

# RDA Libraries for Research Data (L4RD) Interest Group

7th Plenary Meeting - Tokyo, Japan

March 3, 2016 9:00-10:30 a.m



ようこそ

Link to program: <https://rd-alliance.org/ig-libraries-research-data.html>

Thursday 3rd March

09:00 - 10:30

### Breakout 6 - Working Meeting Session 6

Online sign-up

- BoF on Metadata Standards for attribution of physical and digital collections stewardship - Room 102 Remote access available
- BoF on Text and Data Mining: Text and Data Mining: Defining the Challenges and Actions - Room 101 Remote access available
- IG Data Fabric: From testing RDA output to widely agreed recommendations - Conference Room 4
- IG Libraries for Research Data: Applying Global Information-sharing and Collaboration in Libraries to Local Practice - Conference Room 3
- IG RDA/CODATA Materials Data, Infrastructure & Interoperability: Current & Future Efforts - Room 202
- Joint meeting of IG RDA/WDS Publishing Data Cost Recovery for Data Centres, IG Domain Repositories: Business Models for Data Repositories, an OECD Global Science Forum Project - Conference Room 1
- Joint meeting of IG Vocabulary Services, IG Data Foundations and Terminology: Exploring Use Cases for Data Foundation and Terminology Vocabulary Services within the RDA - Room 203 Remote access available
- WG RDA/WDS Publishing Data Workflows: Incorporating Publishing Data Workflows into the Research Cycle - Conference Room 2
- WG Data Security and Trust: Start building the trust - Room 103

10:30 - 11:00

Coffee break

11:00 - 12:30

### Breakout 7 - Working Meeting Session 7

Online sign-up

- BoF e-Infrastructure for Global Change Research - Room 102
- BoF on IG-VRE (Virtual Research Environment): Kick-Off Meeting to establish IG - Conference Room 3
- BoF on Weather, climate and air quality interest group: Preparation and initial discussion for the creation of a new Interest Group - Room 203
- IG Data Fabric: Data Fabric and Common Components - state and perspectives - Conference Room 2
- IG RDA/WDS Certification of Digital Repositories: Reaping the fruit and sowing the seeds - Conference Room 4
- WG RDA/CODATA Summer Schools in Data Science and Cloud Computing in the Developing World: CODATA-RDA schools in Research Data Science - Room 101
- WG RDA/WDS Publishing Data Services: We proudly present an open, universal literature/data interlinking service - Conference Room 1 Remote access available

12:30 - 13:00

### Closing Session, chaired by Hilary Hanahoe, RDA Plenary Co-Chair - Hitotsubashi Hall

RDA 7th Plenary Meeting Official Close, Satoru Ohtake, Principal Fellow, Japan Science and Technology Agency

RDA 8th Plenary Meeting & International Data Week, Yolanda Meleco, RDA P8 Co-chair & RDA US

RDA 9th Plenary Meeting, 5-7 April 2017, Barcelona, Spain

SIGN UP

## 7th Plenary Sign-in sheet - Breakout 6: Thursday 3rd March - 09:00 - 10:30

### Sign-in for \*

- ☐ BoF on Metadata Standards for attribution of physical and digital collections stewardship
- ☐ BoF on Text and Data Mining: Text and Data Mining: Defining the Challenges and Actions
- ☐ IG Data Fabric: From testing RDA output to widely agreed recommendations
- ☒ IG Libraries for Research Data: Applying Global Information-sharing and Collaboration in Libraries to Local Practice
- ☐ IG RDA/CODATA Materials Data, Infrastructure & Interoperability: Current & Future Efforts
- ☐ Joint meeting of IG RDA/WDS Publishing Data Cost Recovery for Data Centres, IG Domain Repositories: Business Models for Data Repositories, an OECD Global Science Forum Project
- ☐ Joint meeting of IG Vocabulary Services, IG Data Foundations and Terminology: Exploring Use Cases for Data Foundation and Terminology Vocabulary Services within the RDA
- ☐ WG RDA/WDS Publishing Data Workflows: Incorporating Publishing Data Workflows into the Research Cycle
- ☐ WG Data Security and Trust: Start building the trust

### Title \*

Prof ▾

### First name \*

Home

Organisation

Key Profiles

RDA Council

RDA Secretariat

RDA TAB

RDA Organisation & Affiliate Members

Working and Interest Groups

Plenary Meetings

News & Events

Early Career Programmes

About

# RDA L4RD Quick Overview

- Chairs: Kathleen Shearer, Wolfram Horstmann, Michael Witt
- Wiki: <https://rd-alliance.org/node/1633/all-wiki-index-by-group>
- Subscribers: 188 people
- RDA P2 first BoF meeting - Washington, D.C.
- RDA P3 BoF: *Research Data Skills in Libraries* - Dublin
- RDA P4 BoF: *Research Data Solutions in Libraries* - Amsterdam
- RDA P5 IG: *Organizational Models for Data Services* - San Diego
- RDA P6 IG: *Developing and Adapting to Research Data Policies in Libraries* - Paris
- RDA P7 IG: *Applying Global Information-sharing and Collaboration in Libraries to Local Practice* - Tokyo

## Examples of L4RD associated activities/outputs:

- Joint RDA-IFLA program in August 2015 at the [81st IFLA World Library and Information Congress](#)
- ‘23 Things: Libraries for Research Data’ [resource](#) ([日本語](#)) and [prezi](#)
- RDA Sloan DataShare fellowship ‘Exploring Organizational Approaches to Research Data in Academic Libraries’
- ‘How to Establish Research Data Solutions in Libraries’ [briefing paper](#)
- ‘How to Maximize Research Data Skills in Libraries’ [briefing paper](#)
- Engagement within RDA jointly with other interest and working groups: Data Rescue, Repository Platforms, Domain Repositories, etc.
- Engagement between RDA and library community, e.g., open call, IFLA, ALA, LIBER, IASSIST, ASIST RDAP, etc.



# Call for Papers: IFLA Journal special issue on Research Data Services

<http://www.ifla.org/node/9909>

*Submission Deadline: 16 May 2016*

Libraries and archives around the world are applying the principles of library and archival sciences to address challenges and provide new services related to research data management. Librarians are helping researchers address needs throughout the research data lifecycle, for example, by conducting assessment and outreach, consulting on data management plans and metadata, incorporating data into information literacy instruction and collection management, and providing data publication and preservation services.

**IFLA Journal** invites papers for a special issue focused on research data services and libraries across all continents. The issue will be published in October 2016 as Volume 42:3. In particular, the main goal of the special issue is to gather the latest theory, research, and state-of-the-art practices from libraries that are informing and innovating effective data services.

Each issue of IFLA Journal is made available Open Access upon publication on **IFLA's website**. Authors are also encouraged to make the accepted version of their manuscripts available in their personal or institutional repositories.



Wiki Page ▾  
Apply

Post to Group Mailinglist

### RDA P7 Tokyo Libraries for Research Data IG Meeting

Submitted by Michael Witt On 18/02/2016 - 15:10

Dear all, we have worked hard to assemble a compelling program for our IG session at P7 in Tokyo on March 3 & we look forward to seeing you there!

Link: <http://bit.ly/1KY3Ggh>

RDA P7 Tokyo  
Libraries for Research Data (L4RD) Interest Group Meeting  
Thursday March 3rd - Breakout 6  
9:00-10:30 Conference Room 3  
"Applying Global Information-sharing and Collaboration in Libraries to Local Practice"  
a. Brief introduction to L4RD and overview of group activities to date

Log in or register to post comments    💬 Comments (0)    👁 Views today (0)    📊 Total views (0)

Total views: 0

Post to Group Mailinglist

### biosharing.org librarian feedback requested

Submitted by Michael Witt On 14/01/2016 - 20:19

\*\*\*\*\* Registry of Standards - share your feedback, help us to help you \*\*\*\*\*

Dear Colleagues

February 2016						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29					

Michael

### Group properties

Public - accessible to all site users  
Subscribe to group

### Libraries for Research Data IG members

Adam Farquhar  
Adeline Rege  
Alex Ball



# Today's Agenda

- Introduction
- 23 Things: Libraries for Research Data
  - Jane Frazier, Australian National Data Service, Australia - [website](#)
  - Michael Witt, Purdue University, USA - handout: [English](#), [日本語](#)
- Asia-Pacific Trends in Libraries and Research Data
  - Yasuyuki Minamiyama, Librarian, National Institute of Polar Research, Japan
  - Suntae Kim, Senior Researcher/Data Scientist, Scientific Data Strategy Lab, KISTI Scientific Data Research Center, South Korea
  - Kostas Repanas, Head, Office of Science Communications & Open Archives @ Agency for Science, Technology & Research - A\*STAR, Singapore
- Organizational Roadmap for Adopting RDM Services
  - Kathleen Shearer, Confederation of Open Access Repositories (COAR)
- Organizational Models for Libraries Providing Data Services
  - Cheryl Thompson, University of Illinois at Urbana-Champaign, USA
- Closing



# 23 Things: Libraries for Research Data



## What?

### Self-directed training program:

- RDM training for research support staff & others
- RD community building initiative

## Why?

- Wider **reach** – AU/NZ
- Develop **replicable** activities and **reusable** resources
- **Crowdsource** RD community knowledge

## How?

- **Register** for the kick off webinar 1 March
- **Create/Join** a local community catchup
- **Join**  online



## Who me? Yes you!!!

Interested in learning more about RD? Well then, this program is for you!!

**Newbie? Want to know more?**

**Want a challenge?**

**All welcome!!**

## What's covered?

All things RD - take a look at the **Poster** for the list of 23 Things topics

**Note:** Things suitable for varied levels of experience and interest

## What to do next?

Check out the details at:

**[ands.org.au/23-things](https://ands.org.au/23-things)**

Brought to you by:  & the RD community

- ~1,000 registrants for yesterday's kick-off webinar
- (at least) 37 local community groups
- almost 375 Meetup group members

# 23 Things: Libraries for Research Data

An overview of practical, free, online resources and tools that you can begin using *today* to incorporate research data into your practice of librarianship

<http://bit.ly/1DeMYWj>

Building Bridges for Research Data  
IFLA 2015 Cape Town, South Africa  
August 17, 2015

- 
- Learning Resources
  - Data Reference and Outreach
  - Data Management Plans
    - Data Literacy
    - Citing Data
  - Data Licensing and Privacy
    - Digital Preservation
    - Data Repositories
  - and Communities of Practice
- ..to help librarians engage in research data!







# 23 Things: Libraries for Research Data

*An overview of practical, free, online resources and tools that you can begin using today to incorporate research data into your practice of librarianship.*

## *Research Data Sharing Without Barriers*

### Learning Resources

Librarians are learning how to apply the principles of library science to solve problems and to provide new services related to research data.

1. A “top ten” list of **recommendations** for libraries to get started with research data from LIBER,  
<http://bit.ly/1qUvKG3>
2. Relevant concepts are presented and mapped in the **e-Science Thesaurus**,  
<http://bit.ly/1LEo4h8>
3. Understanding the life of research data with the **DCC Curation Lifecycle Model**,  
<http://bit.ly/1MoGGGv>

Learning Resources  
Data Reference and Outreach  
Data Management Plans  
Data Literacy  
Citing Data  
Data Licensing and Privacy  
Digital Preservation  
Data Repositories  
and a Community of Practice

*..to help librarians engage in research data!*

### Data Reference & Outreach

Librarians are answering questions about data from patrons and conducting outreach to assess the data needs of their researchers and students.

10. Questions about data answered by experts on the **DataQ** forum,  
<http://bit.ly/1MoH4Vg>

### Data Management Plans

Librarians are becoming familiar with funder requirements and consulting with researchers to help them write and implement effective data management plans.

11. One example is the **DMPTool** that lists funder requirements in the United States and builds a plan by asking the researcher to answer a series of questions. Other countries such as the U.K. and Canada have similar tools,  
<http://bit.ly/1LuNZMH>

### Data Literacy

# Learning Resources

Librarians are learning how to apply the principles of library science to solve problems and to provide new services related to research data.

図書館員は、研究データに関連したソリューション、そして新たなサービス提供のために、図書館学の原理をいかに応用するかを学んでいます

1. A “top ten” list of recommendations for libraries to get started with research data from LIBER, <http://bit.ly/1qUvKG3>
2. Relevant concepts are presented and mapped in the e-Science Thesaurus, <http://bit.ly/1LE04h8>
3. Understanding the life of research data with the DCC Curation Lifecycle Model, <http://bit.ly/1MoGGGv>
4. MANTRA online training modules for librarians, <http://bit.ly/1RRvVju>
5. Read the most current literature in the Digital Curation Bibliography, <http://bit.ly/1ljoivX>
6. Dozens of examples of resource guides created by librarians for patrons to learn more about data on the SpringShare LibGuide Community Site, <http://bit.ly/1DvMDcr>



# Data Reference & Outreach

Librarians are answering questions about data from patrons and conducting outreach to assess the data needs of their researchers and students.

図書館員は、利用者から寄せられたデータに関する質問に対する回答や、研究者や学生のデータニーズについて調べるためのアウトリーチを行っています

7. Begin a conversation with a researcher about data by Conducting a Data Interview, <http://bit.ly/10pH0yQ>
8. Learn more about a researcher's needs by reading or creating your own Data Curation Profile, <http://bit.ly/1ehftXb>
9. Develop engagement materials to help your librarians such as the DataOne Librarian Outreach Kit, <http://bit.ly/1gOU3mn>
10. Questions about data answered by experts on the DataQ forum, <http://bit.ly/1MoH4Vg>

# Data Management Plans

Librarians are becoming familiar with funder requirements and consulting with researchers to help them write and implement effective data management plans. 図書館員は、助成機関について理解を深め、効果的なデータ管理計画を作成し実施するために、研究者に意見を聞いています

11. One example is the DMPTool that lists funder requirements in the United States and builds a plan by asking the researcher to answer a series of questions. Other countries such as the U.K. and Canada have similar tools, <http://bit.ly/1LuNZMH>

# Data Literacy

Librarians are including data in their information literacy instruction, to recognize when patrons have a need for data and have the ability to locate, evaluate, and use data.

図書館員は、情報リテラシー教育に「データ」を組み入れ、利用者にとっていつデータが必要になるのか、また利用者がデータを見つけ、評価し、使用する能力がいつ必要になるのかを知る手助けをしています

12. The Data Information Literacy project and book developed a curriculum to help librarians and other teachers incorporate data into information literacy outreach and instruction, <http://bit.ly/1KkOvws>

# Metadata

Librarians are helping to organize, classify, and describe research data and developing standards for metadata to help make data more easily discovered, understood, and preserved.

図書館員は、研究データの整理、分類、及び記述の手伝いをしています。また、データがより見つけられやすく、理解されやすく、また保存されやすくするために、メタデータのスタンダードを開発しています

13. Determine what metadata format is appropriate and standard to recommend or apply by using the Metadata Standards Directory, <http://bit.ly/1g6e0Vy>

# Citing Data

Librarians are helping to promote the scholarship of data by encouraging and enabling data citation, assigning identifiers to datasets, creating links between documents and data, and helping users properly attribute credit to data producers.

図書館員は、データ引用を推奨したり可能にしたりすることで、データ研究を促進する手助けをしています。例えば、データセットに識別子を付与したり、ドキュメントとデータ間のリンクをつくったりすることで、利用者が適切にデータ作成者を引用できるようにしています

14. DataCite has resources to help researchers make their datasets citable to help users give attribution and to begin measuring impact by issuing Digital Object Identifiers (DOIs) for datasets, <http://bit.ly/1SCFGgu>



# Data Licensing & Privacy

Librarians are helping researchers share their data using appropriate licenses and while protecting confidential information about subjects or other sensitive data.

図書館員は、研究者が被験者についての機密情報やその他のセンシティブなデータを保護しながら、適切なライセンスを用いてデータを共有する手伝いをしています

15. How to License Research Data from the Digital Curation Centre can help librarians work with researchers to choose a license for the data they share, <http://bit.ly/1RDEqfw>

16. JISC manages the DATAPROTECTION email list with discussions on issues related to sensitive data, <http://bit.ly/1JyQQy2>

# Digital Preservation

Librarians are working with the archival community to develop and implement infrastructure and practices to ensure that data collections are accessible and usable in five, twenty, fifty, or a hundred years or longer.

五年、二十年、五十年、百年、それよりもっと長く、データコレクションがアクセス可能かつ利用可能であることを保証するためのインフラストラクチャーと慣行を開発、及び実装するために、図書館員はアーキビストと協力しています

17. Understand vocabularies and standards for digital archives using the Open Archival Information System ([OAIS](#)) reference model and trustworthy digital repository certifications such as [ISO 16363](#) and the [Data Seal of Approval](#)

18. Find tools that are available to help with digital preservation using COPTR, <http://bit.ly/1KEj1Bu>

# Data Repositories

Many libraries are providing institutional repositories to enable their users to publish and archive datasets or helping researchers identify other, appropriate repositories for specific funders, disciplines, or other domains.

利用者がデータセットを公開、および保管できるように、多くの図書館が機関レポジトリを提供しています。また、研究者が他の特定の資金提供者や専門分野、その他のドメインに関する適当なレポジトリを探す手伝いをしています

19. Find an appropriate repository by searching the [re3data.org](http://re3data.org) registry of research data repositories, <http://re3data.org>

20. Publish and share data now using free, online data repositories such as [figshare](#), [Zenodo](#), [Open Science Framework](#), or [DataVerse](#)

# Community of Practice

Librarians are connecting with each other and a larger community of researchers, technologists, funders, publishers, and others to develop solutions and share best practices for research data.

図書館員はソリューションを開発し、研究データに関する成功事例を共有するために、他の図書館員や、研究者、技術者、資金提供者や出版社、及びその他の人々から成り立つより大きなコミュニティと連携しています

21. An example of a federal approach to research data management community- building at a federal level is the Australian National Data Service, <http://bit.ly/1Vw3oPW>
22. Some annual conferences that address research data and involve librarians include the International Digital Curation Conference ([IDCC](#)), Research Data Access & Preservation Summit ([RDAP](#)), International Association for Social Science and Information Services ([IASSIST](#)), and [RDA plenaries](#)
23. Join the Research Data Alliance! Belong to an international community who builds social and technical bridges to enable data sharing. It's free to join by visiting the website, then subscribe to the Libraries for Research Data Interest Group, <http://bit.ly/1gtTE92>

# Asia-Pacific Trends in Libraries and Research Data

## Panel chairs

Kazutsuna Yamaji, National Institute of Informatics, Japan

Wolfram Horstmann, University of Göttingen, Germany

## Panelists

1. **Yasuyuki Minamiyama**, Librarian, National Institute of Polar Research, Japan
2. **Suntae Kim**, Senior Researcher/Data Scientist, Scientific Data Strategy Lab, KISTI Scientific Data Research Center, South Korea
3. **Kostas Repanas**, Head, Office of Science Communications & Open Archives @ Agency for Science, Technology & Research - A\*STAR, Singapore



# Efforts for Research Data Management in Japanese university / institution libraries

Yasuyuki Minamiyama  
minamiyama@nipr.ac.jp

**IRPC**

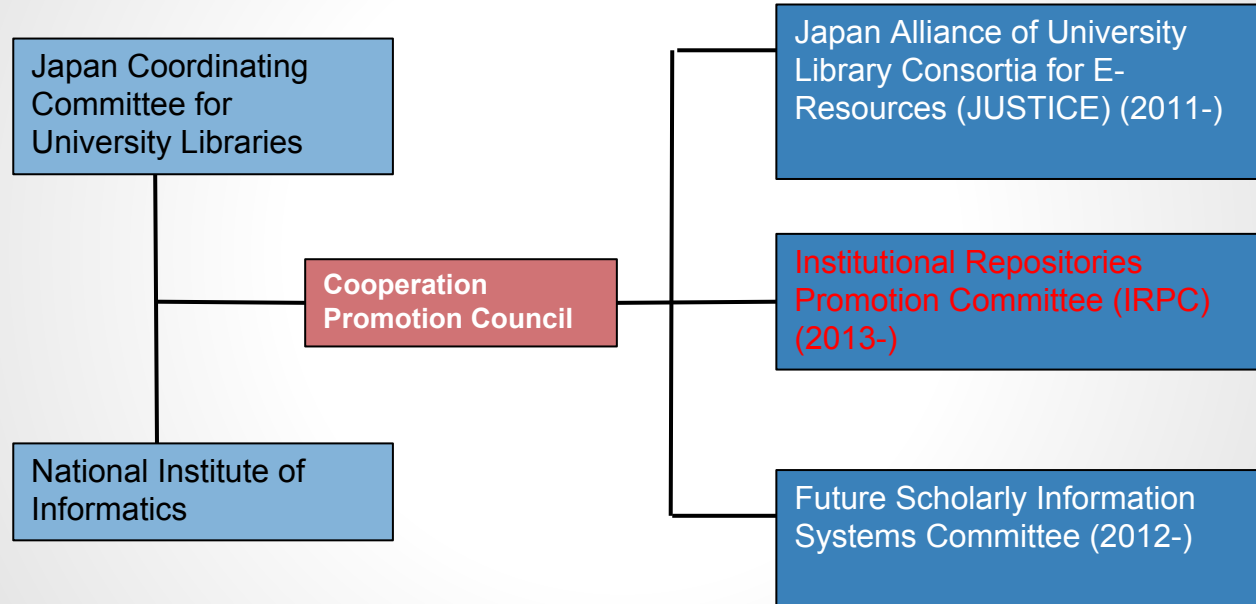
Institutional Repositories Promotion Committee

機関リポジトリ推進委員会

# Table of Contents

- ✓ Introduction of Japanese Institutional Repository and arounds
- ✓ Recent trends of research data management in Japan

# Institutional Repositories Promotion Committee



# “Toward the Establishment of a System for Sharing Knowledge Created at Universities”

## ◆ Position paper of IRPC (Dec. 13, 2013)

### 4. Immediate action plan

#### (3) Content enhancement and utilization

b. Expansion of content to include **non-literature resources**

#### (4) Training and human resource development

a. Implementation of investigative study concerning the **handling of non-literature electronic content (e.g., metadata schemas, data management planning)** in collaboration with relevant institutions, and related human resource development

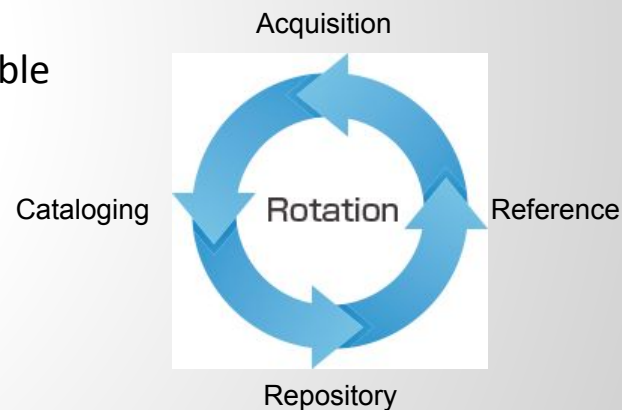
# Working environment (background)

## ✓ Job-rotation system

- Most of repository manager will change his/her position within **2 ~ 3 years**
  - Appointed system (e.g. project manager) is not available in Japanese working environment
  - Some are not only librarian but also clerical staff

## ✓ Problems

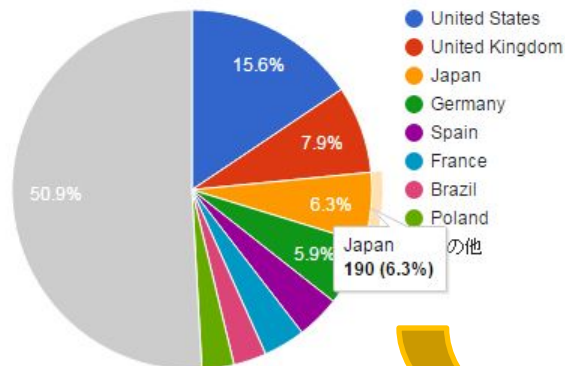
- Not transferring repository's know-how
- Not lasting “right man in the right place”





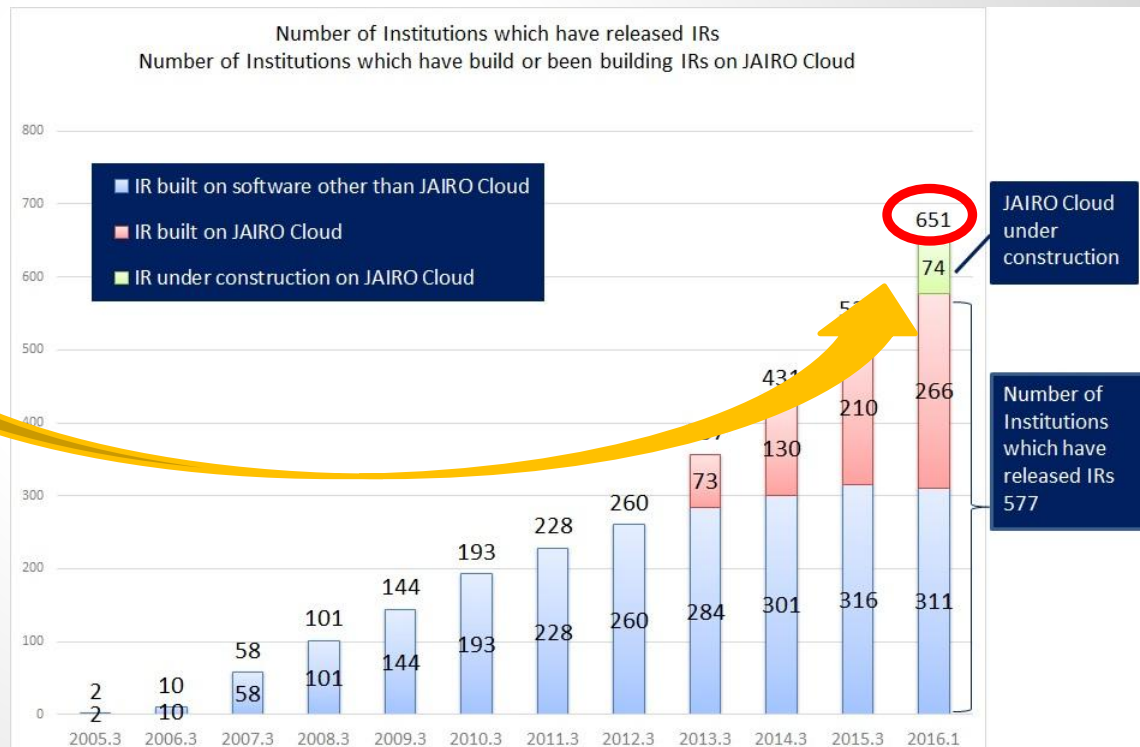
# Number of Japanese Institutional Repository (2015)

Proportion of Repositories by Country - Worldwide

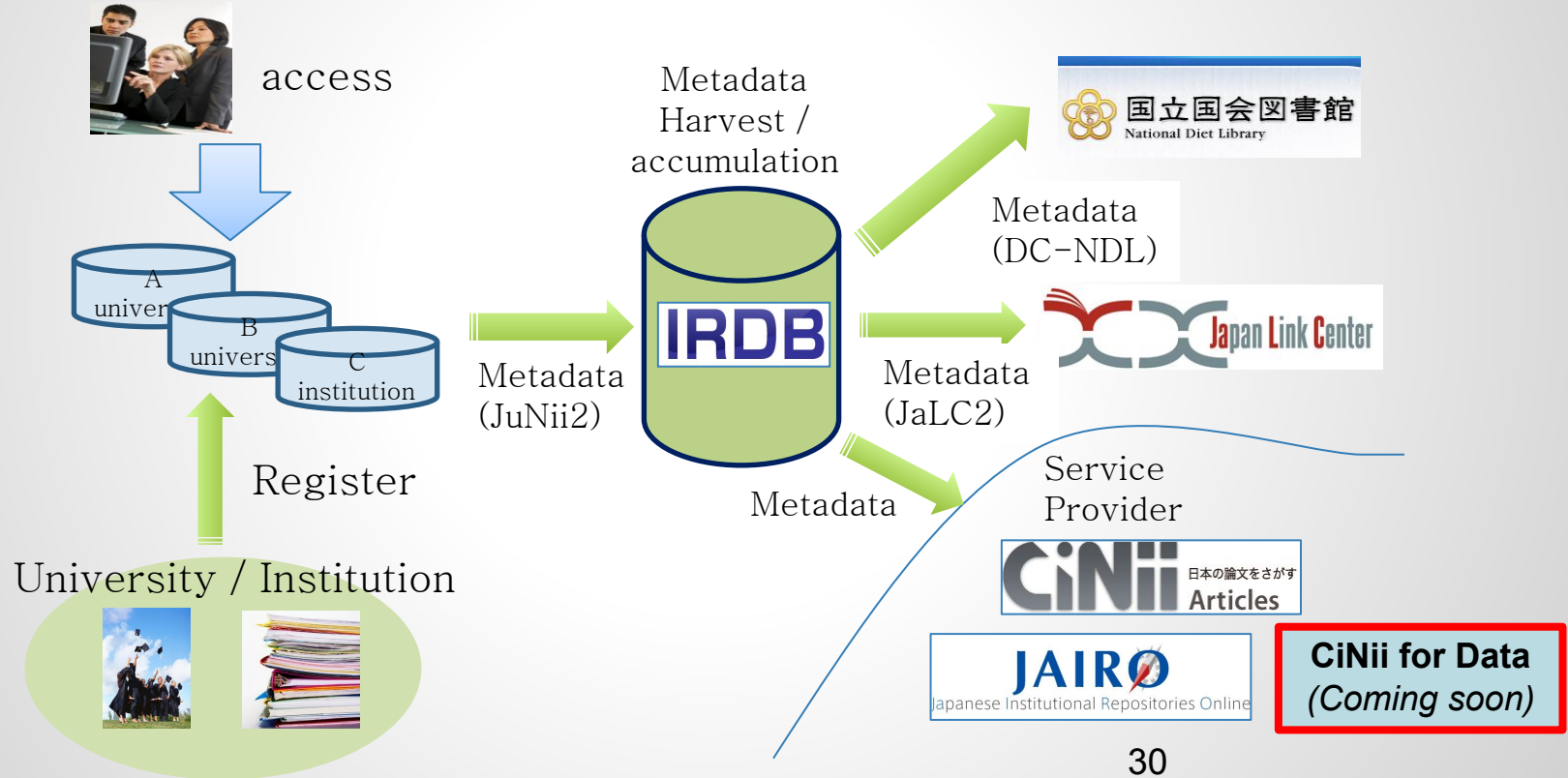


Total = 3015 repositories

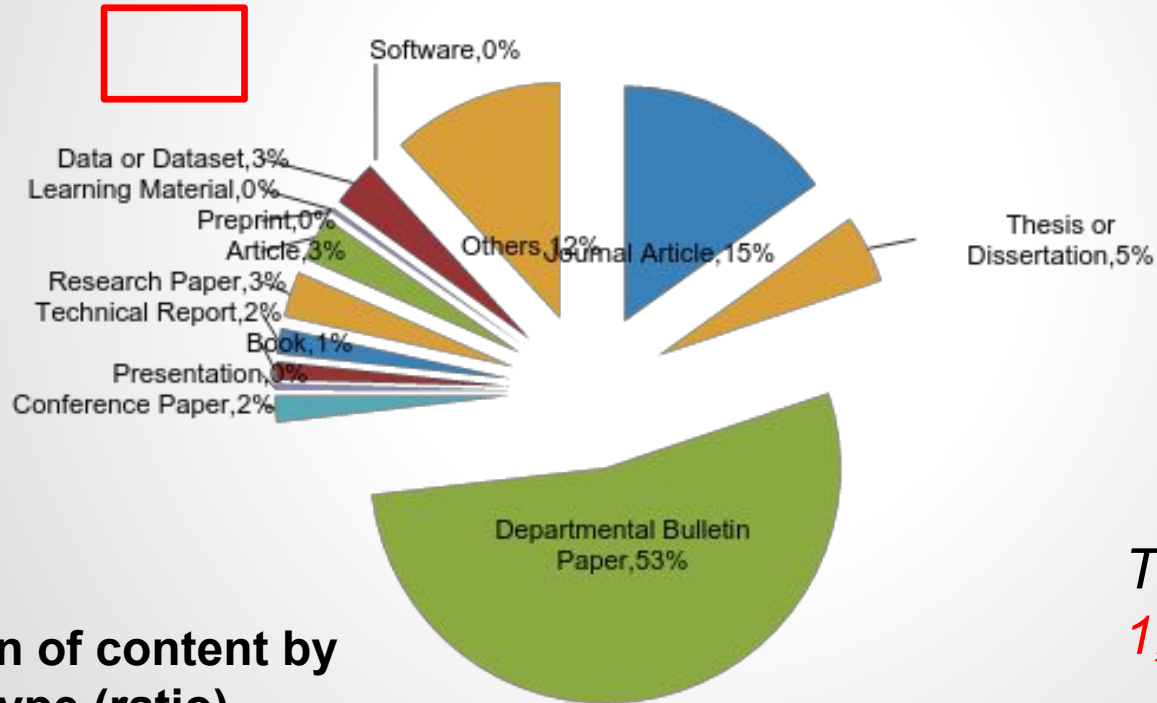
OpenDOAR - 05-Feb-2016



# Metadata Circulation Model



# IRDB Statistics



**Breakdown of content by  
resource type (ratio)**

*Total:*  
**1,666,505** (2016.2)

# 2016 IDCC poster presentation

## Approaches for the tide of Open Science and Research Data Management

To facilitate institutional activities for 'Open Science' and 'Research Data Management', IRPC has engaged in activities aimed at funders and citizens, librarians, and researchers:

\*IRPC (Institutional Repositories Promotion Committee) was established in 2013 under the cooperation between NII and university libraries in Japan.

\*NII (National Institute of Informatics) is leading institution for Japanese librarians that seeks to advance integrated research and development activities in information-related fields, including networking, software, and content.

**A**nalyzing  
and comparing  
many good practices  
(such as Mantra,  
RDM Rose)

For librarians

**D**eveloping  
introductory training  
resources aimed at  
Japanese librarians  
for break-through  
English-language  
barrier

**Training  
Tool**



**Metadata  
Schema**

For funders /  
citizens

**S**pecifying 'junii2'  
metadata elements for  
handling research data  
→ funders'  
information, geo-  
location, etc...

**P**lanning  
'junii2' to standardize  
it to JALC metadata  
schema, which meets  
DataCite metadata  
schema for  
handling research  
data

\*'junii2': Japanese  
repository's  
metadata-schema  
standard  
\*JALC: Japan Link  
Center, Japanese  
Registration Agency  
for DOI

\*NII provides cross-  
sectionally search  
service by collecting the  
metadata of institutional  
repositories via  
Institutional Repositories  
Database (IRDB).



**Rescue  
disappearing  
datasets**

For researchers

**T**argeting  
the datasets from  
the National Diet  
Library Digital  
Collection to rescue

**D**eveloping  
an efficient method  
to transfer the  
disappearing  
datasets to  
institutional  
repositories

"Dynamic Blue Glow Tech Line  
Background" by vector background,  
[http://www.vectoropenstock.com/  
vectors/preview/71156/dynamic-  
blue-glow-tech-line-background](http://www.vectoropenstock.com/vectors/preview/71156/dynamic-blue-glow-tech-line-background)

# 1. For Researchers

## ✓ Rescue “disappearing” datasets

- A lot of database stopped service because of the lack of the proper maintenance efforts
- Targeting the datasets from the “National Diet Library Digital Collection” to rescue for future research
  - “NDL Digital Collection” has been accumulating Japanese database information
- Developing an efficient method to transfer the disappearing datasets to institutional repositories

## 2. For Funders / Citizens

### ✓ Standardizing Metadata Schema

- Specifying lack of 'junii2' metadata elements for handling research data
  - Funders' information, geo-location, etc...
- Planning 'junii2' to standardize it to JaLC metadata schema for handling research data
  - "JaLC metadata schema" meets DataCite metadata schema
- For more easy to understand, more improving visibility

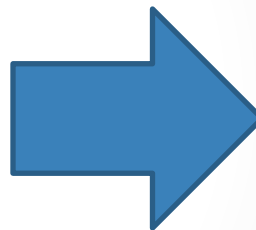
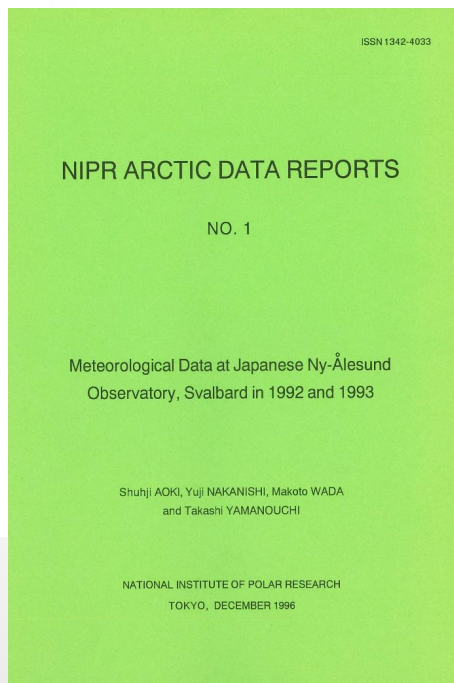
# 3. For (Japanese) Librarians

## ✓ Training Tool

- Few training tool written by Japanese...
  - Very difficult how to explain the importance of research data management to Japanese researchers
- Analyzing and comparing many good practices
  - Such as Mantra, RDM Rose...
- Developing introductory training resources
  - aimed at Japanese librarians



# Ex. Case-Study (Data Journal)



# E-research environment and Data Repository : **Datanest**

March 3, 2016

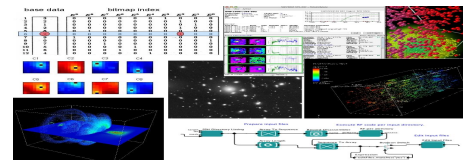
**KISTI Dept. of Scientific Big Data Research**

**Suntae Kim / [stkim@kisti.re.kr](mailto:stkim@kisti.re.kr)**

# Contents

- **Research Environment**
- **Datanest**
  - **Development of Data Repository : Datanest**
  - **Interface Review**
  - **Main functions of Datanest**
  - **Datanest workflow**
  - **Effect of Datanest USE**
- **Conclusions**

# Research Environment (1/2)



Research data can be generated for different purposes and through different processes, and can be divided into different **categories**. Each category may require a different type of data management plan.

**Observational:** data captured in real-time, usually irreplaceable. For example, sensor data, survey data, sample data, neurological images.

**Experimental:** data from lab equipment, often reproducible, but can be expensive. For example, gene sequences, chromatograms, toroid magnetic field data.

**Simulation:** data generated from test models where model and [metadata](#) are more important than output data. For example, climate models, economic models.

**Derived or compiled:** data is reproducible but expensive. For example, text and data mining, compiled database, 3D models.

**Reference or canonical:** a (static or organic) conglomeration or collection of smaller (peer-reviewed) datasets, most probably published and curated. For example, gene sequence databanks, chemical structures, or spatial data portals.

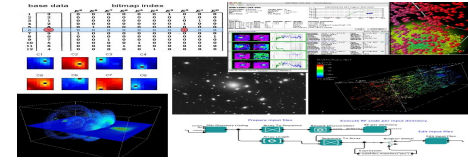
## Type

- Numerical
- Spatial
- Graphical
- Text etc..

Source : Jinpei Cheng, **THE DEVELOPMENT OF CHINA'S SCIENTIFIC DATA SHARING POLICY**, Strategies for Preservation of and Open Access to Scientific Data in China: Summary of a Workshop, <http://www.nap.edu/catalog/11710.html>>

Research Data : <http://www.bu.edu/datamanagement/background/whatisdata/>

# Research Environment (2/2)



**Research data** may include all of the following:

- Text or Word documents, spreadsheets
- Laboratory notebooks, field notebooks, diaries
- Questionnaires, transcripts, codebooks
- Audiotapes, videotapes
- Photographs, films
- Test responses
- Slides, artifacts, specimens, samples
- Collection of digital objects acquired and generated during the process of research
- Data files
- Database contents including video, audio, text, images
- Models, algorithms, scripts
- Contents of an application such as input, output, log files for analysis software, simulation software, schemas
- Methodologies and workflows
- Standard operating procedures and protocols

Source: Research Data [http://www.bu.edu/datamanagement/background/what\\_isdata/](http://www.bu.edu/datamanagement/background/what_isdata/)

# Development of Data Repository : Datanest

- **Solution review and Standard :**

- DSpace (<http://dspace.org/>)
- Fedora Commons (<http://www.fedora-commons.org/>)
- MySQL DB
- ISO 14721:2003 OAIS Reference Model

- **Question investigation targeting :**

- Researcher survey
- Research Institute survey
- Data lifecycle



Search

GO

Advanced Search

## WELCOME

shlee@kisti.re.kr

Incompleted Schema : 2

[results](#)

Incompleted Collection : 0

[results](#)

Request submission authority

: 24 [results](#)

[Go User Site](#)

Profile

Log out

## HOME

## ADMIN TOOLS

- Schema Mgmt.
- Org. & Collection Mgmt.
- Item Mgmt.
- Item import
- User Mgmt.
- Group Mgmt.
- Statistics Mgmt.
- Code Mgmt.
- Notice Mgmt.
- Configuration
- System monitoring

Creat Schema



Creat Collection



Manage Items



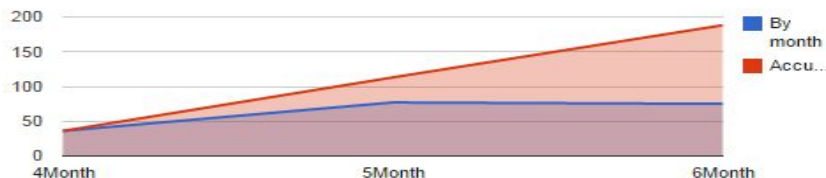
Manage Users



View Statistics



## Submission state for items



## Items by organization

Organizaion	Submitting	Waiting for approval	Approval completed.
인체 데이터 그룹	3	0	188



## Request for submission rights

[MORE >](#)

- 김윤혁(해당 없음)
- 이승희(해당 없음)
- 김훈민(해당 없음)
- 박수진(해당 없음)
- 장원태(해당 없음)



## How to create a schema?

[MORE HELP](#)



## How to create a collection?

[MORE HELP](#)



## Configuration settings

[MORE HELP](#)

Home

Browse

Datanest?

Search

GO

Advanced Search



#### Find Data



##### Mathematics(0)

Algebra, Hermeneutics, Topology...



##### Chemistry(0)

Physical Chemistry, Organic Chemistry...



##### Life Science(37)

Molecular Cell Biology, Genetics / Genetic Engineering...



##### Health Sciences(652)

Life Science, Clinical Medicine...



##### Materials(1764)

Metals and Materials, Ceramic materials...



##### Electricity and Electronics(0)

Optical application devices, Semiconductor Equipment...



##### Energy/Resources(41)

Greenhouse gas treatment, Suwaryeok development...



##### Physics(1389)

Particle / field physics, Statistical Physics...



##### Earth Science(512)

Geological Sciences, Geophysics...



##### Agriculture, Fishery and Food(0)

Food and Crop Science, Horticultural Science...



##### Machinery(0)

Measurement Standards / Test and Evaluation Technology...



##### Chemical Engineering(0)

Chemical Process, Polymer Process Technology...



##### Information/Communication(0)

Information Theory, Software, Information Security...



##### Nuclear Power(0)

Reactor Technology, Radiation Technology...

#### Datanest Center

National Scientific Data Sharing and Utilization Center supports systematic preservation and re-use of scientific data and convergence research in a variety of field.

[MORE >](#)

#### Quick Link



**DATANEST Repository**  
Introduction



**DATANEST Repository**  
Main Feature



**DATANEST Repository**  
Participate Institution

#### NOTICE

■ Datanest 보급절차가 궁금하세요?

[MORE >](#)



**KISTI** 한국과학기술정보연구원  
Korea Institute of Science and Technology Information

**NDSL**  
NATIONAL DISCOVERY FOR SCIENCE LEADERS

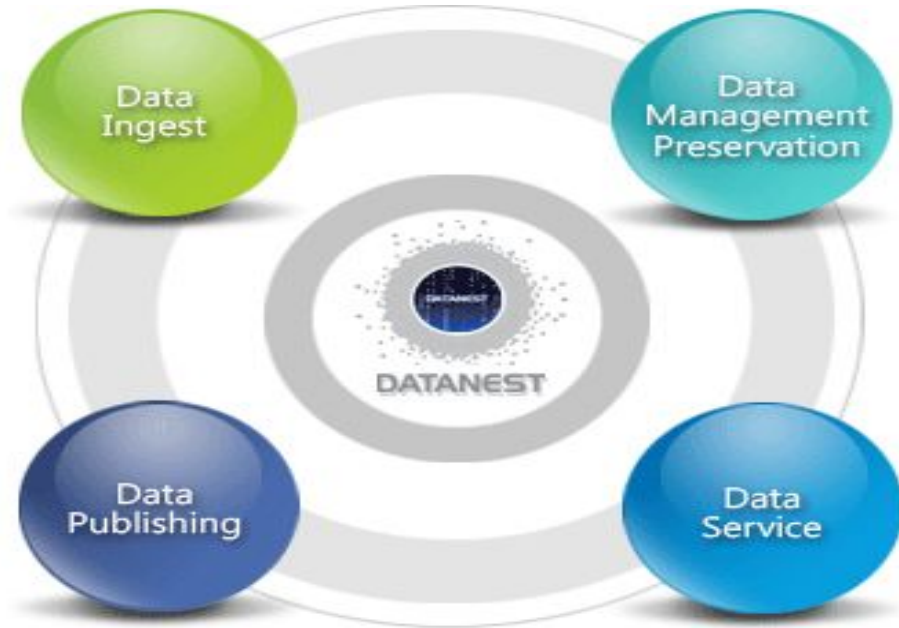
# Main functions of Dataneest(1/2)

- **Function of Scientific Data Harvesting**

- Harvesting function through a data upload of a researcher
- Feature of automatic data harvesting through standard protocol

- **Function of SD management**

- Organization and Collection mgmt.
- Elastic Schema mgmt. by Schema Inheritance



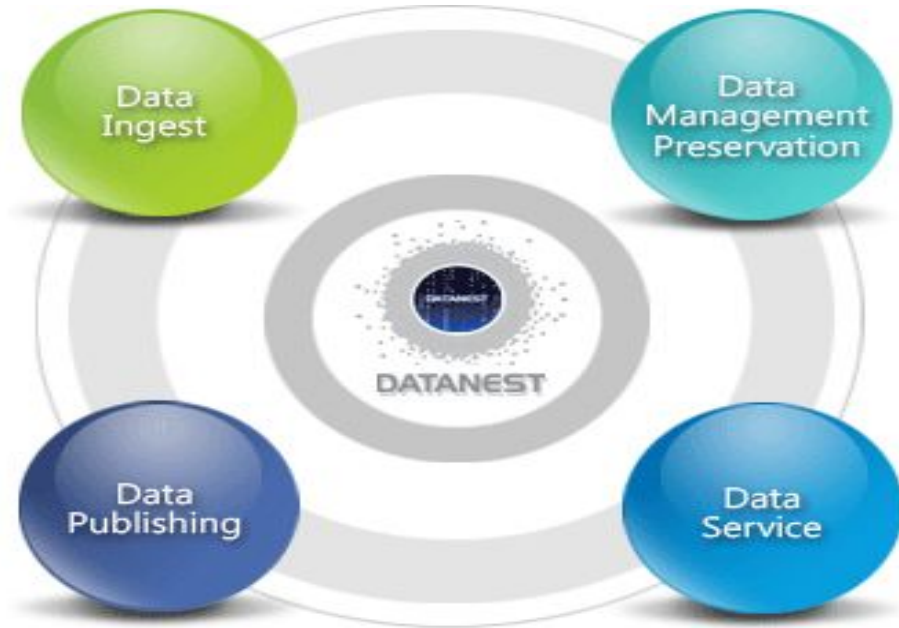
# Main functions of Datanest (2/2)

- **Function of SD Publication**

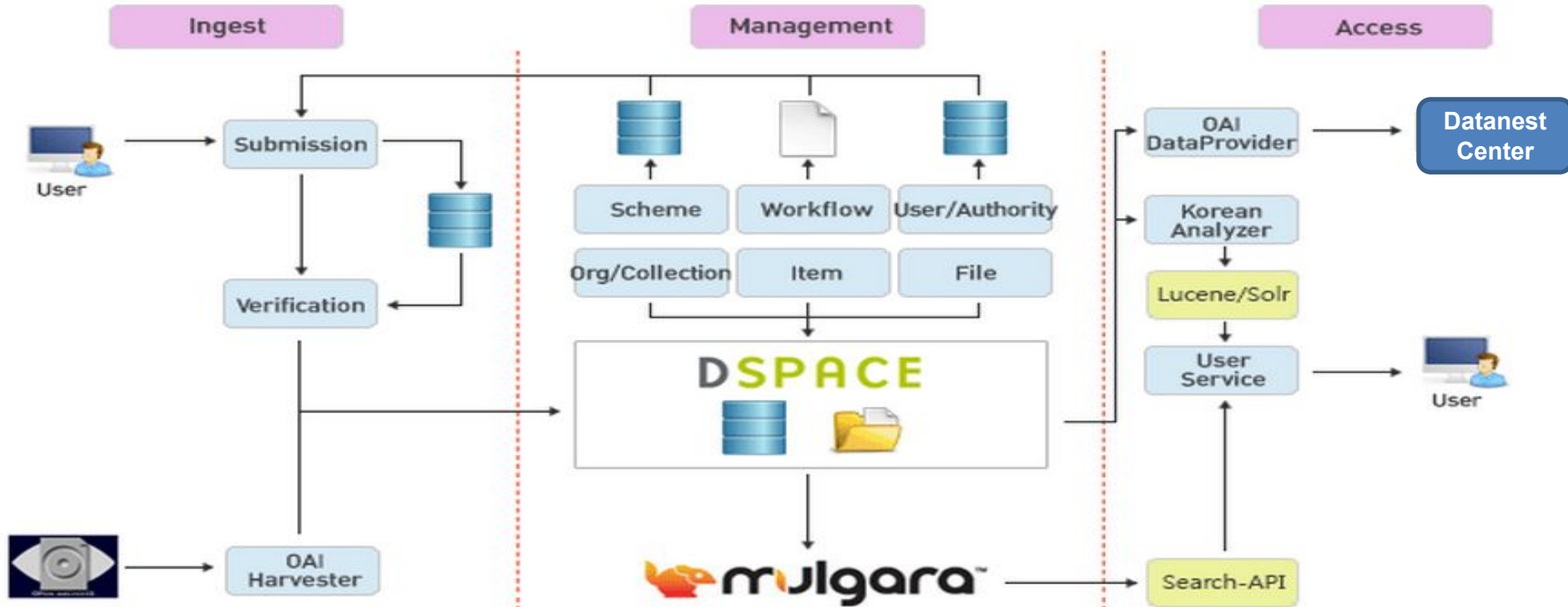
- Grant global object identifier(DOI) to data
- Data registration for global data handle server

- **Function of SD Service**

- Search by Organization, Collection, Author, and Subject
- Link Service of data and academic paper



# Datanest workflow (1/4)



# Datanest Lifecycle, Actors' Role





# Effect of Datanest USE

- **Researchers aspect**

- Data can be easily submitted through a linkage with current system in possession from a institute where a researcher affiliated to
- Systematic management and reuse of the data created by researchers is possible
- Datanest can increase researcher's reputation by supporting global data publication and its citation

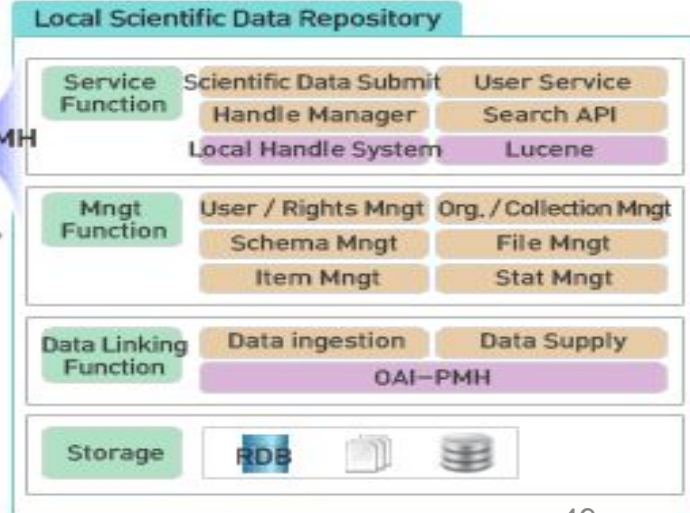
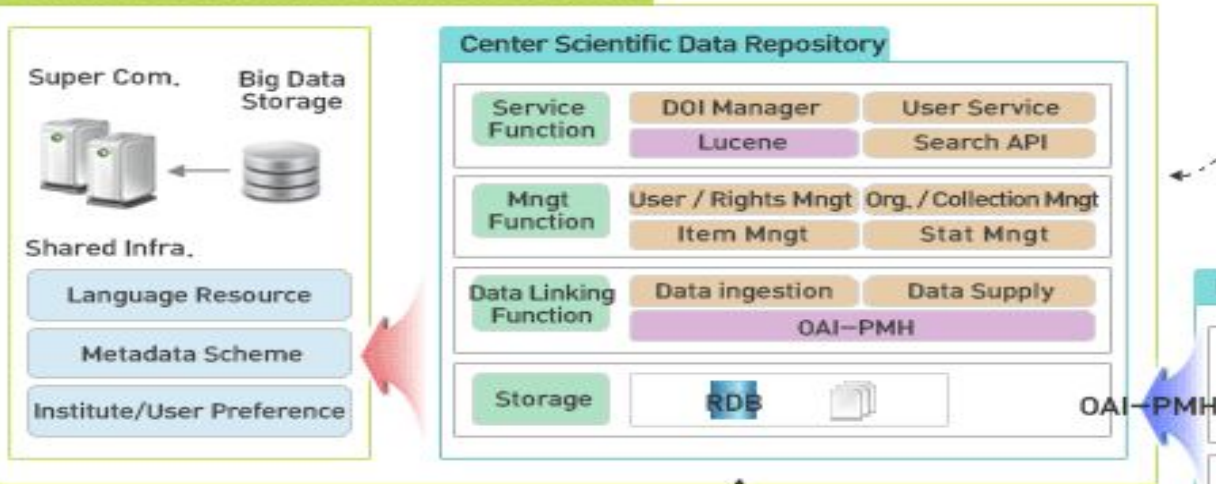
- **Institution aspect**

- Flexible infra building is possible for data management of a group or an institution where a researcher affiliated to
- Data registration for global data handle server
- Using a data possible to go public with sharing settings of researcher, a result of a researcher can be promoted both inside and outside



# Conclusions(1/2)

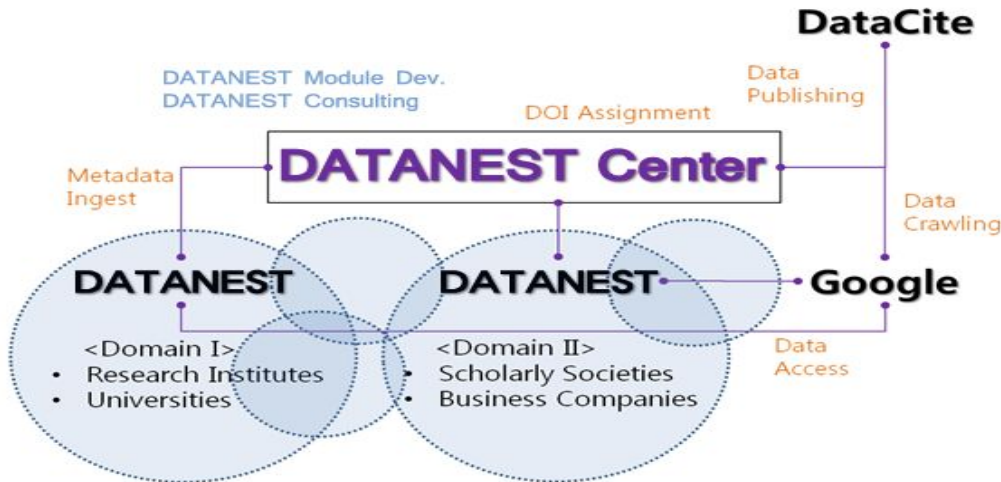
## Scientific Data and Conversion Center



## Scientific Data Publishing



# Conclusions(2/2)



- **Advanced Research component are needed as follow :**
  - **Datanest operated in cluster environment**
  - **Data fast transportation**
  - **Objects Relation Info.**
  - **Elastic Schema mgmt.**
  - **Security**

Q&A

You have

Questions

We have

Answers

# Asia-Pacific Trends in Libraries and Research Data

Kostas Repanas, Head, Office of Science Communications & Open Archives @ Agency for Science, Technology & Research - A\*STAR, Singapore



Agency for  
Science, Technology  
and Research

**CREATING GROWTH, ENHANCING LIVES**





# Organizational Roadmap for Adopting RDM Services

Objective: to provide some pragmatic recommendations for libraries/institutions to assist them with adopting RDM services

<b>Policies and Principles</b> <ul style="list-style-type: none"><li>• Principles for RDM</li><li>• External policies</li><li>• Internal policies</li></ul>	<b>RDM Services</b> <ul style="list-style-type: none"><li>• Service areas</li><li>• RDM service models</li><li>• Expanding repository services for RDM</li></ul>
<b>Sustainability</b> <ul style="list-style-type: none"><li>• Making the case for RDM services</li><li>• Operational costs</li><li>• Funding streams</li><li>• Gaining support with administrators</li></ul>	<b>Skills and Capacity</b> <ul style="list-style-type: none"><li>• Basic RDM concepts for librarian staff</li><li>• RDM competencies for service providers</li><li>• Bringing in external experts</li><li>• Training opportunities</li></ul>

# L4RD DataShare Fellow Update

- Cheryl Thompson, University of Illinois [cathmps2@illinois.edu](mailto:cathmps2@illinois.edu)
- Mentors: Michael Witt (presenting) & Chuck Humphrey
- Project Goals:
  - Understand how academic libraries are organizing and supporting their research data management services
  - Identify and validate archetypes of organizational structure for RDMS and libraries with such to sample
  - Explore the interaction of structure and services

More information about the RDA Data Share Fellowship program:  
<http://rda-dsf.weebly.com>



# Ethnographic Study

- Archetype Development
  - Literature review harvesting articles, books, and reports
  - Identified 22 libraries in literature
  - Developed 5 archetypes: Nascent Initiative, Solo librarian, Working group, Multi-functional team, and Dedicated RDMS team
- Archetype Exploration (Nov 2015-Feb 2016)
  - Interviews with data librarians or managers at academic libraries
  - Artifact collection (organizational charts, website descriptions, reports)
  - Online Questionnaire
  - Participants: 22 libraries representing a variety of initial archetypes, countries, and public/private status



# Respondent Demographics

- Library (n=22)
  - Initial Archetype: 4 nascent, 4 solo librarian, 5 working groups, 4 multi-functional teams, and 5 dedicated teams
  - Geographic location: 17 North America, 3 Europe, 1 Africa, and 1 Australia
  - 17 Public, 5 Private
  - 122.7 mean number of librarians employed
- Participant (n=26)
  - 5.1 mean years in current position
  - Position titles examples: Data Management Specialist, Data Librarian, & Research Data Services Director

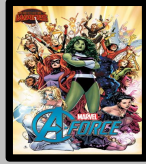
# PRELIMINARY RESULTS



# Archetypes (rev)

## Nascent initiative

- Still emerging
- Part-time or no staff with formal RDMS duties



Ex: Univ. of Pretoria, South Africa

## Working group

- Informal group focused on RDMS
- Members have few to no formal RDMS duties



Ex: University of Wisconsin, USA

## Solo librarian with support

- One designated RDMS librarian
- Informal support from other staff



Ex: Emory University, USA

## Solo librarian with no support

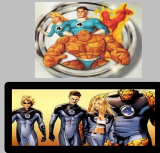
- One designated RDMS librarian
- No other support



Ex: London School  
Economics & Poli. Science, UK

## Multifunctional library team

- Formally designated team in library
- Assigned RDMS & other functions



Ex: Univ. of Alberta, Canada

## Dedicated library team

- Formally designated team in library
- Only RDMS function
- Staff with RDMS duties



Ex: Univ. North Carolina., USA

## Campus team

- Formally dedicated team within university
- Assigned RDMS responsibilities
- Staff assigned to team and/or shared w/ other units



Ex: Griffith Univ., Australia

# RACI results

- **R:** Few with formal responsibility
- **A:** Unclear lines of accountability
- **C:** Multiple stakeholders in library & campus
- **I:** Multiple stakeholders in library & campus



# Impact of Structure on Services

- Community needs vs. what's possible
- Limited supervisory control of RDMS partners
- RDMS decision-making

# Next Steps

- Impressions being explored
  - More formal structure & staffing lead to richer RDMS
  - Dependence on collegiality
  - Required expertise to offer RDMS
- In-depth analysis: RDMS organizational location, approaches, decision-making, services, collaborations, and barriers/facilitators
- Dissemination

# RDA L4RD IG Meeting Conclusion

7th Plenary Meeting - Tokyo, Japan

March 3, 2016 9:00-10:30 a.m



ありがとうございました

L4RD Interest Group website: <https://rd-alliance.org/groups/libraries-research-data.html>