## Please sign in

https://www.rd-alliance.org/plenaries/rda-ninthplenary-meeting-barcelona/rda-9th-plenaryprogramme

[have to login to the RDA website first]

16:00 - 17:30

**Breakout 3 - WG/IG/BoF Working Meetings Participants list sign-up** 





# Agenda

- Review objectives of the meeting (5 min)
- Status of Metadata Standards Catalog (15 min)
- Proposed Metadata Elements and Proposed Process for 'unpacking' the elements to an agreed syntax (15 min)
- Breakout Groups Unpacking Elements (30 min)
- Group Report Back (20 min)
- Next Steps (10 min)







## Metadata Standards Catalog

## Metadata Standards Catalog Update on progress

Alex Ball

University of Bath

RDA Plenary 9, Barcelona 5 April 2017





#### Motivation

#### We want to get researchers using standard metadata schemes, but

- > they might not know of a standard relevant to their data
- > even if they do, they might not know how to use it
- > even if they do, it might seem too much like hard work
- > even if it doesn't, an ad hoc scheme might seem like a better fit

#### The Metadata Standards Catalog will

- > make it easier to find out about standards
- > make it easier to use standards (tools, examples)
- > help with adapting and migrating between standards



### Building on previous work



#### □ D C C Disciplinary Metadata

#### **RDA Metadata Standards Directory**

#### Search by Discipline









Social Science & Humanities

#### Search by Resource Type

Metadata Standards

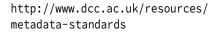
Physical Science

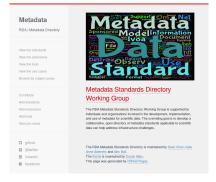
Specifications for the minimum information that should be collected about research data in order for it to be reused Profiles and Extensions

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.

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





http://rd-alliance.github.io/ metadata-directory/

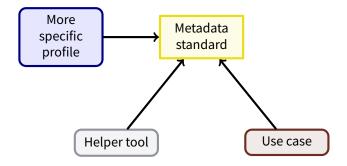


## So why do we need a new Catalog?

- > Search, not just browse
- > Access data with machine-to-machine protocols
- > Richer information
  - versions, mapping directionality, endorsements
  - greater use of entity relationships
- > More services
  - Extracting what you need from compliant metadata . . .
  - Calculating migration pathways . . .
  - Comparing elements in different schemes . . .
  - Generating 'first-pass' converters . . .

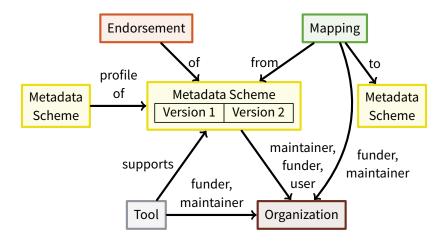


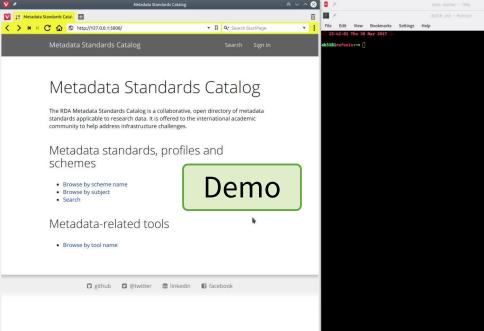
## Migrating the data: DCC/MSD data model





## Migrating the data: MSC data model







### Future developments

Highlight standards bodies

Dynamic filtering while browsing

Side-by-side specifications

Version history as timeline

Search by article DOI

Show maturity rating for schemes

Make changes to database via API

Query standards by their elements

Query by element value encoding

Query by article DOI

Calculate crosswalks



#### More information

- > Track progress against requirements:
  - github.com/rd-alliance/metadata-catalog-dev/issues
- > View the new data model:
  - github.com/rd-alliance/metadata-catalog-dev/tree/master/db
- > Try out a local instance of the prototype Catalog:
  - github.com/rd-alliance/metadata-catalog-dev





## Metadata Standards Catalog

#### Thank you for your attention

Metadata Standards Catalog Working Group: https://rd-alliance.org/groups/metadata-standards-catalog-working-group.html



# The Metadata Groups Unpacking the Elements

Keith G Jeffery

research data sharing without barriers rd-alliance.org

# **Spatial Coordinates**

- Purpose: to define a location with respect to some fixed origin
  - Geographical coordinates
    - Latitude/longitude (height/depth)
      - UTM universal transverse Mercator
      - UPS universal polar stereographic
      - ECF earth centred, earth fixed (XYZ from centre of earth)
    - Easting/northing (height/depth)
  - Astronomical coordinates
    - Altitude/azimuth
    - Declination/right ascension
    - (and others involving time light years, parsecs)
  - Atomic coordinates
    - Angstrom units from given origin in X,Y,Z axes
- And what about relationship to time?





# Accuracy, Precision, Resolution

- Precision: the closeness of a value to the average value (usually denoted by the number of digits in the measurement)
- Accuracy: the closeness of a value to the true value (usually defined with reference to the accepted true value)
- Resolution: GSD: ground sample distance pixel spacing on the earth's surface
- Note different in astronomical images, electron microscopy, stereoscopic 3-D images...



# Metadata to define a point

- X,Y,Z (possibly T) in some declared coordinate system
- Precision
- Accuracy
- Resolution
- From this we can define lines, polygons, bounding boxes...



# Elements (http://bit.ly/2nDH5Lr)

- Unique Identifier (for later use including citation)
- Location (URL)
- Description
- Keywords (terms)
- Temporal coordinates
- Spatial coordinates
- Originator (organization(s) / person(s))
- Project
- Facility / equipment
- Quality
- Availability (license, persistence)
- Provenance
- Citations
- Related publications (white or grey)
- Related software
- Schema
- Medium / format

