The role of institutional repositories in Plan S

AuSCCoP Repo Group
18th July 2024

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Part 1

cOAlition S and Plan S

Overview
## cOAlition S
### 28 Research funding organizations worldwide

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<th>European Commission (Horizon Europe)</th>
<th>Charitable foundations</th>
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<td>Wellcome Trust</td>
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<td>Howard Hughes Medical Institute (HHMI)</td>
<td>Aligning Science Across Parkinson’s (ASAP)</td>
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<td>Templeton World Charity Foundation (TWCF)</td>
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€35bn/year in research funds, 150k articles/year
Plan S  https://www.coalition-s.org/

• Plan S is not a policy

• Plan S is a set of 10 principles + guidance on implementation

• cOAlition S Funders have agreed to implement the 10 principles of Plan S in a coordinated way and align their policies with the principles

• https://www.coalition-s.org/addendum-to-the-coalition-s-guidance-on-the-implementation-of-plan-s/principles-and-implementation/
Plan S: strong principle

- Plan S: ““With effect from 2021, all scholarly publications on the results from research funded by public or private grants provided by national, regional and international research councils and funding bodies, must be published in Open Access Journals, on Open Access Platforms, or made immediately available through Open Access Repositories without embargo.””

- All peer-reviewed papers must be immediate Open Access with a CC-BY license
Plan S: three routes to compliance

**Route 1**
Full Open Access venues
- Authors publish in Open Access journal or platform indexed by Directory of Open Access Journals (DOAJ)
- cOAlition S funders financially support publication fees for author

**Route 2**
Subscription journals
- Authors publishing in a subscription journal **must** make the Version of Record (VoR) or Author Accepted Manuscript (AAM) instantly available in a repository
- *NOT* financially supported by cOAlition S funders

**Route 3**
Journals under a transformative arrangement
- Authors publish in a journal with a Transformative Arrangement.
- cOAlition S funders *CAN* financially support Transformative Arrangements
Hybrid OA (OA option in subscription journal)

- cOAlition S strong position on hybrid OA
  - See “Why hybrid journals do not lead to full and immediate Open Access”
    - https://www.coalition-s.org/why-hybrid-journals-do-not-lead-to-full-and-immediate-open-access/

- APCs (Article Processing Charges) for publication in hybrid journals are not financially supported by cOAlition S funders unless the journal is part of a transformative arrangement

**BUT.......**

- cOAlition S confirms the end of its financial support for Open Access publishing under transformative arrangements after 2024

- Repositories could play more prominent role
Part 2
Plan S metadata requirements
Metadata

- Details of requirements
- Part III: Technical Guidance and Requirements
  - https://www.coalition-s.org/technical-guidance_and_requirements/
- Requirements for OA Repositories
- FAQs – Technical requirements

2. 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 (IAA/ VolR), 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.
- Helpdesk as a minimum an email address (functional mailbox) has to be provided; a response time of no more than one business day must be ensured.

Strongly recommended additional criteria for repositories:

- Manuscript submission system that supports both individual author uploads and bulk uploads of manuscripts (AAM or Ver) by publishers.
- Full text stored in a machine-readable community standard format such as AAT, XML.
- Support for PIDs for authors (e.g. ORCID), funders, funding programmes and grants, institutions, and other relevant entities.
- Openly accessible data on citations according to the standards by the Initiative for Open Citations (I4OC).
- Open API to allow others (including machines) to access the content. A compliant API must be free to access without any barrier. A light authentication mechanism such as a token for ‘power users’ – e.g., high-traffic collaborators – is acceptable as long as there is a totally open/anonymous route too.
- OpenAIRE compliance of the metadata.
- Quality assurance processes to link full-text deposits with authoritative bibliographic metadata from third party systems, e.g. PubMed, Crossref, or SCOPUS where feasible.

For practical advice and more details, visit the page Plan S practical advice | Requirements for Open Access Repositories
Mandatory requirements
1. OpenDOAR

- The repository must be registered in the Directory of Open Access Repositories (OpenDOAR) or in the process of being registered
- Quality and validity
  - Jisc/SHERPA
  - Global directory
  - Reviewed entries
  - Trusted service

https://v2.sherpa.ac.uk/opendoar
Mandatory requirements
2. Persistent Identifiers (PIDs)

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

- All deposited items to have unique PID
- Type of PID not prescriptive
- Compliant use of recognised standard identifier
- Choice of PID remains with repository
- Aim towards versioning
- Aim: Quality, trustworthiness, best practice, interoperability, discoverability, persistence, sustainability

For cOAlition S articles, all AAMs in repositories must have their own unique persistent identifier (PID) assigned to them (there may be a separate PID within the item metadata such as DOI that links to the publisher’s VoR). cOAlition S does not specify the choice of item PID. The PID should take the form of a recognised standard, for example, a DOI, Handle, or URN. The PIDs in use should comply with the requirements of that selected PID scheme.
Mandatory requirements

3. Article level metadata

- Detail left to [OpenDOAR registered] repository
- Common community practice & standard formats
  - Unspecified
- Elements in metadata requirement include:
  - DOI of VoR
  - PID of deposited version
  - OA status
  - Funder info minimum - Funder Name/ID; Grant Name/ID
- Aim to maximise immediate discovery and dissemination
  - Quality, trustworthiness, best practice, interoperability, discoverability, persistence, sustainability
- Metadata - CC0 licence or aim towards CC0 and make metadata as open and available as possible

- **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).
Mandatory requirements

4. Open Access status and license

- Metadata describing OA status
- Metadata indicating licence of deposited version
- If embedding within article not possible, include within item record or web page metadata
- Standard non-proprietary, machine-readable format
- Aim: Quality, trustworthiness, best practice, interoperability, discoverability, persistence, sustainability

Machine readable information on the Open Access status and the license

- embedded in the article
- in standard non-proprietary format
Mandatory requirements
5. Continuous availability

• Aim towards maximum high %age uptime
• Aim for performance comparable to or better than other services within the institution
• If down, provide helpful info for users
  • Eg workarounds and/or estimate of when the service will be back in full operation
• This is what repository managers do anyway!

Continuous availability (uptime at least 99.7%, not taking into account scheduled downtime for maintenance or upgrades)
Mandatory requirements

6. Helpdesk

• A means for depositors to submit queries
• Decisions for solution left with individual repository
• Initial response no later than 1 day from receipt
  • Eg automated holding note
  • Indication when fuller response can be expected
• Aim for excellent user service
  • What repository managers do anyway!

Helpdesk: as a minimum an email address (functional mailbox) has to be provided; a response time of no more than one business day must be ensured.
Strongly recommended additional criteria for repositories

- M/s submission system supporting individual author uploads & bulk uploads of manuscripts (AAM or VoR) by publishers
- Full text stored in machine-readable community standard format eg JATS XML
- Support for PIDs for authors (e.g., ORCID), funders, funding programmes and grants, institutions, and other relevant entities
- Openly accessible citations data using Initiative for Open Citations (I4OC) standards
- Open API to allow others (including machines) access to content - free access without barrier. A light authentication for ‘power users’ – e.g., high-traffic collaborators – acceptable as long as a totally open/anonymous route too
- OpenAIRE compliance of the metadata
- Quality assurance processes to link full-text deposits with authoritative bibliographic metadata from third party systems, e.g. PubMed, Crossref, or SCOPUS where feasible.

- Convenient single & bulk upload
- Machine readable full text
- Use of standard PIDs
- Citations data
- Open API
- EC focus. If not, aim for alternative similar guidelines
- Where feasible, use standard formats & protocols etc to enable metadata to be harvested by national & regional aggregators
- Aim: Quality, trustworthiness, best practice, interoperability, discoverability, persistence, sustainability
OpenDOAR Repository Self-Assessment Tool

- Self-Assessment Tool [BETA]
- Tools & Support tab
- Private entries
- https://v2.sherpa.ac.uk/opendoar/policytool/
Further details: Practical advice

For practical advice and more details, visit the page Plan S practical advice | Requirements for OA Repositories

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<th>Mandatory criteria</th>
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<td>Use of PIDs for the deposited versions of the publications (also versioning, for example in case of revisions), such as DOI (preferably), URN, or Handle.</td>
<td>For cOAdition S articles, all AAMs in repositories must have their own unique persistent identifier (PID) assigned to them. There may be a separate PID within the item metadata such as DOI that links to the publisher’s VOR. cOAdition S does not specify the choice of item PID. The PID should take the form of a recognised standard, for example, a DOI, Handle, or URN. The PIDs in use should comply with the requirements of that selected PID scheme.</td>
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<td>High-quality article-level metadata in a standard interoperable non-proprietary format, under a CC public domain dedication. This must include information on the DOI for 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 cOAdition S funders (including as a minimum the name of the funder and the grant number/identifier).</td>
<td>Here, and everywhere in the guidelines, cOAdition S has left many detailed implementation decisions to those best placed to make them. We do not see cOAdition S as designing a detailed specification for the scholarly communications system, though the funders may facilitate some discussions in some cases. We would hope that communities can come to agreements and common practices on standard formats via the usual channels such as standards bodies, joint projects, etc. The metadata should include the elements as listed in the requirements. cOAdition S expects that funding information is included, if not immediately, then as soon as possible. Metadata should include the PID assigned to the repository version. There may be a separate PID within the item metadata, such as a DOI, that links to the publisher’s VOR. cOAdition S funders aim to maximise the discoverability and dissemination of the research they fund, and this end prefer that a CC licence is assigned to item metadata. If a repository is not currently able to assign this particular licence, repositories are strongly encouraged to make the metadata they provide as open and available for re-use as possible, until they adopt COC.</td>
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<td>Machine-readable information on the Open Access status and the license embedded in the article, in a standard non-proprietary format.</td>
<td>Plan S requires that publishers and repositories embed metadata describing the OA status and licence of that article within the article itself. cOAdition S recognises that some, particularly smaller publishers and some repositories, are not currently set up to facilitate this. In these cases metadata describing the OA status of the work and the licence assigned to it must be included in the item description metadata (such as repository item record or web page metadata for the item). Such item metadata should be in a common, non-proprietary format, and machine-readable.</td>
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<td>Continuous availability (uptime at least 99.7%, not taking into account scheduled downtime for maintenance or upgrades).</td>
<td>Repositories should minimise unscheduled downtime for both deposit and access as far as possible, and aim towards at least 99.7% uptime (which equates to approx maximum 27 hours per year unscheduled service outage), with performance comparable to or better than other services within their institution. If the service is unexpectedly down for any reason, the repository should provide helpful information for users, for example, workarounds and/or an estimate of when the service will be back in full operation.</td>
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<td>Helpdesk: as a minimum, an email address (functional mailbox) has to be provided; a response time of no more than one business day must be ensured.</td>
<td>Repositories must provide a channel for depositors and other users to submit queries. cOAdition S does not specify what format of contact is adopted – that decision remains with the individual repository. The initial response to a query, should be sent no more than one business day from receipt, and may comprise an automated holding note that gives an indication of when the enquirer can expect to receive a more future response.</td>
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https://www.coalition-s.org/plan-s-practical-advice/#Requirements_for_Open_Access_Repositories
Further details: FAQs  
https://www.coalition-s.org/faq/

FAQ - Technical requirements

What metadata standard(s) and format(s) should I select to comply with: "High-quality article level metadata in standard interoperable non-proprietary format under a CC0 public domain dedication?"

Does any delay of import of metadata into repositories mean that items in my repository are no longer compliant with Plan S's definition of Immediate Open Access?

Does the Author's Accepted Manuscript (AAM) of an article deposited into an institutional repository have to have a DOI assigned to it?

Do I have to embed the article OA status and licence in the actual article?

My university uses the Pure system (Elsevier). Is the metadata compliant?

Is JSON-LD (with schema.org) considered to be equivalent with JATS and compliant with Plan S requirements for repositories?

Should supplementary information and data be supplied in JATS-XML?
Part 3
Principles & direction
Guiding star

• cOAlition S has left many detailed implementation decisions to those best placed to make them

• We do not see cOAlition S as designing a detailed specification for the scholarly communications system, though the funders may facilitate some discussions in some cases.

• We would hope that communities can come to agreements and common practices on standard formats via the usual channels such as standards bodies, joint projects, etc.

https://www.coalition-s.org/faq-theme/technical-requirements/
Final thoughts

• cOAlition S funders are not standards specification designers
• Technical aims: Quality, trustworthiness, common standards, best practice, interoperability, discoverability, persistence, sustainability
• Assumes [OpenDOAR registered] repository managers and repository users want the same
• Pragmatic solutions
• “Spirit of the law” : language in practical advice & FAQs
• Allows for evolution and change in scholarly dissemination & associated technologies
• 21st century Open Science: new models eg Notify; new standards; new technology
• cOAlition S moving with the times
  • Gold → Gold+Green → Towards Responsible Publishing
  • https://zenodo.org/records/11243942
Publish with Power – Protect your Rights

Thank you

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@cOAlitionS_OA@fediscience.org