



# 社群網路的社群內容探勘

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## Abstract

With the rapid increase of the user-produced data posted in social networks, it is involved with the issues of big data analysis. For this huge amount of data intangibly interpreted by machines, we propose an approach to transform these unstructured data into structured data and then to further mine them. The goal of this project is to interpret the user-produced data posted in social networks by using semantic networks and annotates semantic terms on social contents. This project consists of two phases. We have finished the first phase in this year. The first phase is to crawler the article from New York Times and use external knowledge bases DBpedia and Wordnet to construct news-oriented ontology concept hierarchy. Then using the ontology concept hierarchy, the system can identify social contents and construct social content repository by annotating semantic terms on them.

## System Framework

The New York Times

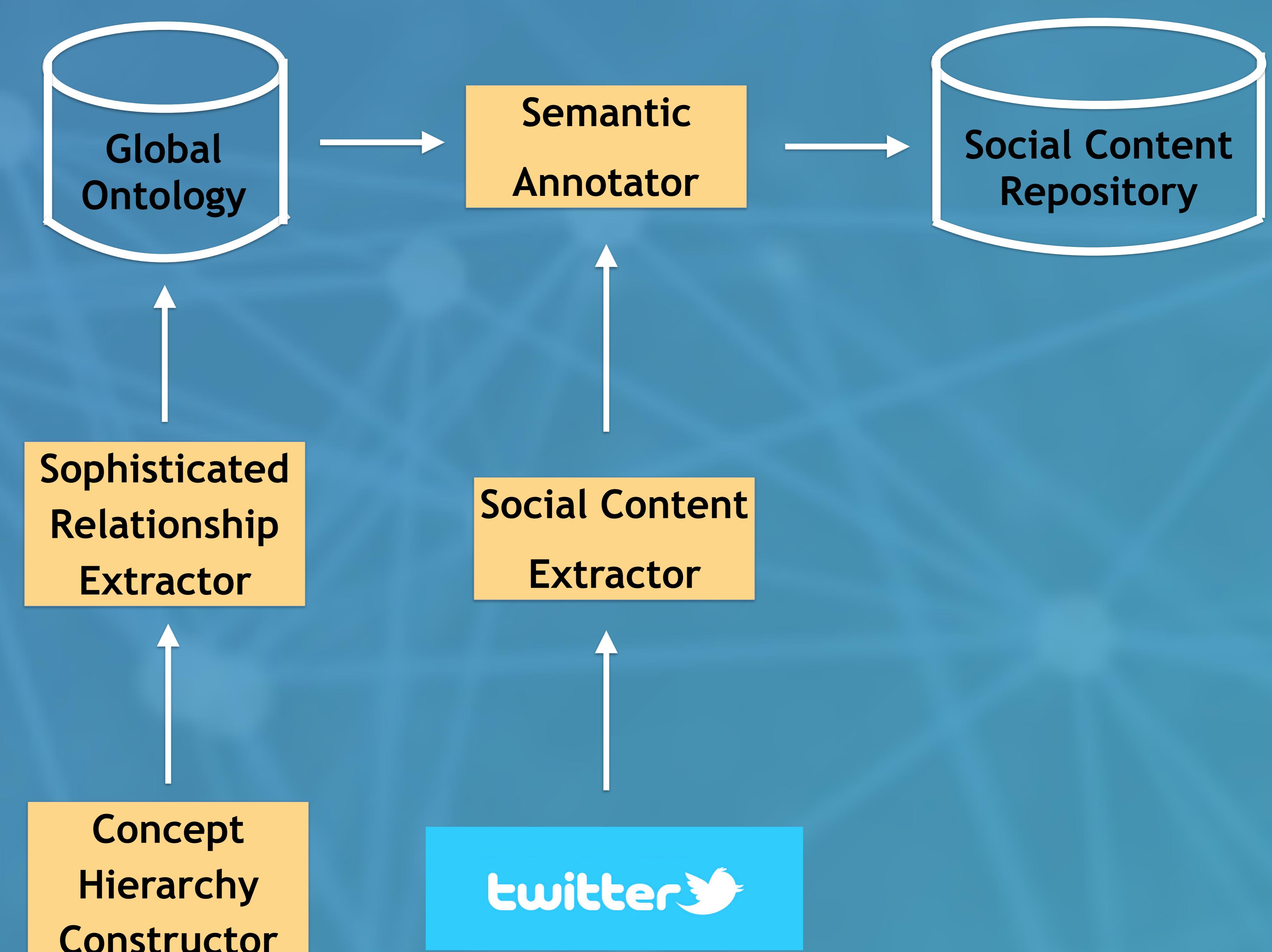
Full Text

WordNet

Keywords Extractor

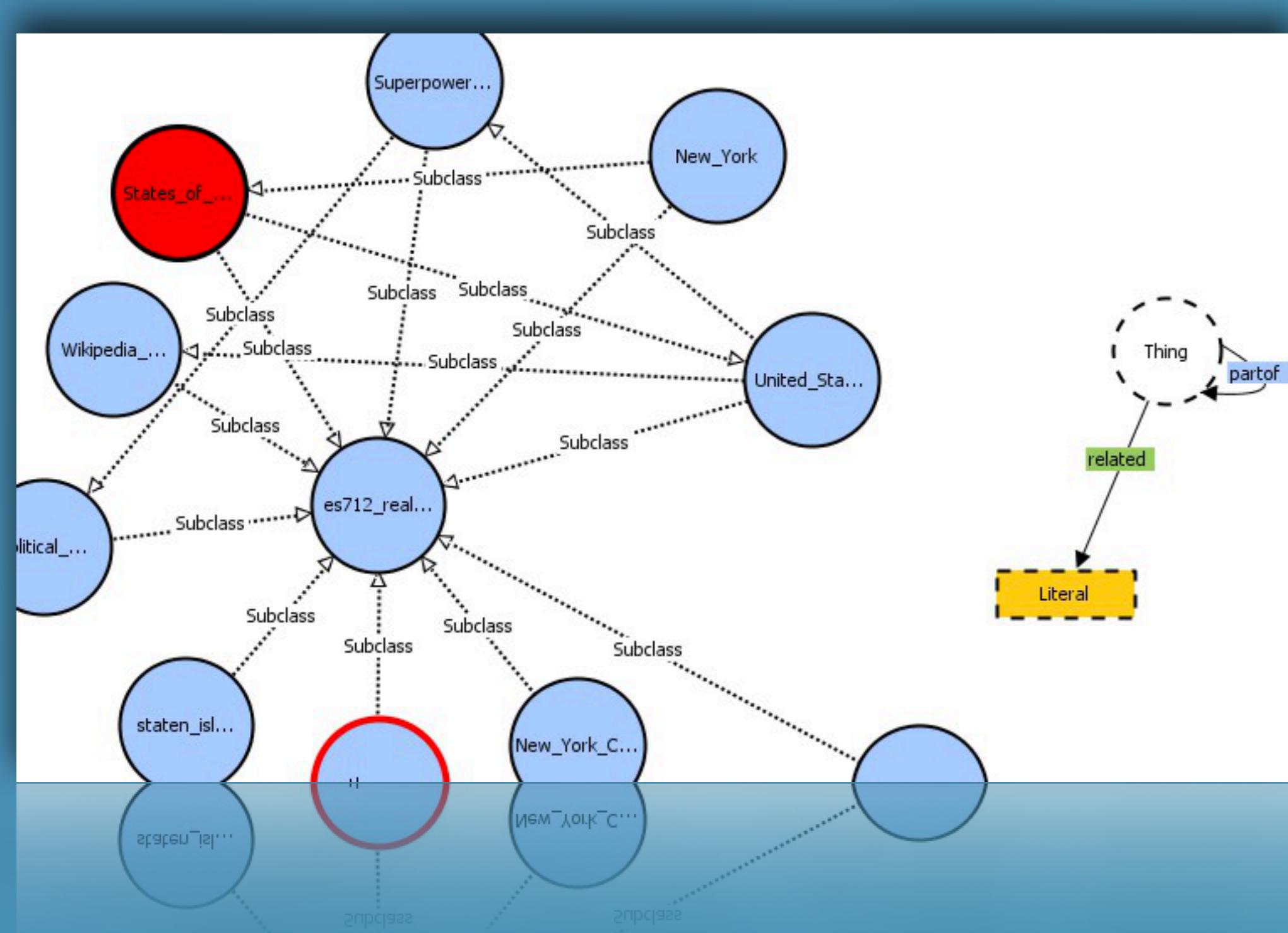
Matching News Category

DBpedia



## Implementation Results

### Ontology View



### Corresponding ontology.owl

```
<!-- http://www.semanticweb.org/adimin/ontologies/2017/6/untitled-ontology-79#staten_island -->
<owl:Class rdf:about="http://www.semanticweb.org/adimin/ontologies/2017/6/untitled-ontology-79#staten_island">
  <rdfs:subClassOf rdf:resource="http://www.semanticweb.org/adimin/ontologies/2017/6/untitled-ontology-79#es712_real_estate"/>
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:onProperty rdf:resource="http://www.semanticweb.org/adimin/ontologies/2017/6/untitled-ontology-79#partof"/>
      <owl:someValuesFrom rdf:resource="http://www.semanticweb.org/adimin/ontologies/2017/6/untitled-ontology-79#New_York"/>
    </owl:Restriction>
  </rdfs:subClassOf>
  <rdfs:subClassOf>
    <owl:Restriction>
      <owl:onProperty rdf:resource="http://www.semanticweb.org/adimin/ontologies/2017/6/untitled-ontology-79#partof"/>
      <owl:someValuesFrom rdf:resource="http://www.semanticweb.org/adimin/ontologies/2017/6/untitled-ontology-79#New_York_City"/>
    </owl:Restriction>
  </rdfs:subClassOf>
</owl:Class>
```