Mobile Ticketing Enhancements for General Population Incident Avoidance

Team Update

May 3, 2019

Team Roles

Pari
Project Manager

Catherine
Implementation Lead

Chris
Marketing Lead

Anny
Modeling Lead

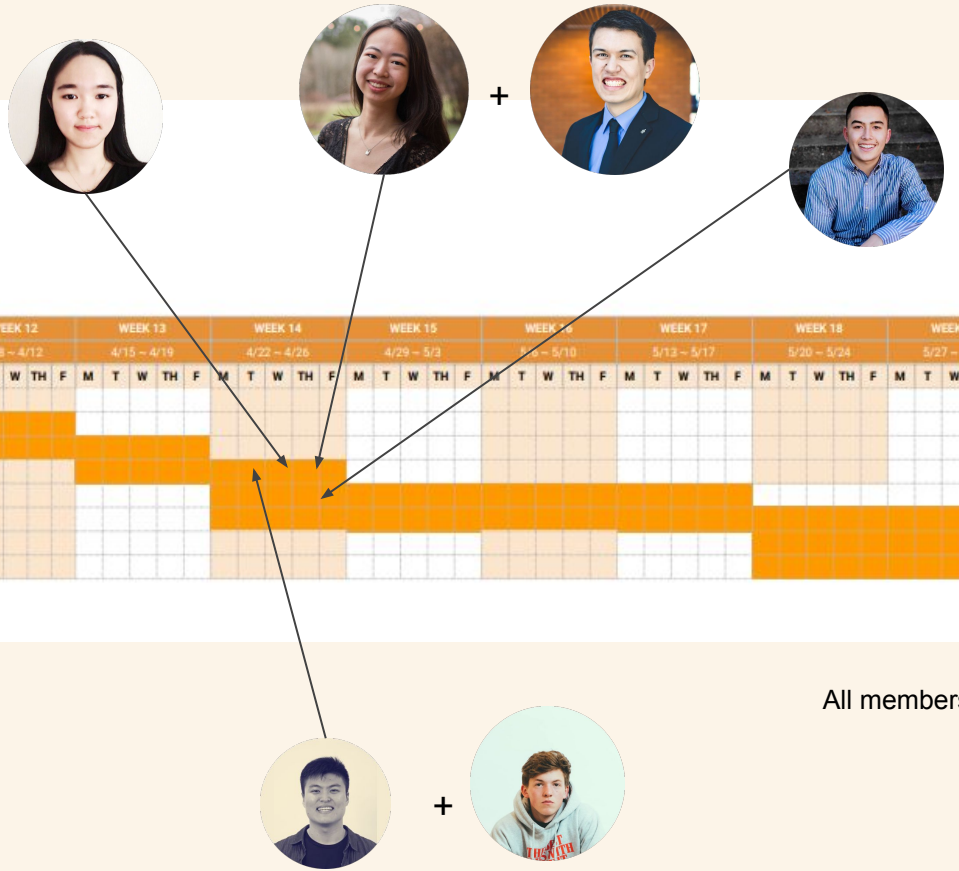
Steven
External Coordinator

Yuki
Data Lead

Industry Capstone Work Plan

PROJECT TITLE	Industry Capstone Work Plan
PROJECT MANAGER	Pari Gabriel

TASK NUMBER	TASK TITLE	START DATE	DUE DATE
1	Revised Work Plan	4/2/19	4/5/19
2	Focus Group	4/8/19	4/14/19
3	Expert Interviews	4/8/19	4/19/19
4	Specifications + Wireframe	4/15/19	4/26/19
5	Marketing Plan	4/22/19	5/17/19
6	Final Clickable Demo	4/22/19	5/31/19
7	Final Powerpoint Presentation	5/20/19	6/5/19
8	Final Report	5/20/19	6/7/19



Spring Quarter (April 1- June 7)

All members

What we've worked on

SDOT - Adiam Emery

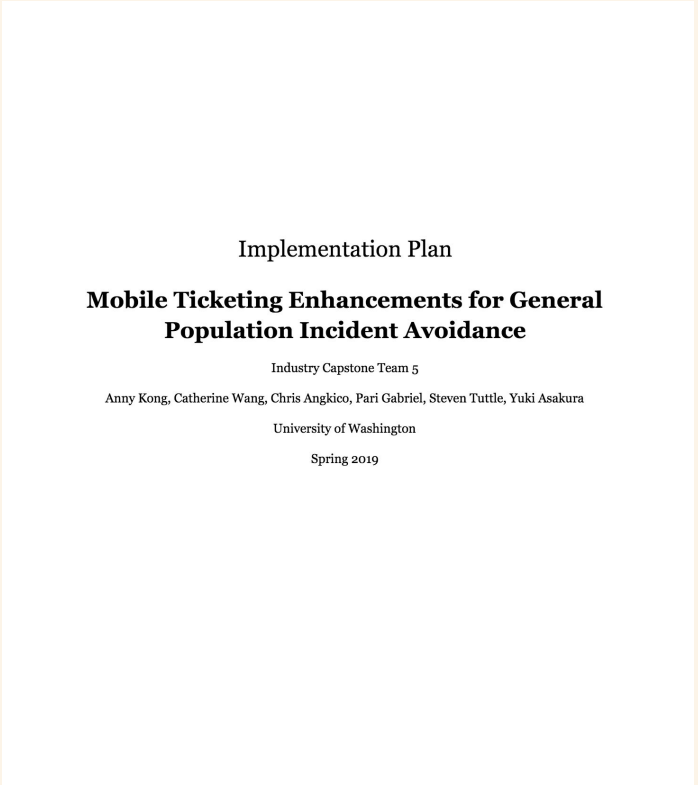
- **What we Learned:**
  - There is a **90 minute** threshold for system breakdown no matter time of day which will result in residual impacts to system
  - Prioritization of mode: emergency responder → transit → walkability → freight→ SOV Vehicles
  - What **plans** should we prioritize first?
  - How could we gain back the efficiency of the system?

Impark - Brent

- **What we Learned:**
  - Currently not possible to validate parking, so we need to **provide rates** for people
  - Without support from government, there is no way to **standardize pricing** due to pieced together nature of parking in Seattle
  - **SpotHero** is likely the best source for people to get parking information during an incident

Implementation Plan

- **Four key parts**:
  - Medium-fidelity Wireframes
  - System Design
  - Platform, APIs and data source
  - Traffic analysis plan



Implementation Plan

Mobile Ticketing Enhancements for General Population Incident Avoidance

Industry Capstone Team 5

Anny Kong, Catherine Wang, Chris Angkico, Pari Gabriel, Steven Tuttle, Yuki Asakura

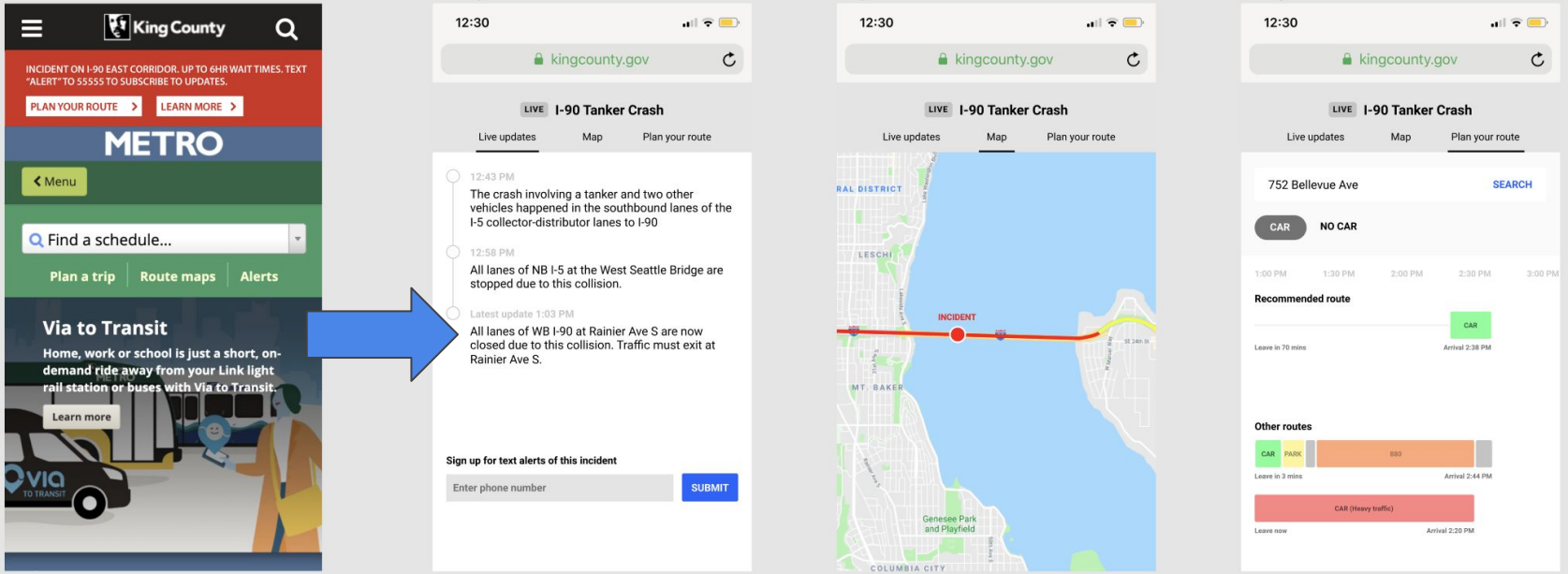
University of Washington

Spring 2019

Current Solution - AlertSeattle

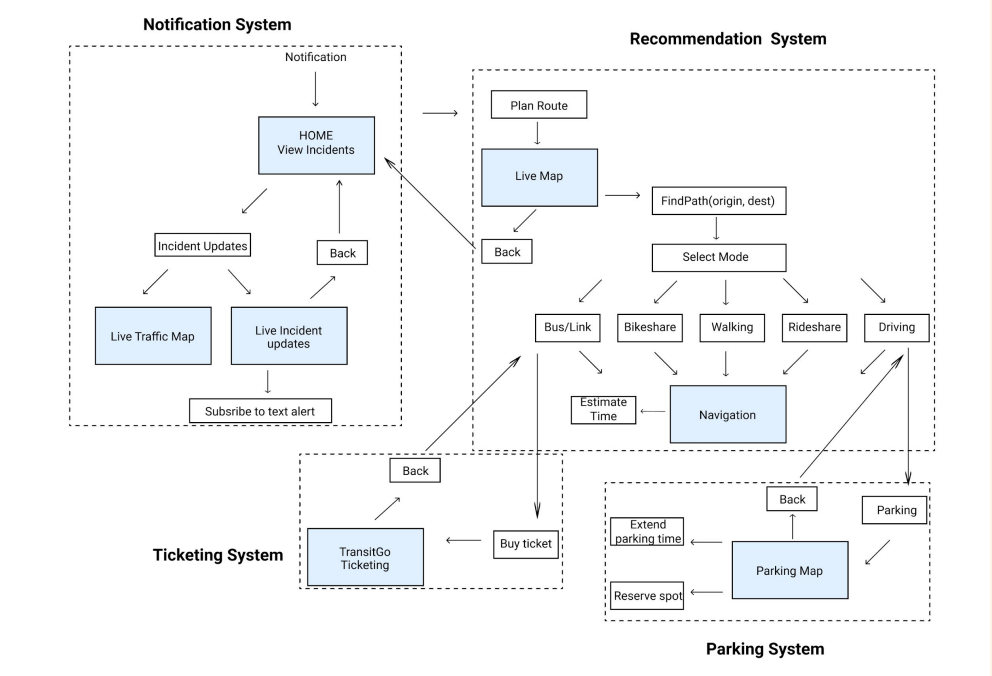
- Links to SDOT twitter page
- Only updates and no recommendation -> problem!

Our Solution - Medium-fidelity Prototype



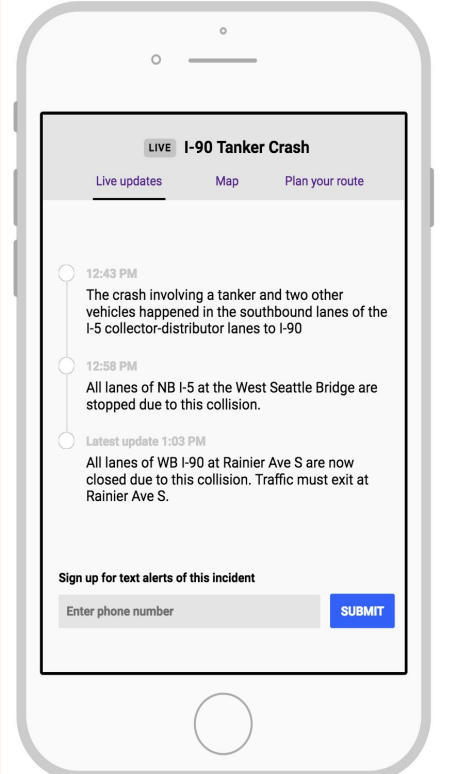
System Design

- **What we included**:
  - Notification System
  - Recommendation System
  - Parking System
  - Ticketing System



Initial Implementation

- 1st Iteration – Wix
  - https://annykong.wixsite.com/modeshift-19sp
- 2nd Iteration – pure html5+css3+JavaScript+React
  - https://annykong.github.io/ModeShift-App/
- 3nd Iteration – Webflow
  - https://uwcapstone.webflow.io/ <- mobile website



Platform	Pros	Cons
Wix *Early web design and development*	Easy-to-use template Allows responsive design	Do not allow source code download Restrictions in design
Webflow *Web design & development*	It is great for design Allows source code download Allows responsive design	Requires more experience to use
Proto.io and **Figma** *Prototyping and wireframing*	Allows for real-time collaboration Could be incorporated in the website	Cannot create high-fidelity interactive prototypes
Google Maps API (Maps JavaScript API, Directions API) *Map and rerouting*	Provides public transit, driving, walking, and biking directions Provides familiar and easy-to-use user interface	Seems impossible to change its algorithm, we may look more into that Relatively expensive
Mapbox API *Map and rerouting*	Provides driving, walking, and biking directions Free in general	Does not include public transit information itself Seems impossible to change its algorithm, we may look more into that

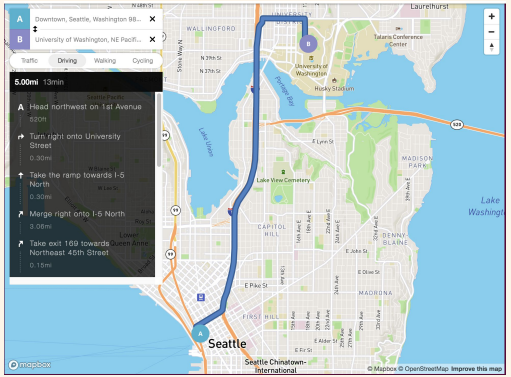
Traffic Analysis Plan

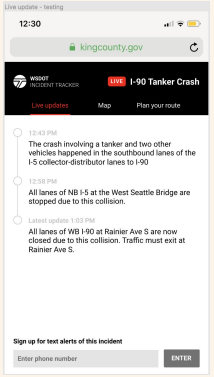
- **What's in our plan:**
  - Propane truck incident in Seattle, February 27th, 2017
  - Simulate the blockage of I-5 and run models to determine optimal rerouting with Emme
  - Create a playbook for the best course of action in this case
- **What we hope to learn:**
  - What are optimal changes we can make when an incident occurs?
  - Is it possible to predict accurate travel times during an incident?

What we’re working on next

Continued Technical Work

- **What we will work on:**
  - High-fidelity UI Design with Figma
  - Mobile friendly UI Implementation with Webflow
  - “Live Incident Map” and “Plan your route” Implementation with Google API / Mapbox API
  - Redirections to SpotHero, PayByPhone, and TransitGo



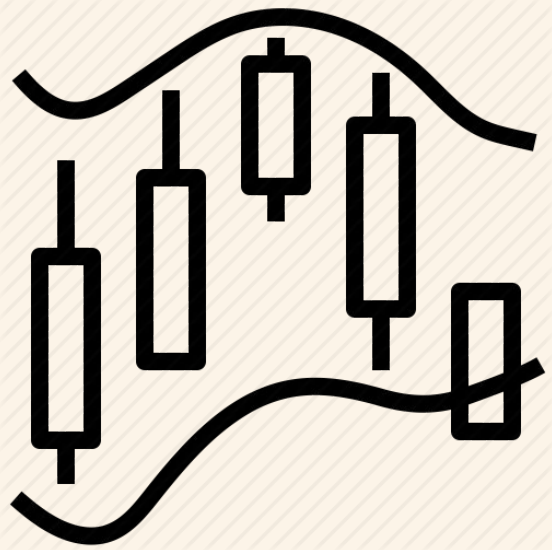


Work on Marketing Plan

- Conduct Marketing Environment Analysis
- Evaluate five transportation-related applications we identified currently out in the marketplace
  - King County Trip Planner
  - King County MyCommute
  - TransitGO
  - Google Maps
  - OneBusAway

Work on Technical Analysis

- Working with PSRC to create models of downtown region with traffic volumes loaded
- In process of using Emme to develop a playbook for model accident we are focusing on



Thank you for listening!