MPRI Web Data Management Project
Aligning personal data : ccTV tracker using geolocalisation

Andreea Beica, Robin Champenois

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1 Overview

The purpose of the project is to locate surveillance cameras on whose footage a person could appear during their daily trajectories, using geolocalisation information gathered by generally available API's, such as Google Maps Location, or Open Street Map.

2 Organisation

The project is organised as follows:

- geolocalisation information collection: we use the Google Location History feature of Google Maps (accessible via a Google account) in order to track our trajectory and then retrieve and store all the visited locations in a suitable format (i.e., latitute + longitude)

- surveillance camera database construction: sing the Open Street Map API, we construct a database of all the positions of surveillance cameras; we envisaged using more than one database, one for every region we would decide upon, in order anticipate large-scale storage or more efficient querying, but ultimately found that doing so did not improve things in a significant manner

- external information collection: we then proceed to locate other potential surveillance cameras that might have caught footage of us but aren't contained in the information provided by Open Street Map; for this, we use the geolocalisation information gathered earlier on and the Google Places API to find places of interest we might have passed; we then filter these places, keeping only the ones that are usually equipped with ccTV cameras (e.g., ATM's, banks, public institutions, public transport stations)

- locating potential footage: the final step is combining the personal data collected with the ccTV data in order to locate ccTV cameras that might have filmed us during our trajectories