DCC Disciplinary Metadata

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Funded by Jisc

Motivation

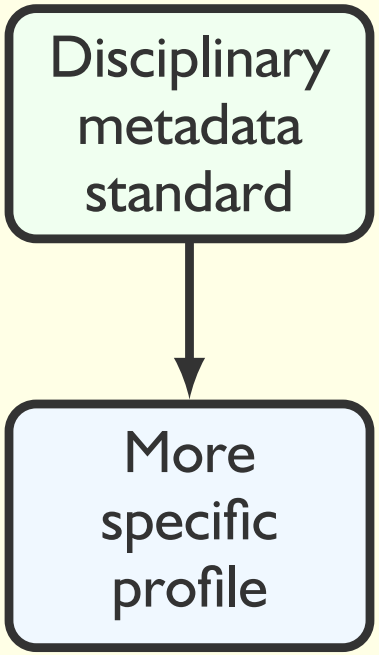
> *. . . disciplinary metadata standards . . . indicate the domain-specific information that will allow data to be interpreted correctly by others in the field. Since data curators cannot become experts in all of the subjects under research within their institutions, a particular need exists for guidance regarding disciplinary metadata standards.*

— Liz Bedford (emphasis added)

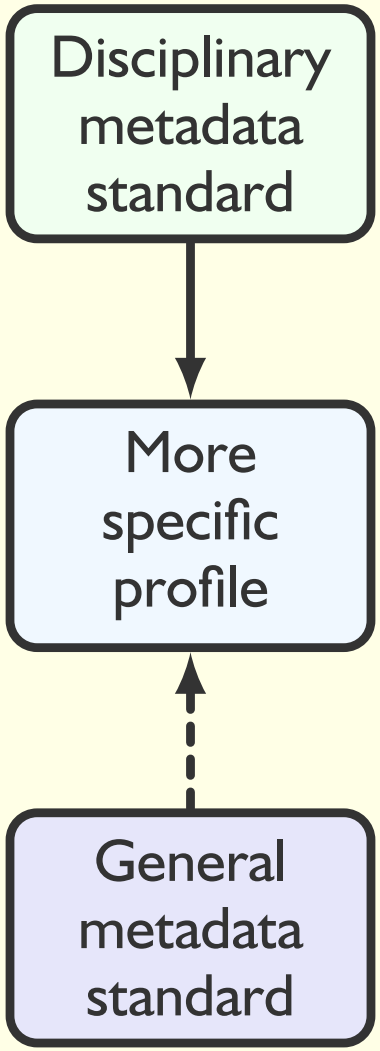
Catalogue elements

Disciplinary metadata standard

Catalogue elements



Catalogue elements



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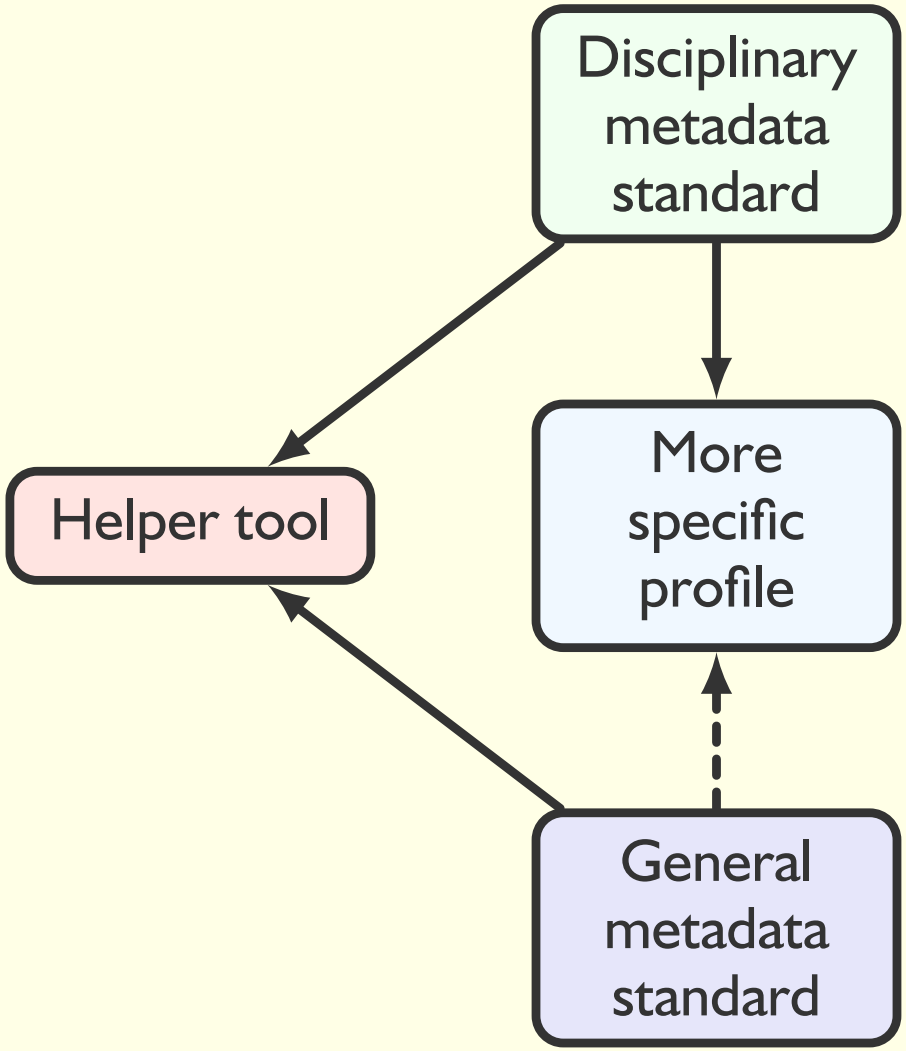

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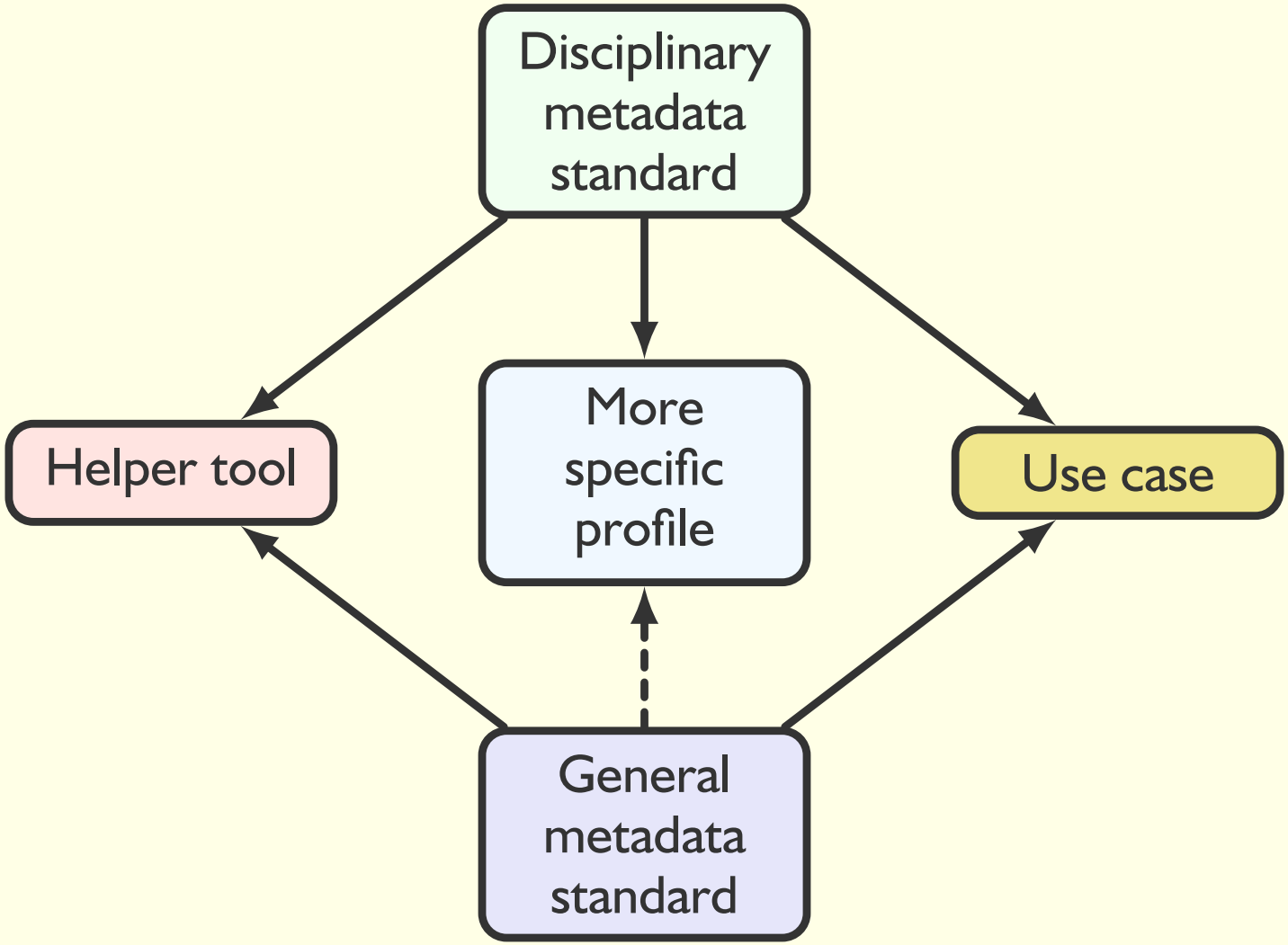


Scope

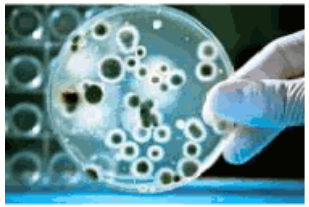
- Metadata standards, but not
  - languages/protocols
  - taxonomies/vocabularies
- Descriptive metadata, but not
  - administrative metadata
  - preservation metadata
  - structural metadata
- Active research data, but not
  - publications
  - learning objects
- Tabular data, but not
  - audio
  - video
  - narrative text

Process

1. Literature review
   - Ball, *Scientific Data Application Profile Scoping Study*
   - Riley & Becker, *Seeing Standards: A Visualization of the Metadata Universe*
   - DCC Diffuse
   - UKOLN Application Profiles Support Project
2. Repository review
   - Databib
3. Early thoughts about implementation
4. Choose taxonomy of disciplines (HESA JACS 3.0)
5. Assemble information about standards, profiles/extensions, tools and use cases
6. Finalize implementation and enter information on website
7. Testing and release

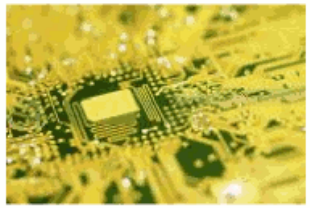
Disciplinary Metadata catalogue

Search by Discipline

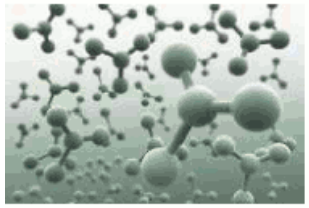


Biology

Earth Science



General Research Data



Physical Science

Social Science & Humanities

Search by Resource Type

Metadata Standards
Specifications for the minimum information that should be collected about research data in order for it to be re used.

Profiles and Extensions
Standards that have been adapted for use in particular types of repositories, or for particular types of data.

Use cases
Institutional repositories and data portals using standards to determine which metadata should be collected upon data deposit.

Tools
Software that has been developed to capture or store metadata conforming to a specific standard.

Subject areas

Resource types

Browsing by discipline

Physical Science

Nuclear and Particle Physics Chemistry Physics Crystallography Materials Science Solar physics Space science Astronomy Multi-disciplinary Biochemistry

Metadata Standards

AVM - Astronomy Visualization Metadata
A standard defining discovery metadata for fully rendered astronomical imagery.

CIF - Crystallographic Information Framework
An extensible standard file format and set of protocols for the exchange of crystallographic and related structured data.

CSMD-CCLRC Core Scientific Metadata Model
A study-data oriented model that captures high-level information about scientific studies and the data that they produce, primarily tailored for the physical sciences.

International Virtual Observatory Alliance Technical Specifications
A set of specifications, including metadata standards, that enable the integration of many astronomical archives into an international virtual observatory.

SPASE Data Model
An information model for describing the elements of the heliophysics data environment.

Extensions

eBank UK Metadata Application Profile
A Dublin Core Metadata Application Profile created for the eBank UK project, which provides access to the detailed results of scientific experiments in crystallography.

Disciplines

Relevant metadata standards

List of

- profiles/ extensions
- use cases
- tools

Record for metadata standard

SPASE Data Model

An information model for describing the elements of the heliophysics data environment, and a set of resource types which can be used to describe data along with its scientific context, source, provenance, content and location. It is designed to support a federated data syste reside at different locations and may be seperated from the metadata which describes it. The preferred expression form is XM

The Space Physics Archive Search and Extract (SPASE) effort is implemented by the SPASE Consortium which is composed the international Heliophysics data community. The Current Release of the data model (2.2.2) was updated in October 2012.

Mappings	OAI
Related Vocabularies	SPASE Dictionary
Specification	http://www.spase-group.org/docs/schema/
Standard's website	http://www.spase-group.org/data/

Extensions

IMPEx Data Model
A simulation extention to the SPASE data model.

Tools

SPASE Metadata Editor
A web-based editor for generating SPASE descriptions.

SPASE Tools
The SPASE website's list of tools for working with SPASE metadata and the SPASE framework.

Use Cases

NSSDC SPASE Registry
The National Space Science Data Center's registry of SPASE-described space science mission data.

SPASE Inside
The SPASE website's list of systems that use SPASE compliant metadata to enable search services.

Description

Key links/facts

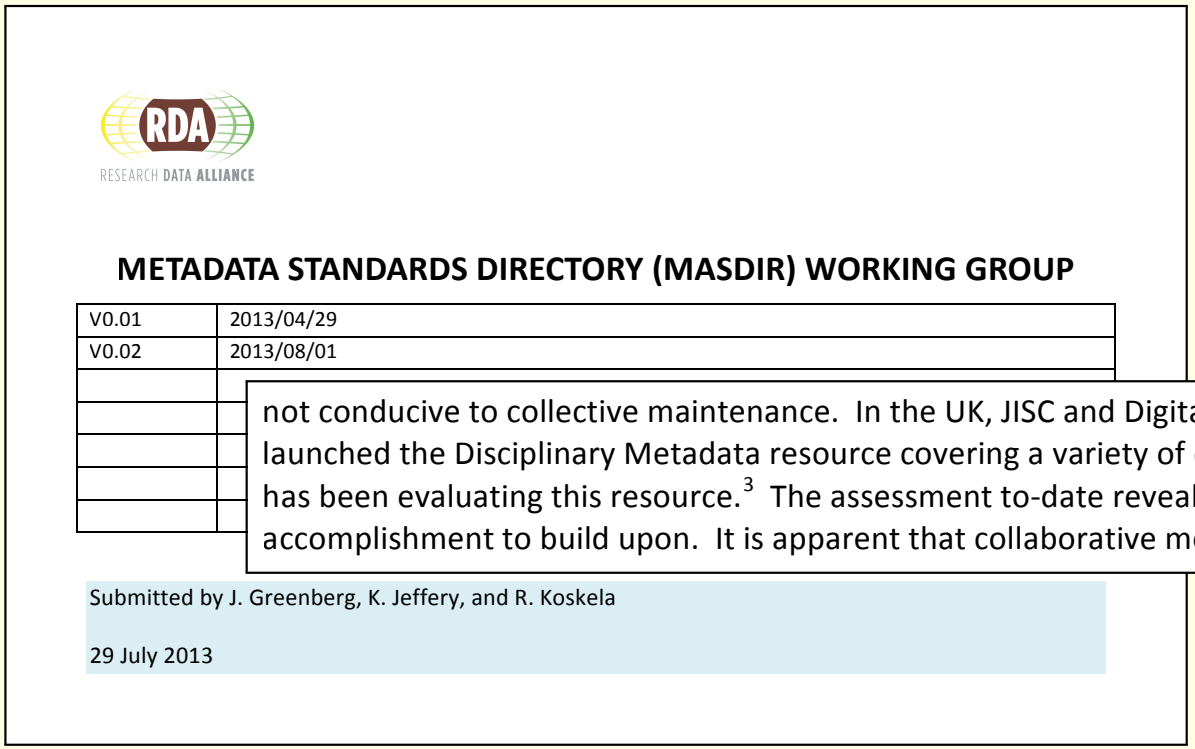
Links to extensions

Links to tools

Links to use cases

Next steps

- Review periodically for currency
- Add entries in response to suggestions
- Work with RDA Metadata Standards Directory Working Group



RESEARCH DATA ALLIANCE

METADATA STANDARDS DIRECTORY (MASDIR) WORKING GROUP

V0.01	2013/04/29
V0.02	2013/08/01

not conducive to collective maintenance. In the UK, JISC and Digital Curation Centre recently launched the Disciplinary Metadata resource covering a variety of disciplines, and the RDA MSDIG has been evaluating this resource.[3] The assessment to-date reveals that this is an important accomplishment to build upon. It is apparent that collaborative metadata registration systems have

Submitted by J. Greenberg, K. Jeffery, and R. Koskela

29 July 2013

Thank you for your attention

DCC Website: `http://www.dcc.ac.uk/`
Alex Ball: `http://alexball.me.uk/`

DCC Disciplinary Metadata:
`http://www.dcc.ac.uk/resources/metadata-standards`