Linked Opinions:
Describing Sentiments on the Structured Web of Data

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Use Case: Idea Management Systems
[research motivation]

- Online tool for collecting innovation from customers

- Users submit ideas, comment on them and rank

- Reviewers select best ideas based on "social metrics" (# comments, community rank etc.)

- **Idea:** new metric - opinion mined rating

Use Case: Idea Management Systems
[research motivation]

Use Case: Idea Management Systems
[research motivation]

- My primary line of research: knowledge modelling for Idea Management Systems

- **Task:** model opinions and connect them to the existing model for Idea Management Systems

Why not use Review models ?
[research process]

hReview, schema.org ...

- current schemas do not cover data from opinion mining process (polarity, polarity value...)

- do not point to what precisely the opinion is about

- opinions are not the same as reviews

Why not use Review models ?
[research process]

review

opinions

idea management with reviews and opinions

Why not use Review models ?
[research process]

idea management with reviews and opinions

Marl Ontology
[research process]
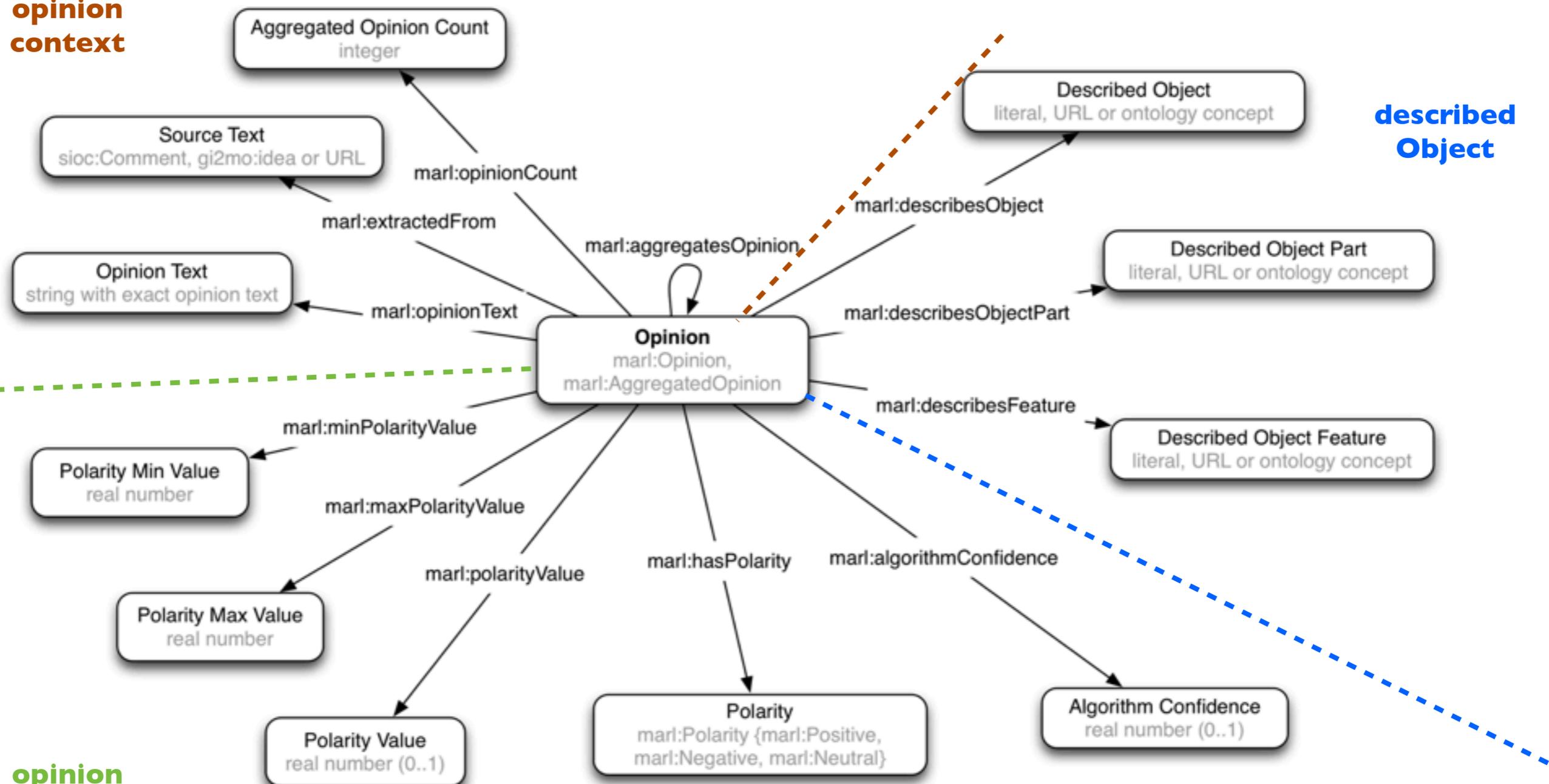
Modelling opinions
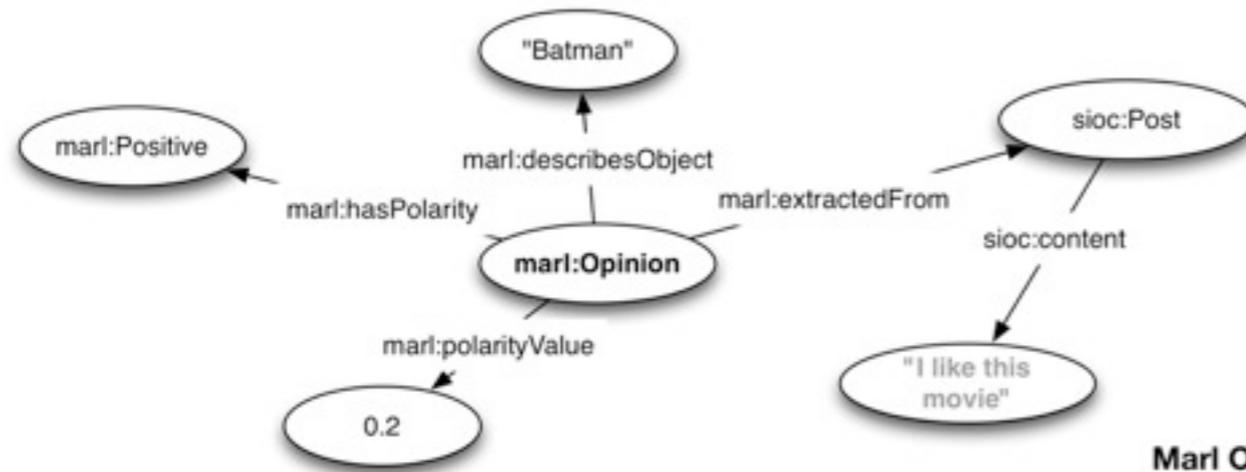## [research process]

Step 1: Analysis of various opinions types from various web systems

- Movie opinions

- Product opinions

- Idea Management opinions (ideas about products, services, processes...)

Modelling opinions
[research process]

Marl Opinion Ontology
Use Case Study - Movie Opinions

"Batman"

marl:Positive

marl:describesObject

sioc:Post

marl:hasPolarity

marl:extractedFrom

marl:Opinion

sioc:content

marl:polarityValue

"I like this movie"

0.2

Marl Opinion Ontology
Use Case Study - Movie Review Opinions

"Batman Movie Review"

marl:Positive

marl:describesObject

sioc:Post

marl:hasPolarity

marl:extractedFrom

marl:Opinion

sioc:content

marl:polarityValue

"The review is very good"

0.7
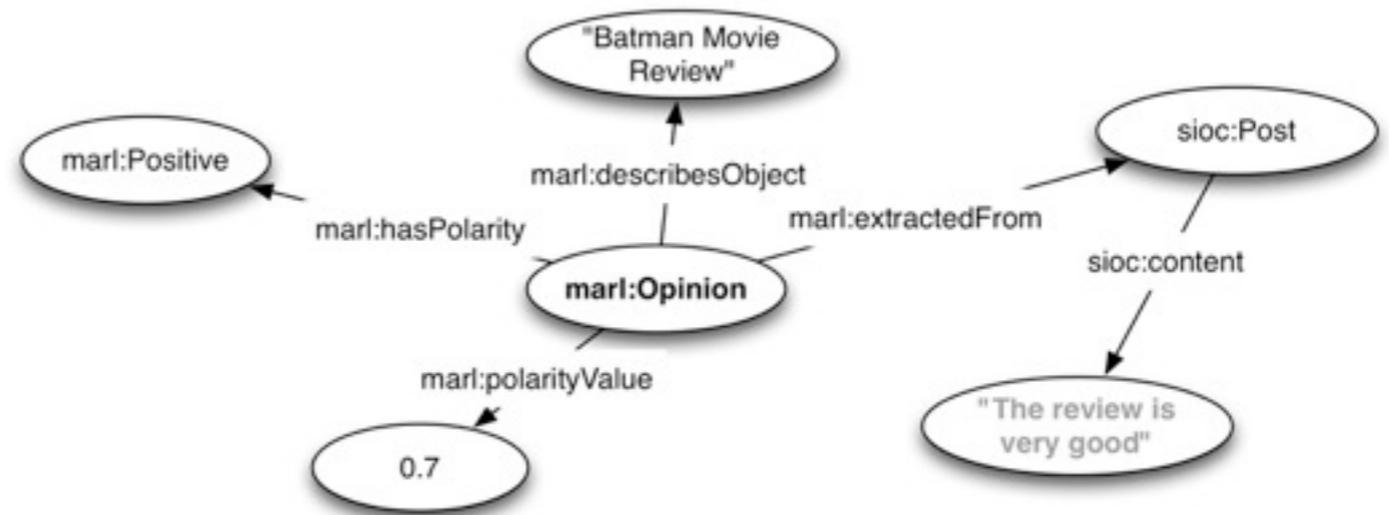
Examples of opinion diagrams

Modelling opinions

Step II: Evaluating coverage/ completeness of the ontology by mapping different datasets & services to RDF/XML.
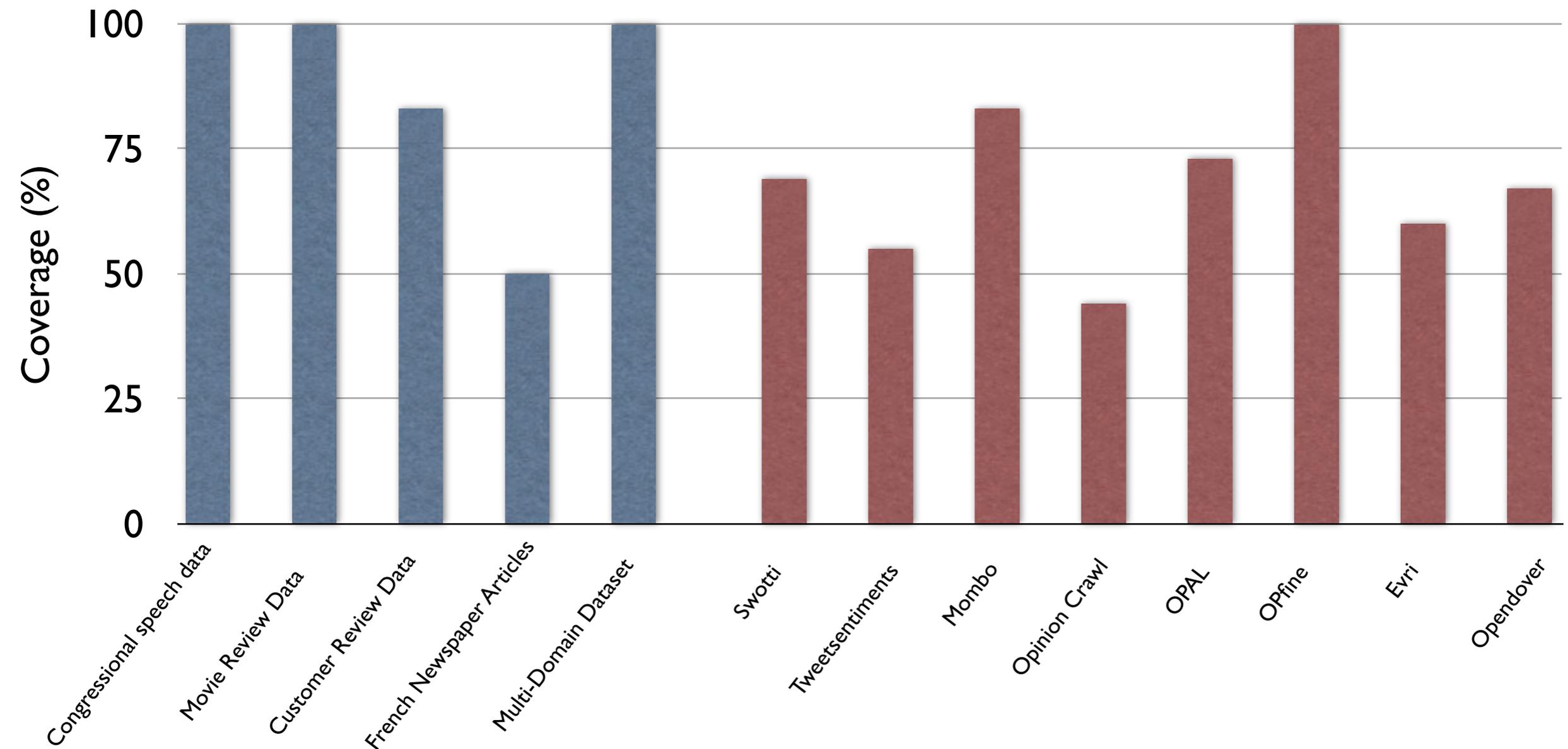
- 5 research datasets from Opinion Mining area

- 8 web services/ software toolkits for Opinion Mining

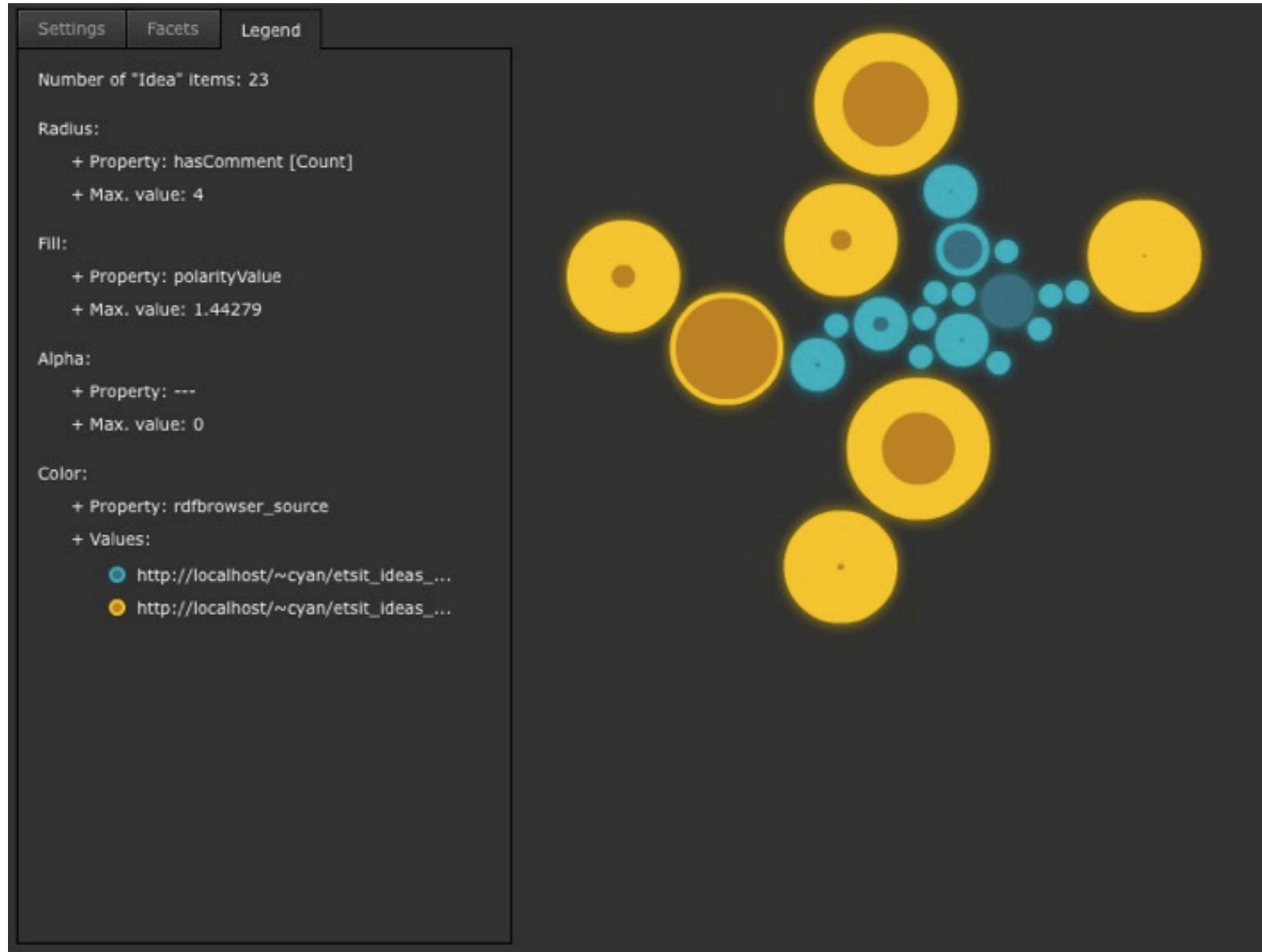# Modelling opinions
[evaluation process]

Average Coverage: 76%

■ Research Datasets   ■ Services

Marl in work
[results]

More info

- detailed results of experiments with Marl: http://marl.gi2mo.org

- tools used: http://gi2mo.org/apps