

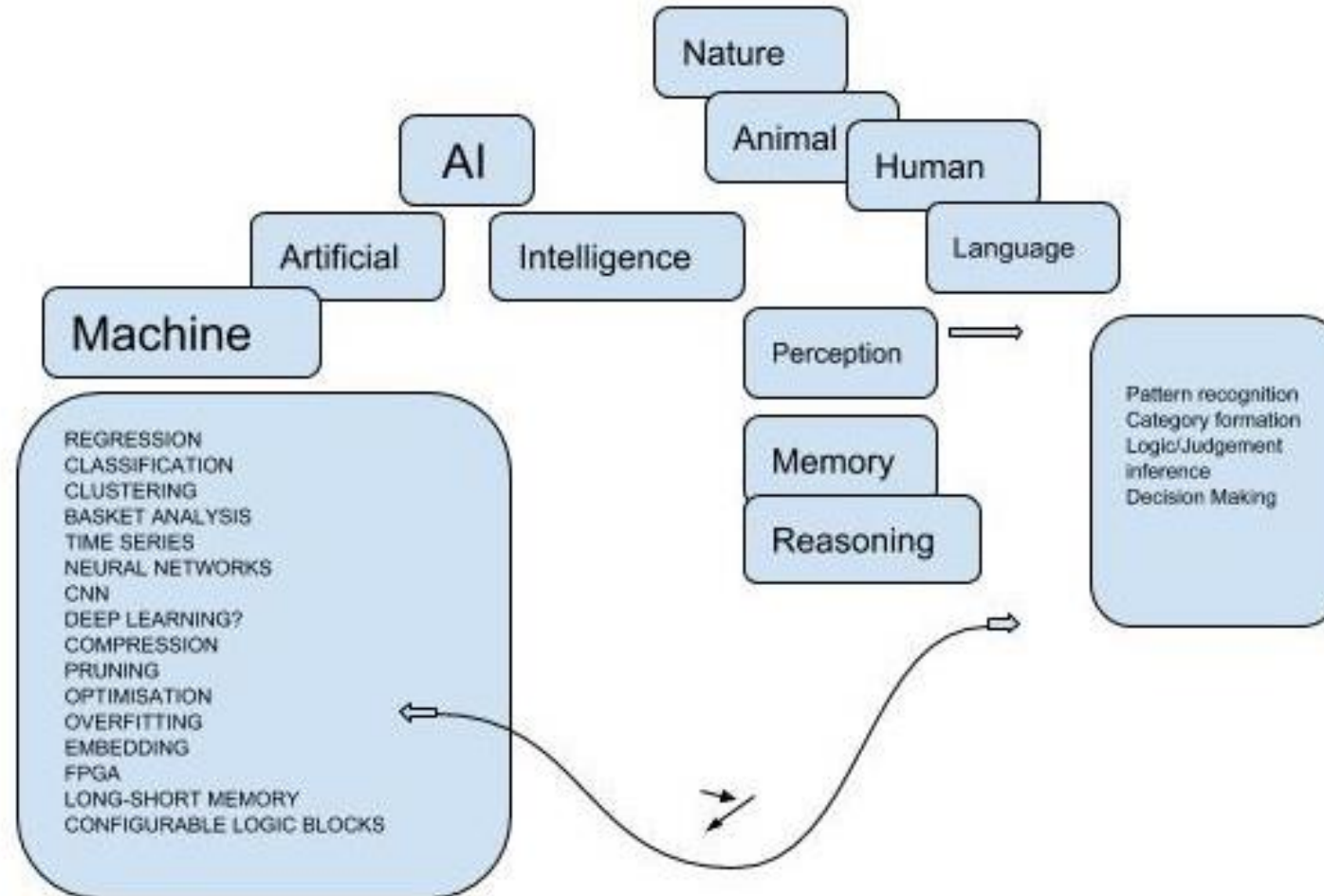
29 02 2020

Intelligenza Artificiale

Rappresentazione della Conoscenza

Cenni di Description Logics

Rappresentare la conoscenza



Rappresentare la conoscenza

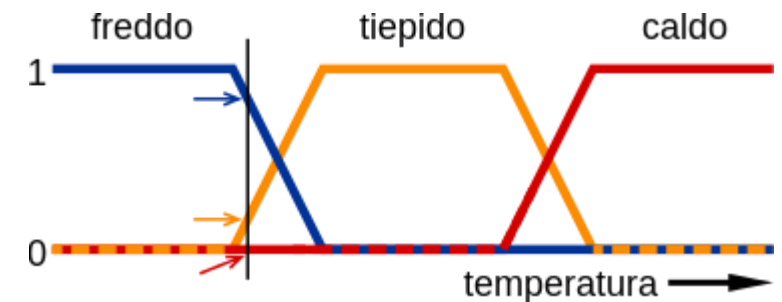
- Frames
- Rules
- Logic
 - Logic programming
 - Probabilistic reasoning
 - Fuzzy logic
 - Description logic

CHULO

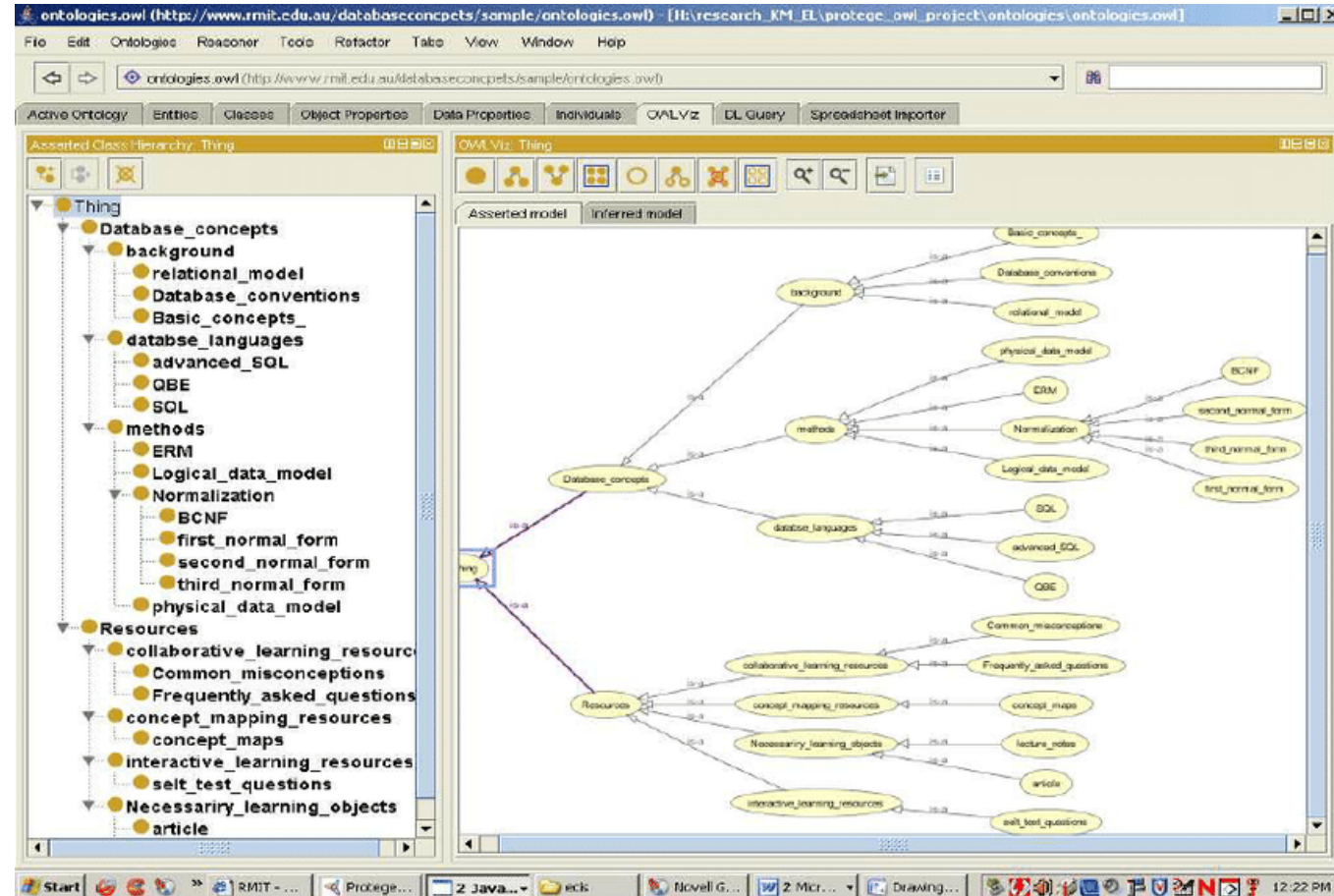
Rule Based System

- Rule-based systems (RBS) provide automatic problem solving tools for capturing the human expertise and decision making.
- Experts typically express most of their problem solving techniques in terms of antecedent-consequent rules

-Prabesh Subedi



Protege



Esempio di ontologia

untitled-ontology-3 (http://www.semanticweb.org/piero/ontologies/2016/9/untitled-ontology-3) : [C:\Users\piero\Documents\Master UNIFI\Artificial Intelligence.owl]

File Edit View Reasoner Tools Refactor Window Mastro Ontop Help

untitled-ontology-3 (http://www.semanticweb.org/piero/ontologies/2016/9/untitled-ontology-3)

Artificial_Intelligence > Paradigmi

Active ontology x Entities x Individuals by class x DL Query x

Classes Object properties Data properties Annotation properties Datatypes Individuals

Class hierarchy: Paradigmi

- owl:Thing
 - Artificial_Intelligence
 - forte
 - Paradigmi
 - specializzata
 - Applicazioni

OntoGraf: Search: contains Search Clear

```
graph LR; owl:Thing --> Artificial_Intelligence; Artificial_Intelligence --> forte; Artificial_Intelligence --> Paradigmi; Artificial_Intelligence --> specializzata; Artificial_Intelligence --> Applicazioni; Applicazioni --> Machine_Learning; Applicazioni --> Approccio_subsimbolico; Applicazioni --> Approccio_Simbolico; Machine_Learning --> scheduling; Machine_Learning --> Programmazione_a_vincoli; Machine_Learning --> Natural_Language; Machine_Learning --> Decision_Support_System; Machine_Learning --> Raccomandation_System; Machine_Learning --> Knowledge_Representation_and_R...; Approccio_subsimbolico --> Planning; Approccio_subsimbolico --> Sistemi_Esperti; Approccio_subsimbolico --> Computer_Vision; Approccio_Simbolico --> Data_Mining; Paradigmi -.-> Applicazioni;
```

No Reasoner set. Select a reasoner from the Reasoner menu Show Inferences

Semantic web

- WEB 1.0
- WEB 2.0 <http://www.pianetaebook.com/2011/08/cose-il-web-2-0-9684>
- WEB 3.0



Semantic mediawiki

A screenshot of the Semantic MediaWiki (SMW) web interface. The page title is "Born in London". The main content area displays a list of pages that have the property "Born in" with the value "London". The list includes: Augusta Ada King, Countess of Lovelace; Ginger Baker; Alan Baker; Sacha Baron Cohen; David Beckham; Emily Blunt; Enid Blyton; Alistair Darling; Alfred Hitchcock; Edgar Wallace; and Amy Jade Winehouse. Each name is followed by a small circular icon with a question mark. The interface includes a navigation sidebar on the left with links for "Main Page", "SMW homepage", "Help", "Browse wiki", "RDF Feeds", and "Recent changes". At the bottom, there is a search bar with the property "Born in" and the value "London" entered, and a "Find results" button. In the top right corner, there is a "Log in / create account" link and a "Special page" search bar with "Go" and "Search" buttons.