NIH Conference on Knowledge Environments for Biomedical Research

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Panel Remarks

Olivier Bodenreider

Lister Hill National Center
for Biomedical Communications
Bethesda, Maryland - USA

Which tasks?

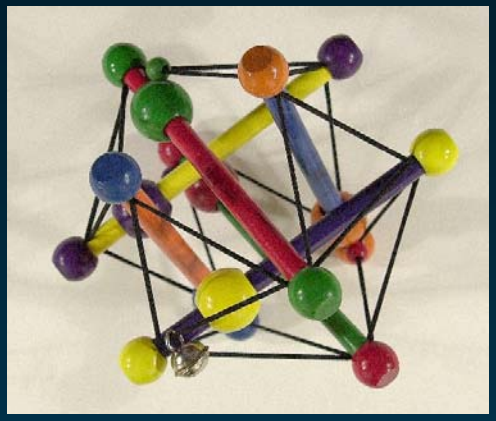
- Information integration
- Depending on the degree of human involvement
  - Hypothesis generation / validation
  - Knowledge discovery
  - Automated reasoning
- Knowledge standardization
  - Common format
  - Common semantics

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



Medical Ontology Research

Contact: olivier@nlm.nih.gov
Web: mor.nlm.nih.gov

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