Which tasks?

- Information integration
- Depending on the degree of human involvement
  - Hypothesis generation / validation
  - Knowledge discovery
  - Automated reasoning
- Knowledge standardization
  - Common format
  - Common semantics
Which formalisms?

- **SKOS – Thesaurus**
  - Simple Knowledge Organization Schema
- **RDF – Concept-Relationship-Concept triples**
  - Resource Description Framework
- **Description Logics / Frames**
  - OWL  Web Ontology Language
  - Protégé  (frames / OWL)
  - OBO  Open Biomedical Ontology
- **Rule languages**
- **Formal logic**
Which identifiers?

- **For concepts**
  - Namespaces, ontologies, knowledge bases
    - OBO – Open Biomedical Ontologies
    - UMLS – Unified Medical Language System
    - NCBI Entrez (Entrez Gene, GenBank, UniGene, …)
  - Mappings across information sources

- **For relationships**