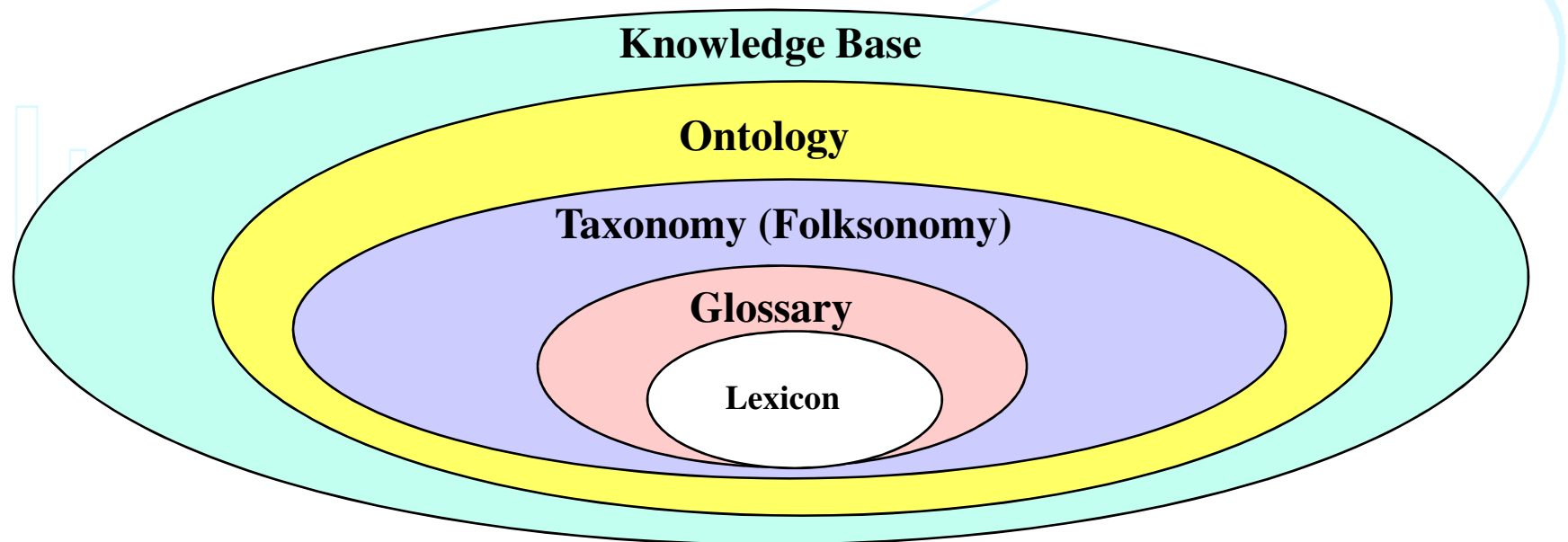


Ontology Task Force

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What is an ontology?

- An ontology is a formal, explicit specification of a shared conceptualization [Gruber]



From Terms to Concepts to ... Knowledge

Ontology Engineering

New discipline. Three main areas:

- **Ontology Building**
 - Building an ontology from scratch
- **Ontology Reuse**
 - Adopting an existing ontology
- **Ontology Maintenance**
 - Updating an existing ontology
 - Ontology evolution
- **Should a company develop a new ontology or adopt/adapt an existing one?**

Task Force **Motivation**

- **To build a repository/catalogue/directory of existing ontologies**
 - Similar services:
 - TONES Ontology Repository (<http://owl.cs.manchester.ac.uk/repository/>)
 - DAML Ontology Library (<http://www.daml.org/ontologies/>)
 - Existing services seem to be oriented more to semantic technologies developers rather than to real applications
- **To provide a benchmarking among existing ontologies**
- **Best practices to select most appropriate ontologies for specific business needs**

Application Domains: Examples (I)

- Business and Enterprise Ontologies
 - *TOVE, Enterprise Ontology, MIT Process Handbook*
- Business strategy
 - *Business Model Ontology, e3Value*
- eBusiness
 - *ebXML, UBL, OAGIS*
- Health
 - *UMLS (Unified Medical Language System), GeneOntology*

Application domains: Examples (II)

- Tourism
 - *Open travel Alliance*
- Product Development
- eGovernment
 - *GEA-governance enterprise architecture*
- ICT competencies
 - *EUCIP Syllabus*
- Ontologies for Sw development
- Quality of Services

Meta Ontologies

- [Dolce](#)
 - Descriptive Ontology for Linguistic and Cognitive Engineering
- [SUMO](#)
 - Suggested Upper Merged Ontology
- [OPAL](#)
 - Object Process Actor Language
- [REA Enterprise Ontology](#)
 - Resources, economic Events, and economic Agents
- [BWW](#)
 - Bunge-Wand-Weber Ontology

Ontology Quality

- **Syntactic quality:** that measures the quality of the ontology according to its formal style, the way it is written;
- **Semantic quality:** where the primary concern is the absence of contradictory concepts;
- **Pragmatic quality:** that refers to the ontology content and usefulness for users, irrespectively of its syntax and semantics;
- **Social quality:** that reflects more general criteria, for instance the numbers of other ontologies that link to it, e.g., by defining their terms using its definitions, and the number of times it is accessed (when public) from within and outside of the community that manages it.

Synergies with other Task Forces / Committees

- Task Force 2: MDI and SOA
 - Ontologies for interoperability, SW development, semantic web services
- Task Force 5: Science Base definition
 - Ontologies of interoperability
- Standardization Committee
 - From standards to ontologies, from ontologies to standards
- Education Committee
 - Ontologies for eLearning (e.g., domain ontologies, eLearning ontologies)

Action List

- Identifying Task Force **Leader: DONE**
- Identifying Task Force **members** (volunteer + Kmap correspondent) : **DONE**
- **White paper** with motivations and objectives of the Task Force
- Identifying ontology **domains** to be investigated
 - **Send the call to the poles**
- Market analysis on existing repositories to determine potential offer of Vlab.eu
- **Collecting** ontologies/terminology according to the above domains
- **Assessing** collected ontologies/terminology (wrt quality, maintenance status, ...)
- Investigating methodologies and tools **to build and merge ontologies**