

Green City Hackathon

Team 4 Presentation

Team 4

Kentaro Rodriquez Portilla
Urban Planner
Mexico

Manuel Schandock
Text mining, job vacancy analyst
Germany

Wasim Abbas
Statistician
Pakistan

Joanne Pascale
Survey Methodologist
United States

Goal: Produce and Map an Accident Rate

Datasets:

1. Accidents by geopoints
 - a. Bike only
 - b. Bike and car/motorcycle/other vehicle
2. Traffic counts
 - a. Mean number of bike crossings per geopoint per day
 - b. Mean number of car crossings per geopoint per day
3. Map of cycle paths and bike lanes

Connecting the Dots

- Use spatial relation GIS package to connect geoints in accident and traffic count datasets
- Tune the radius parameters
- Produce rates
 - bike accidents per BIKE crossing at geoint with a radius of X
 - bike/vehicle accidents per BIKE crossing at geoint with a radius of X
 - bike accidents per CAR crossing at geoint with a radius of X
 - bike/vehicle accidents per CAR crossing at geoint with a radius of X

Accident Numerator

ID	Accidents by Type of Transport	X	Y
1	Bike only	430384,25	4582001,59
2	Bike and car/truck/motorcycle	433205,10	4582713,55
3	Bike and car/truck/motorcycle	429371,43	4583435,83
4	Bike only	427482,28	4580848,28
...

Car Traffic Denominator

ID	Mean Car Crossings per Day	X	Y
1	0.37	430384,25	4582001,59
2	0.24	433205,10	4582713,55
3	0.21	429371,43	4583435,83
4	0.49	427482,28	4580848,28
...

Bike Traffic Denominator

ID	Mean Bike Crossings per Day	X	Y
1	0.21	430384,25	4582001,59
2	0.46	433205,10	4582713,55
3	0.09	429371,43	4583435,83
4	0.06	427482,28	4580848,28
...