

J P C O A R

オープンアクセスリポジトリ推進協会

Challenges in adopting the vocabularies in national and regional repositories networks: Japan

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Controlled Vocabularies Open Session

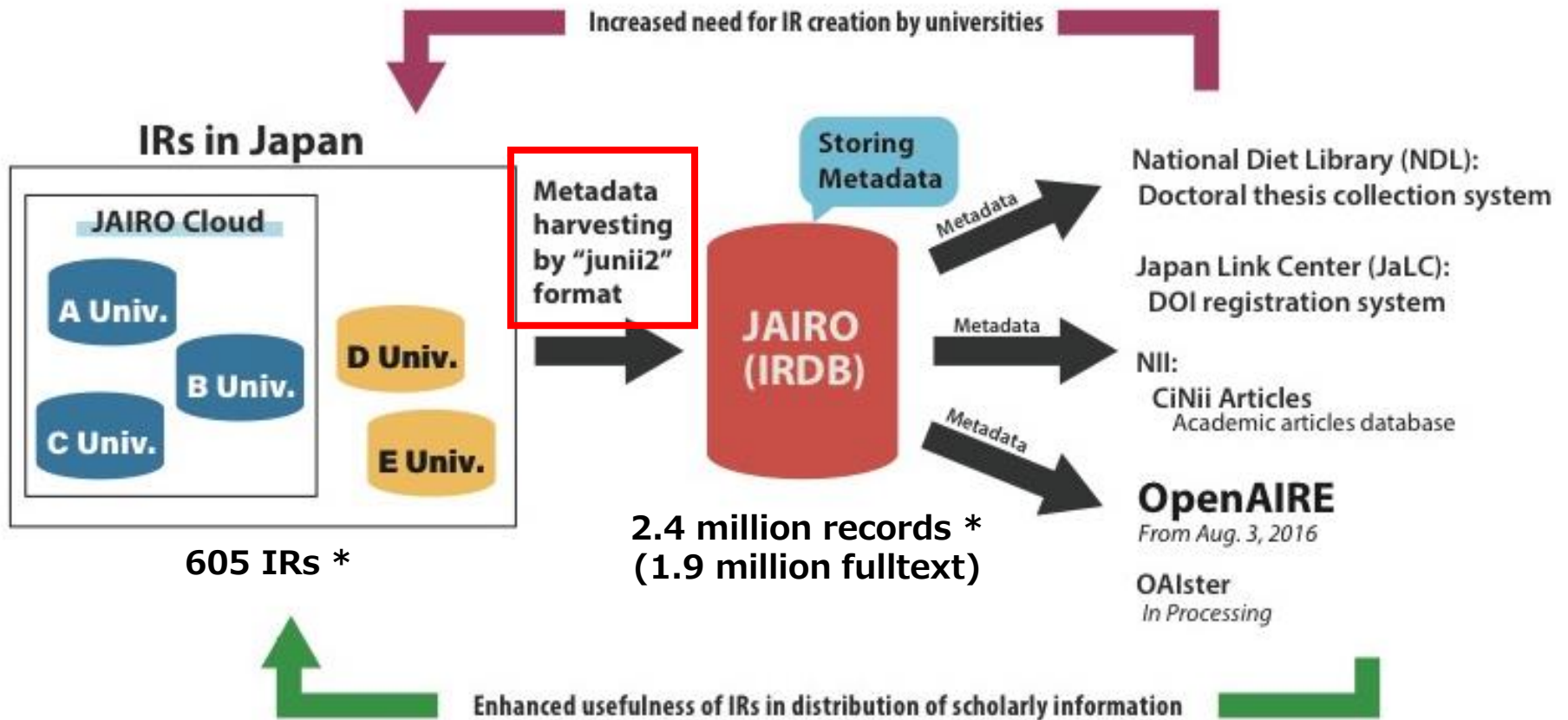
JPCOAR (Japan Consortium for Open Access Repository)

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About JPCOAR

- Established in July 2016 as a comprehensive consortium for open access in Japan
took over the responsibilities of DRF (Digital Repository Federation) and IRPC (Institutional Repositories Promotion Committee)
- Promote open access repository and facilitate communication among member institutions
- Consist of 474 academic institutions
- Set up 3 working groups and 4 task forces

Current Japanese metadata schema “junii2”



* as of March 31, 2017

Background of challenge for revising “junii2”

- Japanese regional schema
 - “junii2”(formerly “junii”) has been used for 15 years as a widespread adopted schema in Japanese community, however, it has not enough interoperability with international scholarly communication
- Unstructured schema architecture
 - It has issues with appropriate and detailed metadata description such as describing association between creator name, creator ID, affiliation...
- Incapability for scholarly changes
 - It has not capability to innovative enhancement for change of scholarly environment such as research data management

Major concepts of new schema

1. Focusing on interoperability with established international standards/schemas

Dublin Core	COAR	OpenAIRE	DataCite	The Bibliographic Ontology	RIOXX
[dc] title language publisher rights	resourceType accessRight	versionType	fundingReference funderIdentifier funderName awardNumber awardTitle identifier version date geolocation description	journal volume issue identifier pageStart pageEnd	apc
[dcterms] alternative temporal					

Major concepts of new schema

Regional elements are still left corresponding to Japanese scholarly environment

DC-NDL

(National Diet Library Dublin Core
Metadata Description)

JPCOAR schema

dateGranted

degreeGrantor

degreeName

dissertationNumber

creator

contributor

file

relation

rightsHolder

subject

identifierRegistration

Major concepts of new schema

2. Extending language attribute to deal with multilingual metadata

Example:

```
<dc:title xml:lang="ja">情報爆発時代の研究基盤構想
```

```
</dc:title>
```

```
<dc:title xml:lang="ja-Kana">ジョウホウ バクハツ ジダイ ノ
```

```
ケンキュウ キバン コウソウ</dc:title>
```

```
<dc:title xml:lang="en">Research Project on Cyber
```

```
Infrastructure for Information-explosion Era</dc:title>
```

Major concepts of new schema

3. Hierarchizing schema architecture (for elements)

Creator, Contributor, Rights Holder, Relation, Geo Location, Funding Reference, Degree Grantor, File

```
<jpcoar:creator>
  <jpcoar:nameIdentifier nameIdentifierScheme="ORCID" schemeURI="https://orcid.org/0000-0001-0002-003">
    0000-0001-0002-0003</jpcoar:nameIdentifier>
  <jpcoar:creatorName xml:lang="ja">夏目, 漱石</jpcoar:creatorName>
  <jpcoar:creatorName xml:lang="en">Natsume, Soseki</jpcoar:creatorName>
  <jpcoar:creatorName xml:lang="ja-Kana">ナツメ, ソウセキ</jpcoar:creatorName>
  <jpcoar:familyName xml:lang="ja">夏目</jpcoar:familyName>
  <jpcoar:givenName xml:lang="ja">漱石</jpcoar:givenName>
  <jpcoar:creatorAlternative xml:lang="ja">夏目, 金之助</jpcoar:creatorAlternative>
  <jpcoar:affiliation>
    <jpcoar:nameIdentifier nameIdentifierScheme="ISNI" schemeURI=
      "http://www.isni.org/isni/0000000121691048">0000000121691048</jpcoar:nameIdentifier>
    <jpcoar:affiliationName xml:lang="en">University of Tokyo</jpcoar:affiliationName>
  </jpcoar:affiliation>
</jpcoar:creator>
```


Major concepts of new schema

4. Adoption of funding information elements

```
<datacite:fundingReference>  
  <datacite:funderIdentifier funderIdentifierType =“Crossref Funder”>  
    http://dx.doi.org/10.13039/501100001691</datacite:funderIdentifier>  
  <datacite:funderName xml:lang=“ja”>日本学術振興会</datacite:funderName>  
  <datacite:funderName xml:lang=“en”>Japan Society for the Promotion of  
    Science</datacite:funderName>  
  <datacite:awardNumber awardURI=“https://kaken.nii.ac.jp/grant/KAKENHI-PROJECT-  
    22227006/”>22227006</datacite:awardNumber>  
  <datacite:awardTitle xml:lang=“ja”>RNA修飾が支配する遺伝子発現調節機構の探究と高次  
    生命現象</datacite:awardTitle>  
  <datacite:awardTitle xml:lang=“en”>Post-transcriptional regulation associated with RNA  
    modifications responsible for higher order biological processes</datacite:awardTitle>  
</datacite:fundingReference>
```

Major concepts of new schema

5. Enhancement of elements for research data

- various identifiers

datacite:identifier, jpcoar:relatedIdentifier,
jpcoar:nameIdentifier(creator/affiliation)

- enhancement for rights description

dc:rights, jpcoar:accessRights, jpcoar:rightsHolder, rioxxterms:apc

- additional elements/attribute

datacite:version, datacite:geolocation, contributorType

Adopting vocabularies from established standards

Elements

- `coar:resourceType`
(selected 38 vocabularies)
- `coar:accessRight` (now establishing)
open access/metadata only access/embargoed access/restricted access
- `openaire:versionType`
accepted/published/draft/submitted/updated
- `rioxterms:apc`
Paid/Fully waived/Not required/Partially waived/Not charged/Unknown

Adopting vocabularies from established standards

Attributes

- Name Identifier Scheme of Creator/Rights Holder/Affiliation/Degree Grantor
Example) Creator/Rights Holder: e-Rad/ORCID/ISNI/VIAF
Affiliation: kakenhi/ISNI/Ringgold/GRID
- Identifier Type of Resource Identifier/Related Identifier/Journal Identifier/Registration Identifier/Funder Identifier
Example) Resource Identifier: DOI/HDL/URI
- Other attributes
Contributor Type/Description Type/Date Type/Subject Scheme/Relation Type/File Object Type

Compliant with COAR "Resource Type" vocabularies

Metadata Field Set	Vocabulary	Metadata Field Set	Vocabulary
Article	conference paper	Report	report
Article	data paper	Report	research report
Article	departmental bulletin paper	Report	technical report
Article	editorial	Report	policy report
Article	journal article	Report	report part
Article	article	Report	working paper
Book	book	Sound	sound
Book	book part	Thesis	thesis
Cartographic Material	cartographic material	Thesis	bachelor thesis
Cartographic Material	map	Thesis	master thesis
Conference Object	conference object	Thesis	doctoral thesis
Conference Object	conference poster	Multiple	interactive resource
Dataset	dataset	Multiple	learning material
Image	image	Multiple	musical notation
Image	still image	Multiple	research proposal
Image	moving image	Multiple	software
Image	video	Multiple	technical documentation
Lecture	lecture	Multiple	workflow
Patent	patent	Multiple	other

Why we comply with COAR “Resource Type” vocabularies?

- We put priority on complying with established standards to improve interoperability with international networks.
- COAR “Resource Type” is one of the most influential vocabulary and has strong potential to improve Japanese resources sharing to international frameworks.
- However, we had to maintain compatibility with current 14 vocabularies and considered the impact of repository systems so we selected 38 vocabularies and categorized flat structure.
- Also, JPCOAR schema still contains an alternative label of COAR vocabulary and regional vocabulary.

Exception case

Case1: journal article

Concept URI
("journal article" URI)

```
<coar:resourceType rdf:resource="http://purl.org/coar/resource_type/c_6501">
```

```
journal article</coar:resourceType>
```

```
<coar:resourceType rdf:resource="http://purl.org/coar/resource_type/c_6501">
```

```
departmental bulletin paper</coar:resourceType>
```

```
<coar:resourceType rdf:resource="http://purl.org/coar/resource_type/c_6501">
```

```
article</coar:resourceType>
```

Terms
(including alternative label or regional vocabularies)

Case2: other

Concept URI
("other" URI)

```
<coar:resourceType rdf:resource="http://purl.org/coar/resource_type/c_1843">
```

```
learning material </coar:resourceType>
```

Next steps

Implementation schedule

- Finalize JPCOAR schema and disseminate to JAIRO, JAIRO Cloud and other major Japanese repository systems
 - Planned: FY2017 JAIRO, FY2018- repository systems
 - Japanese centralized sharing repository system “JAIRO Cloud”, implemented 485 institutions, is enabled us to achieve this innovative schema revision

Additional objectives

- Digital collections management (e.g. digitalized handwritten classical manuscripts)
- Learning materials