

Fondazione Luigi Einaudi Onlus

# Semantic representation and ontologies usage

The project's data modeling involved the use of different ontologies, useful for representing the heterogeneity of the materials and information published as Linked Open Data.

Thanks to an in-depth reconnaissance of online sources, many data regarding all the works by and about Luigi Einaudi, archive documents, newspaper articles, photos, videos and digitised resources, found in online catalogues and on the websites of both the Luigi Einaudi Foundation and other institutions, have been identified and published. The graph below represents the data model:



The foaf:Agent class is the class of agents, including persons; thanks to the object property owl:sameAs resources can be linked to resources described in other datasets, such as those of Chamber of Deputies, Senate of the Republic, Presidency of the Italian Republic, CoBiS and Wikidata, which use the same descriptive standards and therefore allow a connection and the possibility of enrichment data.

Persons are subject of the documentation and they are linked to the concept of documentation itself (represented by foaf:Document class) and to the concept of collection or document group (dcterms:Collection, defined as an aggregation of resource), held by institutions (represented by culturalis:CulturalInstitutionOrSite class).

## **Dublin Core**

Dublin Core is a data model with the aim of describing a large variety of resources in different formats. Dublin core is based on a set of fifteen main metadata items which can be accompanied by "refinements" that allow an even more granular description of the resources.



Dublin Core is widespread internationally and its use is an excellent starting point for interoperability between different systems. The updated version of the available terms is reachable at <a href="https://www.dublincore.org/specifications/dublin-core/dcmi-terms/">https://www.dublincore.org/specifications/dublin-core/dcmi-terms/</a>.

### **FOAF ONTOLOGY**

FOAF (<u>http://xmlns.com/foaf/0.1/</u>) is one of the most widespread vocabularies. The word FOAF is the acronym of "Friend of a Friend" and it is an ontology describing persons, their activities and their relations to other people and objects.

#### **CULTURALIS ONTOLOGY**

Culturalis ontology - *Cultural Institution and Site Ontology* (<u>http://culturalis.org/cult/0.1/</u>) describes cultural instituions and sites, also in combination with other specific domain ontologies including the ontologies released as part of the MiC projects, such as <u>Cultural-ON</u> <u>ontology</u> (Cultural institute and cultural events ontology) and <u>ArCo project's ontologies</u>.

#### **BIBFRAME ONTOLOGY**

BIBFRAME is the ontology developed by the Library of Congress for describing bibliographic resources. It describes and uniquely identifies the individual entities and the relationships that exist between the entities themselves. BIBFRAME organizes information into three core levels of abstraction: Work (bf:Work - http://id.loc.gov/ontologies/bibframe/Work), Instance (the material embodiments of the work bf:Instance - http://id.loc.gov/ontologies/bibframe/Instance) and Item (the actual copy held by libraries, bf:Item - http://id.loc.gov/ontologies/bibframe/Item).



For more information, see also:

- Library of Congress's documentation
- CoBis LOD: ontology and examples
- CoBis LOD: ontologies and data model