Making human place knowledge digestible by computers
“About 1 in 3 of queries that people just type into a standard Google search bar are about places”

Do you know a coffee shop nearby?

Ed Parsons, Geospatial Chief Technologist of Google
Place: a location reference

"the bus stop in front of the library"

locatum (figure)  →  relatum (ground)

bus stop  →  in front of  →  library

Triplets to graphs

- multiple names in nodes (recognition of synonyms)
- not all places are in GIS (geo-localization)
- multigraph (querying)
- context-dependent (↔ QSR)

Many places have indeterminate boundaries

Contrast sets more relevant than boundaries:

- “Climbed Mt Everest” – not any other peak
- “I am in the Upham” – not any other place of relevance
Place: a location reference

- Contrast sets help with *nearness*
- Place graphs allow automatic selection of contrast sets
  - by connectivity, by type, by hierarchy
The research challenges

- natural language processing
- context capture and modelling
- modelling place knowledge
- reasoning with place knowledge
- integrating with GIS
- interaction design

- comp ling / ML
- ling / ontology
- DB
- AI / QSR
- geo
- spatial cognition
Car, bring us to the café opposite the train station.