Problem and Objectives

- **Goal**: Come up with solutions for an aesthetic problem affecting the future of Hamilton transit
- **Question**: Have you ever had experiences at a transit station that discouraged you from taking public transit?

Diagram:
- Platform Idle Time
- Platform Environment
- Public Transit (LRT) Experience
Findings and Results

- Art and landscaping
- Maps and Guides
- Display: Clock, weather, next tram notification
- Weather design considerations
- Multi-modal use (ex. Bike/Wheelchair Accessible)
Timeline of Learnings

- **Group Formation**
- **MacChangers Bootcamp**
- **Coaching Session and Research Primer**
- **Presentation Workshop & Coaching Period**
- **Panel with Transportation Experts**
- **Final Presentation**

**Learnings:**
1. Problem identification
2. Focusing the problem
3. Stepping in the shoes of the stakeholder
4. Process > Outcome
Thank you for listening!

Questions?
MacChangers
Alternatives to Automobile Bicycles

By: Li Xu
Shelly Cai
Figure 1: Mode Share of all Trips in the GTHA (2011)
Problems with Bicycles

- Linkage of bike lanes
- Get damp in the rain/snow
- Easy to be stolen
Linkage of Bike Lanes

https://www.youtube.com/watch?v=hzSEsyaojwM
Linkages

Bike lane on York at Dundurn: no obvious way to turn left
Dangerous Cycling Conditions on Hwy 403 Bridges

Cyclists are forced to ride with 60km/h+ traffic in a bike lane

share the narrow sidewalk with several other pedestrians

Gap between bike lanes in busy traffic
Solutions

At the sidewalk level
Create waiting area for cyclists

Traffic light for bicycles
Get damp in rain/snow
Underground Bike Parking
Underground Bike Parking
Underground Bike Parking
Easy to be stolen

...
Bike Tracker

- Very affordable ($20 - 30)
- Connects to phone app
- Protects the bike
References

Thank you!
McMaster
Integrated Smart
Student Bus Pass

Macchangers - Big Data and Transportation
Nurefsan Davulcu & Dorsa Yazdanpanah
Let’s talk about McMaster Bus Passes
Solution: Smart Integrated Bus pass – What is it?

Origination 1997: Hong Kong

Sources: National Post, LTC Online
Integrated Bus Pass

Student Convenience

Information Gain

Reducing Environmental Impact

Integrated Bus Pass

Security

Cost Reduction for students/McMaster

- Flexibility
- Lowers/contain fare administration cost
- Links ridership and service data
- Supports Improved Boarding Time

$3.7 million investment

Expected Payback of 8 Years

Sources: London Transit, Fanshaw College smart bus pass, McMaster Fast Facts
“HSR real-time data has arrived ... almost”

July 26, 2014
Hackathon was held for developers to take advantage of new open data

July 31, 2014
Open Data was made Available

.opendata.hamilton.ca - /

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Monthly Update
- 4/1/2017 12:59 AM
- 4/1/2017 12:59 AM
- 10382 ACCOMMODATIONS.csv
- 15988206 ADDRESS_POINTS.csv

Real Time
- 4/11/2017 4:25 PM
- 4/11/2017 4:25 PM
- 13 GTFS_ServiceAlerts.pb
- 189058 GTFS_TripUpdates.pb
- 15878 GTFS_VehiclePositions.pb

Sources: Hamilton Spectator, Software Hamilton
What’s in the making?
McMaster 2017 HSR Referendum

“Change in fee structure is a $5 fee for Presto card integration”

Source: MSU
Discussion
Transportation and Social Inequalities

EMILY MARTIN, JORDAN SULLIVAN, AMBIKA ARGWAHL, JESSICA WONG
Problem Identification

Is it actually a problem?
Is the solution feasible?
Starting Over

Developing an inquiry question
Collecting data
Avoiding opinion drawn conclusions
What We Learned

School vs. Reality
Timeline
Being thorough
Impacts on people and society
Thank You