

NORDLYS:

A TOOLKIT FOR ENTITY-ORIENTED AND SEMANTIC SEARCH

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FUNCTIONALITY

Entity Catalog

Obtain information about entities (such as their IDs, names, attributes, and relationships) from a knowledge base.

Entity Linking in Queries

Given a query q , return one or multiple interpretations of the query, each interpretation consists of a set of mention-entity pairs.

Entity Retrieval

Given a query q , return a ranked list of entities from a knowledge base, ordered according to their relevance to the query q .

Target Type Identification

Given a query q , return a ranked list of entity types, ordered with respect to their likelihood of being the target type of query q .

USAGE MODES

Web Interface

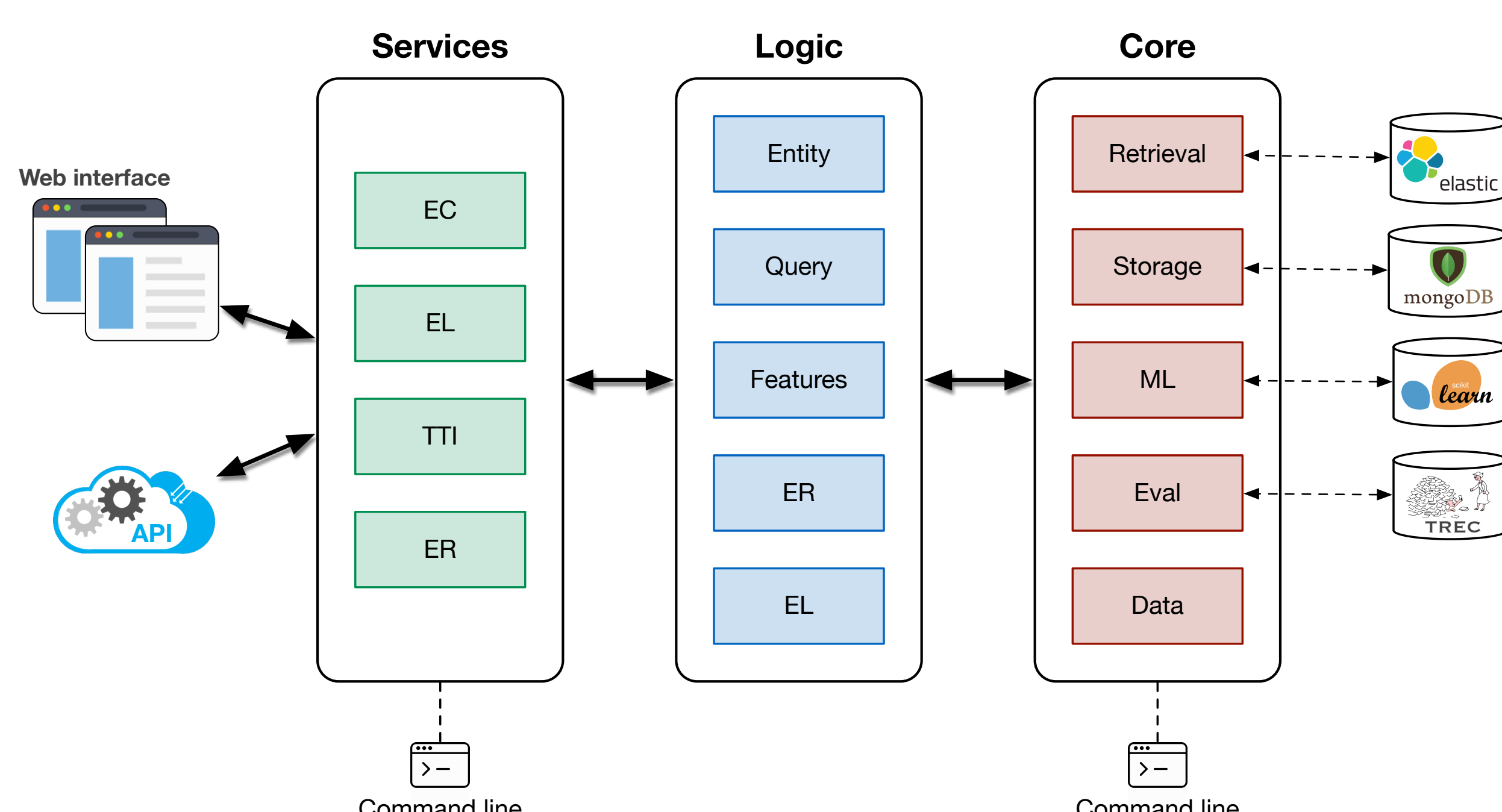
The screenshot shows the Nordlys web interface. At the top, there is a search bar with 'kimi räikkönen' entered and a 'Go!' button. Below the search bar, there are three tabs: 'Entity Search', 'Entity Linking', and 'Target Type Detection'. The 'Entity Search' tab is active, showing results from the 'DBpedia 2015-10' collection. The results list includes 'Kimi Räikkönen', 'Ville Räikkönen', 'Double R Racing', and 'Jenni Dahlman'. Each result is accompanied by a brief description and a link to the corresponding DBpedia page. On the right side of the interface, there is a profile card for 'Kimi Räikkönen', a RACING DRIVER, with a photo, a bio, and a link to his website.

RESTful API

`http://api.nordlys.cc/er?key=xx&q=total+recall&model=lm`

```
{ "query": "total recall",
  "total_hits": 1000,
  "results": {
    "0": {
      "entity": "<dbpedia:Total_Recall_(1990_film)>",
      "score": -10.042525028471253
    },
    "1": {
      "entity": "<dbpedia:Total_Recall_(2012_film)>",
      "score": -10.295316626850521
    },
    ...
  }
}
```

Python Library and Command Line



Features

- Multitier architecture with three layers: core (data), logic, and services (presentation)
- The main functionality can also be accessed through a set of command line tools from the core and services layers
- Implements standard baselines as well as recent approaches

