

DEFINITIONS


- ✓ “data that provide information about other data” [1]
- ✓ “structured information associated with an object for purposes of discovery, description, use, management, and preservation” (National Information Standards Organization, 2008) [2]

| | |
|---------------------------------|--|
| MANUAL OR AUTOMATIC | Metadata can be created <i>manually</i> or by <i>automated</i> information processing (i.e. captured by computer or machine) |
| EMBEDDED OR SUPPLEMENTAL | Metadata can be stored in the same file or structure as the data (<i>embedded metadata</i>), or in a separate file (<i>supplemental</i>) |

| Family | Description | Examples |
|--------------------------------|--|---|
| DESCRIPTIVE METADATA | For finding or understanding a resource | <i>Title, Author, Subject, Keywords, Publication date</i> |
| ADMINISTRATIVE METADATA | | |
| TECHNICAL METADATA | For decoding and rendering files | <i>File type & size, Device version, Creation date/time, Compression scheme</i> |
| PRESERVATION METADATA | Long-term files management | <i>Checksum date, Preservation event</i> |
| RIGHTS METADATA | Intellectual property rights attached to content | <i>Copyright status, License terms, Rights holder</i> |
| STRUCTURAL METADATA | Relationships of parts of resources to one another | <i>Sequence, Place in hierarchy</i> |

Metadata ensures that data are FAIR

Check the **Fast Guide #2: FAIR** [3]



RESEARCH

- Find datasets/code using metadata
- Plan & Design metadata
- Acquire / Create metadata
- Clean metadata, control quality
- FAIR-ify (normalize, enrich, reconcile)
- Choose FAIR-compliant repositories
- Carefully fill in forms
- Publish metadata (along with data)
- Allocate / Add PIDs
- Interlink your and others' PIDs
- Hand-over for long-term preservation

Be systematic & consistent

ELEMENTS TO BUILD (YOUR OWN) METADATA

FORMAT, TECHNICAL, INTERCHANGE STANDARDS

[exif](#), [IPTC](#), instrumentation specific standards...

CONTENT MODEL

[ISA \(Investigation-Study-Assay\) framework](#), [Force11 software citation principles](#)

NORMS, STANDARDS, REFERENCES

[ISO 8601](#), [ISO 639-1](#), [ISO 3166-1](#), thesauri, vocabularies, authorities...

STRUCTURE STANDARDS & SCHEMAS

[INSPIRE](#), [SDMX](#), [Darwin Core](#), [Dublin Core](#), [PROV model](#), [Datacite](#)

Metadata and metadata **standards** creation, adoption and maintenance is a **joint effort** within and between interest-based communities

USEFUL RESOURCES

- www.dcc.ac.uk/resources/metadata-standards
- fairsharing.org / bartoc.org / lov.linkeddata.eu

TRY THEM OUT [4]

- Source code citation[4]: [CodeMeta metadata generator](#)
- Dataset citation[5]: [Datacite metadata generator](#)

Credits and sources
 [1] [merriam-webster.com/dictionary/metadata](https://www.merriam-webster.com/dictionary/metadata)
 [2] [framework.niso.org/24.html](https://www.framework.niso.org/24.html)
 [3] go.epfl.ch/rdm-fastguide02
 [4] codemeta.github.io/codemeta-generator/
 [5] github.com/mpaluch/datacite-metadata-generator