

The Paths We Walk



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Presented at the PIMS Datathon in Calgary on June 24, 2018

Hypotheses About Mental Models

Mental map for
walking | Maps
where one can't
go

Mental map for
accessibility |
Maps where one
can't go

Mental map for
driving | Maps
where you can go

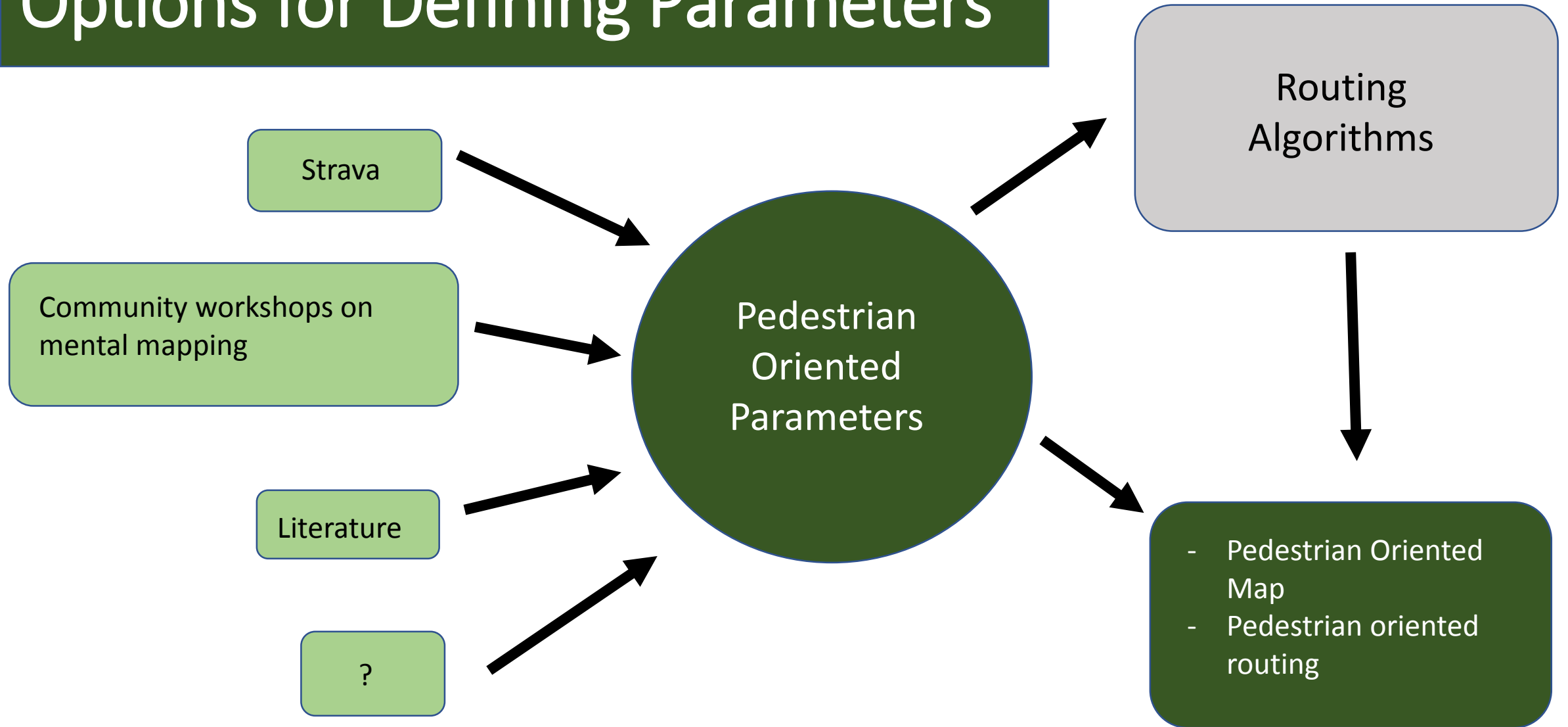
Hypotheses About Data Use and Implementation

Data Collection is based on car usage

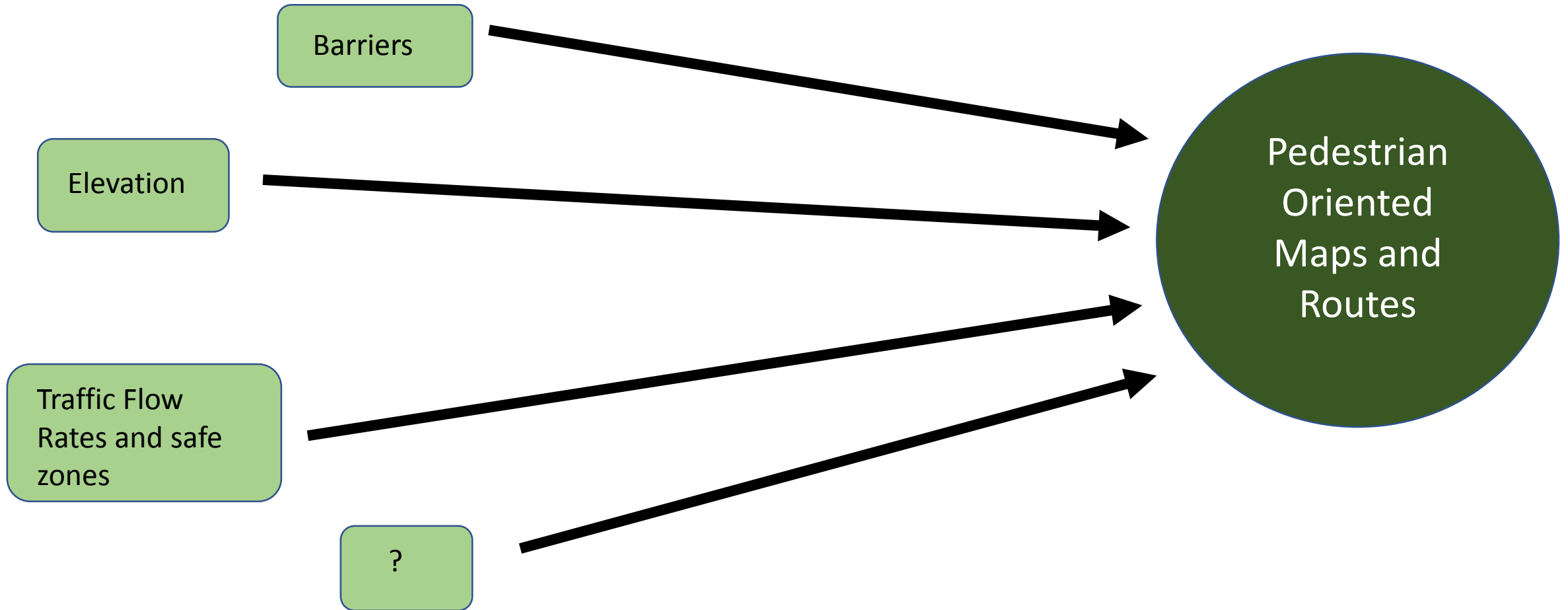
Defining pedestrian route by barriers and no go zones

The algorithms are effective, the parameters input are not

Options for Defining Parameters



Hypothesized Parameters



Pedestrian Routing



The Paths We Walk

Do you like to walk to your destination instead of driving?

According to Mayo Health Clinic, walking has many health benefits which include:

- Keeping a healthy weight
- Improving your mood
- Preventing or managing conditions like heart disease
- Strengthening bones and muscles

But mapping algorithms for Google Maps typically work best for cars. Calgary has datasets that could improve pedestrian routing!

ROUTING

Park Barriers, Park Planting Beds, Plus 15, Land Usage, Rail Tracks, Current Traffic Incidents and Construction

6 Datasets

that are currently available.



SAFETY

Traffic Volumes for 2017, Traffic Incidents Heat Map, Pedestrian Motor Vehicle Collisions Map

4 Datasets

that can improve pedestrian routing.

FUTURE

Sidewalk Availability, Alleyways, City Barriers, Underground Rivers, Pathway Usage

5 Datasets

that could help improve pedestrian routing.

BROCHURES

Based on pathway usage, local communities can create personalized walking brochures!

Let's remember that not everyone is tech savvy.

Information Source:

<http://data.calgary.ca>

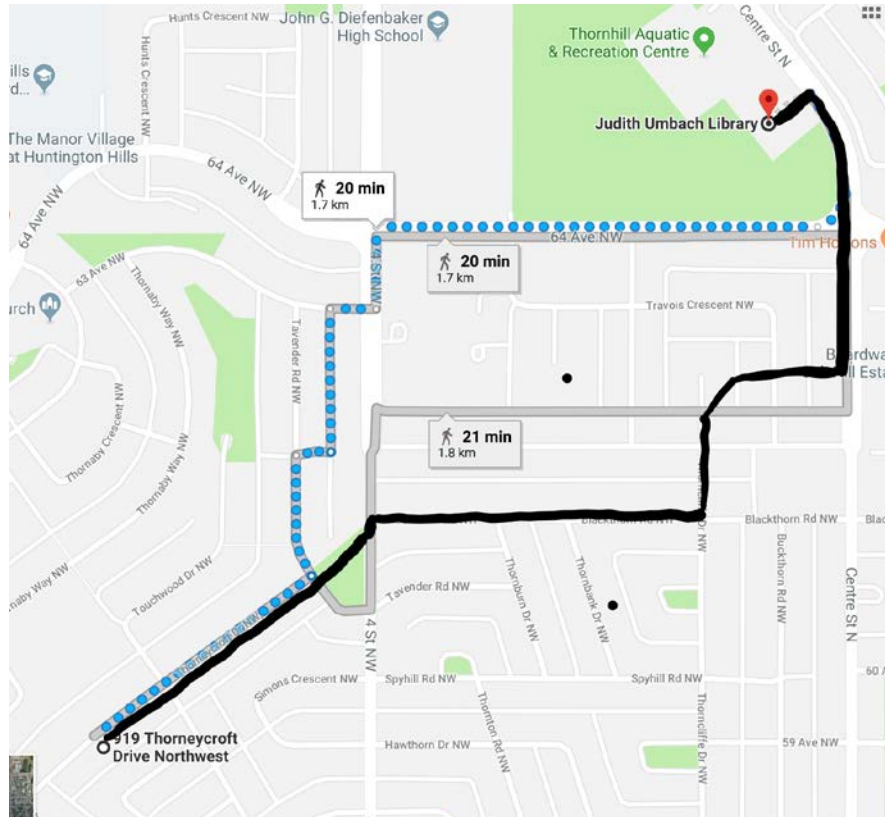
<https://www.mayoclinic.org>

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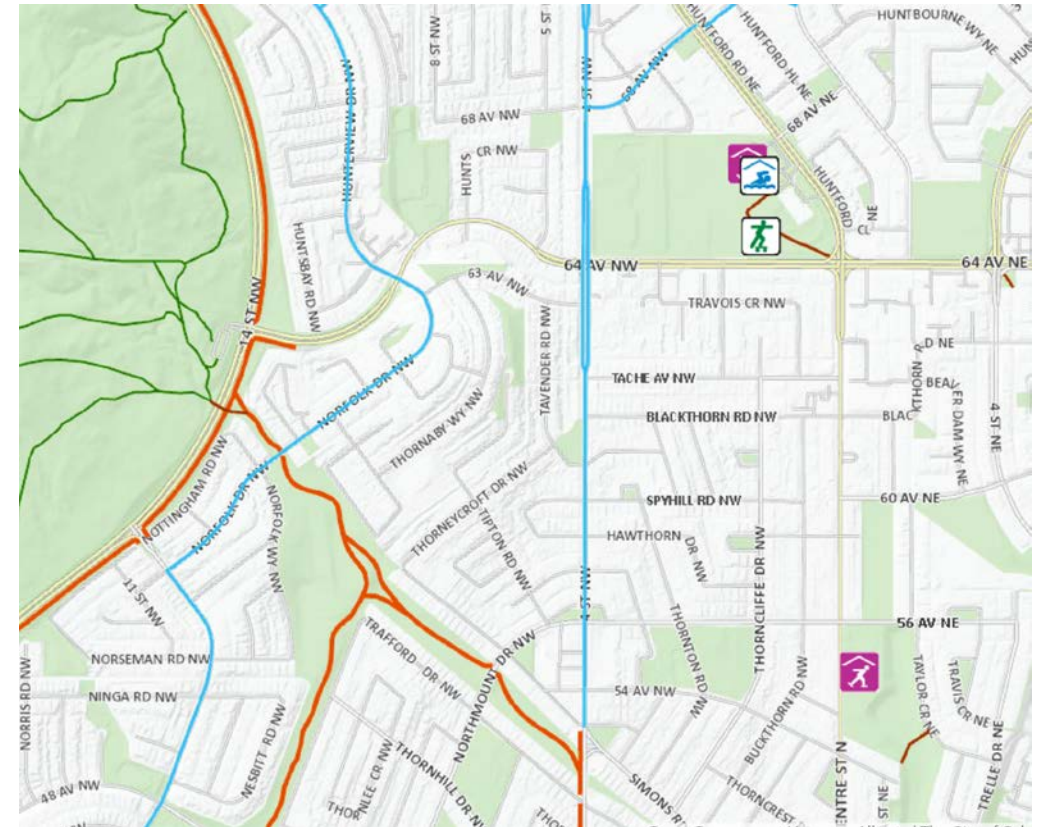
PIMS DATATHON



Mapping Outcomes



Google maps Route with Actual
Route in Black



City of Calgary Pathways Route Does not
correspond with actual route in yellow