



# Information Domain

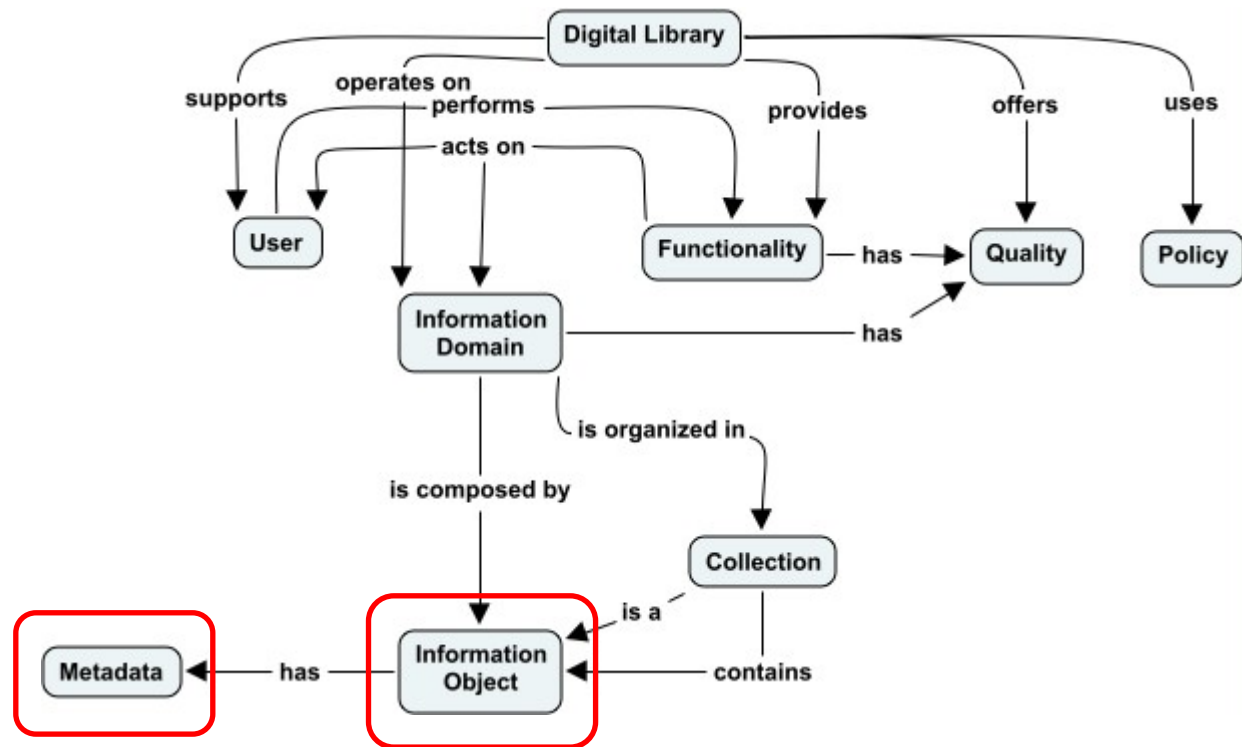
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# Information Domain - definition

*The Information Domain concept includes all types of information that a Digital Library must handle in order to offer its services.*

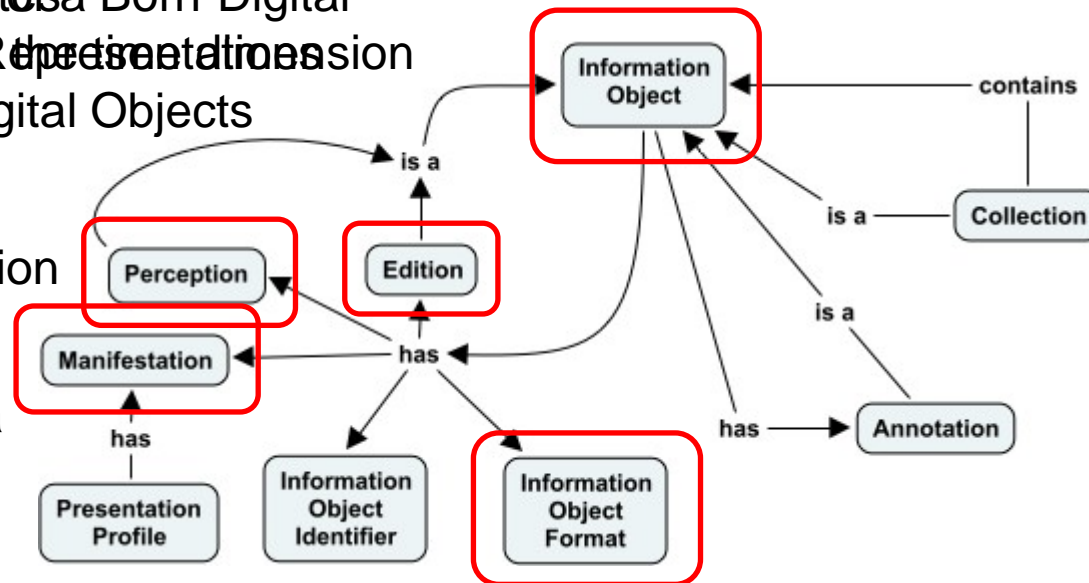
# Key notions

- *Content*
- *Metadata*



# Content

- Signifies a Born-Digital Object and its representation
- Born-Digital Objects



A description of the structure of an Information Object as defined by its creator

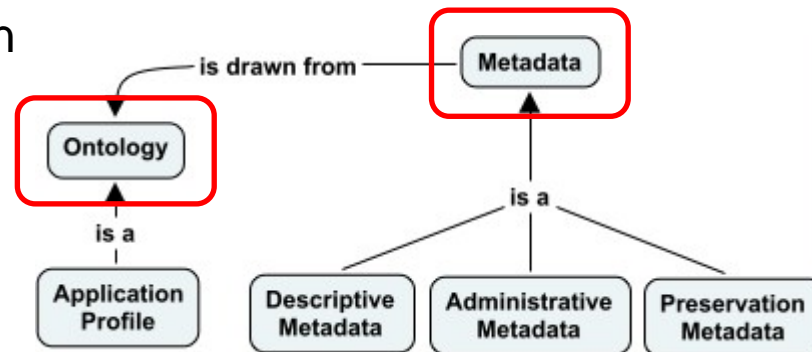
# Standards for interoperability

- JCR: Content Repository for Java technology API
- A standard, implementation independent, way to access content on a granular level within a content repository.
  - transactional read/write access,
  - binary content (stream operations),
  - textual content,
  - full-text searching,
  - versioning,
  - handling of structured content.

# Metadata

A conceptualization of a domain from which Metadata are drawn

Data about an Information Object



# Standards for interoperability

- Semantic Web Technologies:
  - RDF,
  - RDF/S,
  - Ontology Web Language (OWL)
- For metadata we need a higher level of interoperability than just to accommodate many languages and views in the same DL
- We need to cross the barriers for basic services such as search

# Vertical integration

- A core ontology for integrating all ontologies
- Standard: CIDOC CRM
  - a common and extensible semantic framework that can provide the "semantic glue" needed to mediate between different sources of information
  - currently being elaborated to become an ISO standard.
- A more general approach: data integration  
GAV or LAV



# Horizontal integration

- Traditional semantic reconciliation methods, dependent upon global ontologies, cannot be used in open and dynamic environments
  - peer-to-peer systems, or
  - autonomous agents-based systems
- Solution: ontology-to-ontology mappings
- Emergent semantics
  - Cross-language retrieval