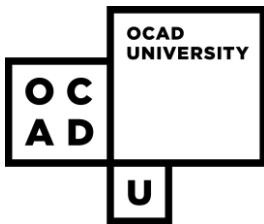


Project 3.2 Visual Analytics StoryFacets



(Davidson) Minsheng Zheng
June 27th, 2016

My Background

2012

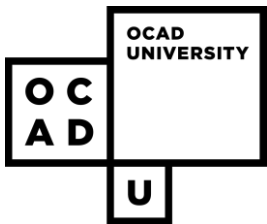


Computer Science
UNIVERSITY OF TORONTO

2014

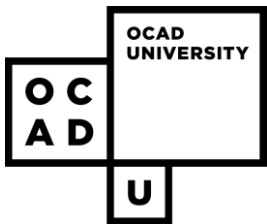
 **Rakuten**

2016



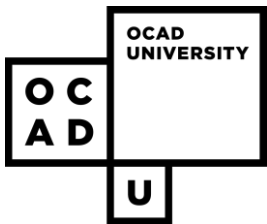
Agenda

- My Role
- StoryFacets - Overview
- Goals
- StoryFacets Demos
- Future works and Improvements
- Development & Collaboration
- StoryFacets - Technical Components
- Questions



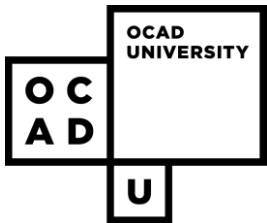
My Role

- Enhance the quality and the performance of the web-based visualization prototype, StoryFacets
- Design and implement additional features
- Provide technical support to the user studies of StoryFacets
- Provide technical support to comparative studies between visualization systems, Betaville and StoryFacets, on urban transportation data



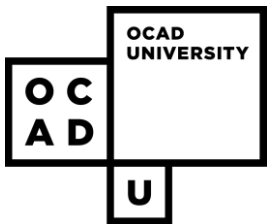
StoryFacets - Overview

- Visual exploration and presentation system for relational data
- An enhanced version of GraphTrail
- One source, multi-media
- Explore with provenance
- Collaboration-minded and communication-centered design, suited for transportation planning
- Multiple views of a data analysis session (Trail, Dashboard, and Slideshow)
- **(New!)** csv file import and data modelling



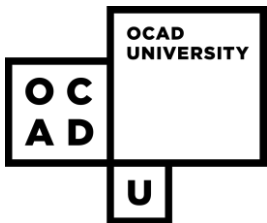
Goals

1. Data collection and loading
2. App performance tuning
3. Integration of exploration annotation and qualitative data (trail markdown card)
4. Implement general purpose data import (.csv file)
5. Manage relationship between datasets



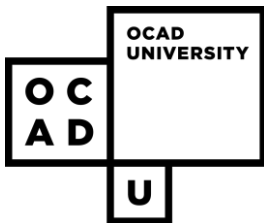
StoryFacets Demos

Notice: the following demos are GIFs, it will be played in loop.



StoryFacets – Trail Markdown

The screenshot displays the StoryFacets web application interface. At the top, the title "StoryFacets" is centered, with navigation links for "Data", "Trails", "Dashboards", "Slideshows", "test1", and "Logout" on the right. Below this, a secondary navigation bar includes "Qual data", "Trail" (which is selected), "Dashboards", and "Slideshows". A blue header bar contains the text "Entity" followed by three icons: a plus sign, an information icon, and a refresh icon. On the far right of this bar is a "Public" status indicator. The main content area features a large image of a traffic jam on a highway, labeled "Markdown" with a "Remove" link. Below the image is an "Edit" link with a document icon. The background of the main area is a light blue gradient.



StoryFacets - Dashboard

ceAnalyze0420 Explore Dashboard Story

Dashboards

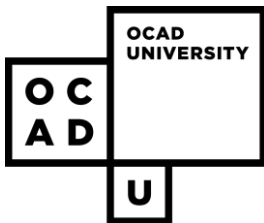
Type the new dashboard name

Search

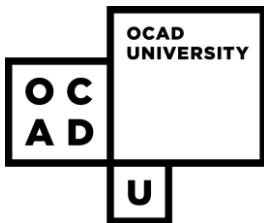
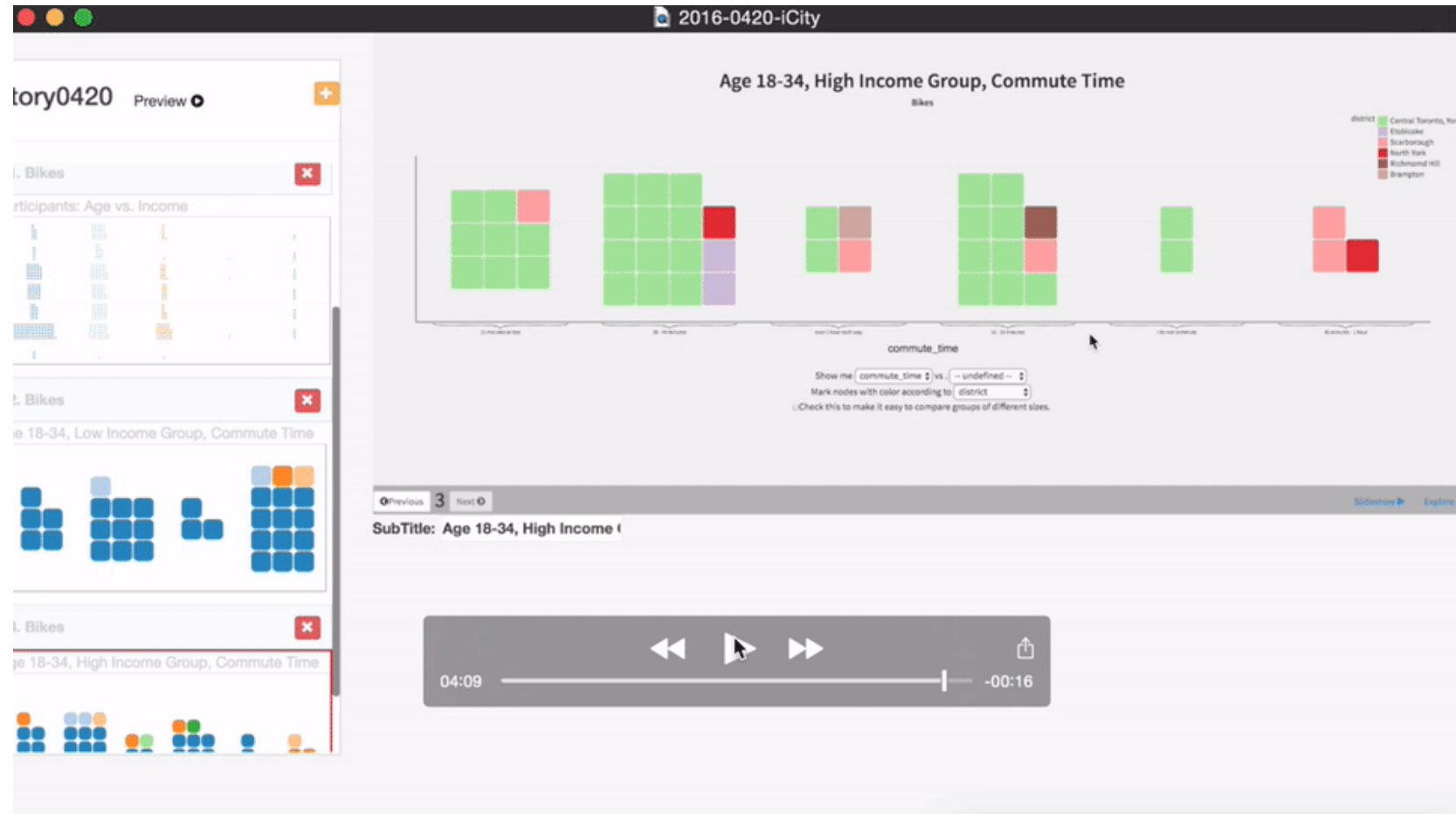
ceAnalyze0420

Total number of dashboards: 1

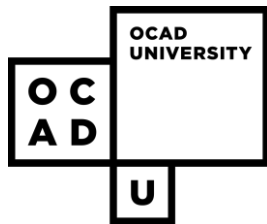
Import existing explorations into Dashboard View



StoryFacets - Slideshow



StoryFacets – CSV File Import



StoryFacets Data Trails Dashboards Slideshows test1 Logout

Data

Upload a CSV file

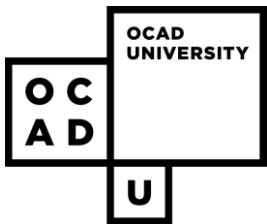
Drop files here or click to upload

Existing Entities

Manage Relationships

Total number of entities: 0

StoryFacets – Define Relationship



StoryFacets Data Trails Dashboards Slideshows test1 Logout

Data

Upload a CSV file

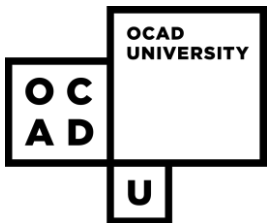
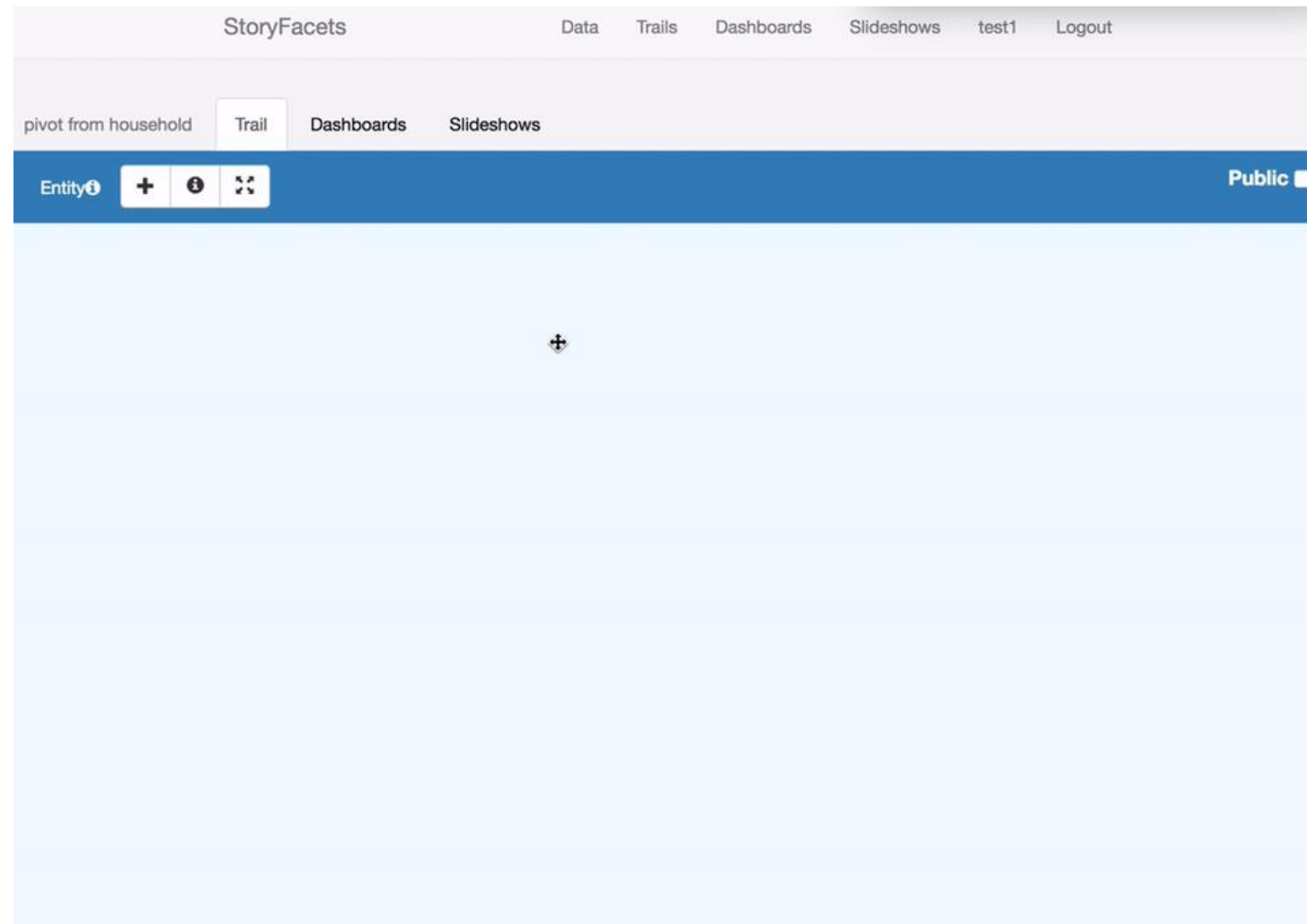
Drop files here or click to upload

Existing Entities

Manage Relationships

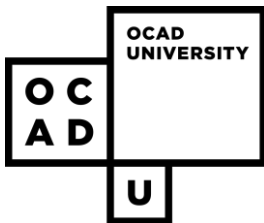
Respondents	
Rel-household-sm	

StoryFacets – Trail - Pivot



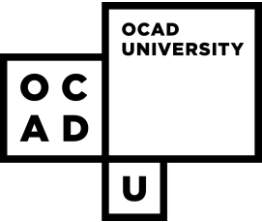
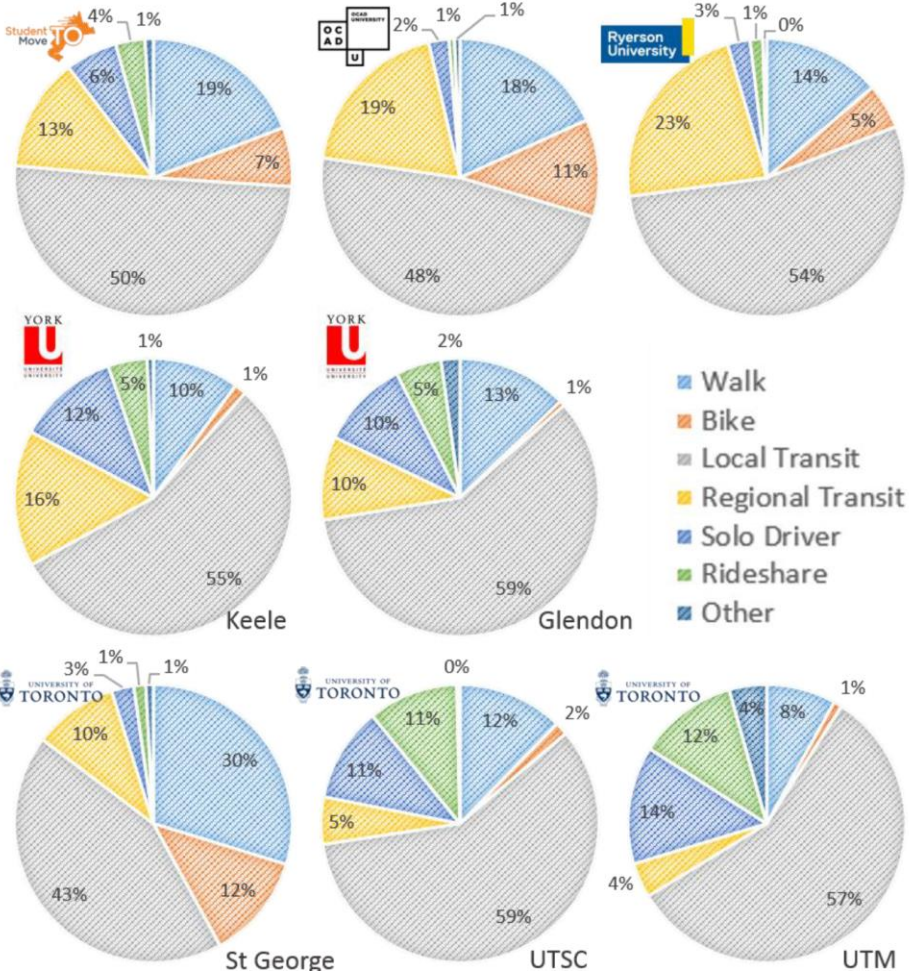
Example – Exploring Student Moveto Data

- ~15k responses
- Fall 2015
- Where students live and travel
- What influence how they schedule daily activities

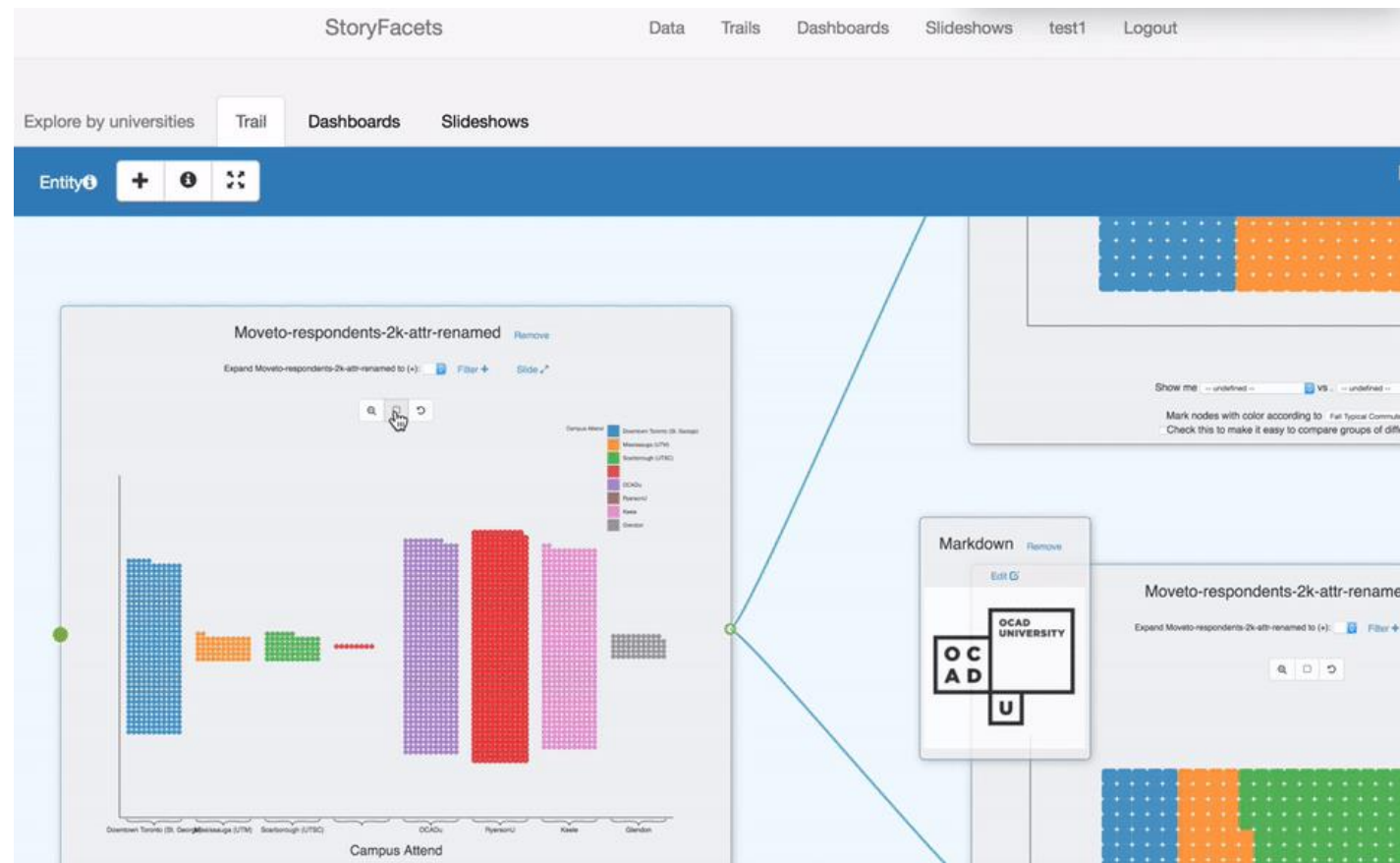
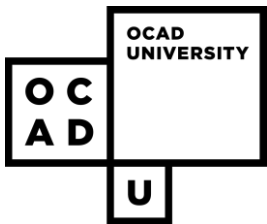


Student Moveeto Visualizations

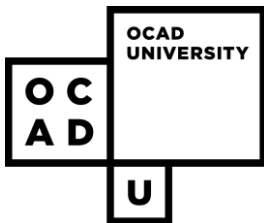
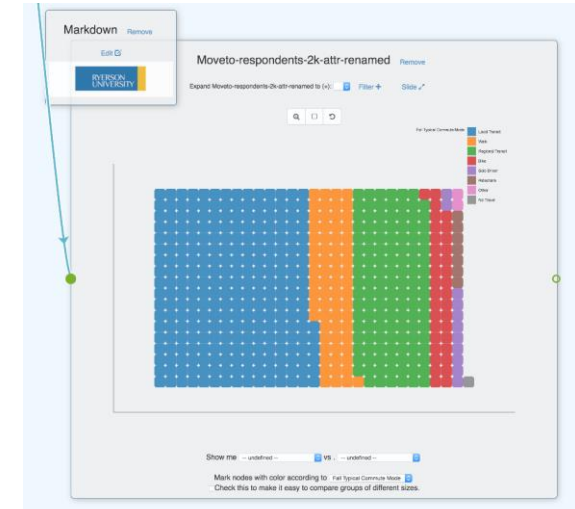
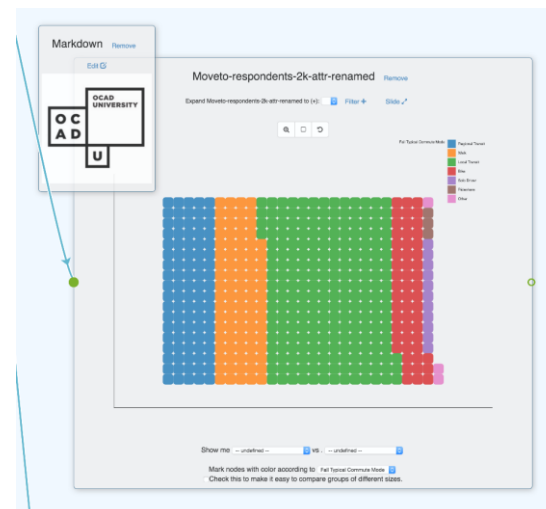
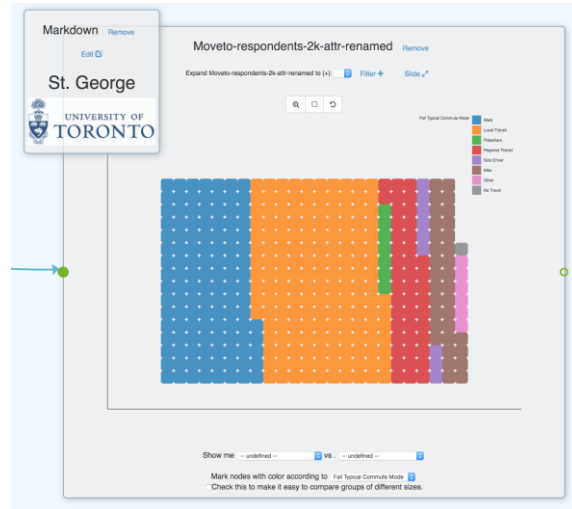
MODE SHARE, TRAVEL TO CAMPUS



StoryFacets Visualizations - Student Moveto data

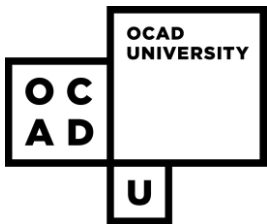


StoryFacets Visualizations - Student Moveto data



Future works and Improvements

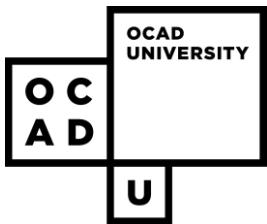
- Project View
- Design and implement optimal user experience
- Incorporate more visualization chart types (e.g. pie chart, bar chart, and etc.)
- Support more import data types
- Scale StoryFacets up for massive dataset and multiple connections (users)
- Recommend exploration based on common paths for a given dataset



Development



Collaboration



StoryFacets - Technical Components

Frontend:

Angular  **Meteor**

Bootstrap



Backend:

 **mongoDB**

Hosting:



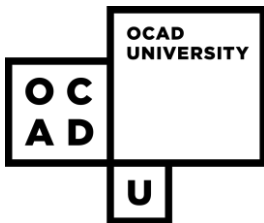
IBM Bluemix™



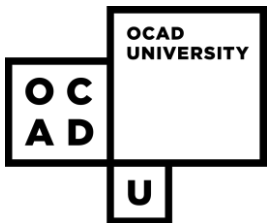
HEROKU



mLab



Questions



THANK YOU

