

Metadata standards and interoperability in relation to digital cultural heritage

Brenda O'Neill/Dr. Larry Stapleton
For Aura Network Workshop Day 2



Centre for
Information Systems
and Technoculture



Waterford Institute of Technology
INSTITIÚID TEICNEOLAÍOCHTA PHORT LÁIRGE

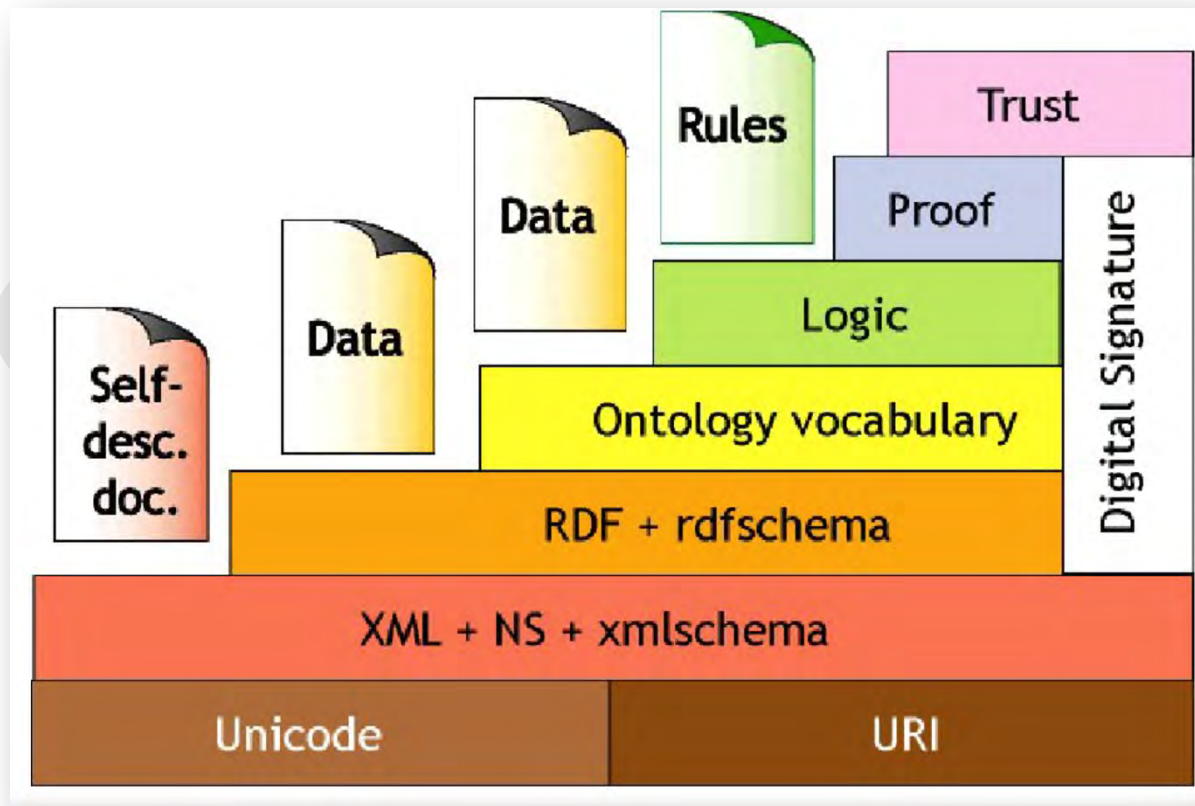
Unstructured data

No standardisation

Lack of interoperability

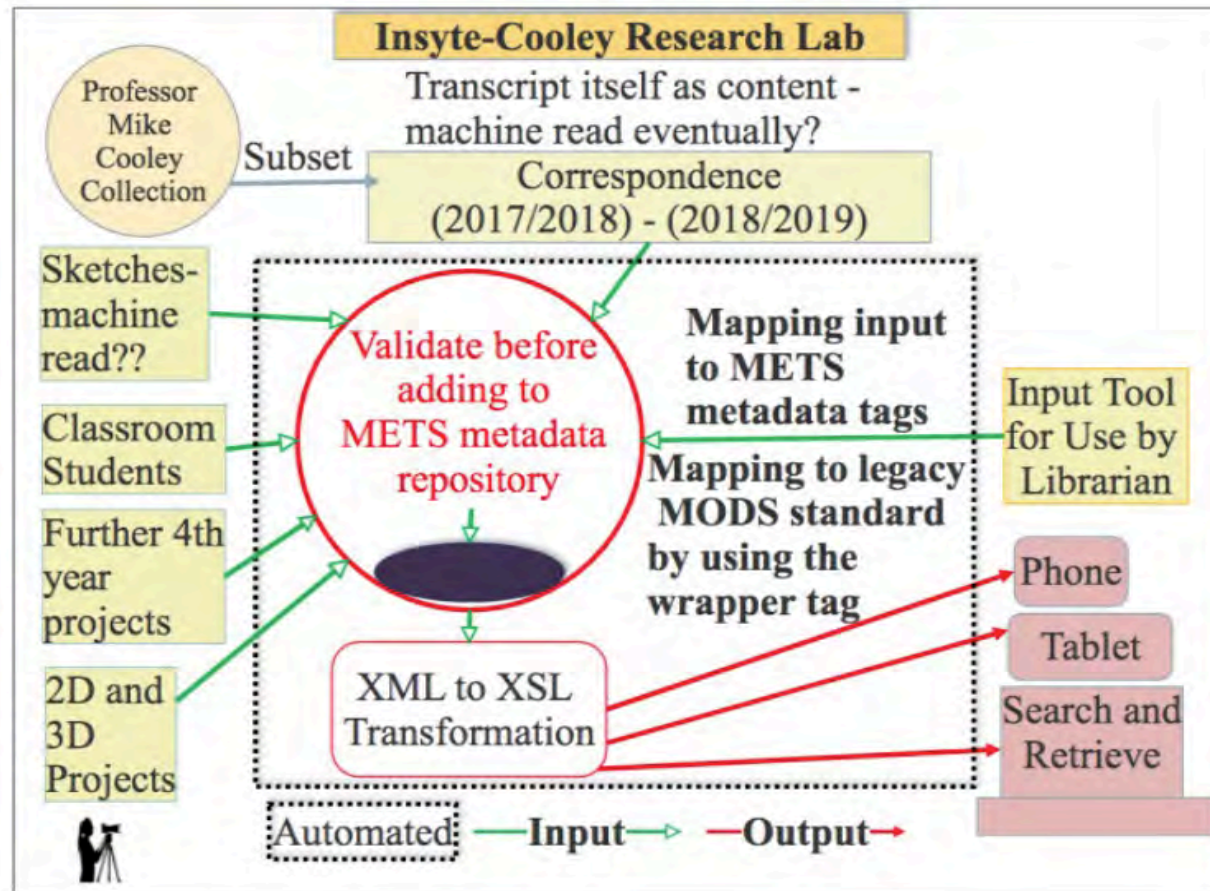
How does one make unstructured data machine readable?





Published in 2004
A Semantic Web Primer
G. Antonious, F. V. Harmelen





System Architecture Diagram

IMPORTANCE OF COMMUNICATION AND ACCEPTANCE OF TECHNOLOGY

Interdisciplinary teams working *together* to co-evolve the technology!!!

Social Responsibility, Human Centred Systems and Engineering Ethics:
A New Manifesto for Systems Engineering Design Praxis

The ENRICHER Method for Human Machine Symbiotics & Smart Data
A Socially Responsible Approach to the Intelligent Augmentation of
Knowledge Work



A Process:



A free, open-source ontology editor and framework for building intelligent systems

Protégé is supported by a strong community of academic, government, and corporate users, who use Protégé to build knowledge-based solutions in areas as diverse as biomedicine, e-commerce, and organizational modeling.





Web Ontology
Language (OWL)

Resource Description
Framework (RDF)

A Semantic Web Rule Language
Combining OWL and RuleML (SWRL)



Reasoning/inference

SPARQL, short for “SPARQL Protocol and RDF Query Language”, enables users to query information from databases or any data source that can be mapped to RDF.



Uniform Resource Indicator(URI)

What if any Cooley assets could be found anywhere and from any source on the internet?.

Moving towards Linked Data which Lucy McKenna(TCD) spoke about earlier.



Open data

Open Data means that the data is open to any kind of application and this can be achieved if we use open standards like RDF to describe metadata.

Open data standards

Linked open data

Museums Collections Archives: [Link](#)





Open Data Maturity
Report 2019

Ireland ranked first in the Open Data Maturity Report for the past three years.

This report serves as a benchmark to gain insights into the development achieved in the field of open data in Europe.

- ★ Available on the web (whatever format) *but with an open licence, to be Open Data*
- ★★ Available as machine-readable structured data (e.g. excel instead of image scan of a table)
- ★★★ as (2) plus non-proprietary format (e.g. CSV instead of excel)
- ★★★★ All the above plus, Use open standards from W3C (RDF and SPARQL) to identify things, so that people can point at your stuff
- ★★★★★ All the above, plus: Link your data to other people's data to provide context

Museums Collections Archives x +

data.gov.ie/dataset/museums-collections-archives

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Theme: [Arts](#)

Views: **670**

Openness rating: ★★★★★



Thank you for your attention.

