





Neighborhoods = City districts that share the same *character*

Assignment

- Design and implement a system that *automatically detects neighborhoods* in the city of Amsterdam, characterized by <u>common attributes</u>.
- Use primarily <u>social media</u> as a source of information.
- The selected attributes will ideally <u>vary over space and time</u>.
- Result: an online atlas of various data-driven profiles of Amsterdam.

IN4325 – Information Retrieval Achilleas Psyllidis



Data sources

- Mandatory: Twitter; Instagram; Foursquare; Flickr etc. (using their APIs)
- Optional: AirBnB; TripAdvisor; Uber etc. (using data scraping)



Examples of attributes

- Topics (using text mining)
- Language
- Online contacts (followers etc.)
- POI categories
- User profile information (e.g. age, gender, nationality etc.)
- Others?

Search Engine

ElasticSearch

Web mapping

• Leaflet, Carto etc.

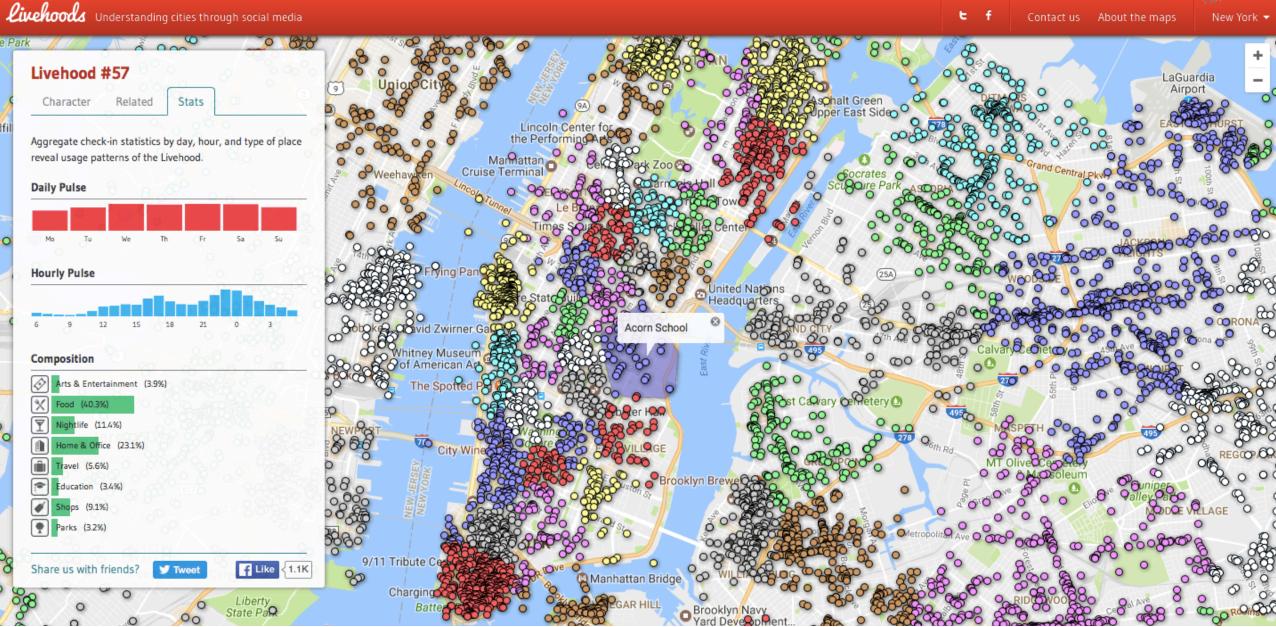
IN4325 – Information Retrieval Achilleas Psyllidis

Data-driven City Profiles | Examples

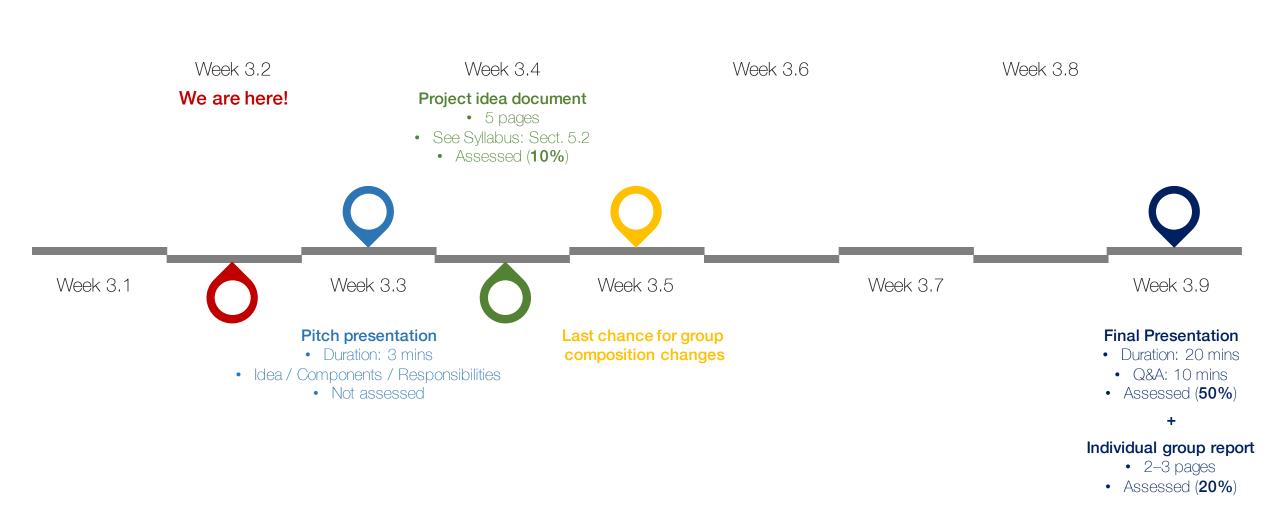


Data-driven City Profiles | Examples









IN4325 - Information Retrieval Achilleas Psyllidis

Off to a great start!