

Moving to a child friendly  
neighborhood in



# Introduction

## Choosing a neighborhood in Madrid

- Irene and Carlos will be soon **moving to Madrid**.
- They want to continue enjoying the type of **venues like** they enjoy **Chelsea** (Manhattan).
- They want to raise their future baby in a **child friendly neighborhood**.

**Which of Madrid's neighborhoods  
will best suit their needs?**



# Data Sources

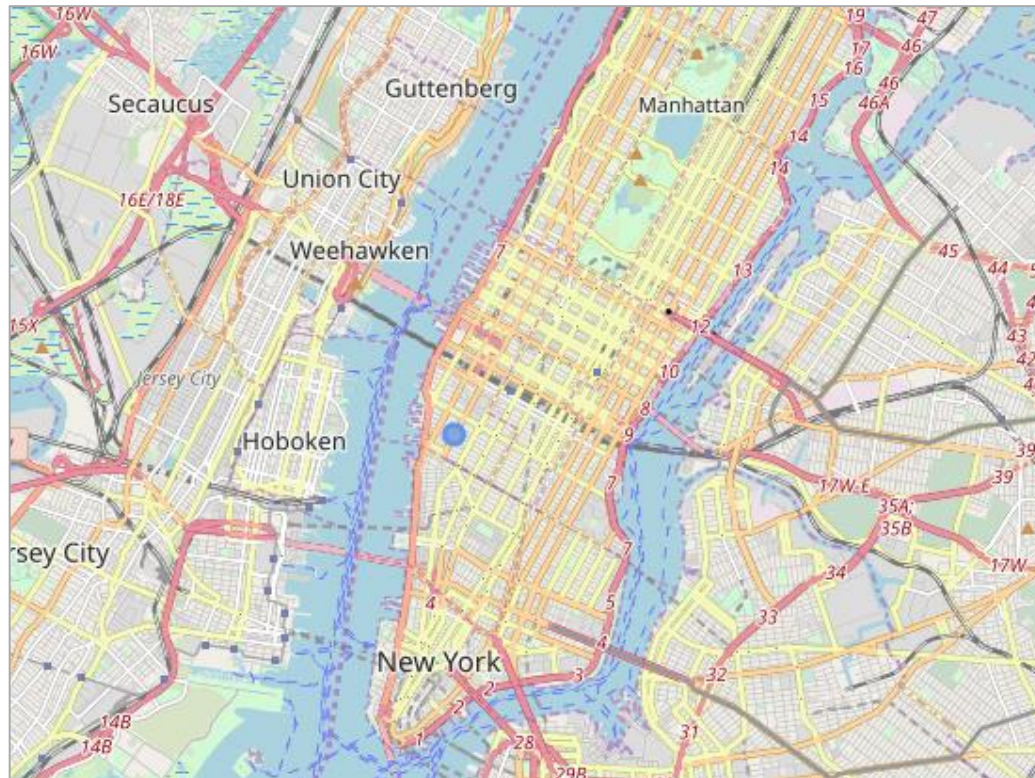
- Chelsea:
  - Geo Data: Conitive Class
  - Venues Data: Foursquare API
- Madrid:
  - Geo Data: <https://datos.madrid.es> + GeoPy library.
  - Venues Data: Foursquare API
  - Child Friendly Spots Data: <https://datos.madrid.es>



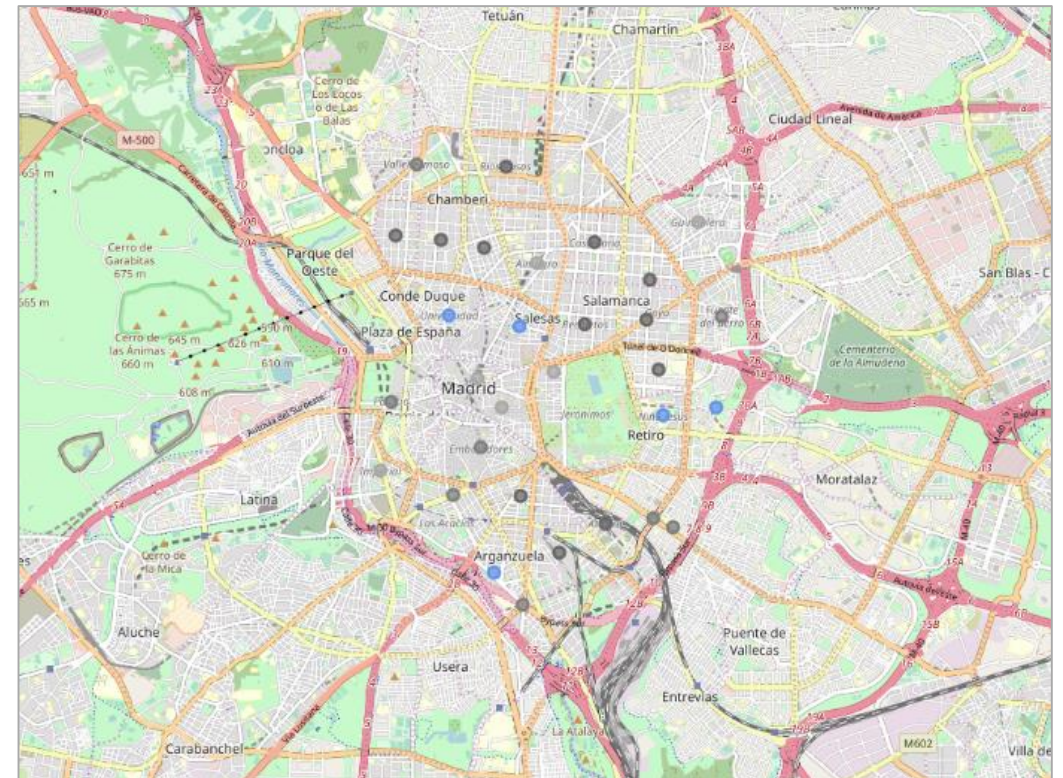
# Methodology

## k-means venue clustering of neighborhoods

Chelsea:



Madrid:



# Methodology

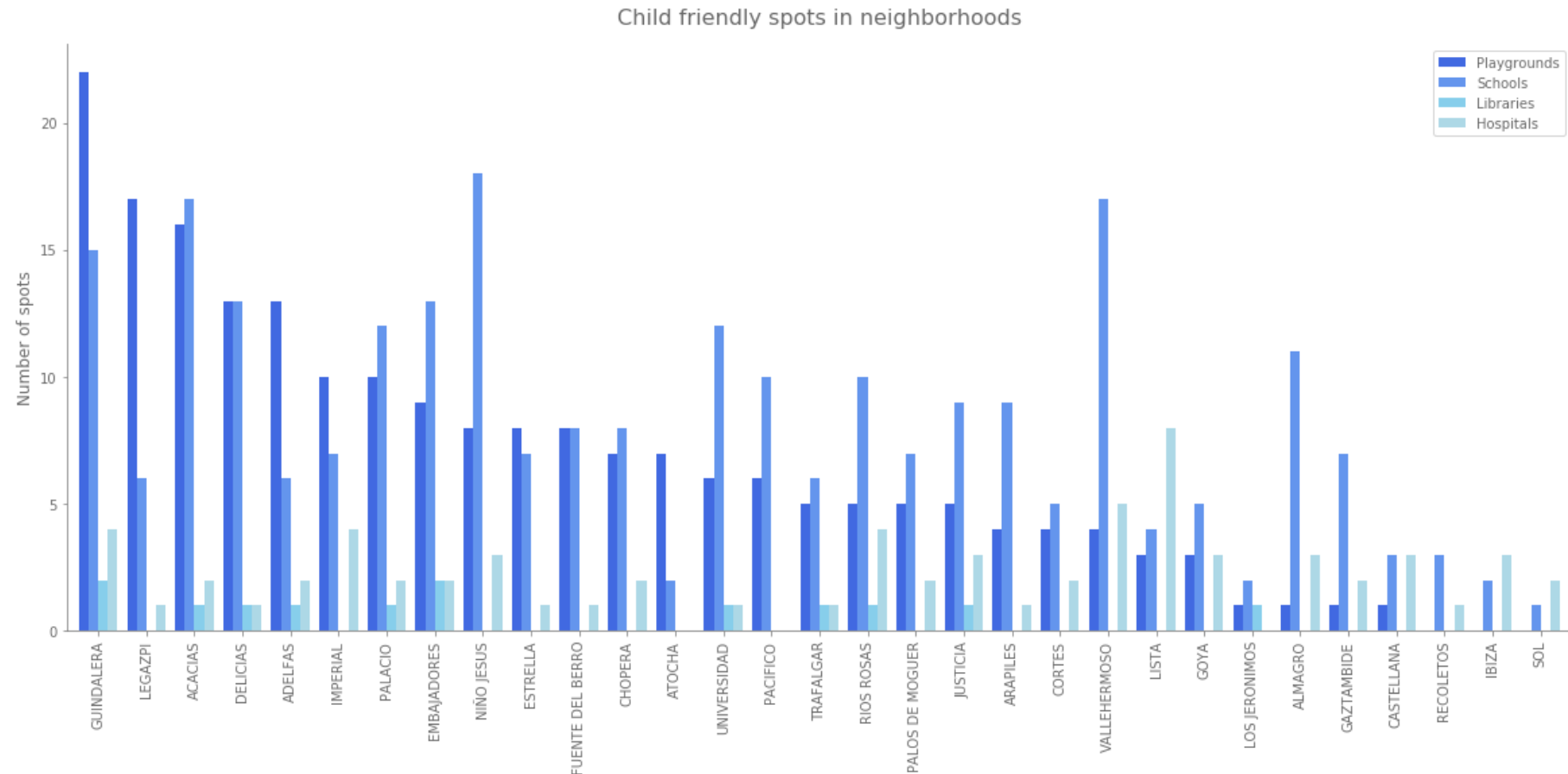
## Chelsea's cluster most common venues

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	CHELSEA	Coffee Shop	Bakery	Ice Cream Shop	Italian Restaurant	Hotel	Nightclub	Wine Shop	American Restaurant	Theater	Breakfast Spot
4	JUSTICIA	Restaurant	Bakery	Spanish Restaurant	Italian Restaurant	Vegetarian / Vegan Restaurant	Hotel	Gay Bar	American Restaurant	Flower Shop	Deli / Bodega
5	UNIVERSIDAD	Bar	Bookstore	Cocktail Bar	Tapas Restaurant	Theater	Café	Restaurant	Argentinian Restaurant	Chinese Restaurant	Spanish Restaurant
9	CHOPERA	Italian Restaurant	Park	Art Gallery	Burger Joint	Tapas Restaurant	Coffee Shop	Spanish Restaurant	Bar	Restaurant	Mobile Phone Shop
16	ESTRELLA	Coffee Shop	Park	Cocktail Bar	Italian Restaurant	Sports Club	Spanish Restaurant	Café	Chinese Restaurant	Restaurant	Pool
19	NIÑO JESUS	Spanish Restaurant	Italian Restaurant	Park	Bar	Supermarket	Gym	Café	Cocktail Bar	Coffee Shop	Plaza



# Methodology

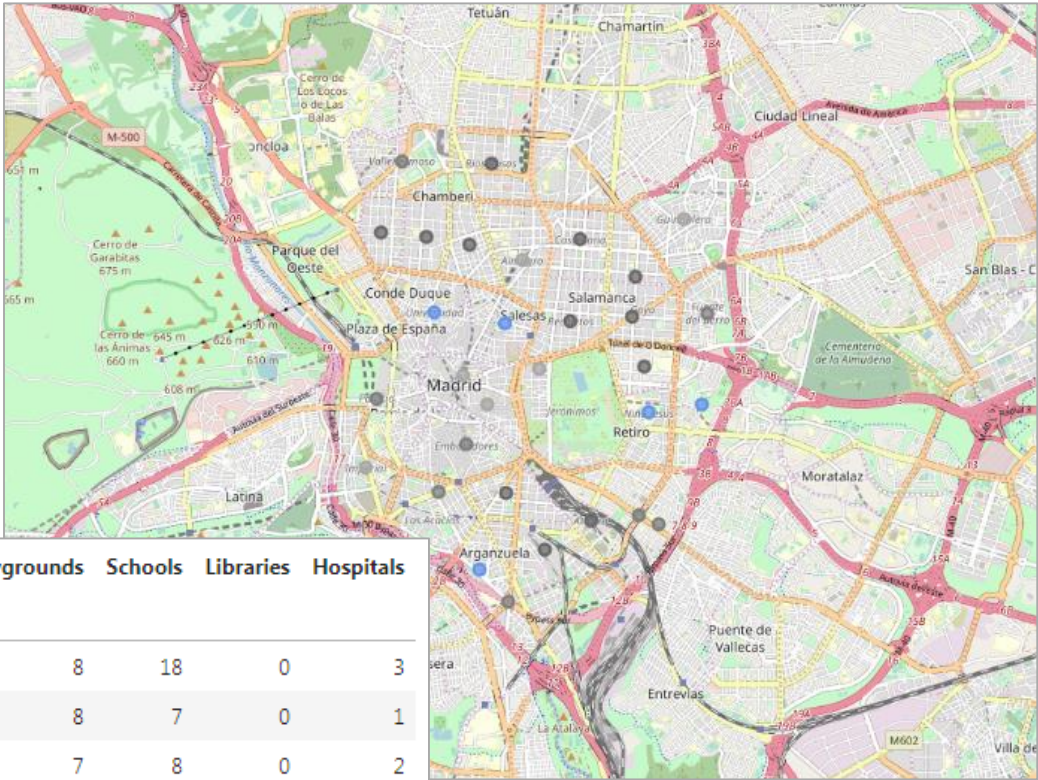
## Analysis of child friendly spots distribution



# Results

## Neighborhoods in Chelsea's cluster

- Neighborhoods in Chelsea's cluster most commonly offer venues such: **Coffee shops, bakeries, Italian and American restaurants, parks and hotels.**
- Madrid's neighborhoods in Chelsea's cluster have a similar number of child friendly spots.



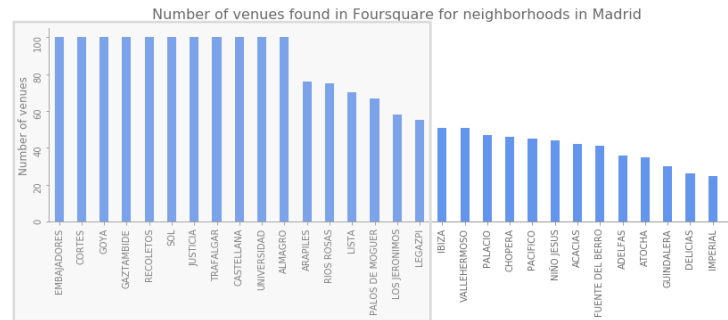
					Playgrounds	Schools	Libraries	Hospitals
Neighborhood								
	NIÑO JESUS	8	18	0	3			
	ESTRELLA	8	7	0	1			
	CHOPERA	7	8	0	2			
	UNIVERSIDAD	6	12	1	1			
	JUSTICIA	5	9	1	3			
0	CHELSEA	Coffee Shop	Bakery	Ice Cream Shop				
4	JUSTICIA	Restaurant	Bakery	Spanish Restaurant				
5	UNIVERSIDAD	Bar	Bookstore	Cocktail Bar				
9	CHOPERA	Italian Restaurant	Park	Art Gallery				
16	ESTRELLA	Coffee Shop	Park	Cocktail Bar				
19	NIÑO JESUS	Spanish Restaurant	Italian Restaurant	Park				

Restaurant	Argentinian Restaurant	Chinese Restaurant	Spanish Restaurant
Burger Joint	Tapas Restaurant	Coffee Shop	Spanish Restaurant
Bar	Sports Club	Spanish Restaurant	Café
Supermarket	Gym	Café	Cocktail Bar
Pool	Plaza	Coffee Shop	Mobile Phone Shop

# Discussion

## Foursquare data issues

- Only for a **60%** of the neighborhoods **more than 50 results** were retrieved querying Foursquare.



- Some venue categories strongly resemble one another and hence, similar venues might have been divided into different categories:
  - Café – Coffee Shop
  - Gym – Gym / Fitness Center

**This issues can be easily addressed in future studies.**



# Conclusion

## Most suited neighborhoods

- Based on their needs, Irene and Carlos should move to one of the following neighborhoods:
  - Niño Jesús
  - Estrella
  - Chopera
  - Universidad
  - Justicia
- My personal favorite within this neighborhoods is **Justicia**.

