- History and Historic Photographic Technologies

Management and use of digital images; the ICCD experience and the ongoing projects.

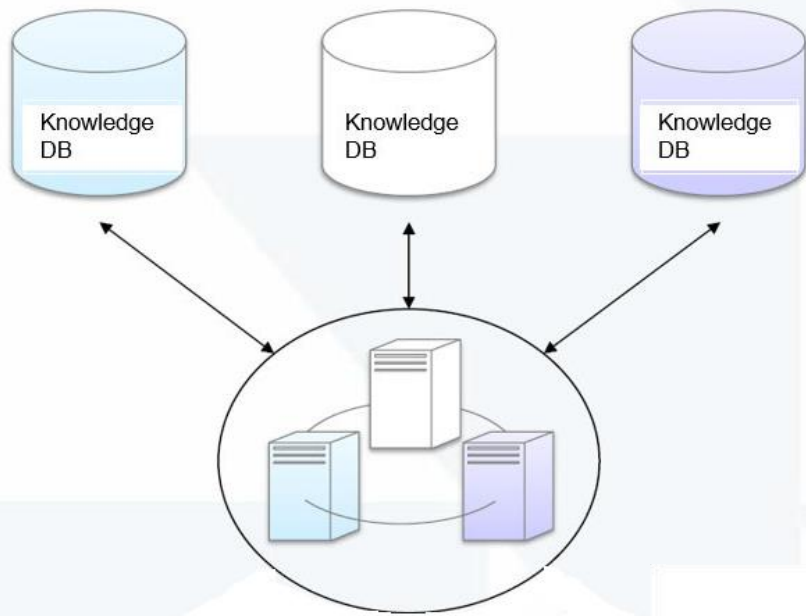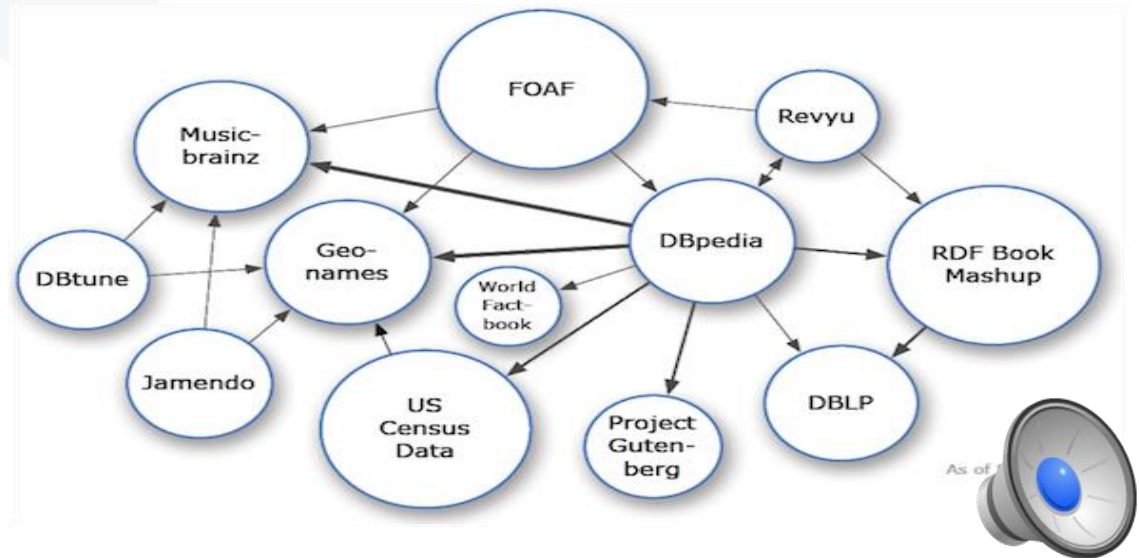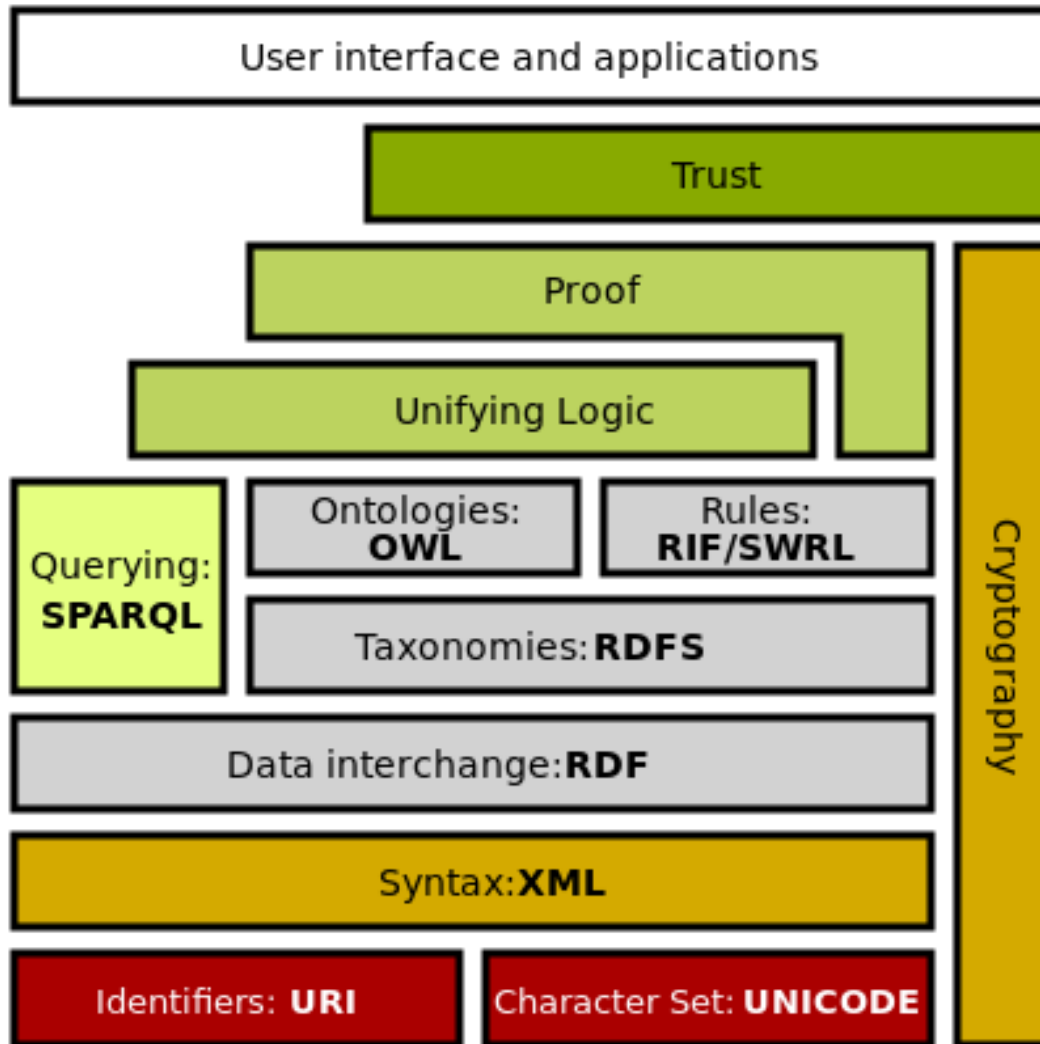**Semantic web and Linked Open data**

In this context the adjective «semantic» is to be interpreted as "processable by software". Therefore, it does not refer to its linguistic meaning. Data semantics refers to the information needed by the software to be able to accurately interpret and use data.

LINKED DATA

★ On the web, open license
★★ Machine-readable data
★★★ Non-proprietary format
★★★★ RDF standards
★★★★★ Linked RDF

IS YOUR DATA 5 ★?

Semantic web and Linked Open data

From Database to Semantic Web

User interface and applications

Trust

Proof

Unifying Logic

Querying: **SPARQL**

Ontologies: **OWL**

Rules: **RIF/SWRL**

Taxonomies: **RDFS**

Data interchange: **RDF**

Cryptography

Syntax: **XML**

Identifiers: **URI**

Character Set: **UNICODE**

Semantic web and Linked Open data

From Database to Semantic Web

An **ontology** is a **formal and agreed** representation of concepts and mutual correlations within a certain branch of knowledge. It describes and defines terms and concepts relatives to a branch of knowledge and the correlations between them.

The vision

Creating foundations for a
knowledge graph
of the Cultural Heritage

Enhancing data on cultural heritage, correlation of data on the web and for the web

The philosophy of Linked Open Data is based on the idea of using every resource available online, and **connecting them through mechanisms of similarity or equality,** facilitating the **expansion of the informational heritage.**

Linked Open Data

STEP # **1** PREPARE STAKEHOLDERS
STEP # **2** SELECT DATASET
STEP # **3** MODEL DATA
STEP # **4** SPECIFY AN APPROPRIATE LICENCE
STEP # **5** CREATE URI FOR CONNECTED DATA
STEP # **6** USE STANDARD VOCABULARY
STEP # **7** CONVERT DATA
STEP # **8** ENSURE *MACHINE ACCESS* TO DATA
STEP # **9** DISCLOSE NEW DATA SETS
STEP # **10** RECOGNISE THE SOCIAL CONTRACT

Best Practices for Publishing Linked Data
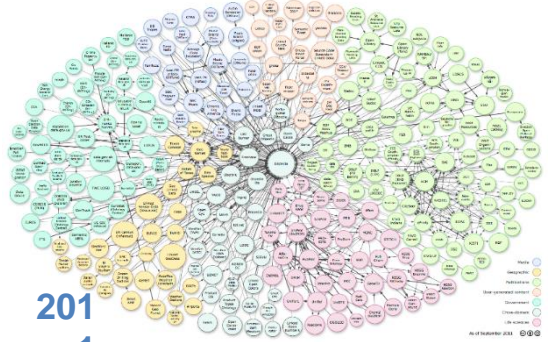
W3C Working Group Note 09 January 2014

1. **"open"** □ concept of open data access to favour its transparency and its access to anyone interested
2. **"linked"** □ introduces the main «*web of data»* technologies

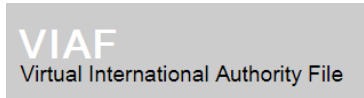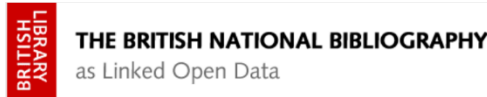# Advantages of Linked Open Data
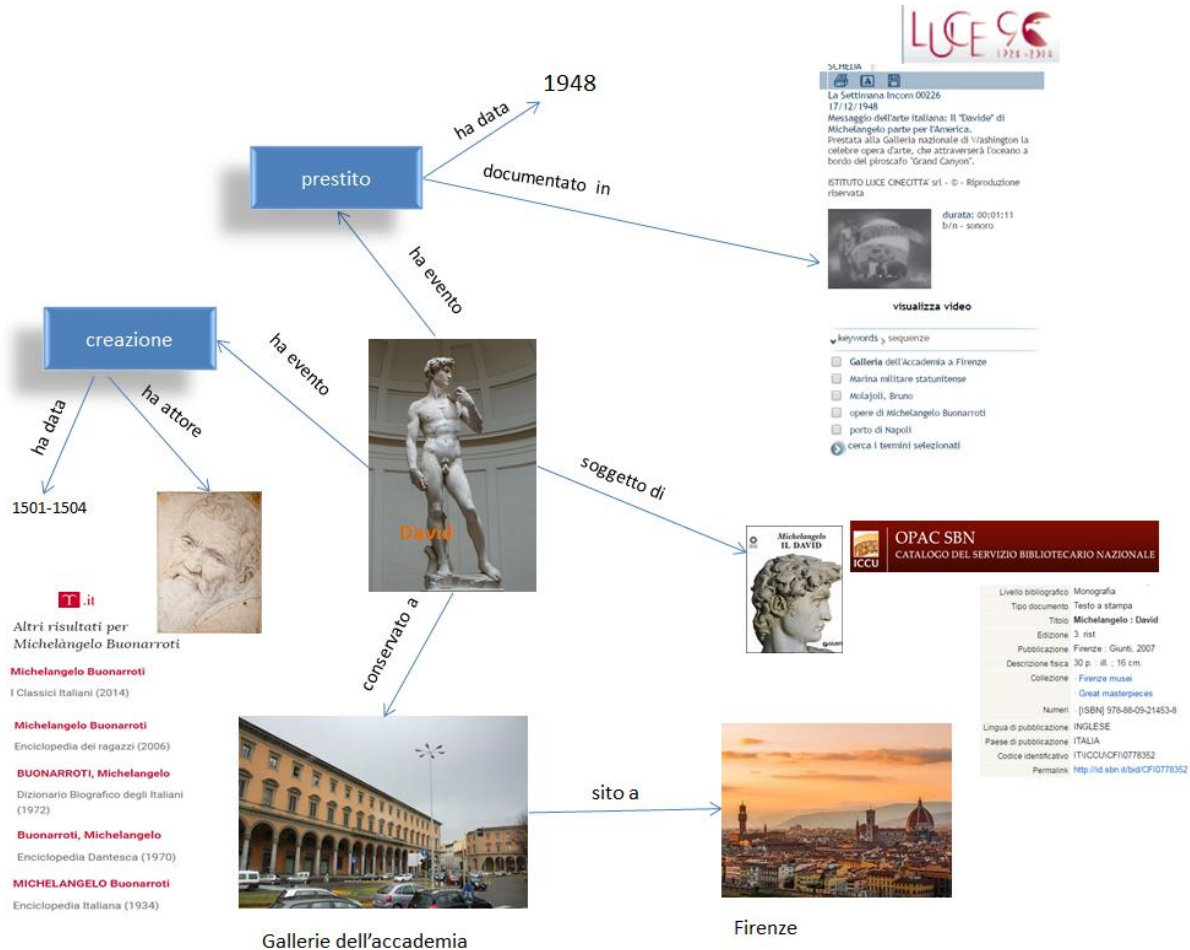
The linked data cloud
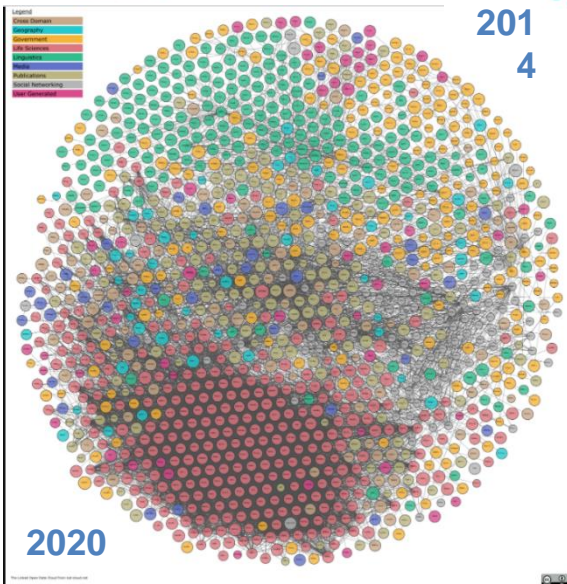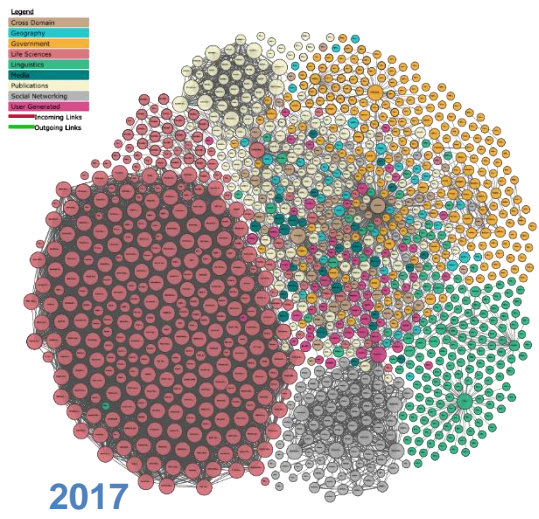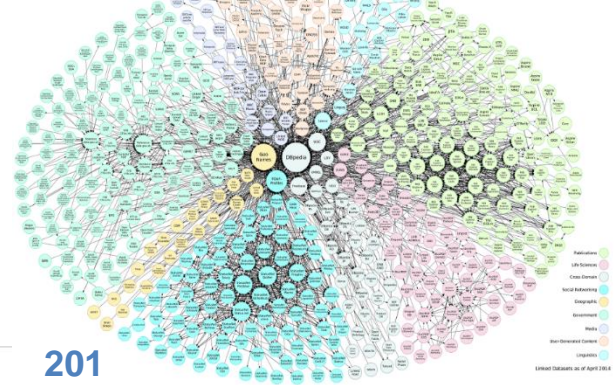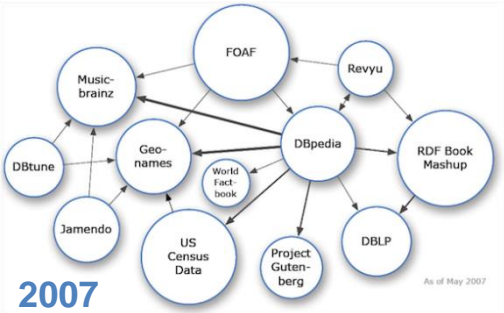
Expansion of Linked Data Cloud (2007-2020)

The linked data cloud of Culture

Smithsonian American Art Museum
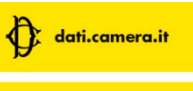
ArCo project

Starting from 2017 ICCD coordinates, with a view to promote and share knowledge, a **project in partnership with the Institute of Cognitive Sciences and Technologies (ISTC) of CNR** (National Research Council of Italy). It has the aim of creating an **ontology network** able to represent the complexity of cultural heritage and fully enhance its "informational depth".

ArCo and the «new» Italian cultural heritage catalogue: innovative planning

In 2018 ICCD announces a "**Call to Co-Creation»** with the purpose of identifying **innovative access and consultation modalities** of the Catalogue

In 2020 the new Catalogue website is published, entirely based on linked open data. In 2021 the new website dedicated to the photographic archives of the Ministry will be published.

https://www.catalogo.beniculturali.it/

https://www.catalogo.beniculturali.it/