Interactive Exploration of Geographic Regions with Web-based Keyword Distributions

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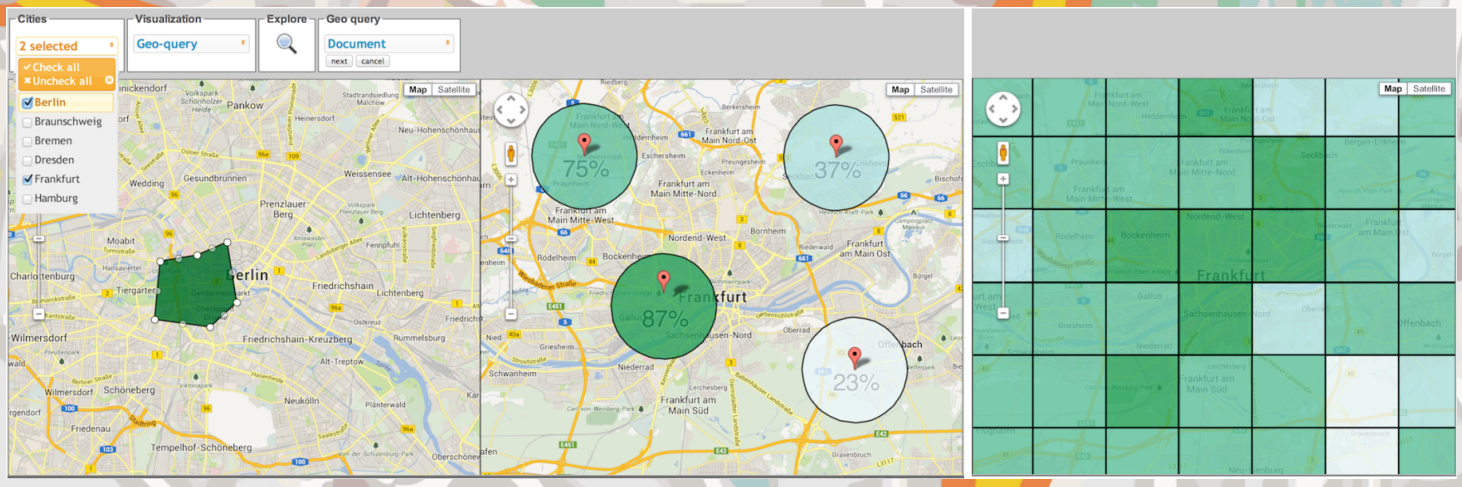
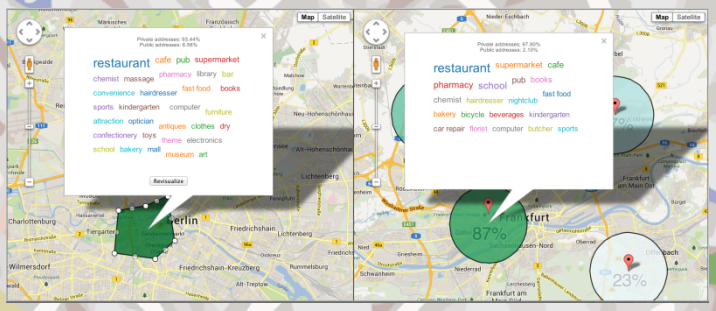
Problem

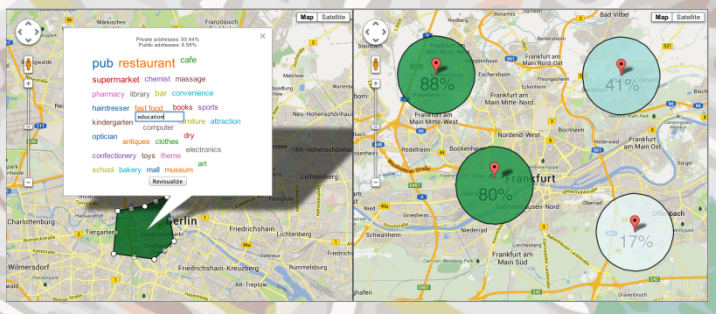
- Conventional local search serves simple sequential requests
- Abstract overview and analysis of geographic regions are not supported
- In touristic and relocation scenarios users look for the makeup of regions

Approach

- Cluster of geospatial Web pages to characterize geographic regions
- Use of keyword distributions for comparison of regions
- Interactive interfaces for the visual exploration of relevant regions







Characterizing regions

* Region of interest: drawing on map (query-by-spatial-example)
* Target regions: placing markers or a generic grid overview

Relevance visualization

* Ranking of regions with KL divergence similarity
* Heatmap visualization of relevance

Exploration & interaction

* Word clouds representing the most prominent keywords
* Move, edit, and delete operations, revisualization