

Mapping Human-Readable/Machine-Readable Policies for RDA Metadata Standards Directory Development



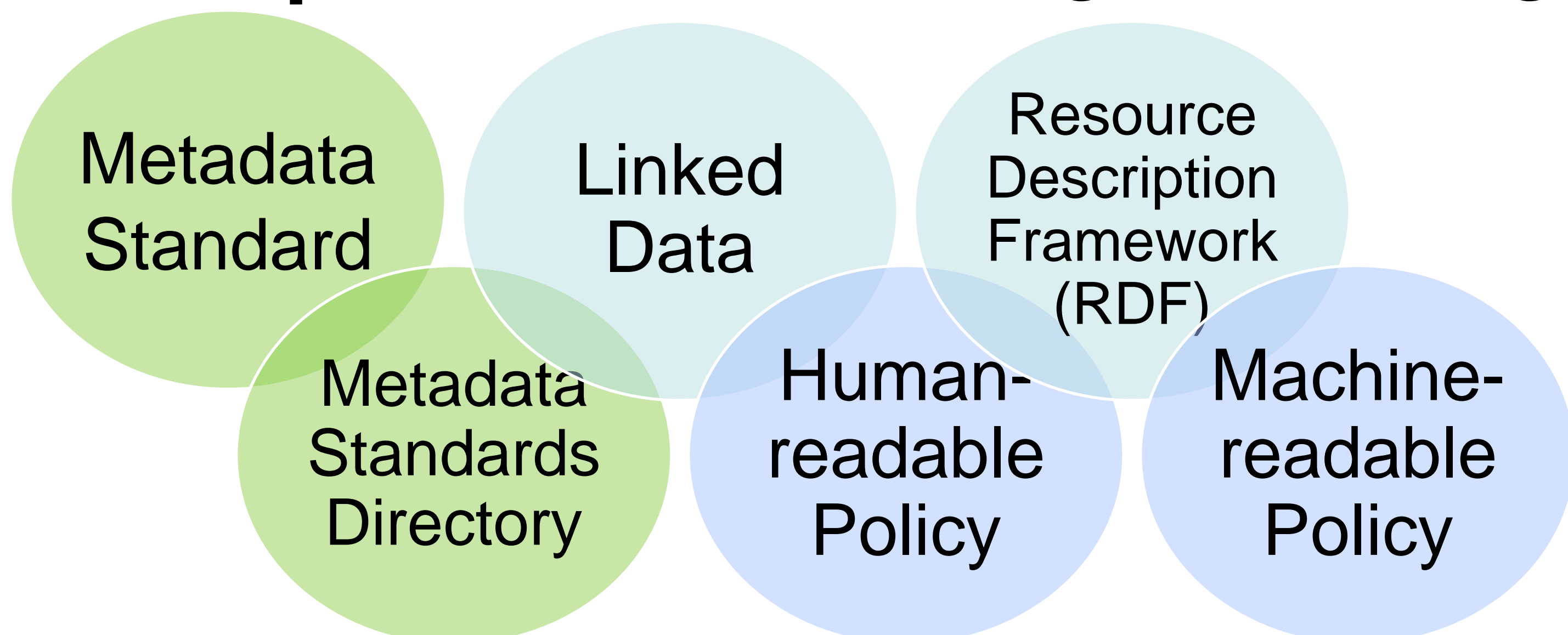
Yuan Ling*, Jane Greenberg*, Rebecca Koskela**

* College of Computing & Informatics, Drexel University

** DataONE, University of New Mexico



Concepts

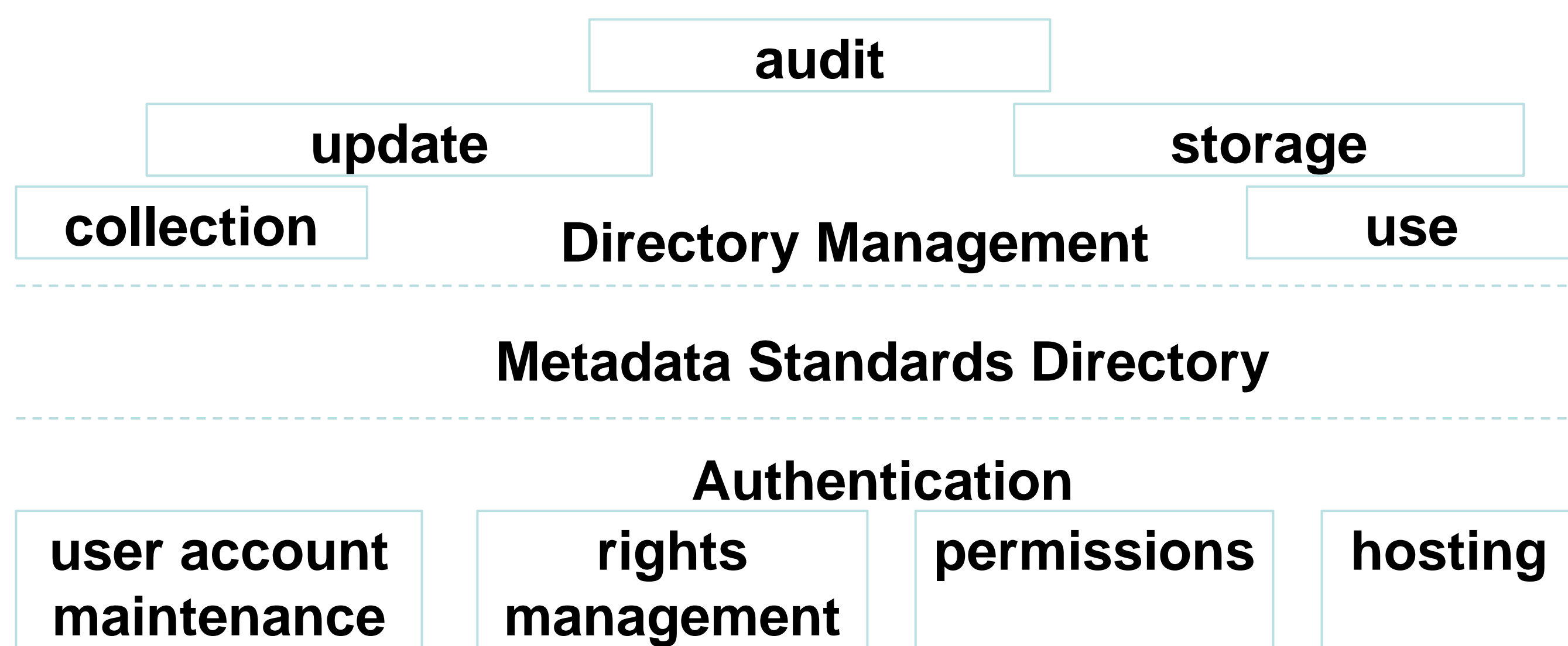


Scientific Data Sharing
Big Data Management

Challenges

- Different standards are not interoperable
- No metadata standard
- Duplicative standards
- Big Data environment: volume, variety, and velocity
-

RDA Metadata Standards Directory



The RDA Metadata Standards Directory:
<http://rd-alliance.github.io/metadata-directory/>

Name → RDF Data Cube Vocabulary

Description → The standard provides a means to publish multi-dimensional data, such as statistics, on the web in such a way that it can be linked to related data sets and concepts using the W3C RDF (Resource Description Framework) standard. The model underpinning the Data Cube vocabulary is compatible with the cube model that underlies SDMX (Statistical Data and Metadata eXchange), an ISO standard for exchanging and sharing statistical data and metadata among organizations.

Links to key facts → Summary

Standard Website
<http://www.w3.org/TR/vocab-data-cube/>

Sponsors
<http://www.w3.org>
Government Linked Data Working Group

Subjects
general

Disciplines
statistics

Links to extensions → Extensions

Links to tools → Tools

Linked Data Cubes Explorer

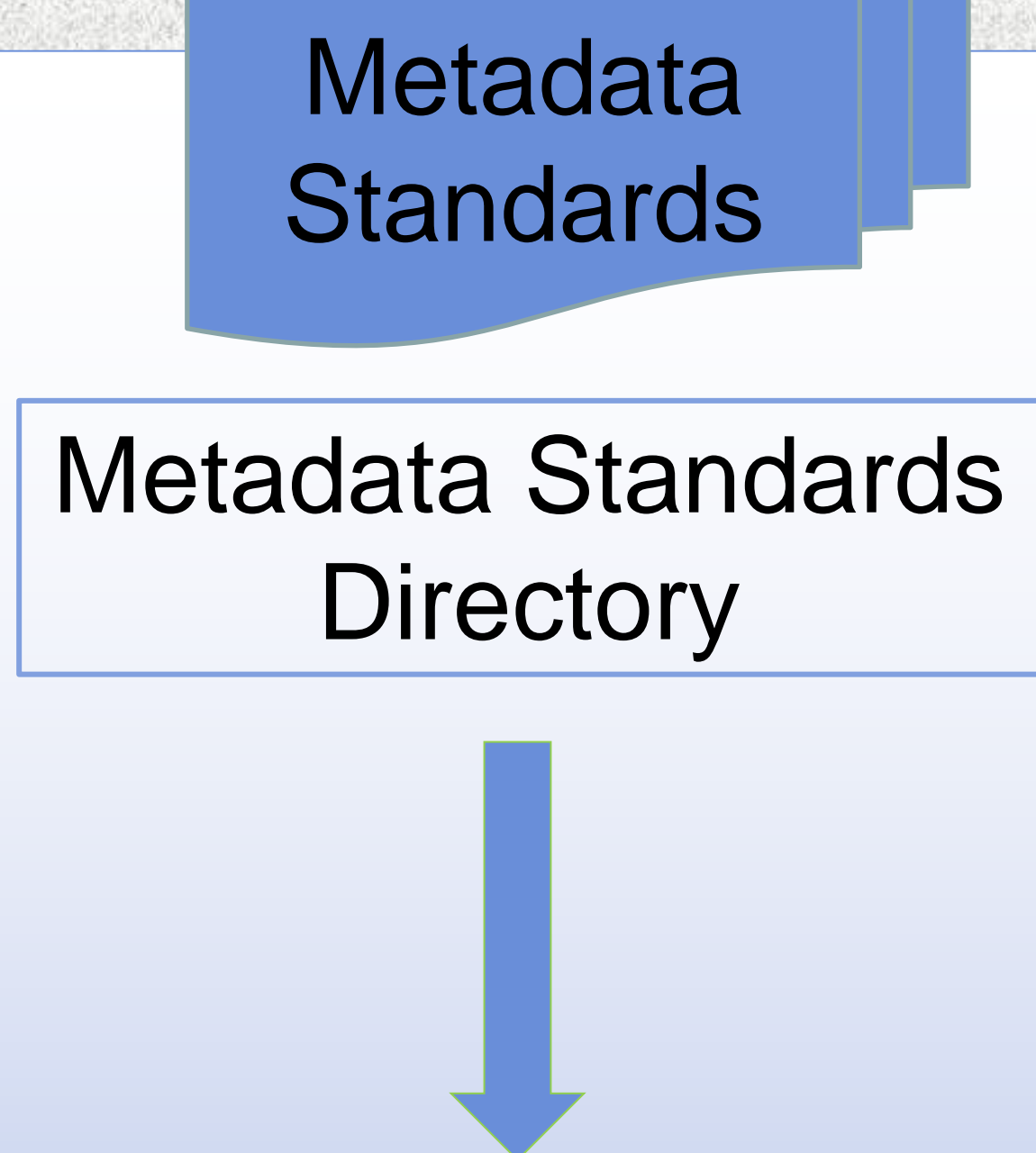
The Linked Data Cubes Explorer allows for the analysis of statistical datasets using the RDF Cube Vocabulary.

Links to use cases → Use Cases

List of RDF Data Cube Vocabulary Implementations

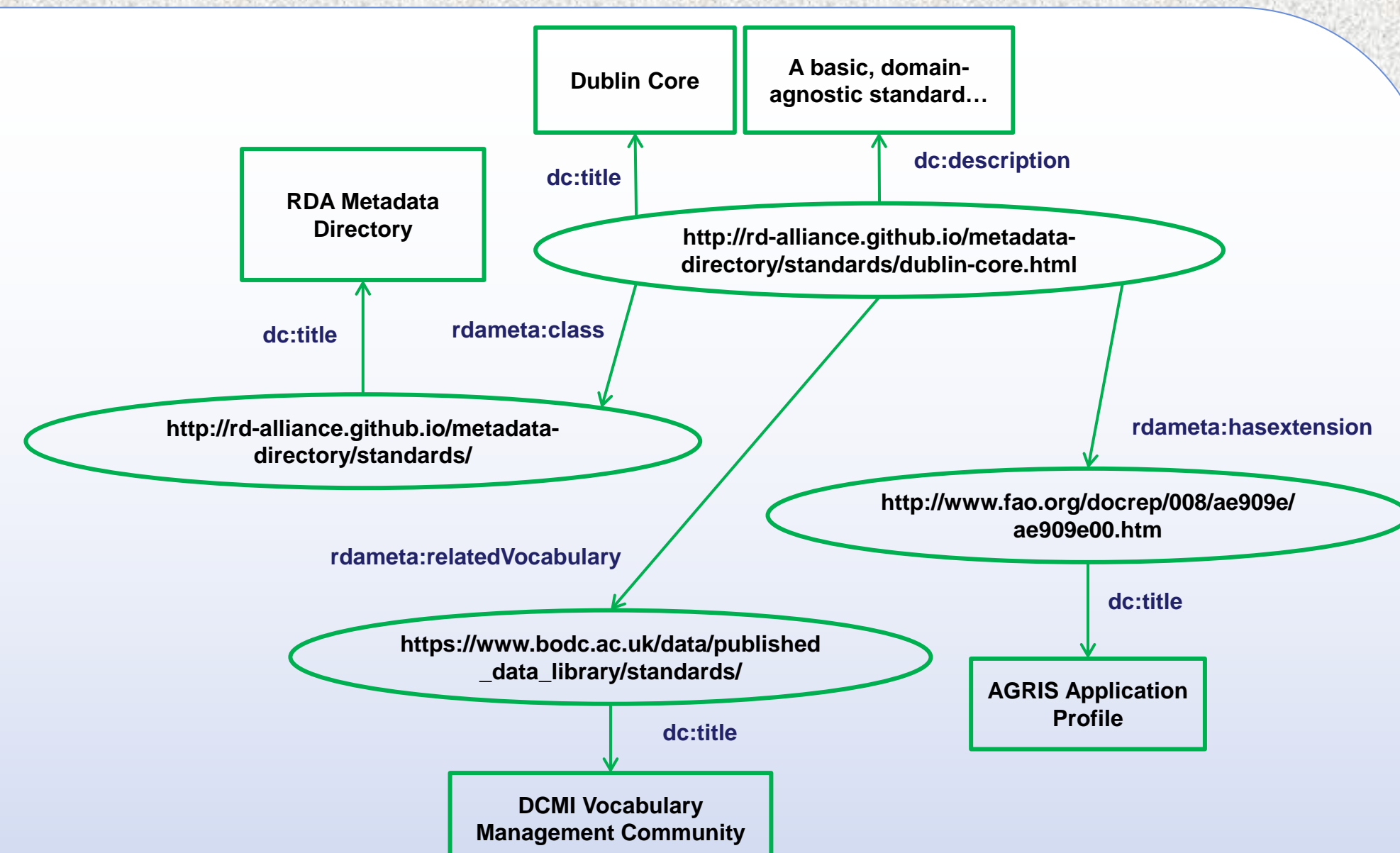
W3C Government Linked Data list of implementations of the RDF Data Cube Vocabulary.

- Adding new standards
- Checking currency of existing standards, extensions, tools
- Updating outdated standards, extensions, tools
- Maintaining user accounts
-



Search: SPARQL

RDF format



RDF: graph representations
RDF: document

```

1 <rdf:RDF
2   xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
3   xmlns:dc="http://purl.org/dc/elements/1.1/"
4   xmlns:rdameta="http://rd-alliance.github.io/metadata-directory/standards/fakeexample">
5   <rdf:Description rdf:about="http://rd-alliance.github.io/metadata-directory/standards/dublin-core.html">
6     <dc:title>Dublin Core</dc:title>
7     <dc:description>basic, domain-agnostic standard which can be easily understood and implemented, and as such is one of the best known and most widely used metadata standards.</dc:description>
8     <rdameta:relatedVocabulary rdf:resource="https://www.bodc.ac.uk/data/published_data_library/standards/">
9     <rdameta:hasextension rdf:resource="http://www.fao.org/docrep/008/ae909e/ae909e00.htm">
10    </rdf:Description>
11    <rdf:Description rdf:about="https://www.bodc.ac.uk/data/published_data_library/standards/">
12      <dc:title>DCMI Vocabulary Management Community</dc:title>
13    </rdf:Description>
14    <rdf:Description rdf:about="http://www.fao.org/docrep/008/ae909e/ae909e00.htm">
15      <dc:title>AGRIS Application Profile</dc:title>
16    </rdf:Description>
17    <!-- Remainder Of Document Omitted For Brevity... -->
18  </rdf:RDF>
  
```

Acknowledgements

- The RDA/US Scholars Program, it is supported by the National Science Foundation (NSF, award # 1349002)
- RDA Metadata Standards Directory Working Group (MSDWG)

Contact: Yuan Ling
ericalingyuan@gmail.com