FAIRsharing - mapping the landscape of databases, standards and data policies

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Mapping a complex and evolving landscape... 

A web-based, curated, and searchable portal that monitors the development and evolution of standards, across all disciplines, inter-related to databases/repositories and data policies.
How can FAIRsharing help you?

- FAIRsharing guides consumers, accelerating discovery, selection and use of relevant repositories, standards and data policies with confidence.
- FAIRsharing increases producer satisfaction, in terms of visibility, reuse, adoption and citations of their resources.

Carla (researcher) searches FAIRsharing to identify an established repository, recognized by the journal she plans to submit to, with restricted data access to deposit her clinical datasets, as recommended by her funder’s data policy.

Hagen (biocurator) searches FAIRsharing for suitable standards for his dataset. He filters the results by subject and domain, focussing on standards implemented by one or more data repositories. He also looks for the details of a person or support group to contact.

Beatriz (standards developer and repository manager) creates and maintains a personalized collection page on FAIRsharing to list and showcase the set of standards and repositories developed by the organizations she is the representative of; she registers the standards/repositories and/or claims existing records added by the FAIRsharing team, vetting the descriptions and/or enhancing them by adding indicators of maturity for the standards, and adds relationships to other resources. She uses the DOIs assigned to her records to cite the evidence of their adoption and use.

Laura (policy maker) registers her journal’s data policy in FAIRsharing, creating and maintaining an interrelated list of the repositories and standards she recommends to the authors. She keeps her data policy up-to-date using visualization and comparison functionalities, and consulting the knowledge graph that offers a interactive view of the repositories, tools and standards, as well as receiving customized alerts.

Marek (data manager) consults FAIRsharing when creating a data management plan to identify the most appropriate reporting guidelines, formats and terminologies for his data types, and formally cites these community standards using their DOIs and the ‘how to cite this record’ statements provided for each resource.

Jen (librarian) and her colleagues involved in supporting research data use FAIRsharing to: enrich educational and training material to support scholars to utilize data standards, and conform to journal and funder policies, and to develop guidance that increases capability and skills, and empowers researchers to organize and make their data FAIR.
Example of a record: UniProt (database)

A DOI is minted for each record

R = resource ready for use (D = deprecated, Dev = in development, U = unknown status)

manually-curated tags (soon from controlled vocabularies / ontologies)

Journal, funding bodies and organizations that recommend this record in their policies

this metadata record is maintained directly by the UniProt organization
Example of a record: UniProt (database)

Collections containing this record

List of related publications (with links to full text)

Related records (standards, databases, policies) manually curated
Collection/recommendation widget

- Embed a collection or recommendation in a third-party website
- Data is retrieved through FAIRsharing REST API
- Widget is provided as a service
- The collection or recommendation can be visualized either as a table or as a graph
- User can filter records by type tags or path distance from the central node

https://github.com/FAIRsharing/FAIRsharing-client
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Working with and for the community

Societies and organisations, incl:
- EMBL
- ISB
- RDA
- Force11
- EUBC
- NBDC

Cross-links, data exchange, incl:
- Identifiers.org
- equator network
- elexir

Journal, publishers, incl:
- Jisc
- BioPortal
- OpenBiomedicalNoise

Institutional RDM services, incl:
- Stanford University Libraries
- Open Data
- Research Data O"xford

Projects, programmes:
- FAIRmetrics.org

Standard developing groups, incl:
- FAIR Data Journal
- PLOS
- Oxford University Press
- CDISC
- Genomic Standards Consortium

Wellcome Open Research
EMBOpress