN POINTS

- Drivers waste fuel in congested cities
- Riders find it difficult to be picked up by driver
- Increases pollution and safety concerns for neighborhoods

By combining user needs, the challenges communities face and Lyft's overall mission to provide the best transportation we can address reducing traffic congestion with several sustainable solutions

[1] Inrix. (2021, August 19). *Congestion costs each AMERICAN 97 hours, $1,348 a year.* https://inrix.com/press-releases/scorecard-2018-us/.

[2] Singapore-MIT Alliance for Research and Technology. (n.d.). Study finds ride-sharing intensifies urban road congestion. MIT News | Massachusetts Institute of Technology. https://news.mit.edu/2021/ride-sharing-intensifies-urban-road-congestion-0423.

COMPETITIVE FEATURE ANALYSIS

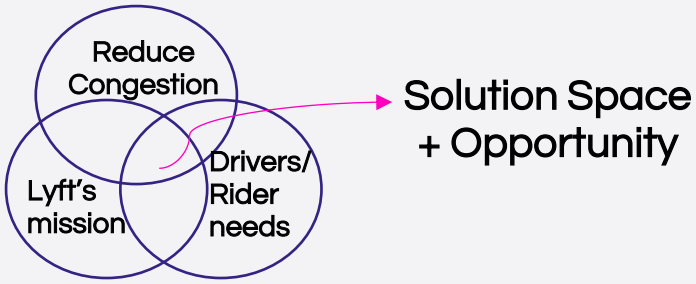
Uber
- Included a feature that allows users to have a pickup spots
- Incentive program to switch to electric cars
- Uber and Carpooling.com partnership to support long-distance carpools

Via
- Connects riders who live and work far from mass transit
- Carpooling feature to optimize for time
- Require riders to walk a few blocks to pick up location

TRENDS

- Finding the best price
  - With several ride-share apps, users are more likely to hop between apps to find the best price to their destination
- Carpooling
  - The carpooling feature is time-efficient
- Reimagining the model
  - Via's and Uber's suggested pickup spots allows for convenience for riders and drivers

PROBLEM STATEMENT: How might Lyft work with cities to improve its services to better serve cities and reduce traffic congestion?



Ideation

USER THOUGHTS

"It's supposed to be like a taxi service that's supposed to be, you know, convenient. But a 30-minute wait is not convenient." – Jenny Park (Rideshare Rider)

"It's quite bad for your body 'cause you're sitting for a long time nonstop." – Japhet Gomez (Rideshare Driver)

"It needs to be affordable for the passenger, but also needs to be, you know, well-paying to the driver." – Jenny Park (Rideshare Rider)

"Sometimes one ride will take you to the mountains. And guess what. You got an hour by yourself back and how much of gas you're going to waste." – Roger Laura (Rideshare Driver)

Source: NPR, https://www.npr.org/2021/08/05/1025018864/uber-and-lyft-are-experiencing-a-classic-problem-supply-and-demand

Based on this secondary research of user thoughts from an interview conducted by NPR, we understand that users including drivers and riders don't want to waste time waiting, want more convenience when commuting to rider, and avoiding surge pricing

BRAINSTORM

A. Utilizing empty lots or underutilized spaces to designates for pickup locations

B. Sharing vehicles with multiple lyft drivers based on shifts

C. Loyalty/rewards program for riders to take shared rides

OPPORTUNITY ANALYSIS

Idea	Pain Point Addressed	Cost	Impact	Scalability	Risks
A	Increased safety to find driver. Decreased wait time for rider. Less congestion on streets, increasing community safety	Remodeling cost: redesigning underutilized spaces to pickup spot Engineering Cost: Building out a feature for nearest pickup spot Operation Cost: maintenance of pickup locations	Large: It's expected that this will decrease the total delay in terms of vehicle and person hours as wait time will be drastically cut. Promotes the use of ridesharing services.	Working with cities to use underutilized infrastructure and incentivize riders to come to common pick-up locations when carpooling. Future partnerships with other services.	Lack of vacant lots or spaces Possible increase in rider walk time
B	Increases the number of drivers and cut wait times	Engineering Cost: Building a shared car feature Operation Cost: Maintaining and regulating shared cars Resource Cost: Drivers may not be willing to share cars	Medium: Based on assumptions we utilize less cars and provide opportunity to other drivers to earn income.	Creating a mentorship program with existing drivers to train new drivers that want to share a vehicle to drive	Regulations and insurance risk as drivers sharing the same car must be on insurance
C	Incentivizes carpooling with other people to save time and money for riders	Engineering Cost: Building a feature of suggested rewards Operation Cost: Maintaining rewards program Resource Cost: Funding to incentivize riders	Small: Retains riders to efficiently utilize vehicles and sharing a ride	Can be further scaled to provide low-cost options to riders who need to save money	Lack of riders engaged on loyalty program.

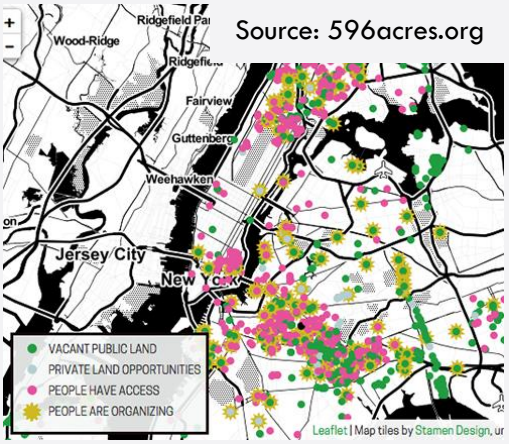
NORTH STAR METRIC: Total Delay (vehicle-hours and person-hours)
Since the problem we want to address is reduction in traffic congestion with user pain points in mind including decrease wait and travel time, we can use total delay as our main metric to assess the solutions.

Idea A proposed a solution with the best ratio of impact/cost and prioritizes user challenges including cutting driver's long commute to riders and riders not confused by the pickup location. By deprioritizing areas with low user need and existing solutions, Idea B and C present challenges in terms of scaling to helping communities. Idea A presents a more community-driven solution.

Implementation

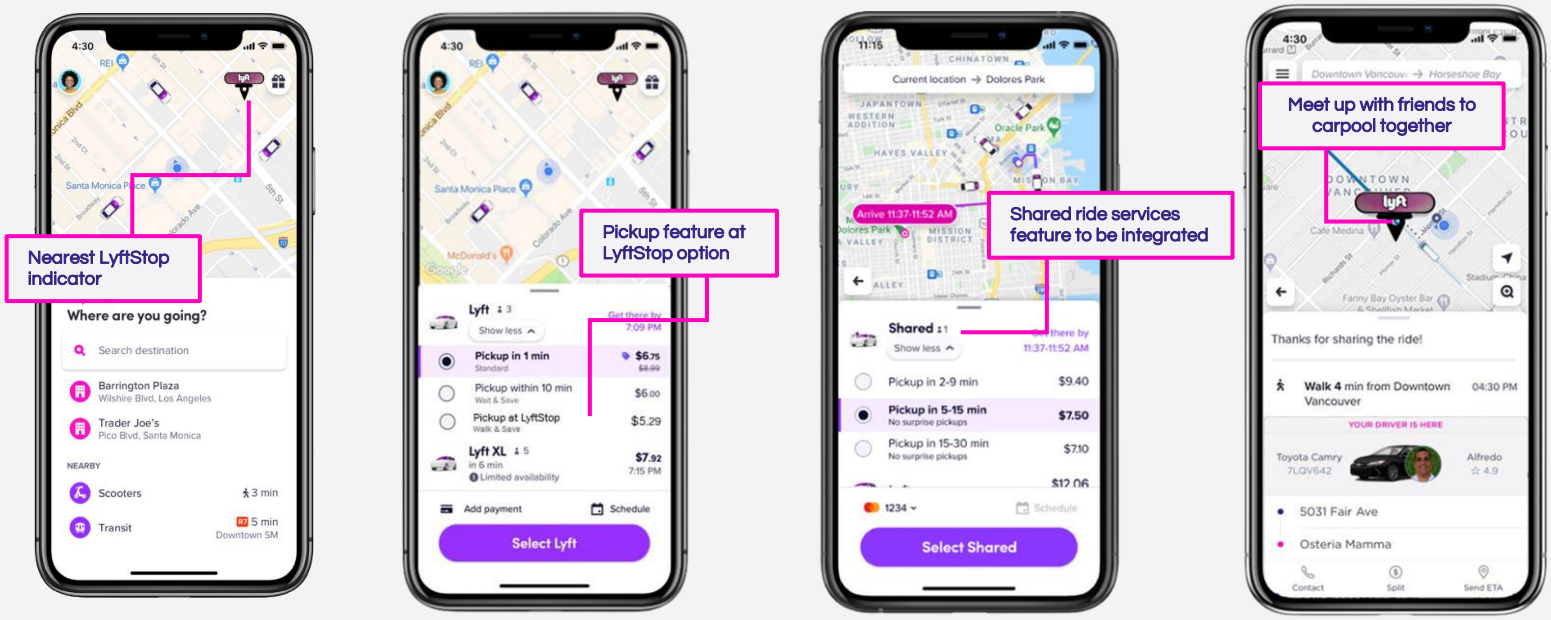
ALLOW ME TO INTRODUCE: LyftStop

Reducing congestion without reinventing the wheel



Working with cities we can designate areas such as vacant public land/empty lots to have areas of pickup spots that can be used for Lyft services. This will aid in a community-driven solution to reduce congestion

MOCK-UPS



FEATURES INCLUDED

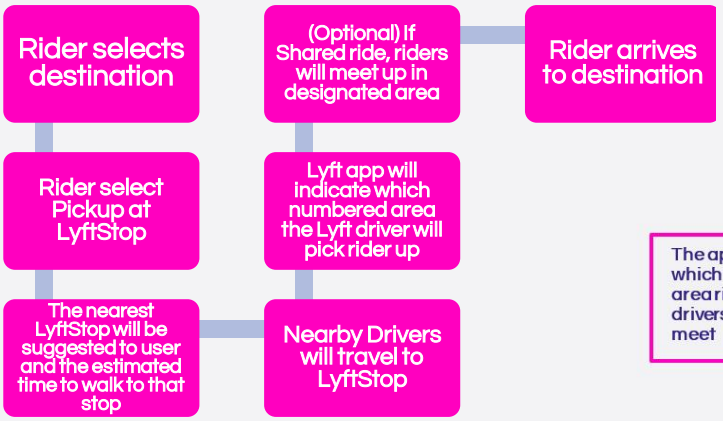
Shared Ride Feature

- To improve the shared ride feature that is currently in development, we can match riders who is in the same area and designate them to a specifc LyftStop. This can also be a way to meet with friends and ride together.

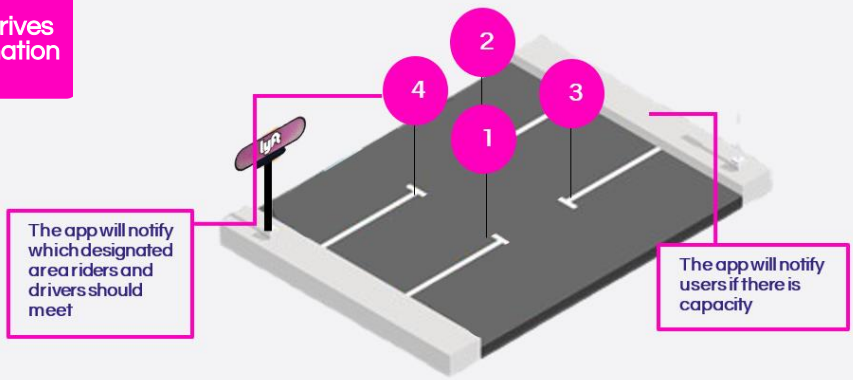
Suggested Pickup Spot

- If no LyftStop is available in the area, a feature we can implement would be to suggest an area with less congestion as your pickup spot.

USER JOURNEY



LYFTSTOP PROTOTYPE



Execution

SUCCESS METRICS

In addition to the North Star Metric of Total Delay, the overall problem we're designing for is reducing traffic congestion while adhering to user needs and pain points. Here are other success metrics that measure the user pain points:

Feature Launch	Change in rider and driver engagement with and without the LyftStop feature
	Number of LyftStop rides and driver revenue from these rides
Rider Satisfaction	Rider ratings of the rides at LyftStop
	Convinience score based on LyftStop feature
Driver Vehicle Miles	Miles driven to determine how much time and money was waste on gas using LyftStop feature compared to original feature

ROLLOUT PLAN

Given that we've conducted user interviews, analyzed trends, researched the problem space, have worked with cities to use underutilized space for this infrastructure and this solution is preferable here's a timeline:

- Build out lo-fidelity or high-fidelity prototypes with UX teams for user testing
- Collaborate with engineering teams to build out feature. Work with local cities and partnerships to remodel underutilized spaces
- Begin launching the feature to mid-sized cities such as Philadelphia, where shared rides are currently available.
- Work with data science teams to analyze data from users based on metrics. Communicate with business for next steps
- Reframe and iterate to improve features and expand to different areas

TRADEOFF/RISKS & MITIGATIONS

Risk	Mitigation
Lack of underutilized spaces in certain cities.	While the feature will not be available in areas with less underutilized spaces. We can further develop a suggested pickup spot with less congestion in a safe and convenient manner
Lack of engagement and comprehension of the new feature.	Provide incentives such as lower prices for this option and demo tutorials on how this feature would work
Working with cities	Cities are also tackling new ways to reduce congestion. Partner with cities or other organizations before investing in the solution.