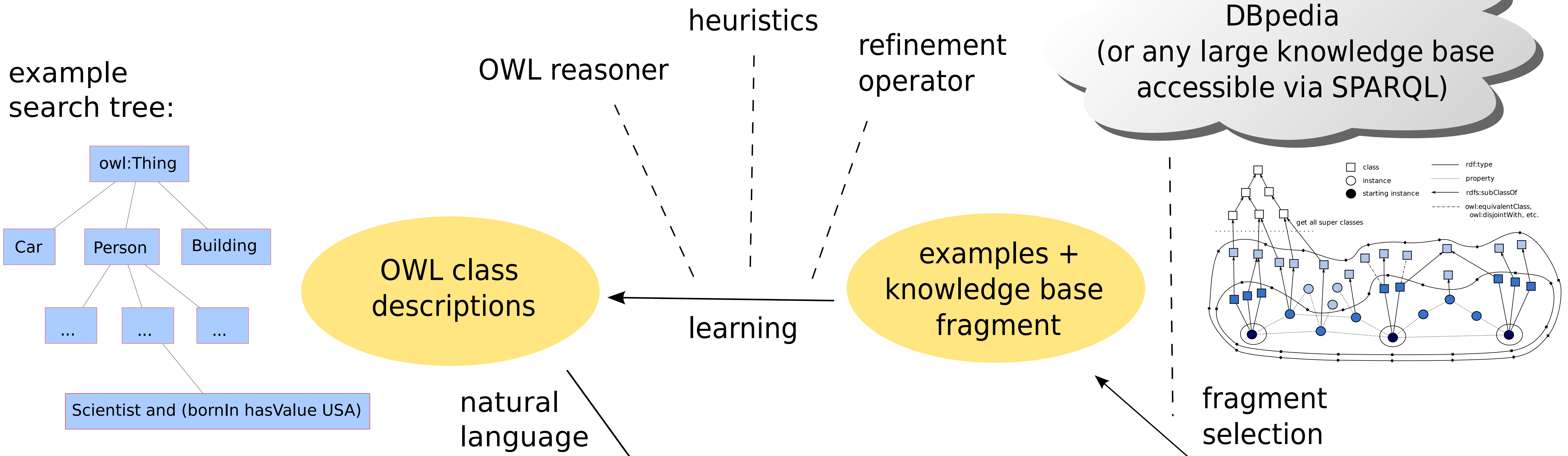


# DBpedia Navigator

<http://navigator.dbpedia.org>

A tool for browsing, searching, and navigating in DBpedia and interlinked data sets.

## Backend:



## GUI:

The GUI screenshot shows a search interface for "New York City". Annotations include:

- Navigation Suggestions:** "You could also be interested in an administrative district, a city, a district".
- search and previous results:** A list of search results for "New York City".
- tag cloud based on YAGO sorted by #pagelinks:** A cloud of tags related to the search results.
- YAGO Classes:** A list of classes related to the search results.
- Geonames Map displayed for Locations:** A map showing the location of New York City.
- Photos on Flickr:** A gallery of photos related to New York City.
- positive & negative examples:** A section showing "last articles viewed = positive examples (added automatically)" and "YAGO taxonomy browser" for the class "city".

## Features:

- navigation suggestions (scalable Machine Learning techniques)
- user friendly instance data display
- REST interface
- search using a simple page rank
- restricting search results by class using tag clouds

## Technologies Used:

- supervised Machine Learning based on OWL ontologies (DL-Learner)
- Knowledge Base Fragment Selection (DL-Learner)
- OWL reasoning (Pellet)
- SPARQL (Virtuoso)
- AJAX
- Web Service

## Future Work:

- use new DBpedia ontology for better article display and suggestions
- adapt general OWL ML algorithm to the navigation scenario (restrict to a simple language, e.g. extension of EL)
- improve performance, e.g. keeping the schema in memory instead of querying it on each request
- improve stability: DBpedia Navigator is a research prototype (not yet end user ready)

