# Comparing big multicultural city neighborhoods

February 2, 2020

# Why is it important?

Comparing counties/cities based on social and economical factors is important for people of wide spectrum of domains
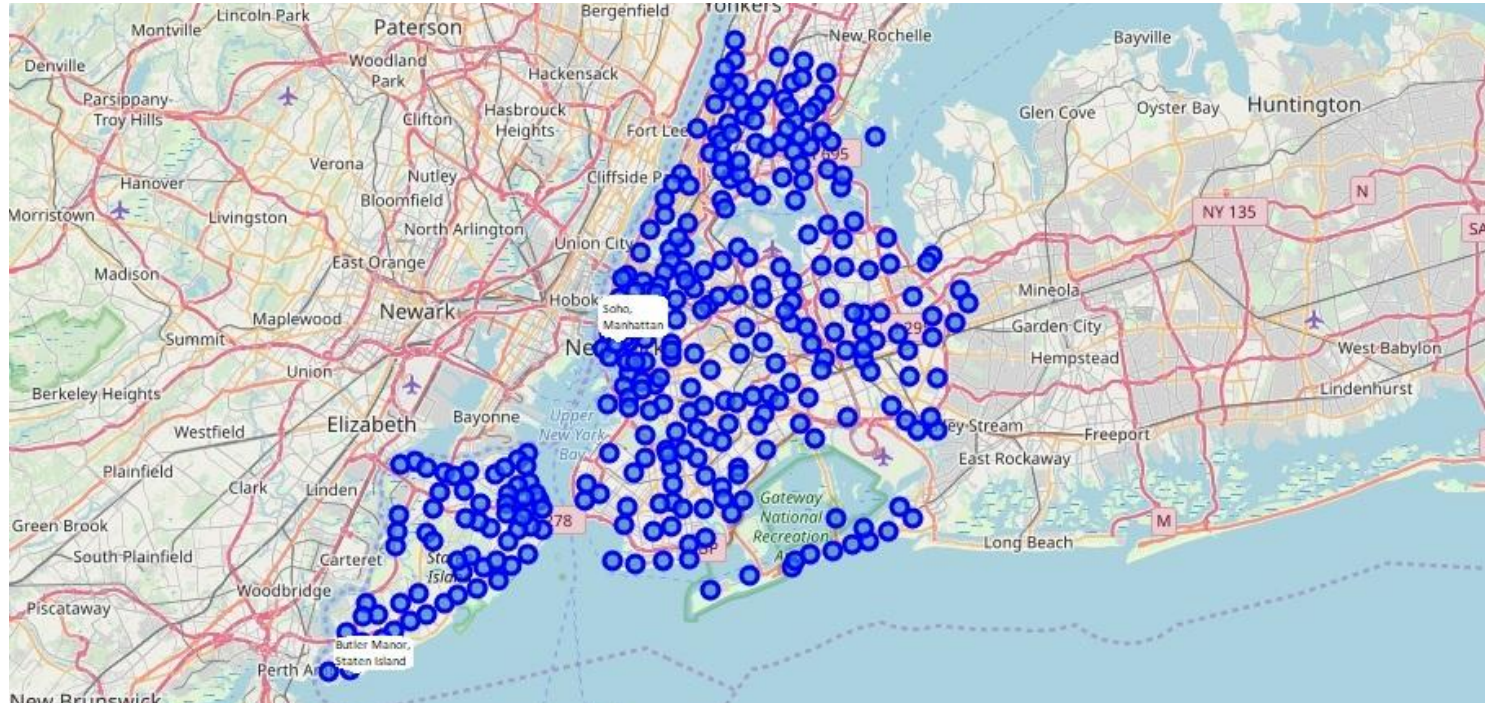
- in order to track progress over time
- to use as guidelines as to what needs improvement
- to track progress in comparison with countries in other regions, continents or ones belonging to specific international organizations like NATO, EU etc

# Data acquisition and cleaning

- New York
  - https://cocl.us/new_york_dataset
  - Foursquare venues API
- Toronto
  - https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M
  - Geospatial_Coordinates.csv
  - Foursquare venues API

# Visualising neighborhood locations - New York

# Visualising neighborhood locations - Toronto

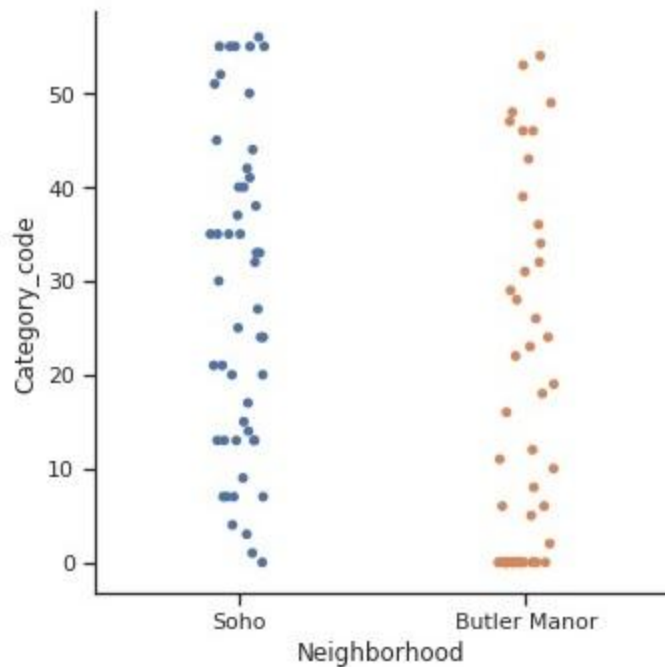# Comparing the neighborhoods by most venue categories

- **Center neighborhoods**
  - Office
  - Park
  - Pizza Place
  - Woman's and Men's Stores
  - Yoga Studio
  - Cafes
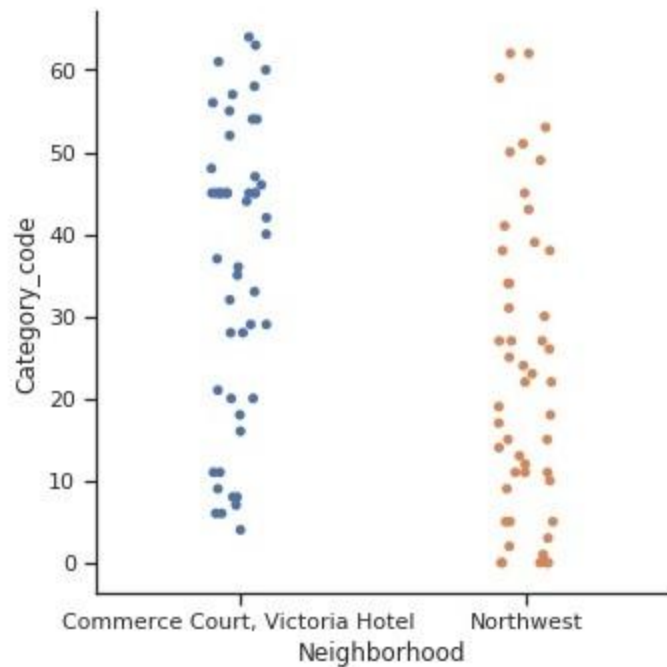  - Clothing Stores

- **Neighborhoods in the outskirts**
  - Doctor's office
  - Dentist's office
  - Drugstore
  - Airport
  - Hardware Store
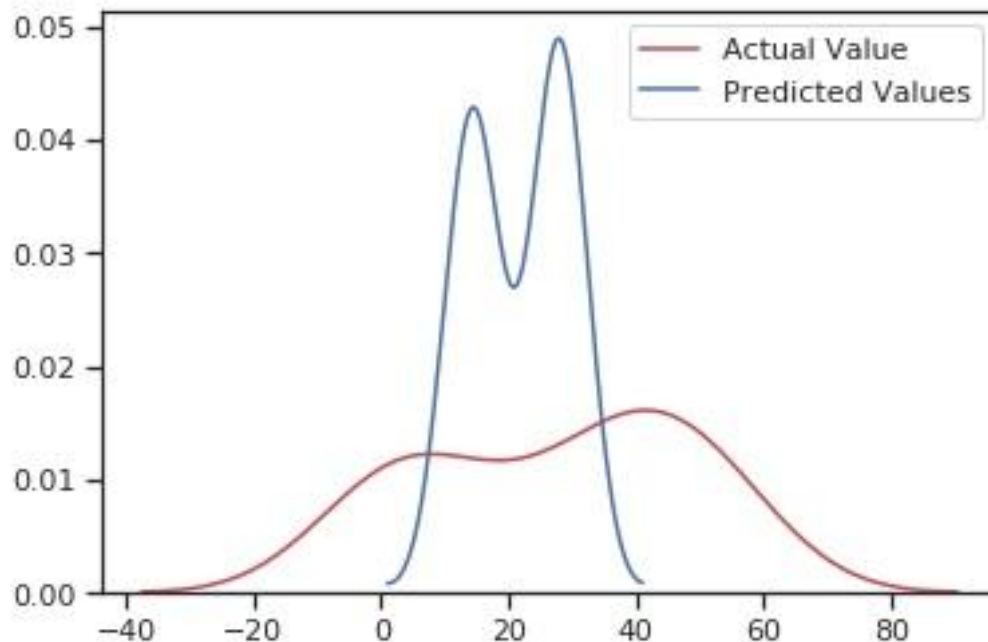  - Grocery Store
  - Medical Center

**New York**

Category_code

Soho          Butler Manor

Neighborhood

**Toronto**

Category_code

Commerce Court, Victoria Hotel          Northwest

Neighborhood

# Exploring prediction model

Venue categories based on distance from city center

# Conclusion

1. There is an clear relationship between a venue location in the city and what category it would fit in

2. With the limitation of the current data it was impossible to create a predictive model to categorize a venue based on distance