



FAIR Principles

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Interoperable

Analysis of existing approaches

Existing approaches



Findable

Accessible

Interoperable

Reusable

Beyond FAIR
Principles

I1

I2

I3

Develop common metrics per facet

FAIR Principles

To be interoperable :

I1. (meta)data uses a formal, accessible, shared, and broadly applicable language for knowledge representation

I2. (meta)data uses vocabularies that follow FAIR principles

I3. (meta)data includes qualified references to other (meta)data

LEGEND

- 1 ANDS-NECTAR-RDS-FAIR data assessment tool
- 2 DANS-Fairdat
- 3 DANS-Fair enough?
- 4 The CSIRO 5-star Data Rating tool
- 5 FAIR Metrics Questionnaire
- 6 Big Data Readiness
- 7 FAIR Evaluator
- 8 Data Stewardship Wizard
- 9 Checklist for Evaluation of Dataset Fitness for Use
- 10 RDA-SHARC Evaluation

Principle

Facet

1 Question

- Option #1
- Option #2
- Option #3

Potential Overlap

I1 (meta)data uses a formal, accessible, shared, and broadly applicable language for knowledge representation

1 What (file) format(s) is the data available in?

- No access to data
- By individual arrangement
- File download from online location
- Non standard web service
- Standard Web Service API

1 What best describes the types of vocabularies/ontologies/tagging schemas used to define the data elements?

- Data elements not described
- No standards have been applied in the description of data elements.
- Standardised vocabularies/ontologies/tagging schemas without global identifiers
- Standardised open and universal using resolvable global identifiers linking to explanations

2 Is the data file in a proprietary format?

- No
- Yes

2 Are all of the data files in a proprietary format?

- No
- Yes

2 Please indicate which of these statements is the most applicable to the dataset:

- Most of the data files are proprietary
- Around half of the data files are proprietary
- Few of the data files are proprietary
- None of the data files are proprietary, they are all in a preferred format

3 Are the data stored and archived in preferred archival formats?

- No
- Yes

5 Please provide the URL to the specification of the language

R1.3

...

...

7 Use of a formal, accessible, shared, and broadly applicable language for knowledge representation.

8 Will you be using common ontologies?

No
Yes

9 metadata includes community accepted keywords and/or terms associated with relevant standards or terminologies

No
Somewhat
Yes

10 Are standard vocabularies, thesaurus or ontologies used for all data types present in datasets, to enable interdisciplinary interoperability between well defined

Never /NA
If mandatory
Sometimes
Always

10 Are the interoperability criteria explained?

Never /NA
If mandatory
Sometimes
Always

10 Are the interoperability criteria explained?

Never /NA
If mandatory
Sometimes
Always

I2 (meta)data uses vocabularies that follow FAIR principles

3 Did you use standardized vocabulary?

No

Yes

4 Comprehensible - supported with unambiguous definitions for all internal elements

Local field codes or labels

Labels with full text explanations

Community standard labels (e.g. CF Conventions, UCUM units)

Some fields linked to externally managed definitions

All fields linked to standard, externally managed definitions

5 Please provide one or more (max 3) IRIs representing the vocabularies used within the (meta)data that is returned by resolving the RESOURCE ID

7 The metadata values and qualified relations should themselves be FAIR

I3 (meta)data includes qualified references to other (meta)data

2 Is there extensive metadata and rich additional documentation available?

R1, R1.2

No
Yes

3 How is the metadata linked to other data and metadata (to enhance context and clearly indicate relationships)?

There are no links to metadata
The meta data records includes URI links to related metadata, data, definitions
Metadata is represented in a machine readable format e.g. in a linked data format such as RDF

4 Linked - to other data and definitions using public identifiers (e.g URIs)

No links
In-bound links from a catalogue or landing-page
Out-bound links to related data and definitions

5 Please provide the URL to a formal Linkset or copy/paste the content of a formal linkset that describes at least a portion of the content at RESOU

R1.2

7 Relationships within (meta)data, and between local and third-party data, have explicit and 'useful' semantic meaning