



Improvement of metadata interoperability for promoting distribution and utilization of Japanese digital cultural resources

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Practices for Improvement of Metadata Interoperability

1. The Guideline for Metadata Distribution in Japan
2. Continuous improving of RDF data



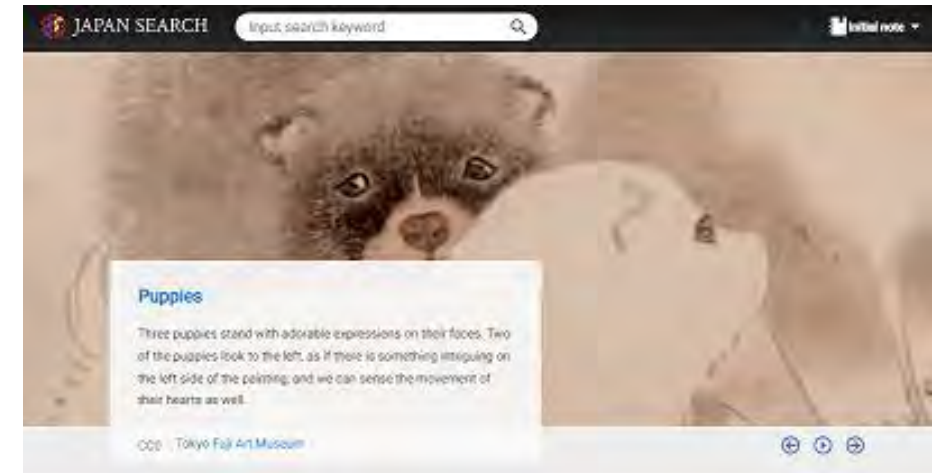
What is Japan Search?

■ **Japan Search (JPS)** is a national platform for promoting the use of content from Japan's digital archives.

- publications at libraries
- artwork and other cultural assets at museums
- documents at archives
- academic resources in fields such as the humanities and natural history
- video programs and movies for broadcast

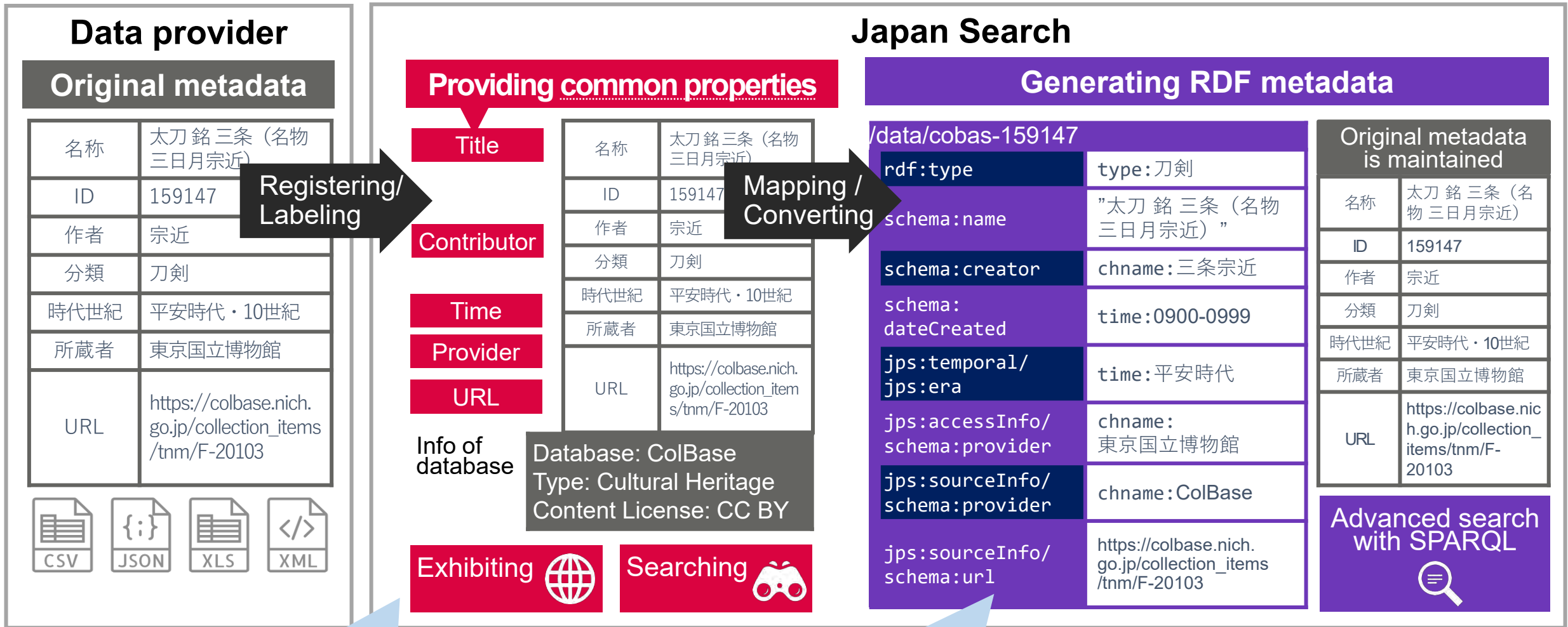
■ **National Initiative**

- managed by a committee with a secretariat in the Cabinet Office
- system development and operation as well as collaborative practices handled by the NDL



jpsearch.go.jp

Transition of Metadata in Japan Search



Data providers register metadata in their original schema

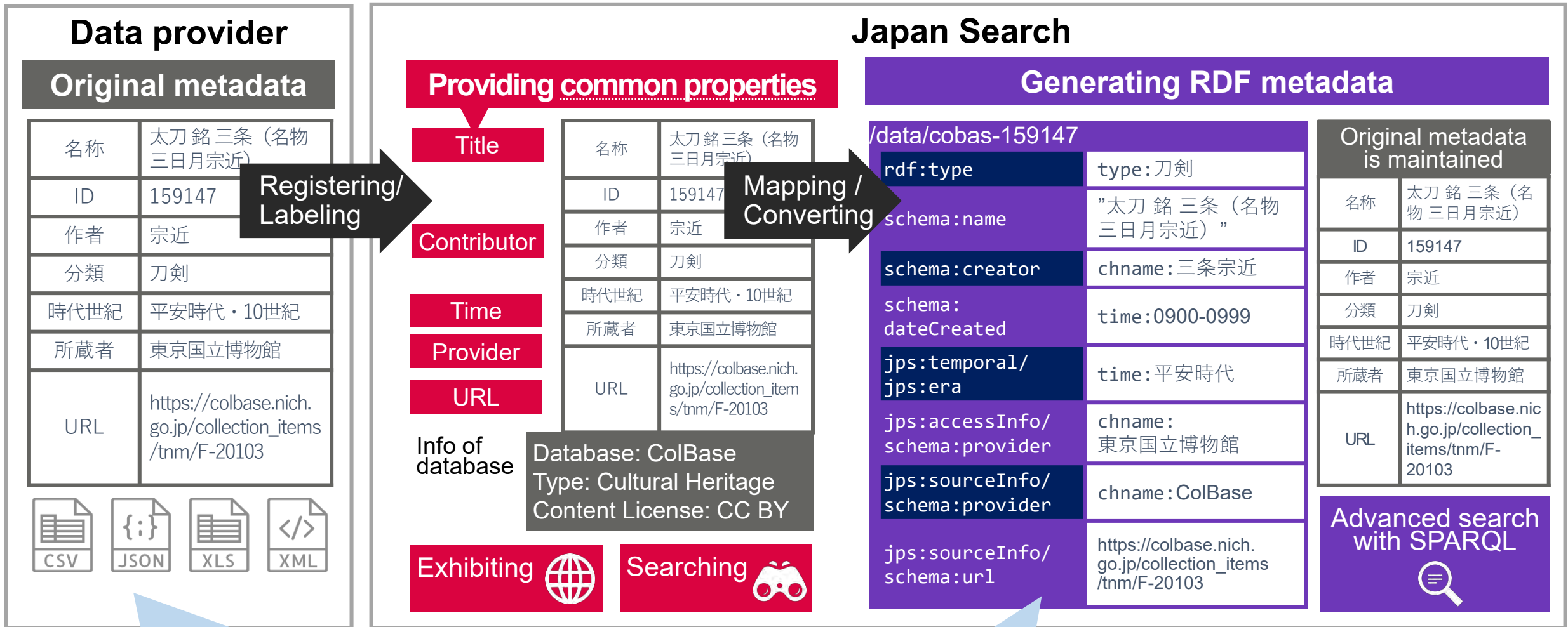
26M metadata from **191** DBs

JPS staffs map and convert metadata in Japan Search RDF Schema

23M metadata from **149** DBs 4



For Promoting the Use of Content



Registering/Labeling

Mapping / Converting

“The Guidelines for Metadata Distribution in Japan”
to improve metadata interoperability

Topic 1

Continuous improving of
Japan Search RDF data

Topic 2



The Guidelines for Metadata Distribution in Japan

●The Guidelines Were Developed:

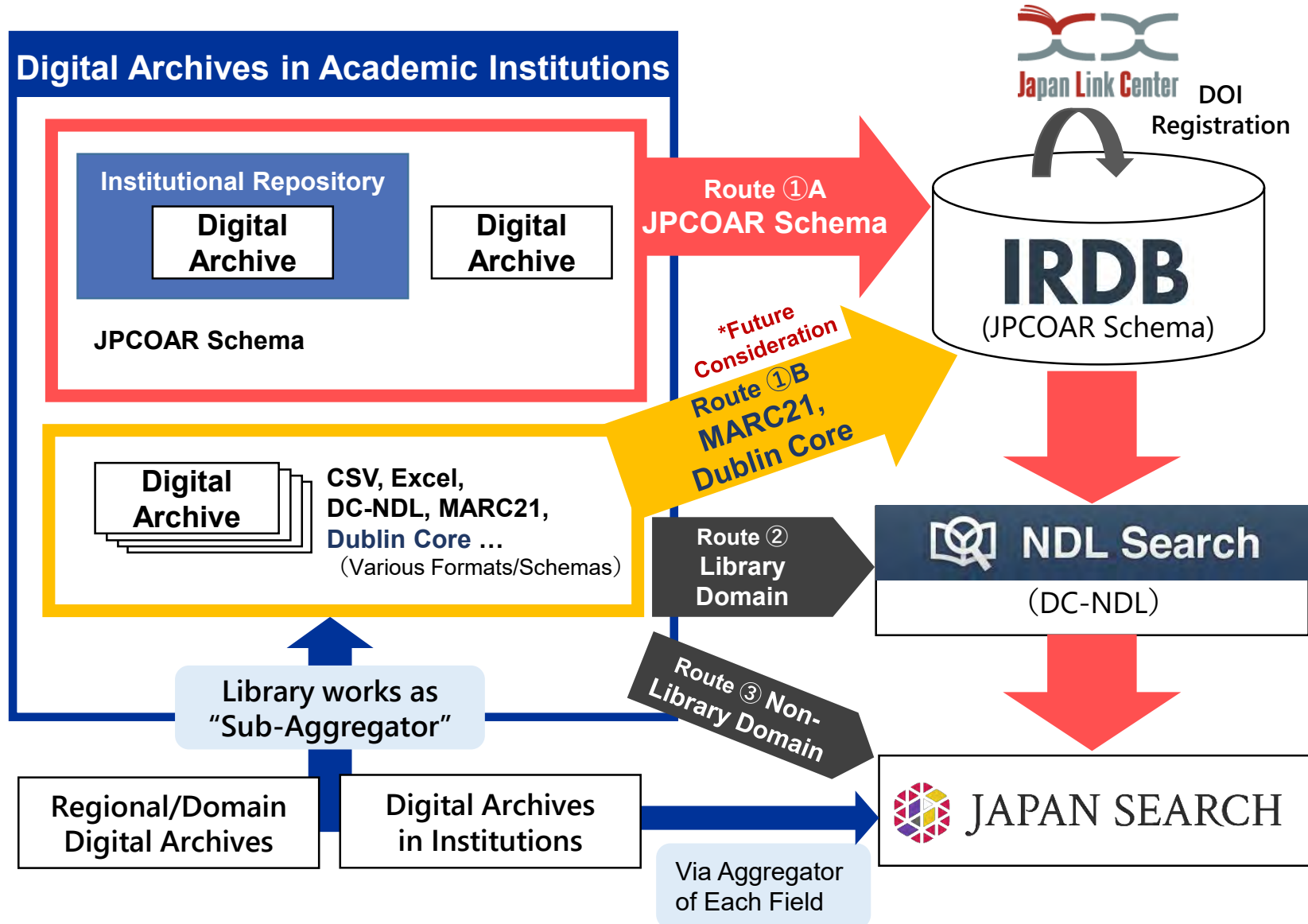
- To improve **discoverability** of Japanese content by enhancing **distribution** of metadata of databases including **digital archives**
- By the National Institute of Informatics (NII), Japan Consortium for Open Access Repositories (JPCOAR), Future Scholarly Information Systems Committee, and NDL

●The Goals of the Guidelines Are:

- To Define Efficient and Sustainable **Metadata Distribution Routes**
- To Suggest **Metadata Standards** Suitable for Distribution
- To Establish a **Communication Framework** for Metadata Distribution



Metadata Distribution Routes for Academic Digital Contents



Needs to improve Interoperability between JPCOAR Schema & DC-NDL

JPCOAR Schema:

- For research results such as journal articles and research data
- Uses vocabularies from DC, DC-NDL, DataCite, OpenAIRE and COAR, etc...

DC-NDL:

- For library materials and digital collections
- Uses vocabularies from DC, DC-NDL, etc...



Improvement of the RDF of JPS: Link to LOD Hubs

● The RDF of Japan Search



schema:creator

chname:
葛飾北斎

schema:name

“Katsushika,
Hokusai”@en

rdfs:label

“葛飾北斎”

owl:sameAs

wd:Q5586

Katsushika,
Hokusai
(Wikidata)

owl:sameAs

dbr:
Hokusai

Hokusai
(DBPedia)

● The RDF of Wikidata

wd:Q5586

Katsushika,
Hokusai
(Wikidata)

wdtn:P6698

chname:
葛飾北斎

Katsushika,
Hokusai

wdt:P19

wd:
Q215646

Place of birth:
Edo (former name of Tokyo)

wdt:P21

wd:
Q6581097

Sex/Gender Identity:
Male



Example of Federated Query Using P6698 Property

- Retrieve JPS items created by people born in Aomori prefecture.

```
SELECT * WHERE {
  ?cho rdfs:label ?label.
  {?cho schema:creator ?chname.} UNION {?cho schema:creator/owl:sameAs ?chname.}
  { SELECT ?creator ?chname WHERE {
    SERVICE <https://query.wikidata.org/sparql> {
      ?creator wdt:P31 wd:Q5 ;
      wdt:P19/wdt:P131* wd:Q71699 ;
      wdt:P6698 ?chnameID .
      BIND (IRI (CONCAT ("https://jpsearch.go.jp/entity/chname/", ?chnameID) )
    AS ?chname)
  }
} ORDER BY ?chname LIMIT 20 }
```



< Scan QR Code to Try this Query via JPS >



Conclusion and Future Plans

- The NDL and academic libraries community have discussed suitable **routes, mapping,** and future **schema updates** for metadata of digital archives for **pre-stage optimization** of metadata collecting for Japan Search.
- The NDL improved usability of the RDF of JPS by linking to LOD Hub.

We plan:

- Continuous Updates and Enhancements to the Guidelines
- Update DC-NDL(2022-2024) and JPCOAR Schema(2022-2023)
- Continuous improvement of the RDF of JPS



Reference

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Thank you for listening!

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