



FAIR Principles

Reusable

Analysis of existing approaches

Existing approaches



Findable

Accessible

Interoperable

Reusable

Beyond FAIR
Principles

R1

R1.1

R1.2

R1.3

Develop common metrics per facet

FAIR Principles

To be reusable :

R1. meta(data) is richly described with a plurality of accurate and relevant attributes

R1.1. (meta)data is released with a clear and accessible data usage licence

R1.2. (meta)data is associated with detailed provenance

R1.3. (meta)data meets domain-relevant community standards

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

R1 meta(data) is richly described with a plurality of accurate and relevant attributes

2 Is there sufficient metadata available?

No
Yes

2 How is the data described with metadata?

The data is not described
Brief title and description
Comprehensively, but in a text-based, non standard format
Comprehensively, using a recognized formal machine readable metadata schema

F2

2 Is there extensive metadata and rich additional documentation available?

No
Yes

R1.2, I3

3 Did you provide enough information (metadata) about your data for others to understand and reuse your data?

No
Yes

9 Granularity of data entities in dataset is appropriate in Respect of Meta-Data Granularity

No
Somewhat
Yes

9 Structure, size and MIME type of the dataset agrees with description of the dataset content

No
Somewhat
Yes

...

...

9 Content of the dataset agrees with description of the dataset content

No
Somewhat
Yes

9 Coverage (spatial, temporal, or other dimensions) adequate

No
Somewhat
Yes

10 Which relevant actions have been undertaken by the researcher to enhance the data reuse potential

Never /NA
If mandatory
Sometimes
Always

10 Does the researcher provide information on methods and tools that permit the understanding, integrity, value and readability of data intended to be kept on f

Never /NA
Sometimes
Always

R1.1 (meta)data is released with a clear and accessible data usage licence

1 Which of the following best describes the license/usage rights attached to the data?

- ☐ No licence
- ☐ Non standard text based licence
- ☐ Non standard machine readable licence (e.g. clearly indicating under what conditions the data may be used)
- ☐ Standard text based licence
- ☐ Standard machine-readable licence (e.g. Creative Commons)

2 Does the user license have any user restrictions for accessing the data?

- ☐ No
- ☐ Yes

2 Does the dataset have a user license?

- ☐ No
- ☐ Yes

3 Does the dataset have a usage licence?

- ☐ No
- ☐ Yes

4 Licensed - conditions for re-use are available and clearly expressed

- ☐ No
- ☐ License described in text
- ☐ Link to a standard license (e.g. Creative Commons)

5 Please provide the IRI for you usage license regarding the content returned from RESOURCE ID

7 The existence of a license document, for BOTH (independently) the data and its associated metadata, and the ability to retrieve those documents

9 Terms of usage (licenses, other conditions of reuse, data protection, ethical issues)

- ☐ No
- ☐ Somewhat
- ☐ Yes

R1.2 (meta) data is associated with detailed provenance

1 How much provenance information has been captured to facilitate data reuse

- No provenance information is recorded
- Partially recorded
- Fully recorded in a text format
- Fully recorded in a machine readable format

2 Is there extensive metadata and rich additional documentation available?

- No
- Yes

R1, I3

3 Did you give detailed provenance information for the data?

- No
- Yes

4 Trusted - accompanied by, or linked to, information about how the data has been used, by whom, and how many times

- No information about usage
- Usage statistics available
- Clearly endorsed by reputable organization or framework

4 Assessable - accompanied by, or linked to, a data-quality assessment and description of the origin and workflow that produced the data

- No quality or lineage information
- Text lineage statement
- Formal provenance trace (e.g. PROV-O)

5 Please provide the IRIs (maximum 3) for the vocabularies being used to describe the provenance of the content resolved from RESOURCE ID

5 Please provide the IRIs (maximum 3) for the vocabularies being used to describe the domain information of the content resolved from RESOURCE ID

7 That there is provenance information associated with the data,

9 Citation exists, including authorship, year, comprehensive title, persistent identifier (e.g. DOI)

F1

- No
- Somewhat
- Yes

10 Are the provenance and type of all data properly specified (origin of raw, primary, transformed, secondary..)

- Never /NA
- If mandatory
- Sometimes
- Always

8 How will you be making sure there is good provenance of the data analysis?

- We use lab notebooks
- We use an electronic lab notebook
- We use other arrangements

R1.3(meta)data meets domain-relevant community standards

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

I1

No
Yes

3 Do you make use of relevant community standards?

No
Yes

4 Loadable - represented using a common or community-endorsed (i.e. standard) format

Bespoke format (text, binary)
One standard format, denoted by a MIME-type
Multiple standard formats

4 Usable - structured using a discoverable, community-endorsed (standard?) schema or data model

No formal schema
Explicit schema or data model, formalized in DDL, XSD, DDI, RDFS, JSON-Schema, data-package or similar
Community-shared schema or data model, available from a standard location

5 Please provide the IRI that represents the certification from a recognized authority in your community or domain, indicating that the content of RESOURCE

7 Certification, from a recognized body, of the resource meeting community standards.

...

...

10 Do the data reuse control and data sharing arrangements meet the data protection and "local/national ethics requirements?"

Never /NA
If mandatory
Sometimes
Always

10 If relevant, has the researcher used valid and updated standards for data describing ? If so, are the data standards and particularly versioning data standards

Never /NA
If mandatory
Sometimes
Always

9 Additional metadata adequate to respective research domain (if applicable)

No
Somewhat
Yes