KNOWMAK: KNOWledge in the MAKing in the European Society

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Develop a web-based tool providing interactive visualisations and indicators on knowledge co-creation in the European Research Area.

Structured around:

- research topics
- research actors
- geographical spaces

5 data sources:

- traditional: projects, publications, patents
- new: social innovation projects and user attention based on social media

The problem

- Knowledge production
 ⇔ multiple sources across disciplines, institutional, and and geographical borders
- Traditional indicators use rigid and coarse classification systems
- They cannot handle new emerging terms or the different kinds of language used in different data sources.
- They are backward-looking and not suitable for policy-makers.

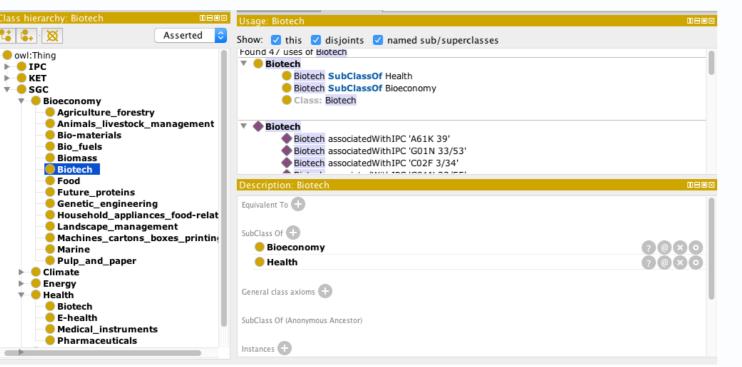
Ontologies as the solution

Ontologies ...

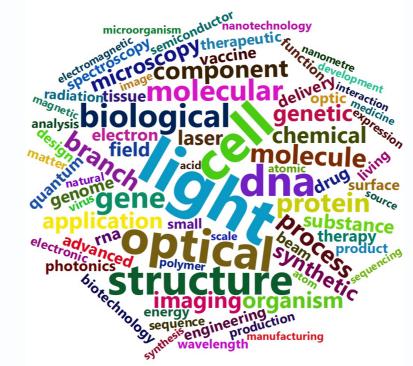
- ... enable mapping between user queries, indicators and topics.
- ... enable users to browse related topics and keywords.
- ... enable the creation of indicators around topics dynamically.

... act as a bridge between user queries and information in the DBs.

Ontologies link to multiple sources



KNOWMAK Topics



Q 🕁 🔲 🔷 🔒 : ← → C 🖒 🛈 services.gate.ac.uk/knowmak/faceted-search/ **KNOWMAK Faceted Search** This is a simple example of how a faceted search using the KNOWMAK ontology might look. Applied immunology **KEY EMERGENT TECHOLOGY** Antagomir and rna sponge Assay systems Advanced Manufacturing Technology Antibody fragment therapy Biologics **Advanced Materials** Antibody therapy Biomaterials Antisense oligonucleotide therapy Biotechnology **Biomimetics** Micro and Nano electronics Cell therapies Cell delivery Nanoscience and technology Dna vaccines Environmental biotechnology Gene therapy Optics and photonics Expression systems **SOCIETAL GRAND CHALLENGE** Locked nucleic acid Functional genomics Meganucleases Bioeconomy Gene delivery Selected Class: http://www.gate.ac.uk/ns/ontologies/knowmak/dna_vaccines Dna vaccines. A DNA vaccine is a substance that is composed of deoxyribonucleic acid (DNA) and encodes antigens. After administration of the DNA, antigens are produced and stimulate an immune response. DNA vaccines.

Related Keywords: acid, administration, antigen, composed, deoxyribonucleic, dna, immune, produced, response,

Architecture

