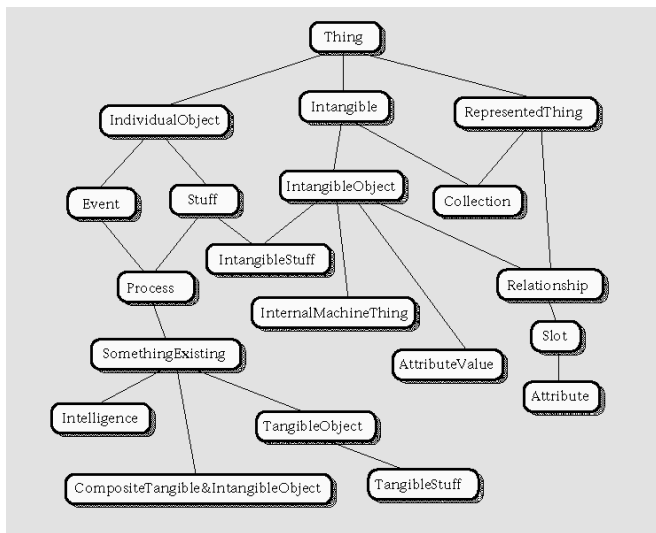


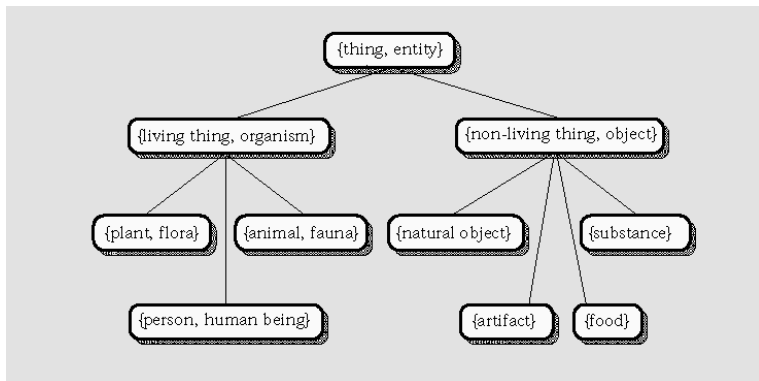
# CYC (1985)/OpenCYC (2003)

- Example of general ontology
- Goal: Formalization of common sense knowledge
- Hundreds of thousands of concepts, millions of facts about the concepts
- Language CYCL (subset of predicate calculus)
- Specific subsets (micro theories)
- [sw.opencyc.org](http://sw.opencyc.org)



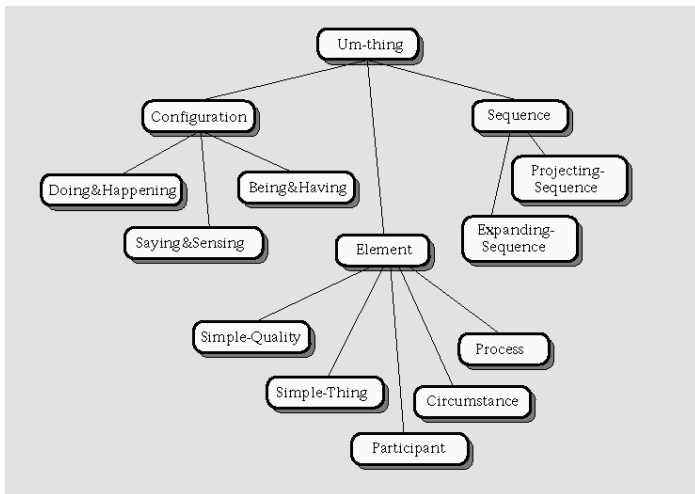
# WORDNET (1990)

- Example of application oriented ontology
- Lexical ontology (Organized by semantic categories, tagged with syntactic categories)
- 95.500 words, 70.100 senses
- Semantic networks
- Initially for english language, now developed for many languages
- [www.wordvis.com](http://www.wordvis.com)



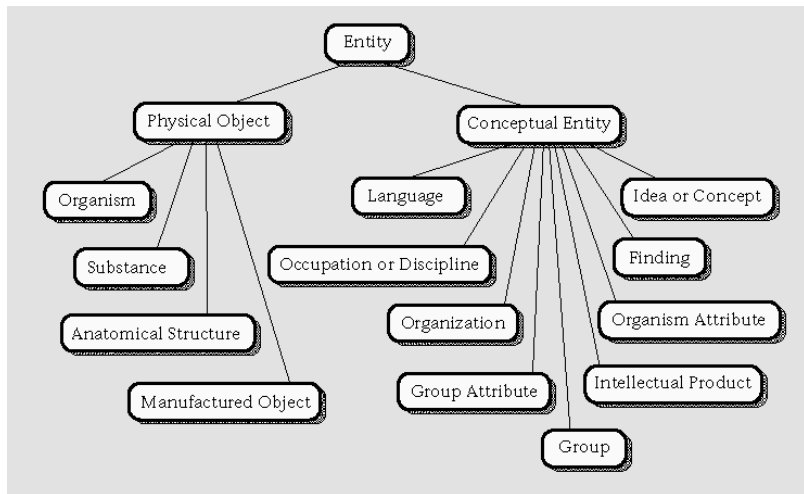
# Generalized Upper Model (1994)

- Example of Upper otology
- Lexical ontology (multilanguage, it is only a hierarchy of concepts)
- 250 Concepts
- LOOM (Predicate calculus)



# Unified Medical Language System (1993)

- Example of domain ontology
- Ontology of biomedical terms
- 135 semantic types, 51 semantic relations, 252.982 concepts
- Semantic networks



# DAML+OIL/OWL repositories - Semantic Web

- Ontologies for the semantic web
- Hundreds of public ontologies developed in DAML+OIL/OWL
- <http://www.daml.org/ontologies/>
- Any subject:
  - academic department, Actors, address book, airport, Bibliography, Biology, Chemistry, Clothing, Weather, ...

# DAML+OIL/OWL - Example

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<daml:Ontology>
  <daml:Class ID=" Animal" />

  <daml:Class ID=" ATerrestrial">
    <rdfs:SubclassOf rdf:Resource="#Animal" />
  </daml:Class>

  <daml:Class ID=" AAerial">
    <rdfs:SubclassOf rdf:Resource="#Animal" />
    <daml:DisjointWith rdf:Resource="#ATerrestrial" />
  </daml:Class>

  <daml:Class ID=" AAquatic">
    <rdfs:SubclassOf rdf:Resource="#Animal" />
  </daml:Class>

  <daml:Class ID=" AAmphibious">
    <rdfs:SubclassOf rdf:Resource="#Animal" />
    <daml:IntersectionOf>
      <daml:Class rdf:Resource="#ATerrestrial" />
      <daml:Class rdf:Resource="#AAquatic" />
    </daml:IntersectionOf>
  </daml:Class>
</daml:Ontology>
```