UBER

Product Proposal

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Challenge

What Uber feature has been brought to market (or should be brought to market) that you think has a lot of potential but has not achieved it yet?

- Documentation of a brainstorm
- Opportunity assessment around the top ideas
- A brief but exhaustive description of the top feature from your opportunity assessment
- Wireframes, annotated screenshots, prototype
- Launch Plans/Analysis - how do we define success? Metrics?

Outline

1. Annotated Brainstorm: Bottom-up & Top-down
   User Identification, User Needs, Pain Points
2. Opportunity Assessment Top 3 Solutions
3. Description of Top Feature, Mockups
4. Launch Plan: Success Definition, Metrics, Timeline

Brainstorm

Brainstorm Strategy

In order to conduct an effective brainstorm about a product, feature of potential to Uber, I will

- Identify Uber's Users, User Personas, Use Cases
- Analyze User Needs, Paint Points
- Identify areas that leave room for improvement
- Propose Brief Solutions

Brainstorm
User

User Identification

Founding tagline: "*Everyone*'s private driver"
Mission statement: "Transportation as reliable as running water, everywhere for *everyone*"

All Uber products and features will aim to maximize their values to the mass public ("everyone"), but to assess potential products/features, it is important to dissect this user base.

RIDER

Urban vs. Rural
Developed vs. Developing countries
Residential vs. non-residential
(travellers, business persons)
Individual rider vs. Group
(colleagues, friends)

DRIVER

Full time
Part time
Occasional
Commuter
(Seasonal)

BUSINESS

Employee transportation
Customer transportation
Event participant trans.
Shipping/Delivery

Brainstorm
User

User Identification

In this proposal, I will focus on the **rider** as the primary user to cater to. This group of user is core to Uber's business and mission, and holds the most stakes in the company's strategy and operations.

RIDER - EXTENDED

Urban vs. Suburban vs. Rural
Developed vs. Developing countries
Residential vs. Non-residential (travellers, business persons)
Individual rider vs. Group (colleagues, friends)
Short-notice demand vs. Scheduled demand (e.g. reservations, flights)
Commuter vs. General-purpose rider
Price-sensitive
Time-sensitive
Prefers quiet ride vs. Prefers conversations

Brainstorm
User

User Personas, Use Cases

There are many user scenarios possible from the above-mentioned characteristics. Let's present a few popular User Personas and discover how they use Uber and insights from them.

1. An office employee with 30-minute daily commute

   Time is of value to me. UberPOOL is more time-efficient than public transporation, but is a little bit more expensive. I also have a schedule that I want to follow (e.g. be at work at 9am) and if Uber can schedule recurrent rides according to my schedule (with confirmation), it'll be great.

2. A remote employee who needs to come in every M,W,F

   I'm price-sensitive and flexible with time. I'm fine with opening up Uber everyday to request my ride, but it takes more than 10s to open up. What about a "one-touch" button for me to request a ride to work? Also, I can't wait till UberPOOL cost less than a bus ride! (Travis Kalanick's vision)

Brainstorm
User

User Personas, Use Cases

3. A youth with friends going out on a Friday night

   I need to pick up my friends along the way and drop them off on our way back. We love the fare split function. Being able to know my friend is safely home via Uber is great, too. However, I always have to input new destinations a few times to pick up all my friends. Worse yet, during a partial trip, my Uber was requested by a nearby rider as Uber thought I was finishing my trip.

4. A family of 5 going to the airport at 5am

   We knew we need this in advance, but the Schedule function is hard to find. I found out about it by randomly moving around the map. Also, UberXL was not available, and I had no way to let my UberBLACK or UberX driver know that I needed 5 seats - some UberX and UberBLACK drivers actually drive an SUV.

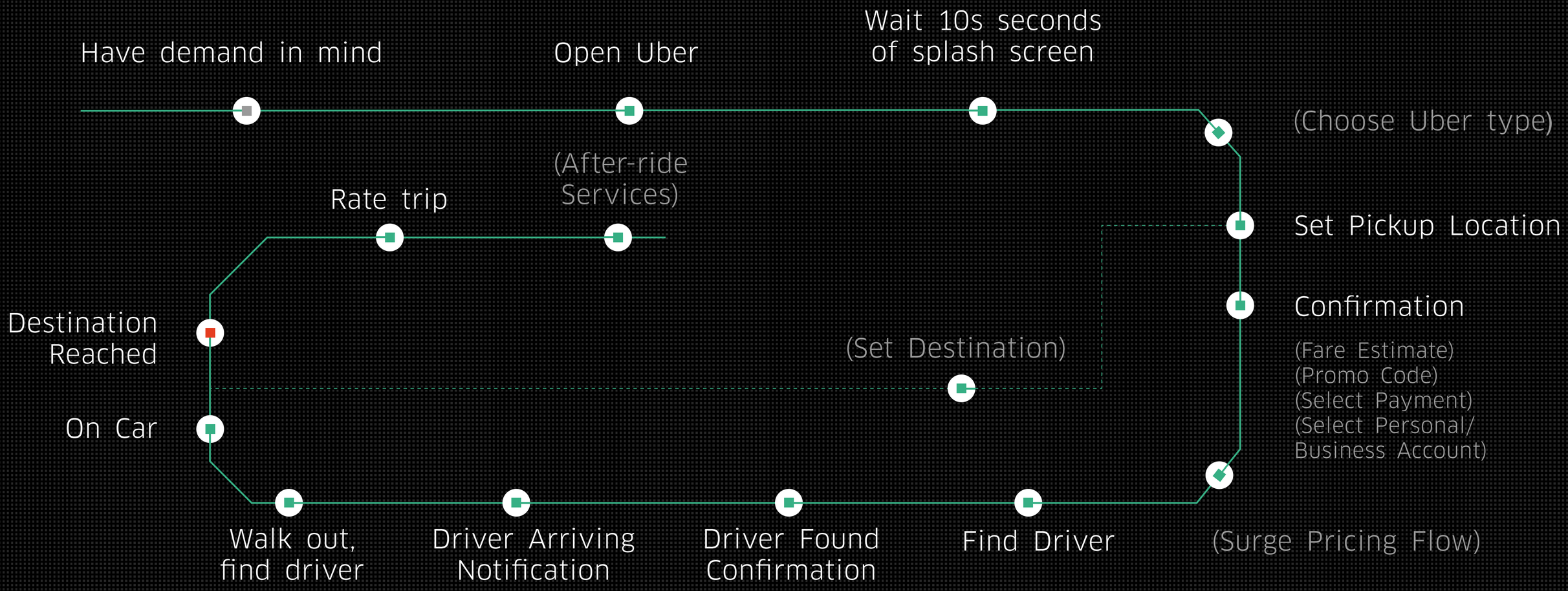
5. A traveller in a foreign city with no poor public transportation

   I couldn't find my driver, and suddenly realized the driver couldn’t contact me. This time I didn’t buy a SIM card and decided to rely on Wi-Fi.

Brainstorm
User

User Experience Reflection

Uber Rider UX Flow - Returning Users



Brainstorm
User

User Experience Reflection

Factors of a great ride experience

"As a rider, I want to get from A to B most effortlessly."

The best ride experience includes:

- Driver and ride type availability on map
- Pricing (surge vs non-surge)
- Ride request response time
- Fast and timely driver arrival
- Nice conversations OR quietness when desired
- Efficient/correct navigation
- Driver driving trustworthiness, helpfulness (opening up the trunk, helping move stuff out)

Brainstorm
Solutions

Bottom-up ideas

User Needs, Paint Points & Solutions

Having established systematized information about the User and the User Experience, we can proceed to think about what the user needs are, where the users are experiencing pain points and brainstorm brief solutions for each of these needs and pain points.

The insights from previous slides are used to arrive at needs, pain points, and solutions in the following slides.

Brainstorm
Solutions

Bottom-up ideas

User Needs, Paint Points & Solutions

NEEDS/PAIN POINTS	SOLUTION
Scheduling feature is currently hard to find, recurrent scheduling is not available	Schedule icon (clock) in top right corner, or in aside menu. Support recurrent scheduling. Scheduled request is made automatically unless snoozed or canceled by user in a notification 15 minutes before the scheduled time. Potentially used by most users occasionally (reservations, events), and frequently by commuters.
Make multi-stop trips	Support adding destinations to a queue. Add a "Next Destination" in the half-hidden style (currently used for "Enter destination") after the user has input the first destination.

Brainstorm
Solutions

Bottom-up ideas

User Needs, Paint Points & Solutions

NEEDS/PAIN POINTS	SOLUTION
In some cases, it is hard for driver and rider to find each other	Smart Pick-up Location: Suggest best pickup spots for riders at Select Pickup Location, e.g. Right outside of building entrances; On 8 possible corners of an intersection. Rider Opt-in Locator: Prompt rider if s/he allows the driver to see rider's live location when the driver is on the same street and within 100 meters. Prompt at driver arrival notification.
Send gift cards to friends and family	In-app and web-based store that sells both digital (promo-code style) and physical gift card. Research: Uber online store for Gift cards coming soon

Brainstorm
Solutions

Bottom-up ideas

User Needs, Paint Points & Solutions

NEEDS/PAIN POINTS

Rider forgets to change phone number when traveling to another country, or does not have Data connection (Request Uber via Wi-Fi)

Driders/riders want to initiate good conversations with one another more easily

(Most memorable rides are with great conversations)

SOLUTION

Detect change of city and prompt for number change. Support driver-rider communication with via in-app messaging (Wi-Fi reliant users).

High development cost to build an large scale in-app messaging system for a small number of users. However, detecting change of city is useful.

Short driver and rider profile (255 characters). Profile card pops up on long press on profile picture.

Note: Actually benefit to ride UX as a result of this feature is hard to measure.

Brainstorm
Solutions

Bottom-up ideas

User Needs, Paint Points & Solutions

NEEDS/PAIN POINTS

Rider wants to be able to request "preferred drivers" as much as possible for a great ride ("Everyone's private driver")

Some even want to schedule a request ahead of time to ride with the preferred driver

SOLUTION

Preferred Driver Program and Feature

Uber matching algorithm prioritizes preferred drivers with a reasonable distance (15 minutes). User can choose to request a regular or preferred ride. In Account Settings, user can set a default "Always request preferred driver within X-minute distance."

A rider can have up to 5 preferred drivers. Rider-driver matchup appears as an option after a trip and in Ride History.

Brainstorm
Solutions

Bottom-up ideas

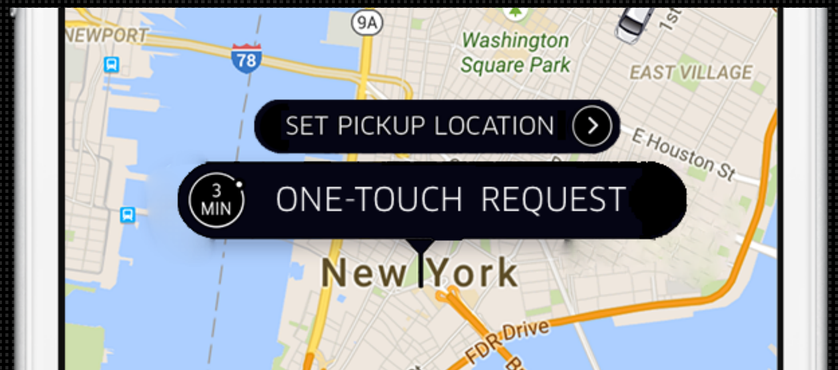
User Needs, Paint Points & Solutions

NEEDS/PAIN POINTS

It still takes quite a long time to request a ride

As a loyal Uber rider, I have used Uber so much that I would love to be able to request a ride as quickly as possible.

(Current steps: 10s of splash screen, "Select Pickup Location" then "Request Ride")



SOLUTION

1. "One-touch Ride Request" feature at the initially-loaded pickup location, with configurable Uber type (configurable)
2. Include an Uber widget on iOS10 and Android
3. Implement Request Ride from iOS 3D Touch - default to UberX and configurable in Account Settings.
4. Cut down initial app load time (Of course, there is an engineering challenge for the app to take this long currently - lowest priority)

Brainstorm
Solutions

Top-down Brainstorm

After a bottom-up brainstorm of solutions, it is also important to look at the challenge from a top-down manner. This helps us find problems that are not obvious when looking at the user experience, or identify improvements that users might not recognize that they need.

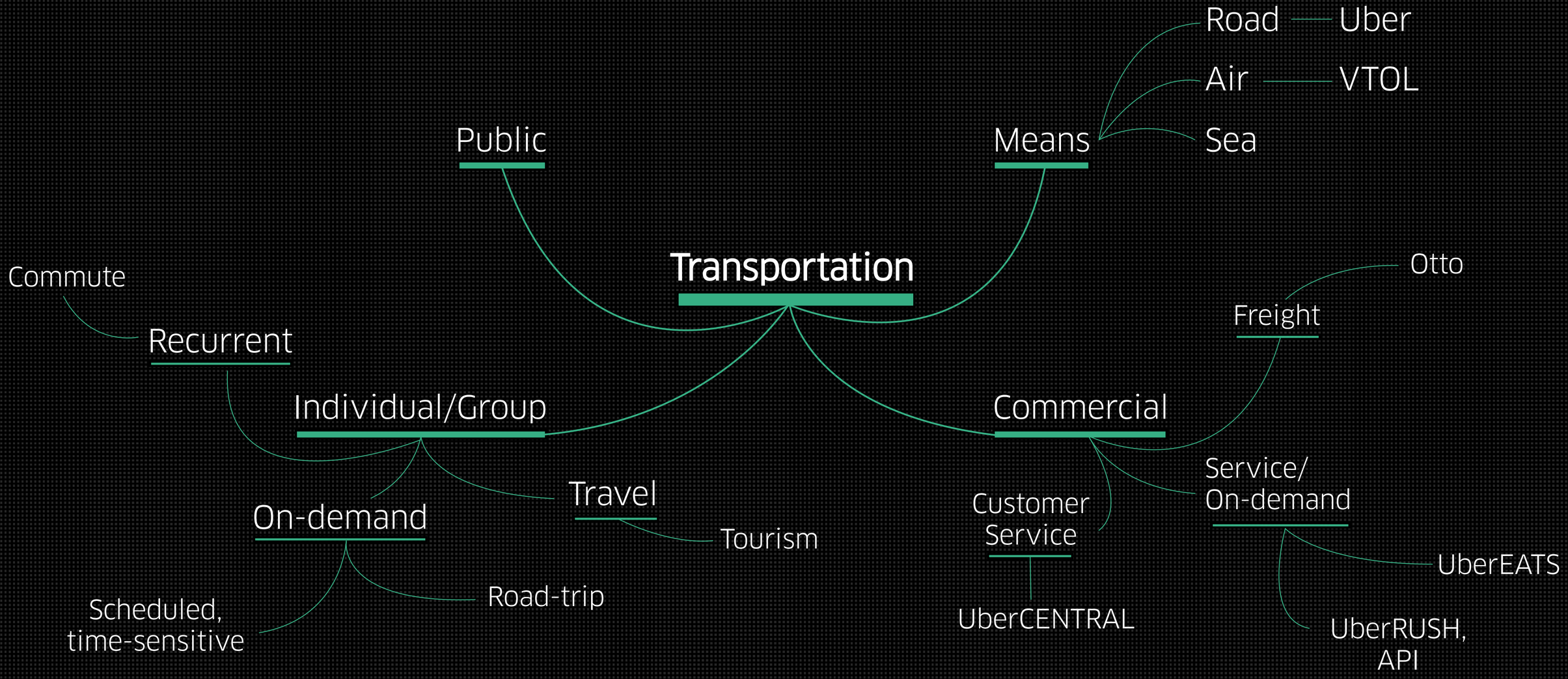
Transporation and Uber reveals areas where Uber is not present and users not covered

Technology Pillars of the Future is a list of key areas I believe will be instrumental to the future. Thinking about moonshots in these areas could reveal potential long-term products & features.

Brainstorm
Solutions

Top-down ideas

Transportation and Uber



Brainstorm
Solutions

Top-down ideas

Technology Pillars of the Future

AI/MACHINE LEARNING

Self-driving cars (maximize safety, minimize price)

Personalized ride experience

Predictive Individual Rider Demand Forecast

Prediction of travel system status that affects travel prediction (flight delay, metro problems)

Continuous rider pickup for UberPOOL (maximize rides/hour/driver)

DEMOCRATIZATION OF TECH/INTERNET

Provide access to Uber's ease of transportation and size of fleet to other applications: UberRUSH API

Accessibility for the disabled

Uber proprietary map/navigation

SOCIAL/COLLABORATIVE KNOWLEDGE

Marketplace of available fixed-route rides, long distance road trips

Allow users to share exciting locations of interest they are going to -- UberDISCOVER will organize this information as "Trending locations," could be an individual product like UberEATS

Brainstorm
Solutions

Top-down ideas

Technology Pillars of the Future

There are other pillars that I believe will be instrumental to the world in the future, but they only provide limited connections to building Uber products:

- Sustainable Energy: VTOL
- Bio-engineering
- Educational Technology

Top ideas

Prioritization

After a comprehensive discovery of potential products and features, I choose the 3 most promising products/features to assess their feasibility and impact to choose the top one.

Other ideas are not discussed for reasons including:

- Although they surely improve UX, the potential impact is low and might only caters to niche group of users: Multi destinations, Foreign phone number change

- They are early-stage ideas, and Uber has already shown signs of heavy investment in them: Smart Route, Perpetual Rides, VTOL, Personalized on-ride experience (via API)

- Possible conflict with Uber business model and mission: Preferred Driver (skewed driver investment in service), Marketplace for long-distance/fixed-route rides

Top ideas

UberDISCOVER

Insight: Uber is not proactive in generating demand, while it possesses a formidable amount of real-time information about where people are going (Uber's data can even be used to predict rider destinations with a 75% accuracy).

Solution: This valuable real-time information could be translated to build a network of user-generated "Trending locations" (events, restaurants, bars).

Uber will leverage machine learning to rank (trendiness, activity, etc.) and list top locations based on interest (event, restaurant, bar, etc.).

Top ideas

UberDISCOVER

Value proposition: For user - Rich, real-time information as source of "*What's going on in town*" discovery. For locations - this is extremely valuable for those benefitting from hyperactivity and trendiness: events, bars, shops, etc. For Uber - proactive demand generation.

Challenges:

1. Established market and partially interchangeable solutions (Yelp, TripAdvisor, EventBrite, etc.)
2. Significant technological investment
3. Users who have demand in mind might use Uber as means of transportation anyway

Top ideas

Smart Pickup Locator

Insight: Riders and drivers still rely on traditional methods to identify one another. This sometimes takes a lot of time, which multiplies across Uber's network will result in tremendous waste for both riders and drivers.

Solution:

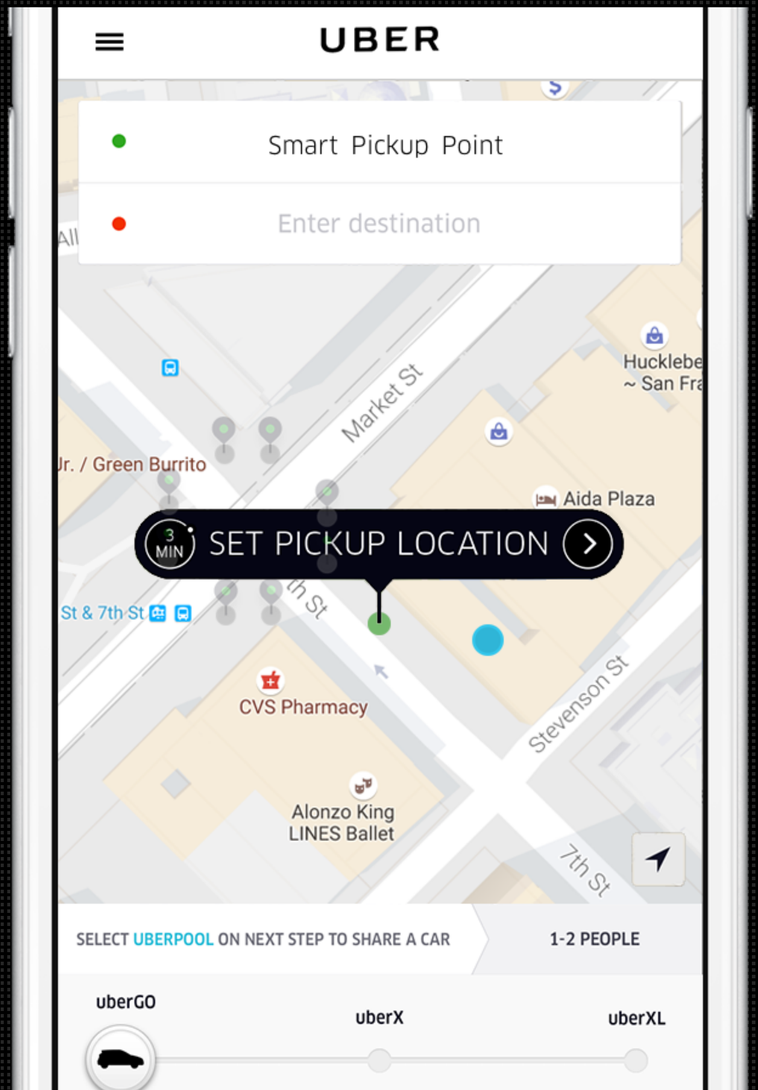
1. Smart Pickup Locations: Suggest best pickup spots for riders at Select Pickup Location (Right outside of building entrances, On 8 possible corners of an intersection). Locations are refined with actual locations where rider and driver "meet" each other.

2. Rider Opt-in Locator: Prompt rider if s/he allows the driver to see his/her live location when the driver is on the same street and within 100 meters. Prompt at driver arrival notification. The driver will be able to see the rider's live location in the Uber app (driver receives notification when rider enables location-sharing to switch back to the Uber app).

Top ideas

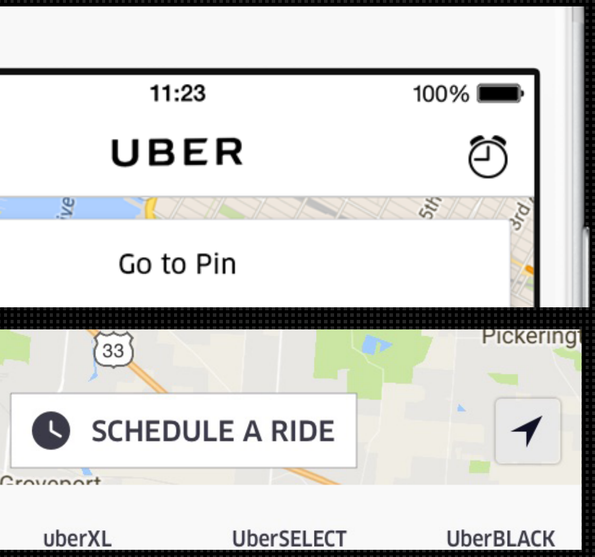
Smart Pickup Locator

Value Proposition: Save time for both riders and driver to actively locate one another based on map and GPS technology. This is the "standardization" step that helps the Uber's not-yet-launched driver identification by color-adjustable LED strip.



Top ideas

Ride Scheduler



Insight: The Schedule feature is implemented, but hard to find. The demand for scheduled ride is estimated to be significant - all commuters could be frequent users, and all users could be occasional users for restaurant reservations, movies, events, etc.

Solution:

- "Schedule" icon in top right corner, supports recurrent scheduling
- Scheduled request is made automatically unless snoozed or canceled by the user in a notification 15 minutes before ride request time
- Calendar integration (with user permission) to suggest Ride Request for events with locations different than user's current location. The ssheduler service scans the calendar every 15 minutes.
- The secret sauce for Scheduled Ride is the ML-perfected coordination of driver ETA (to rider), travel time (to destination), and request time.

Top ideas

Ride Scheduler

Value Proposition: The feature is useful to all Uber users in the world. To users, having a ride scheduled and requested at the correct time significantly cuts down waiting time (estimated average wait at 10 minutes).

As soon as the user is ready to go, an Uber is already at the front door - this brings the WOW factor and perfects the Uber overall experience.

Finally, this feature is extremely useful to Uber's vision of the having UberPOOL replacing individual cars for commuters as its BHAG.

Challenge:

- The basic functionality is quick to implement, but the said "secret sauce" requires continuous optimization and tuning for great UX.

Top ideas

Opportunity Assessment of Top Ideas

	UX Enhancement	Tech Investment	Users affected
UberDISCOVER	Medium-High	Very High	Mostly Urban Users
Smart Pickup Locator	High	Medium	All Users
Ride Scheduler	Very High	Low-Medium	All Users

From the analysis and priorization matrix, Ride Scheduler is the potential feature to invest in in the near future.

Top ideas

Elaboration of Choice

While UberDISCOVER and Smart Pickup Locator are exciting and promising features to be implemented, I would like to focus on the Ride Scheduler as I strongly believe this feature will bring significant value to all Uber users across the world, most noticeably those with busy schedules, living in densely populated areas.

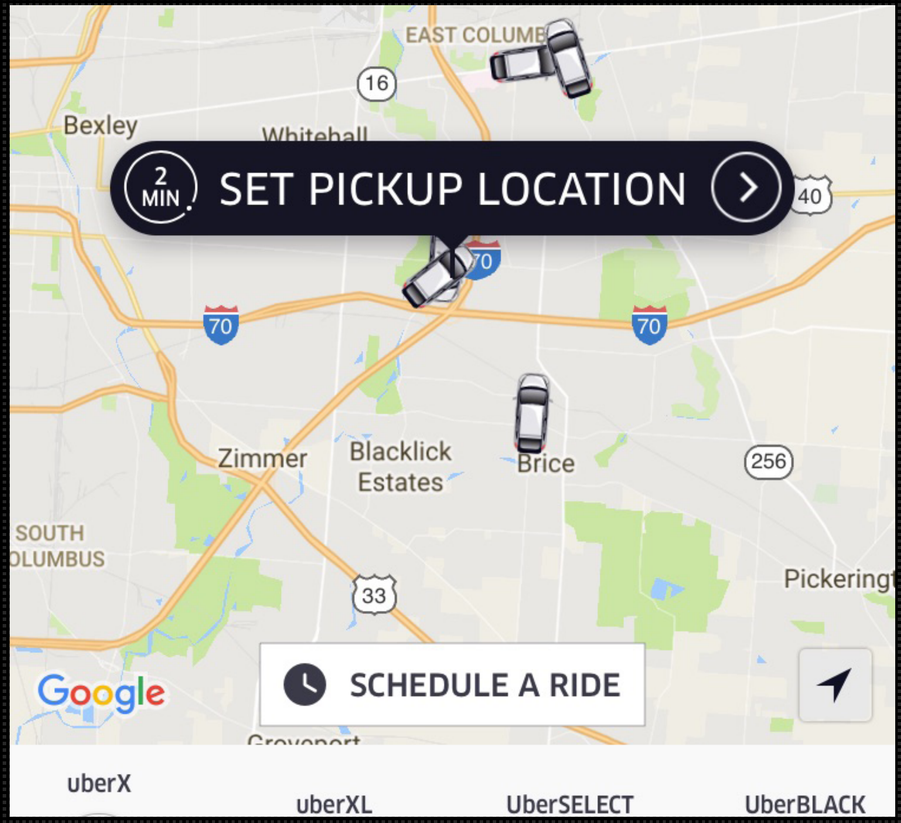
Furthermore, this is a feature Uber has implemented in an early stage. After coming up with the idea, I found out about the feature as I was browsing the map. This proves Uber sees potentials in such feature.

I am still very excited about the Smart Pickup Locator, which will provide a great WOW factor to users (and saves a lot of time). However, for the purpose of prioritization, I will focus on the Ride Scheduler for its greater beneficial combination of impact and tech resource investment.

The idea

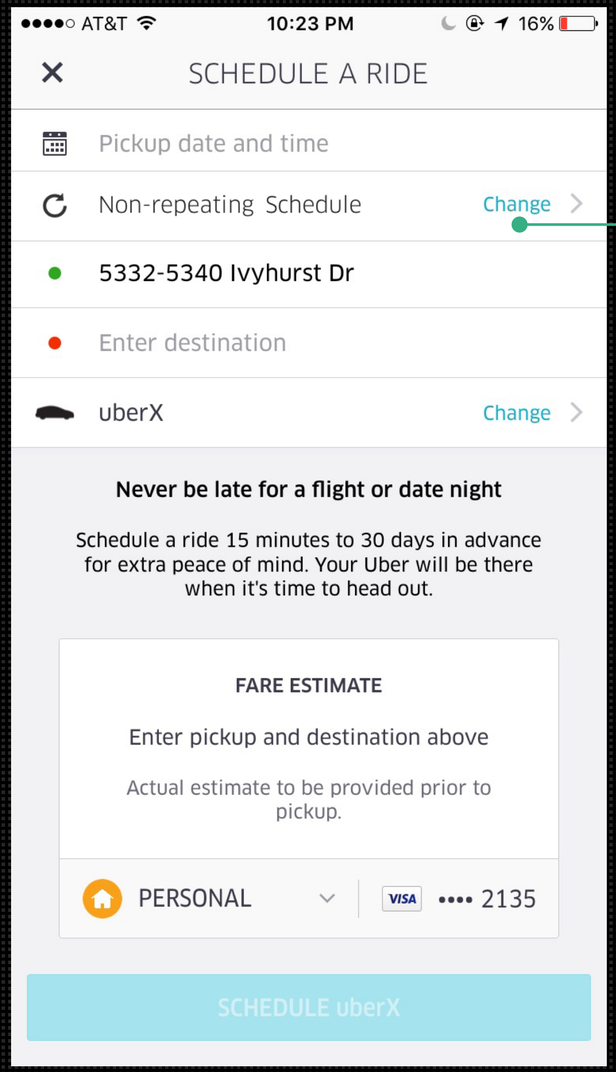
Ride Scheduler - Feature Visibility

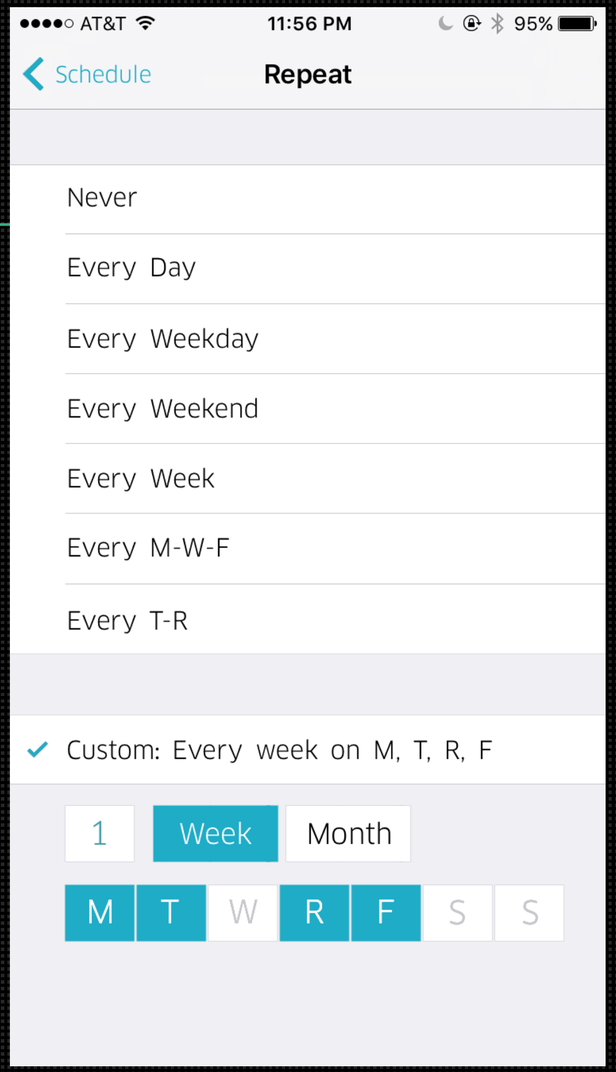
Top-left corner clock icon or "Schedule A Ride" button



The idea

Ride Scheduler - Repeating Rides

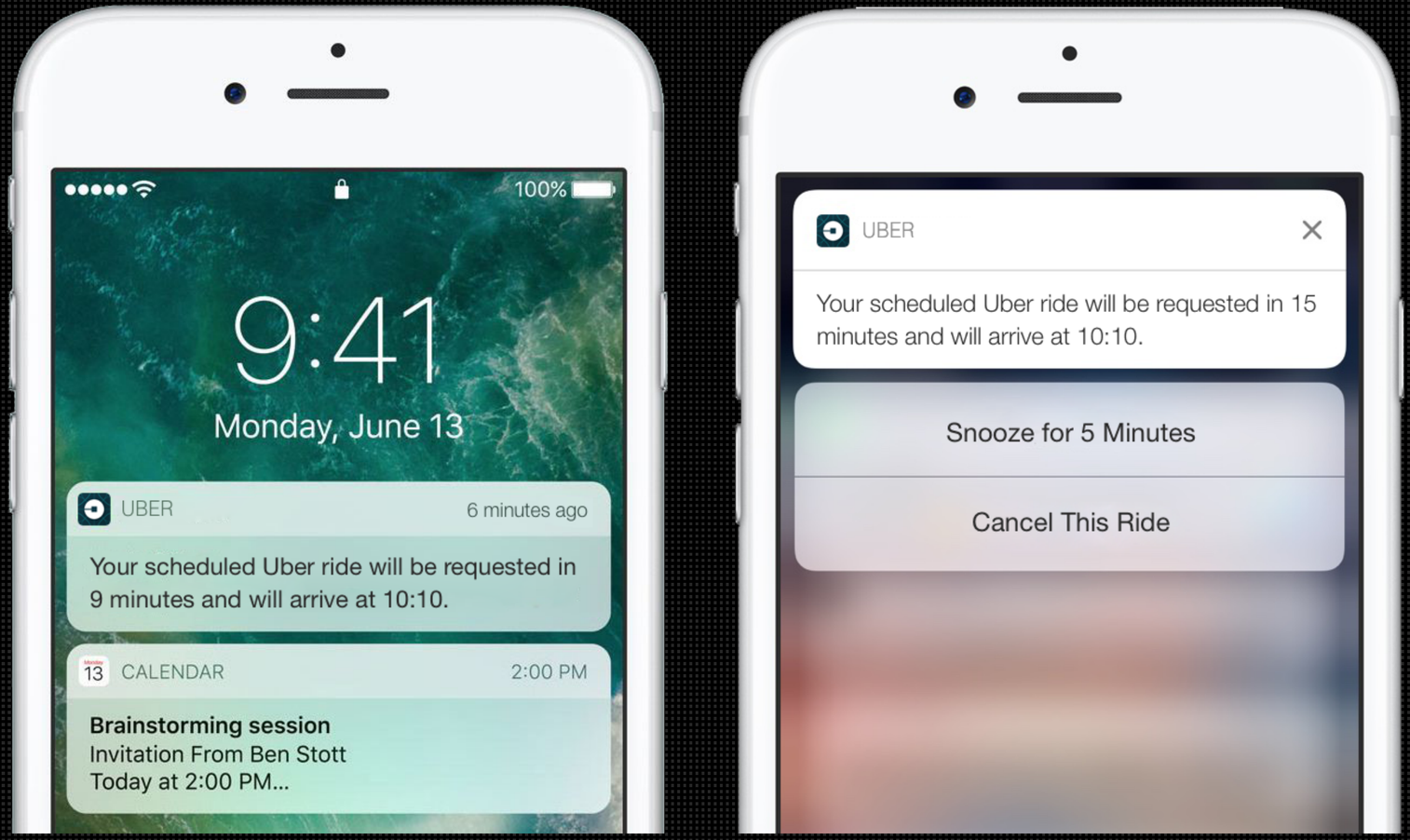




The idea

Ride Scheduler - Smart Request

Ride are requested ahead of time based on driver ETA.



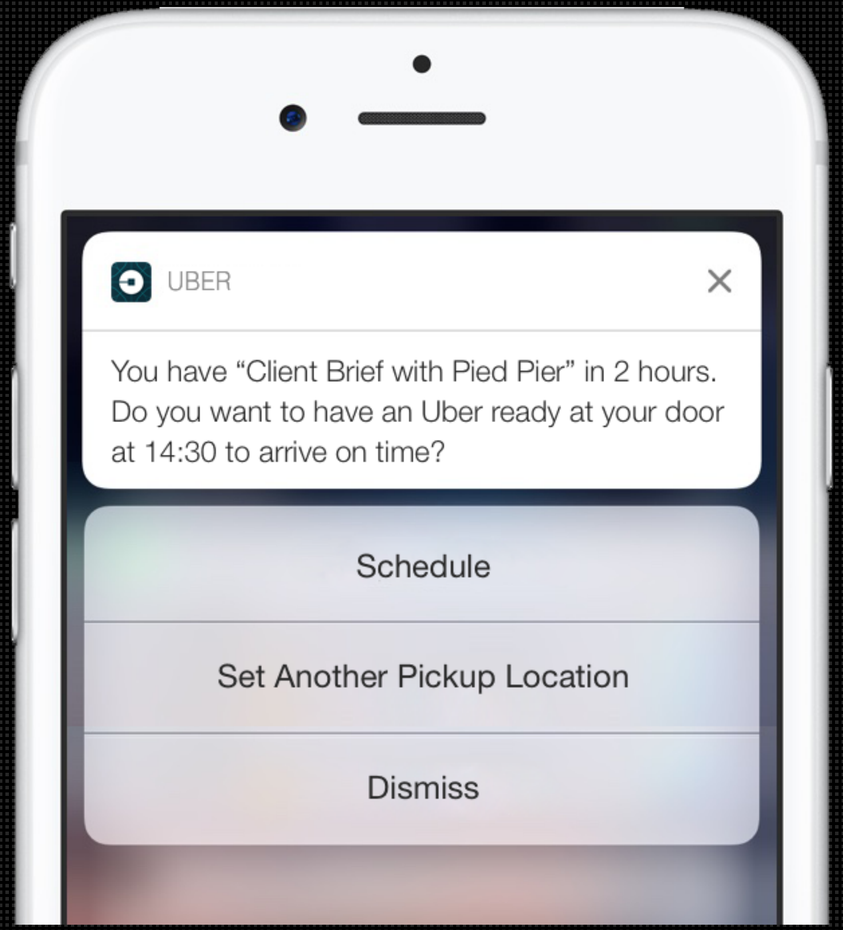
The idea

Ride Scheduler - Calendar Integration

The Uber app asks for user access permission to the Calendar app.

Criteria: Only activates for events whose location is different than the user's current location.

I estimate only 20% users will allows this access due to this privacy concern.



The idea

Ride Scheduler - The Secret Sauce

The secret sauce for Scheduled Ride is the coordination of driver ETA (to rider), travel time (to destination), and actual ride request time.

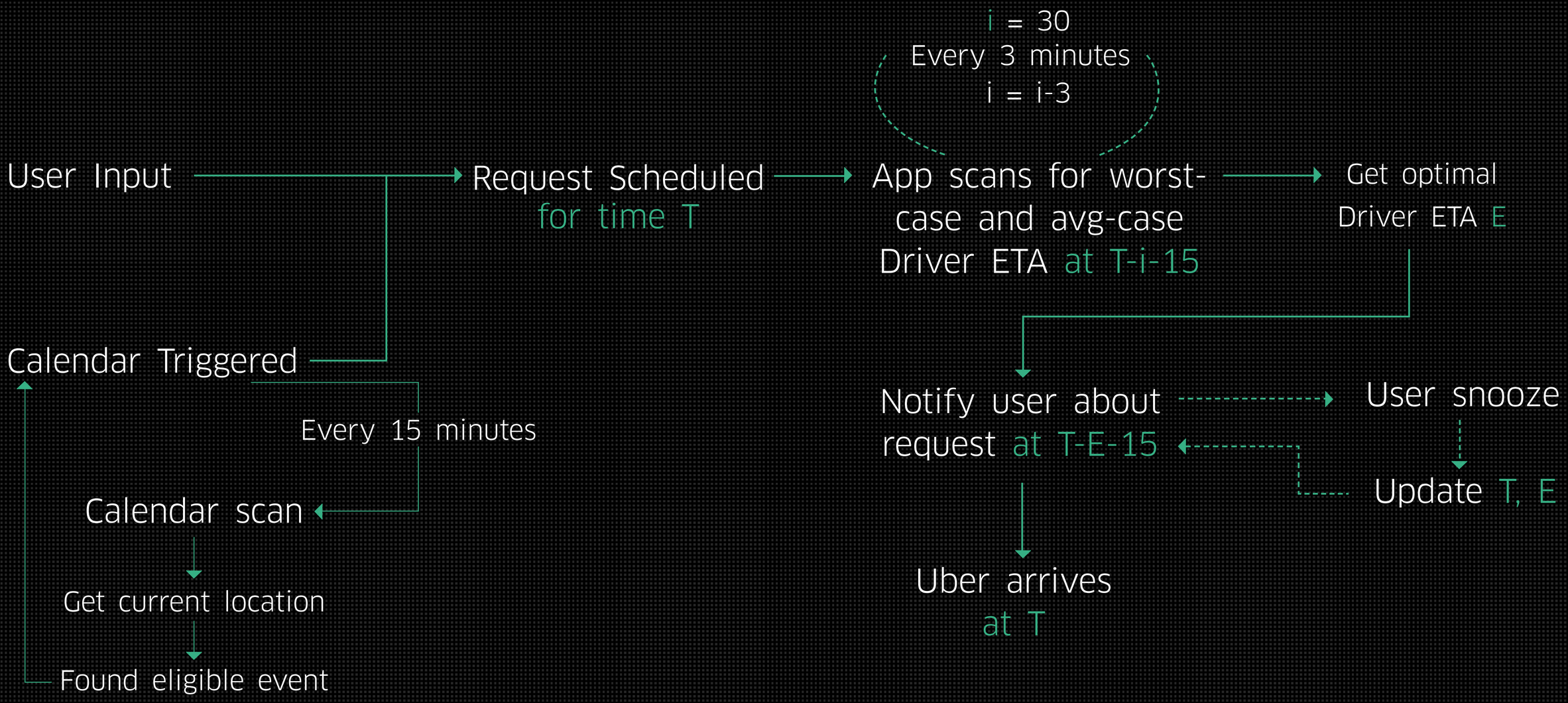
We need to use Machine Learning to optimize this to make sure Uber is invariably ready at our user's door at the desired time.

No driver available: Notify user 15 minutes ahead of (Scheduled Time) or (Event Time - Travel Time) to allow user's travel rearrangement.

User-scheduled Ride	Time of Ride Request = Scheduled Time - Driver ETA
Calendar-generated Ride	Time of Ride Request = Event Start Time - 5 minutes - Trip Time - Driver ETA

The idea

Ride Scheduler - Flow Chart



Launch!

Feature Metrics - Success Definition

	(3-month target) Success*
Feature metrics	
- (Acquisition) Feature Discovery Rate: % users who viewed the Scheduling view	80%
- (Activation) Monthly Active Users as % of Total Users	20%
- (Activation) Scheduled Rides/Rider	0.2
- (Activation) Scheduled Rides: Cancelled (%) vs. Completed (%)	10% vs. 90%
- (Activation) Repeating Scheduled Rides as % of Scheduled Rides	20%
- (Retention) Repeating Feature Users (matrix)	2nd use = 80%
Ride Metrics	
- Timeliness: Average (Trip Start Time - Scheduled Time)	2 minutes
- Calendar-generated Ride Accuracy: Average (Event Start Time - Trip End Time - 5)	2 minutes

*(Detailed success metrics could differ based on cities and city-specific metrics)

Launch!

Analytics

Other important metrics to keep track of

- Feature-related Serious Issues Escalated
- Net Promoter Score (NPS) of Scheduled Ride feature
- App Technical: App crash due to feature

Interesting metrics to analyze

- Average Ride Value of Scheduled Rides vs On-demand Rides
- Average Ride Rating of Scheduled Rides vs On-demand Rides

Launch!

Launch Plan - Test

Prelaunch

- Internal test
- Scheduling System Stress test (simulated)
- Finish all analytics feature
- Update feature information on help.uber.com
- Include bubble and pop-up to draw user attention to and explain new feature
- Submit app to App Store

Test Launch

- Month 1: Launch in 10 cities and 10 rural areas (+ localization)
- Implement and Tune from A/B Tests for icon/button placement, text copy and other features

Launch!

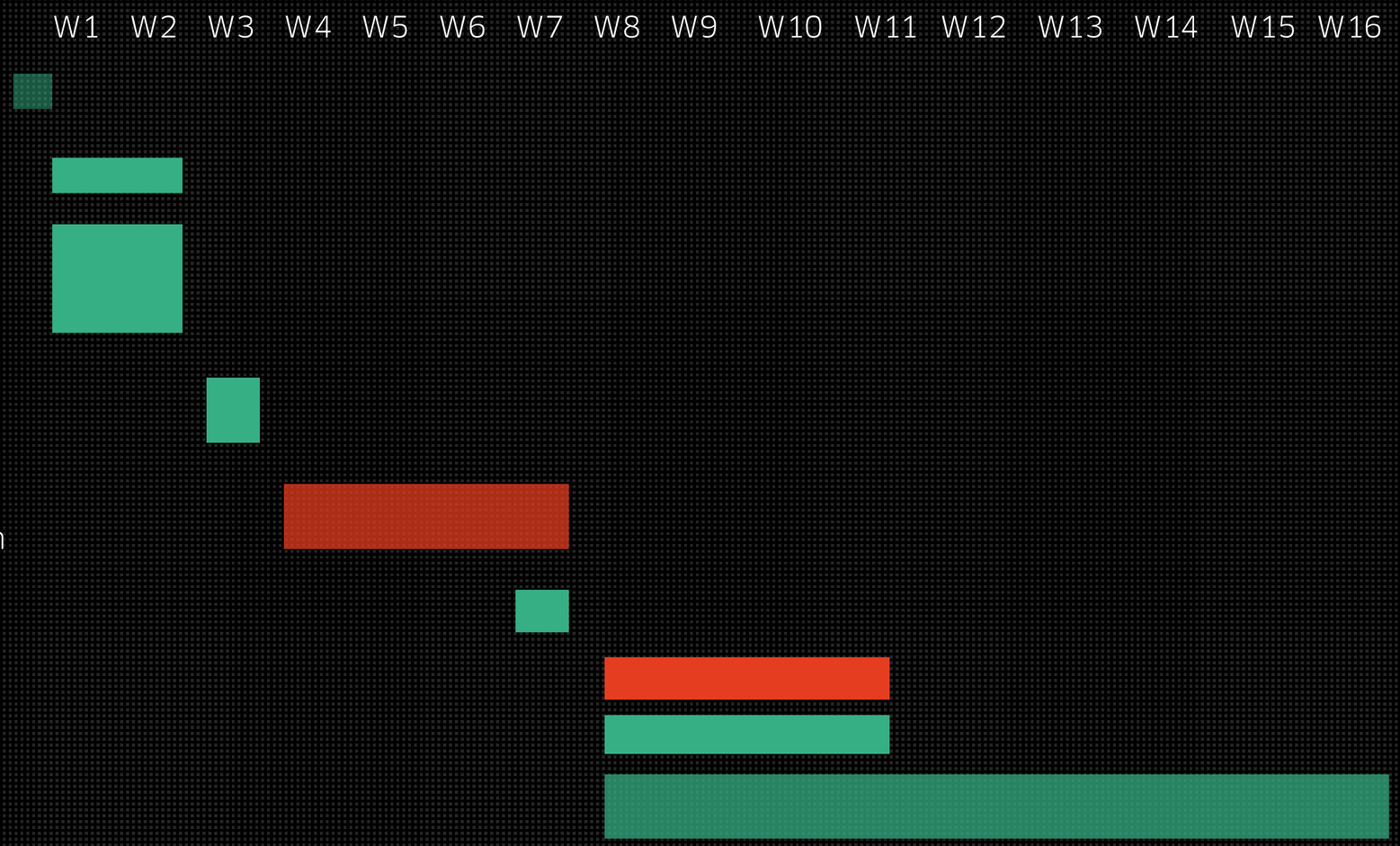
Launch Plan - Official Launch

Official Launch (Starting Month 2)

- Define full launch scope in terms of markets, city
- Localization
- Information to all countries for localization needs (prioritize)
- Product Marketing
    - Produce 30s feature launch video
    - Inform user about feature on social media channels
    - Send PR information to major tech media outlet in markets
- Continue fine-tuning algorithm for determining best ride request time to optimize timeliness

Launch Plan - Timeline

Launch!



Thank you

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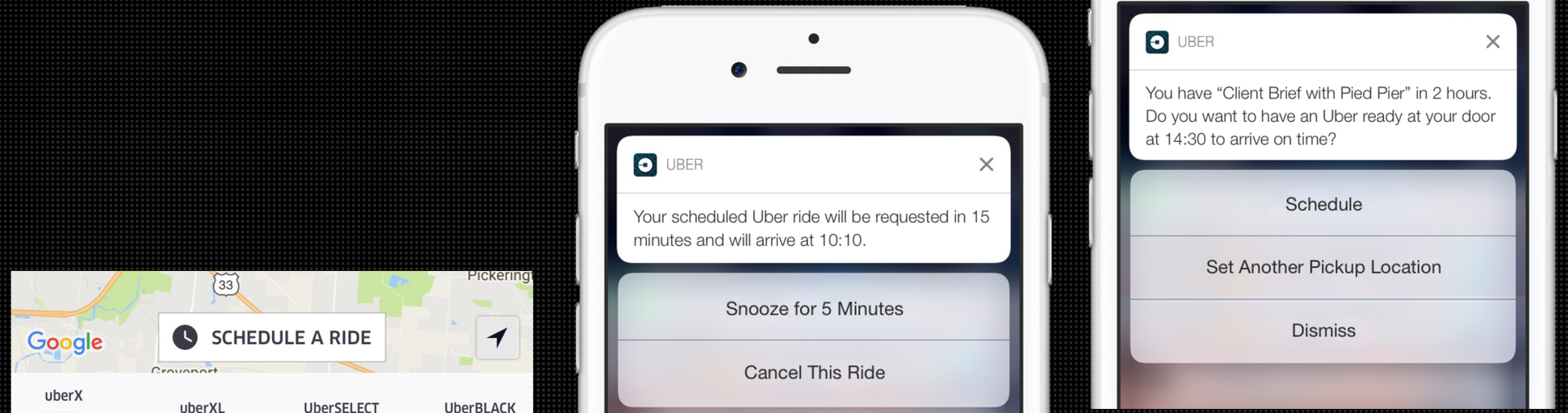

Credits

- Clan Pro free font from dafont.com
- Uber color pallete from Behance
- Uber graphics from Uber API Center