

# 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



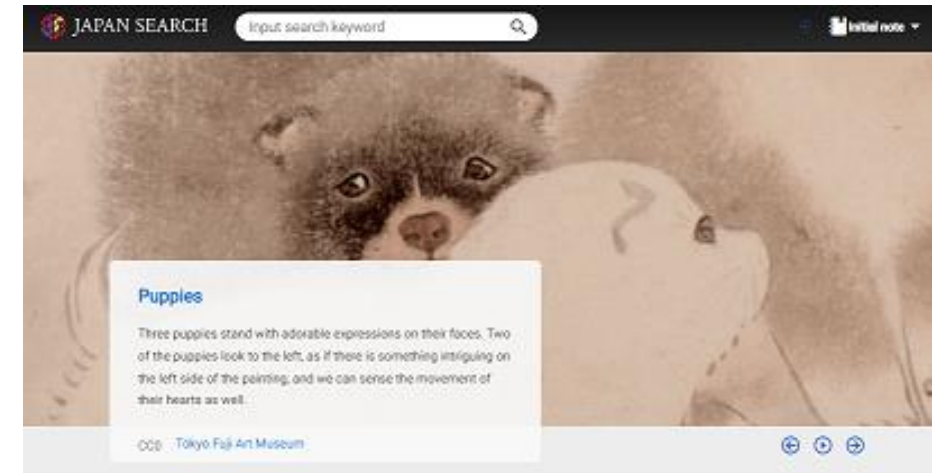
# What is Japan Search?

■ **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

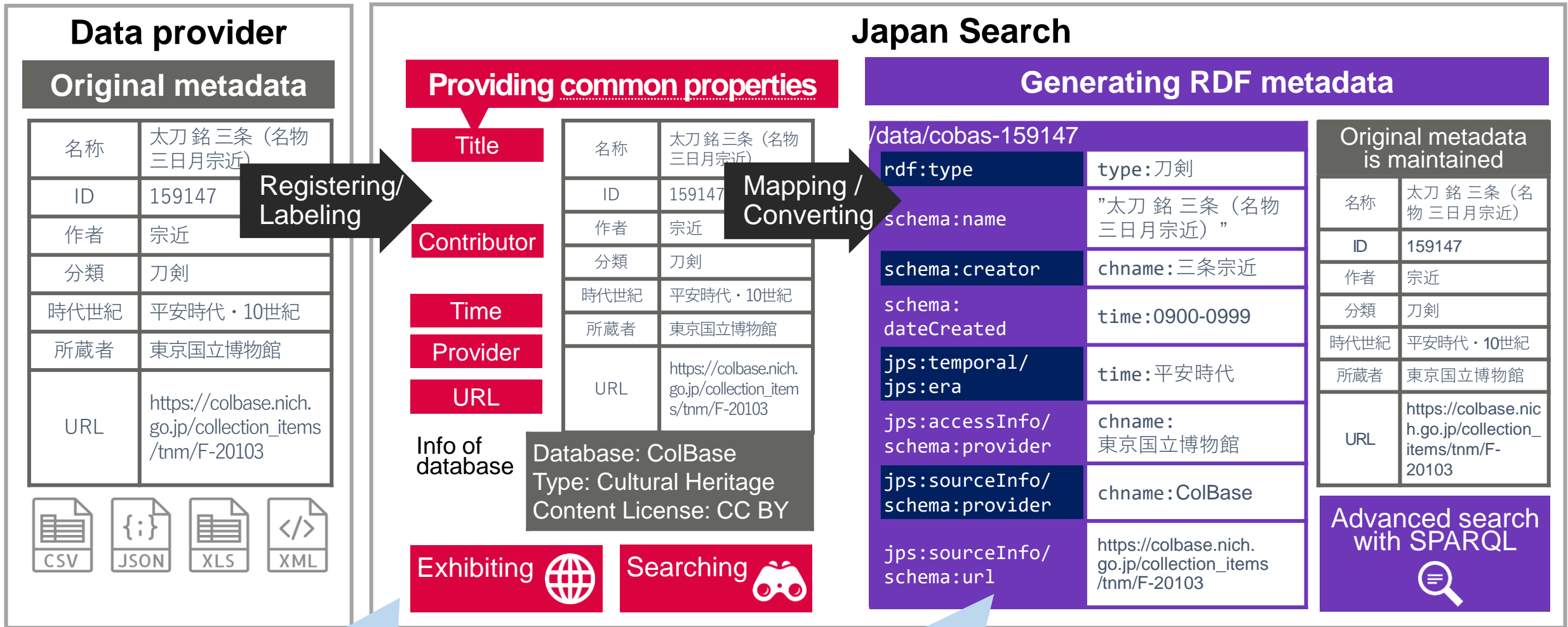
■ **National Initiative**

- 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](http://jpsearch.go.jp)

# Transition of Metadata in Japan Search



Data providers register metadata in their original schema

**26M** metadata from **191** DBs

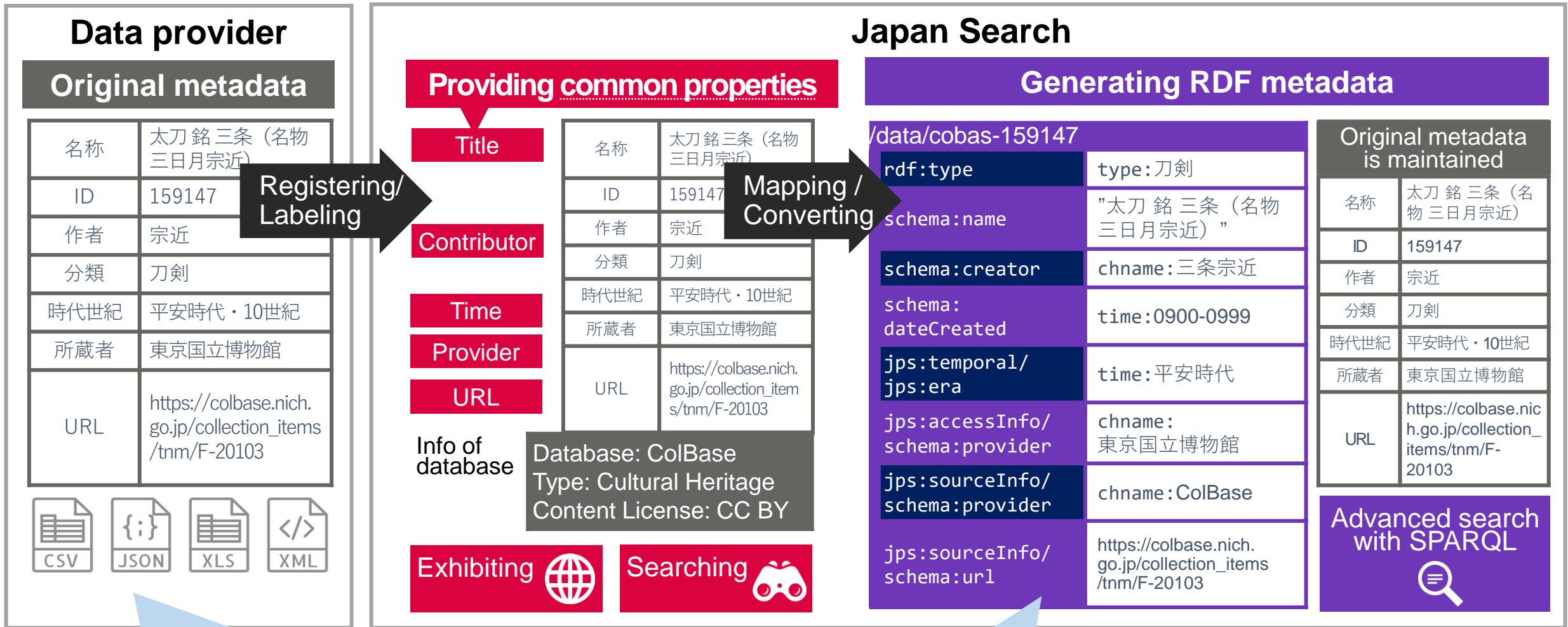
JPS staffs map and convert metadata in Japan Search RDF Schema

**23M** metadata from **149** DBs 4





# For Promoting the Use of Content



**“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:

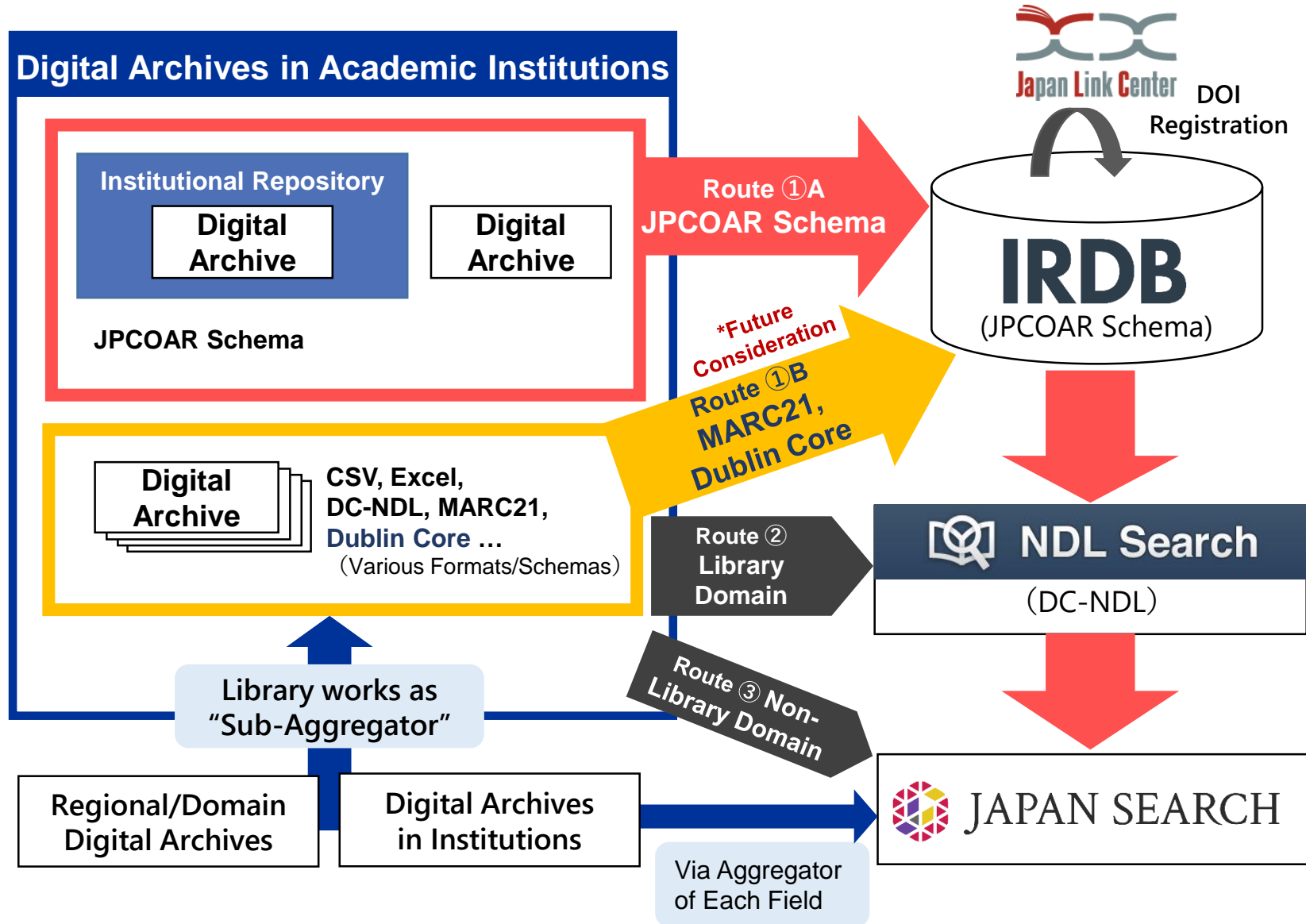
- To improve **discoverability** of Japanese content by enhancing **distribution** of metadata of databases including **digital archives**
- By the National Institute of Informatics (NII), Japan Consortium for Open Access Repositories (JPCOAR), Future Scholarly Information Systems Committee, and NDL

## ●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...

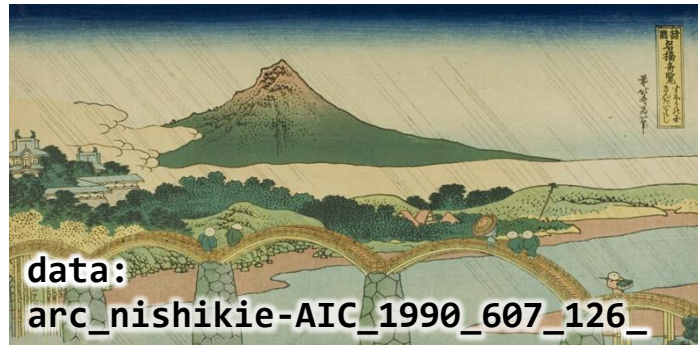
DC-NDL:

- 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

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

Katsushika,  
Hokusai  
(Wikidata)





# 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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