



The Jisc Open Research Hub

and its role in open research infrastructure

11 June, 2019



Who are Jisc?

Jisc is the UK higher, further education and **skills** sectors' not-for-profit organisation for **digital services** and **solutions**

Jisc

We...

Provide trusted **advice** and **practical assistance** for universities, colleges and learning providers

Negotiate **sector-wide deals** and **conditions** with IT vendors and commercial publishers

Operate **shared digital infrastructure** and **services**

A key challenge for universities

The current 'open research' agenda is important to universities:



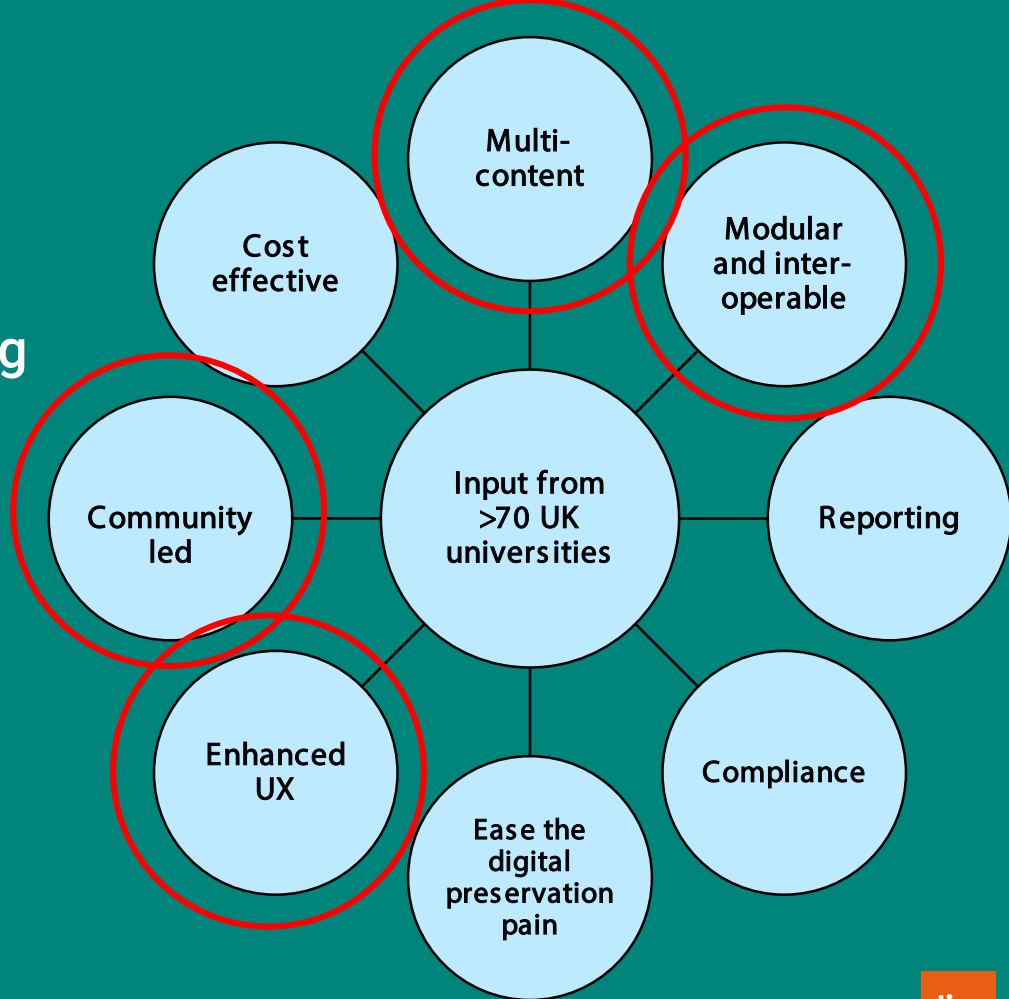
Repository

Preservation

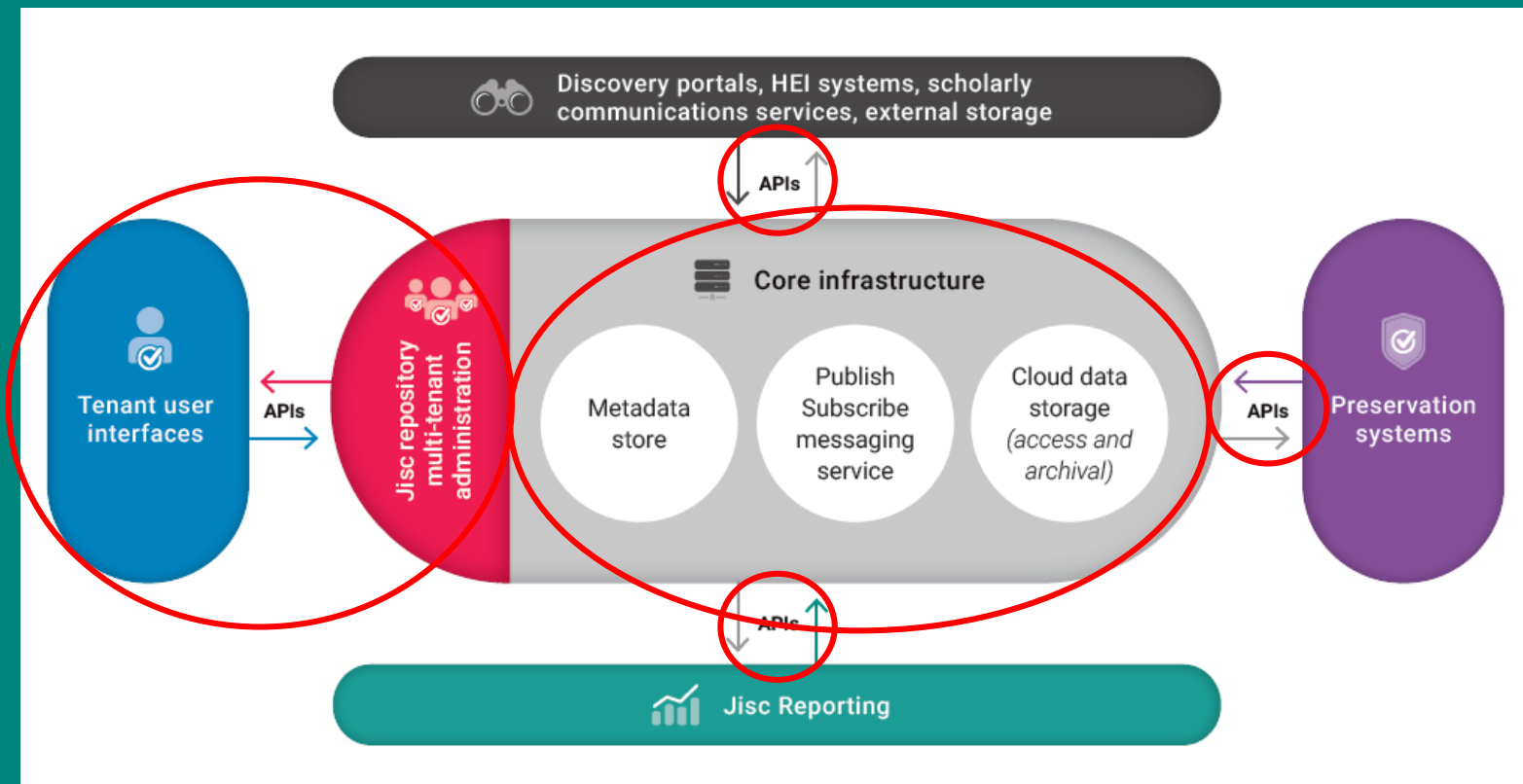
Reporting

A shared service

A single solution to meet the requirements for universities to enable better management, sharing and preservation of research outputs



Jisc Open Research Hub



6

The diagram illustrates the structure of a digital library system, organized into three main categories as indicated by the legend:

- Composite Research Object (Orange):** Includes *Collection*, *Project*, *Organization*, *Person*, *File*, and *Access*.
- Material asset (Blue):** Includes *Object*, *PersonIdentifier*, *Group*, and *Checksum*.
- Intellectual asset (Green): Includes *Guest*, *Person*, *PreservationEvent*, and *Checksum*.**

Key Classes and Attributes:

- Collection:** Attributes include `collectionUUID`, `collectionObject`, `collectionCategory`, `collectionEvent`, `collectionRights`, `collectionSource`, `collectionTarget`, `collectionType`, `collectionVersion`, `collectionAccess`, `collectionRights`, `collectionSource`, `collectionTarget`, `collectionType`, `collectionVersion`, `collectionAccess`.
- Project:** Attributes include `projectUUID`, `projectObject`, `projectCategory`, `projectEvent`, `projectRights`, `projectSource`, `projectTarget`, `projectType`, `projectVersion`, `projectAccess`, `projectRights`, `projectSource`, `projectTarget`, `projectType`, `projectVersion`, `projectAccess`.
- Organization:** Attributes include `organizationUUID`, `organizationObject`, `organizationCategory`, `organizationEvent`, `organizationRights`, `organizationSource`, `organizationTarget`, `organizationType`, `organizationVersion`, `organizationAccess`, `organizationRights`, `organizationSource`, `organizationTarget`, `organizationType`, `organizationVersion`, `organizationAccess`.
- Person:** Attributes include `personUUID`, `personObject`, `personCategory`, `personEvent`, `personRights`, `personSource`, `personTarget`, `personType`, `personVersion`, `personAccess`, `personRights`, `personSource`, `personTarget`, `personType`, `personVersion`, `personAccess`.
- File:** Attributes include `fileUUID`, `fileObject`, `fileCategory`, `fileEvent`, `fileRights`, `fileSource`, `fileTarget`, `fileType`, `fileVersion`, `fileAccess`, `fileRights`, `fileSource`, `fileTarget`, `fileType`, `fileVersion`, `fileAccess`.
- Access:** Attributes include `accessType`, `accessObject`, `accessCategory`, `accessEvent`, `accessRights`, `accessSource`, `accessTarget`, `accessType`, `accessVersion`, `accessAccess`, `accessRights`, `accessSource`, `accessTarget`, `accessType`, `accessVersion`, `accessAccess`.

Relationships:

- Collection** has **Object** (1 to many).
- Collection** has **Project** (1 to many).
- Collection** has **Organization** (1 to many).
- Collection** has **Person** (1 to many).
- Collection** has **File** (1 to many).
- Collection** has **Access** (1 to many).
- Collection** has **PreservationEvent** (1 to many).
- Collection** has **Checksum** (1 to many).
- Collection** has **StorageStatus** (1 to many).
- Collection** has **UpdateStatus** (1 to many).
- Collection** has **Include** (1 to many).
- Collection** has **Relationship** (1 to many).
- Collection** has **RelationshipType** (1 to many).
- Collection** has **RelationshipValue** (1 to many).
- Collection** has **RelationshipRights** (1 to many).
- Collection** has **RelationshipSource** (1 to many).
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Sector policies and good practice - data

UK Research and Innovation

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Funding Research Innovation Skills News Public engagement About us

Home > Funding > Information for award holders and research organisations > Data policy > Common Principles on data policy

Common principles on data policy

The Research Council common principles on data policy provide an overarching framework for individual Research Council policies on data policy.

The common principles are listed below and further guidance can be found within the [guidance documentation](#) (PDF, 467KB).

Information on supporting research data management costs through grant funding can be found [here](#).

Research Council common principles on data

- Publicly funded research data are a public good, not a commodity, which should be made openly available with as few restrictions as possible.
- Institutional and community best practice research.

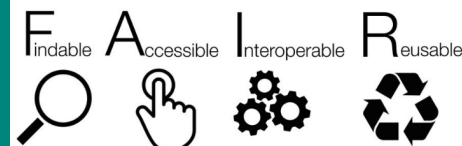
relevant standards and accessible and usable for future

Concordat on Open Research Data

The Concordat on Open Research Data has been developed by a UK multi-stakeholder group. This concordat will help to ensure that the research data gathered and generated by members of the UK research community is made openly available for use by others wherever possible in a manner consistent with relevant legal, ethical, disciplinary and regulatory frameworks and norms, and with due regard to the costs involved.



Published 28th July 2016



Sungya Pundir, Wikimedia Commons, CC BY-SA 4.0

FORCE11

The Future of Research Communications and e-Scholarship

ABOUT COMMUNITY CODE OF CONDUCT GROUP

FORCE11 > Groups > The FAIR Data Principles

THE FAIR DATA PRINCIPLES



Correspondence | OPEN | Published: 02 April 2019

FAIRsharing as a community approach to standards, repositories and policies

Susanna-Assunta Sansone¹, Peter McQuilton, Philippe Rocca-Serra, Alejandra Gonzalez-Beltran, Massimiliano Izzo, Allyson L. Lister, Milo Thurston & the FAIRsharing Community

Nature Biotechnology **37**, 358–367 (2019) | Download Citation

To the Editor – Community-developed standards, such as those for the identification¹, citation² and reporting³ of data, underpin reproducible and reusable research, aid scholarly publishing, and drive both the

GOV.UK

Search

Home > Business and Industry > Science and Innovation

Independent report

Open Research Data Task Force: final report

European Commission

OPEN RESEARCH DATA IN HORIZON 2020

CHALLENGE

Wider access to scientific facts and knowledge helps researchers, innovators and the public find and re-use data, and check research results:

- offers better value for EU research funds
- encourages research across scientific fields
- a public benefit
- essential for solving today's complex societal challenges

SOLUTION

Horizon 2020 already mandates open access to all scientific publications

From 2017, research data is open by default, with possibilities to opt out

FAIR data

People

This enables others to cite this work

First name *

Dom

Last name *

Fripp

What type of ID will you identify this person by?

ORCID

Identifier

<http://orcid.org/0000-0001-5352-4666>

+ Add another ID

Access

Access controls who can use your dataset.

Under certain conditions (e.g. if your deposit contains sensitive data) you may need to restrict who can access and download your files. The level of access will depend on the sensitivity of the data.

What type of access will you give this dataset? *

Open

If you are
accessing
your data
your supervisor

Related works

Providing a thorough record of related works (including data sources used) is important for research integrity

Your work (Effects of application of thermally energised liqu...)

Has this relationship:

References

To this other work:

Enter an identifier (eg a DOI, ISBN, URL)

10.5281/zenodo.1245568

Type of ID provided:

DOI

+ Add another related work

Licence

Licences define how your work can be re-used by others.

If you are unsure of the appropriate licence for your work, contact your supervisor.

What licence should this dataset be published under? *

Creative Commons

- ☒ Creative Commons Attribution 4.0 International (CC-BY-4.0) [Learn more](#) (opens in a new window)
- ☐ Creative Commons Attribution Non Commercial 4.0 International (CC-BY-NC-4.0) [Learn more](#) (opens in a new window)
- ☐ Creative Commons Attribution Non Commercial No Derivatives 4.0 International (CC-BY-NC-ND-4.0) [Learn more](#) (opens in a new window)
- ☐ Creative Commons Attribution Non Commercial Share Alike 4.0 International (CC-BY-NC-SA-4.0) [Learn more](#) (opens in a new window)
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- ☐ Creative Commons Attribution Share Alike 4.0 International (CC-BY-SA-4.0) [Learn more](#) (opens in a new window)
- ☐ Creative Commons Zero v1.0 Universal (CC-BY-1.0) [Learn more](#) (opens in a new window)

Please provide at least one type of description for this dataset *

Description 1:

Delete

Description

This study relates to the traditional practice of brewing leaves, and produced data related to the perceived refreshment provided.

If you are including information about how to open your dataset, please

Include this as a Technical information description

Description 2:

Delete

Methods

Leaves from the plant *Camellia sinensis* were collected into a permeable membrane - and observed the effects of applying dihydrogen monoxide which had been energised using a 240v electrical appliance.

The research also explores the application of bovine lactic fluid and sucrose.

Description 3:

Delete

Technical Information

graphs 1 through to 11, with subdirectories appropriately labelled, this file contains underpinning data, deskewed data and final versions of the graphs for experimental work and the original modelling output files. These were produced using Matlab v4.2 and can be opened by any version of that software. Open file format copies of the data are included for each graph.

.fits files are the experimental data, .csv and .xlsx are deskewed and modelling data

Note that for graphs 2, 3, there are two x-axis - the first column provides the original analysis, the second is the x-axis plotted, once calibrated to match known $H(n=3)$ and $H2(d-a)$ temperature emissions.

Are you able to provide any other descriptive text? This could be technical information, methodology or something else.

+ Add another description

Keywords

Chemistry X Tea X Kettle X Lovely cuppa X Mmmm X

A wide-ranging set of relevant keywords can improve discoverability

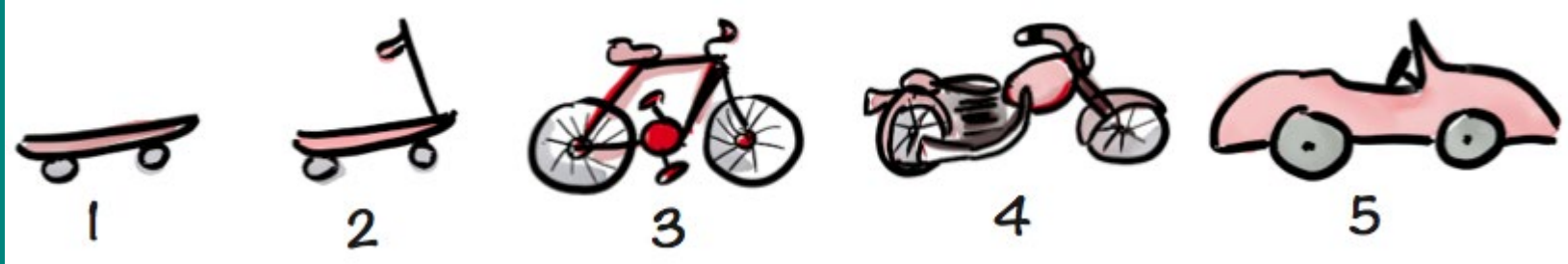
A FAIR submission?

The screenshot shows the Jisc Open Research Hub interface. At the top is a search bar and navigation links. Below the 'Open Research Hub' header are tabs for 'Discover', 'Deposits', and 'Approval'. The 'Deposits' tab is active, showing a 'Deposit Dataset' section with buttons for 'Describe', 'Attribution', 'Restrictions', 'Upload', 'Related', and 'Submit', each with a checkmark. A yellow-bordered box contains a message: 'The 'FAIRness' of your submission could be improved. The FAIR principles exist to support the findability, accessibility, interoperability, and reuse of digital assets. Tip: Consider using **personal identifiers** on the [Attribution step](#). This will help make your deposit more discoverable through other registries, such as ORCID. [Learn more about the FAIR principles](#)'. Below this is a section for 'Open Dataset' with the title 'Effects of application of thermally energised liquid to the leaves of camellia sinensis' and metadata: 'Dom Frapp (Data Analyst)', 'Organisation : Jisc (Hosting Institution)', 'DOI : Pending', 'Version : 1', and 'Licence : Creative Commons Attribution 4.0 International'.

This screenshot shows the same Jisc Open Research Hub interface, but with a green-bordered box indicating success: 'Your submission is FAIR. Thanks to the fields you filled in, and the fact that the metadata you provided will be made openly available, your submission passes the criteria set out by FAIR. [Learn more about the FAIR principles](#)'. The rest of the page, including the 'Open Dataset' section with the same title and metadata, remains identical to the previous screenshot.

<https://zenodo.org/record/2619357>

Continual development and delivery



<https://blog.crisp.se/2016/01/25/henrikkniberg/making-sense-of-mvp>

Going off-road



How the Jisc Open Research Hub team uses iteration and minimum viable features to keep the service agile in a rapidly changing environment What's more annoying than setting off on a journey and getting lost? Setting off on a journey with a map and still getting lost... When there are many possible ways to get ... [Read more](#)

<https://researchdata.jiscinvolve.org/wp/2019/05/22/going-off-road/>

Sector mandates and good practice - OA

2. Requirements for Open Access Repositories

2.1 Requirements for Open Access repositories:

The repository must be registered in the Directory of Open Access Repositories (OpenDOAR) or in the process of being registered.

In addition, the following criteria for repositories apply:

Mandatory criteria for repositories:

- Use of PIDs for the deposited versions of the publications (with versioning, for example in case of revisions), such as DOI (preferable), URN, or Handle.
- High quality article level metadata in standard interoperable non-proprietary format, under a CC0 public domain dedication. This must include information on the DOI (or other PIDs) both of the original publication and the deposited version, on the version deposited (AAM/VoR), and on the Open Access status and the license of the deposited version. Metadata must include complete and reliable information on funding provided by cOAlition S funders (including as a minimum the name of the funder and the grant number/identifier).
- Machine readable information on the Open Access status and the license embedded in the article, in standard non-proprietary format.
- Continuous availability (uptime at least 99.7%, not taking into account scheduled downtime for maintenance or upgrades).



Plan S

Making full and immediate Open Access a reality



Next Generation Repositories

Behaviours and Technical Recommendations of the COAR Next Generation Repositories Working Group

November 28, 2017



Northern lights, Norway

#nextgenrepositories

@COAR_eV

office@coar-repositories.org



OA repository reqs? (Plan-S; COAR NGR; UK guidance)

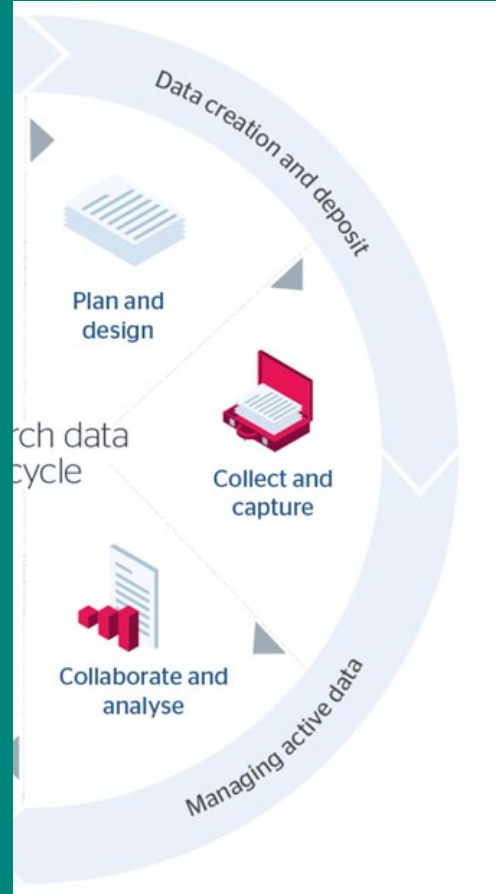
✓ Diversity of resources	✓ Open APIs	✓ Machine friendly
✓ Resource centric	✓ Networked	✓ Versioning
✓ Sustainable	✓ Distributed governance	✓ Public good
✓ Helpdesk	✓ Continuous availability	✓ Accessible
✓ Full text stored in XML in JATS standard (or equivalent)	✓ Common behaviours, functionalities and standards	✓ Automatic exchange between publishers and institutions
✓ Quality assured metadata in standard interoperable format	✓ Automated manuscript ingest facility	✓ Promoting a range of unique identifiers (eg ORCID)

Research data lifecycle & Open research hub scope



ORH and the active research life cycle?

- ✓ DMPs
- ✓ Open science platforms
- ✓ E-lab notebooks
- ✓ Active data storage
- ✓ Practice research
- ✓ Reproducibility



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