

JPCOAR and JAIRO Cloud A Case Study from Japan

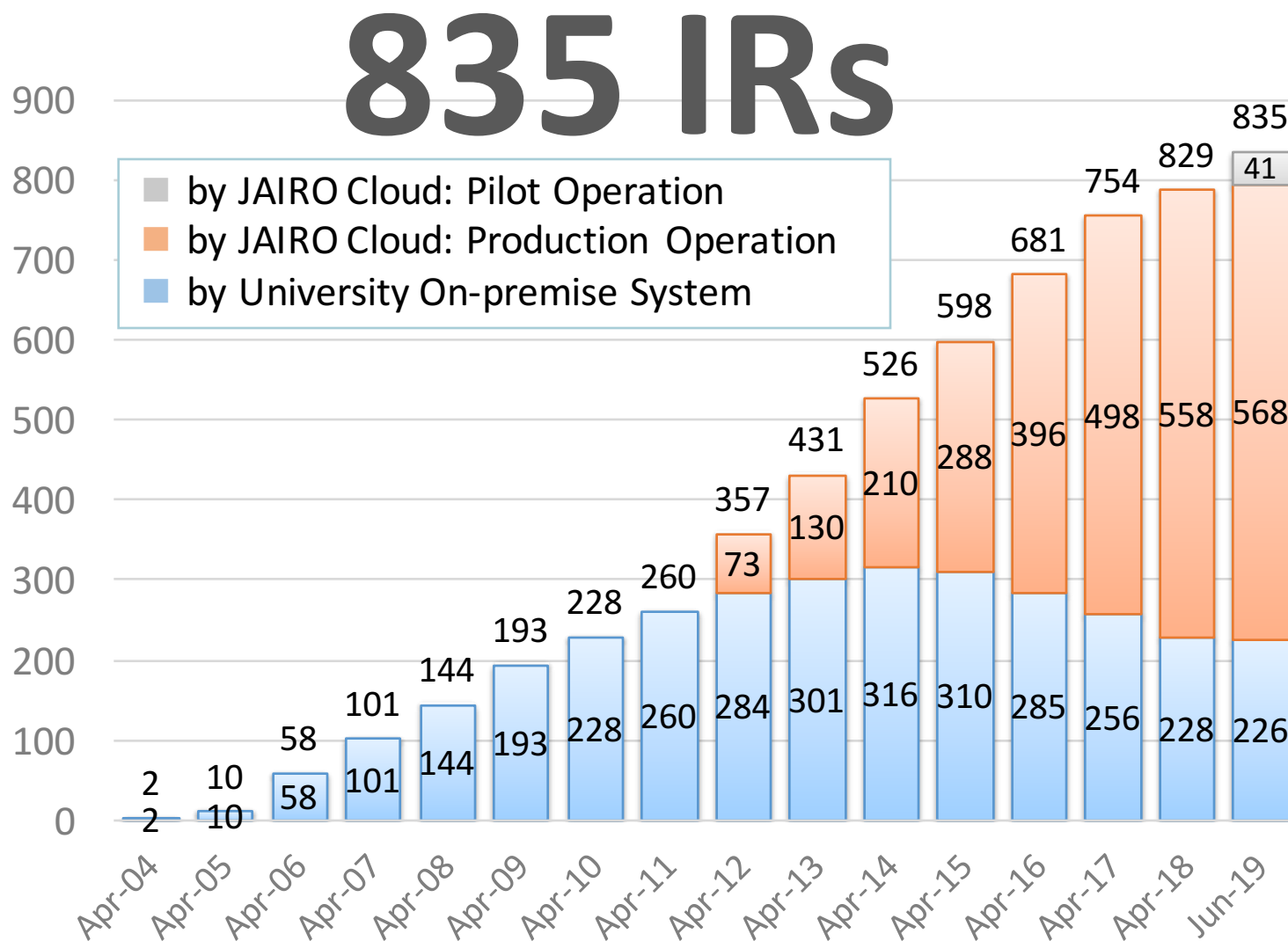
Kazu YAMAJI

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Eko-Konnnect 2020 Users Conference in Lagos

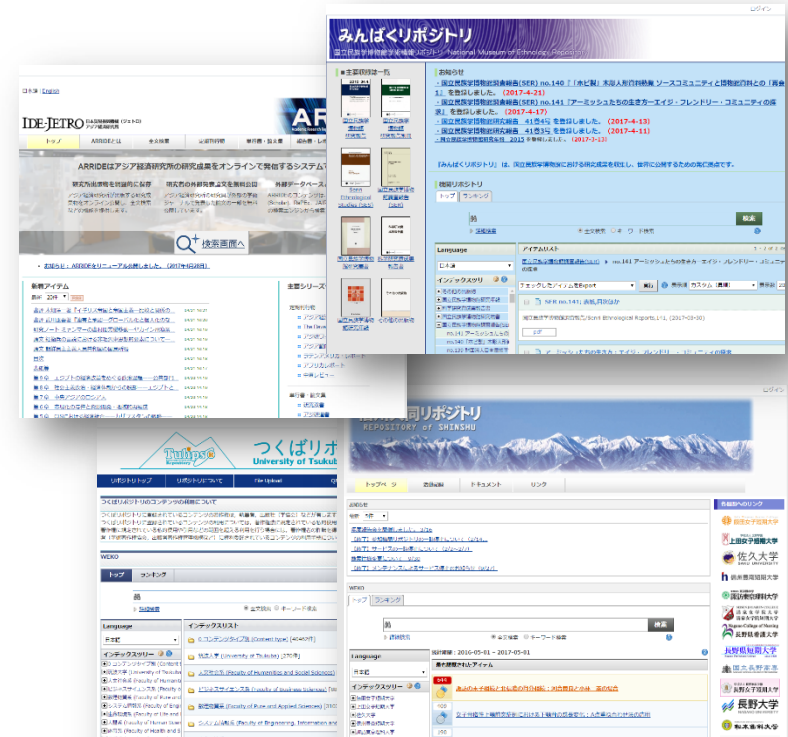
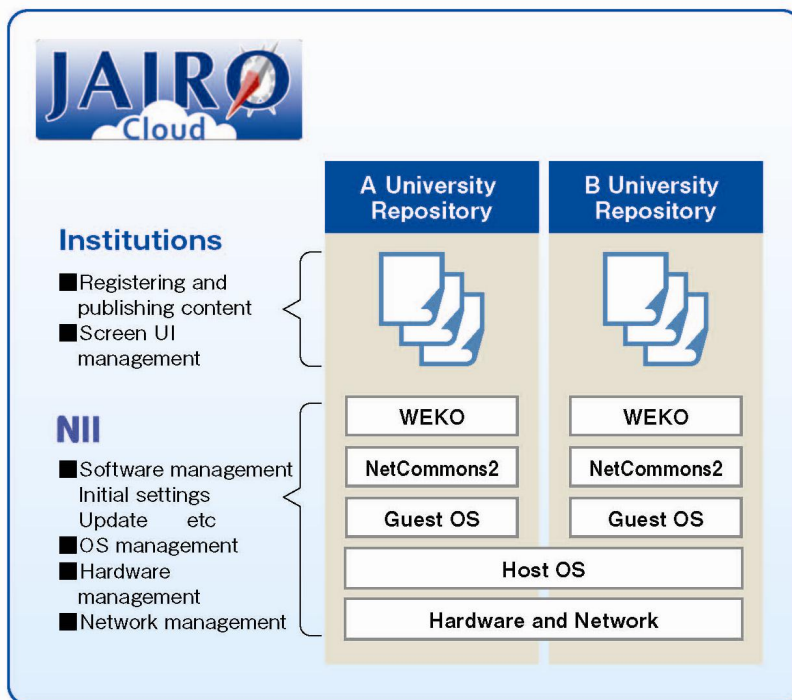
29 Jan 2020

Number of Institutional Repository in Japan

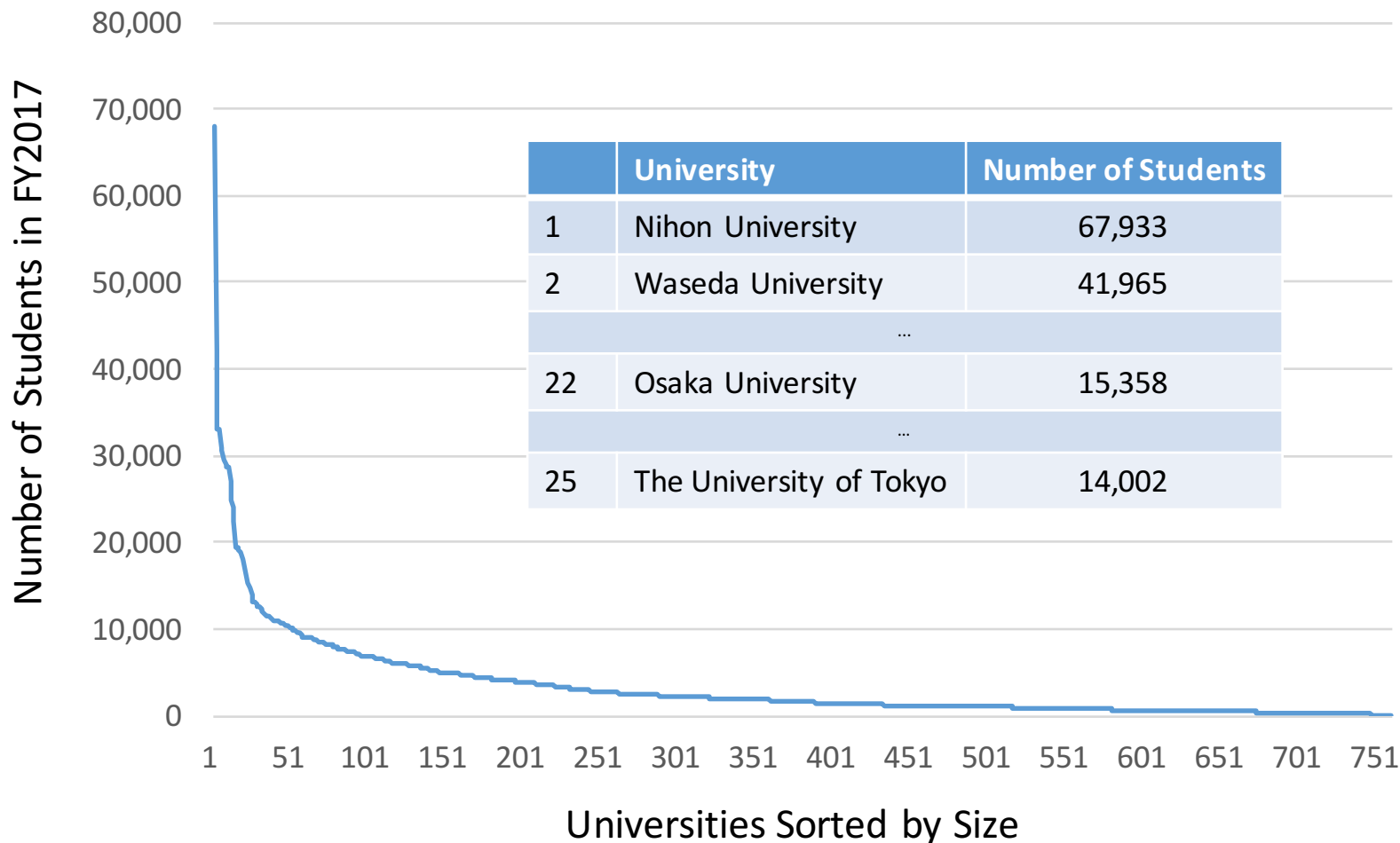


JAIRO Cloud

- Background
 - Limited resources and less technical knowledge hamper implementation of IR especially in small universities.
 - JAIRO Cloud provides a shared instance of IR system on the virtual server hosted by NII since April 2012.
- Service Architecture



Long Tail Feature in Japanese Universities



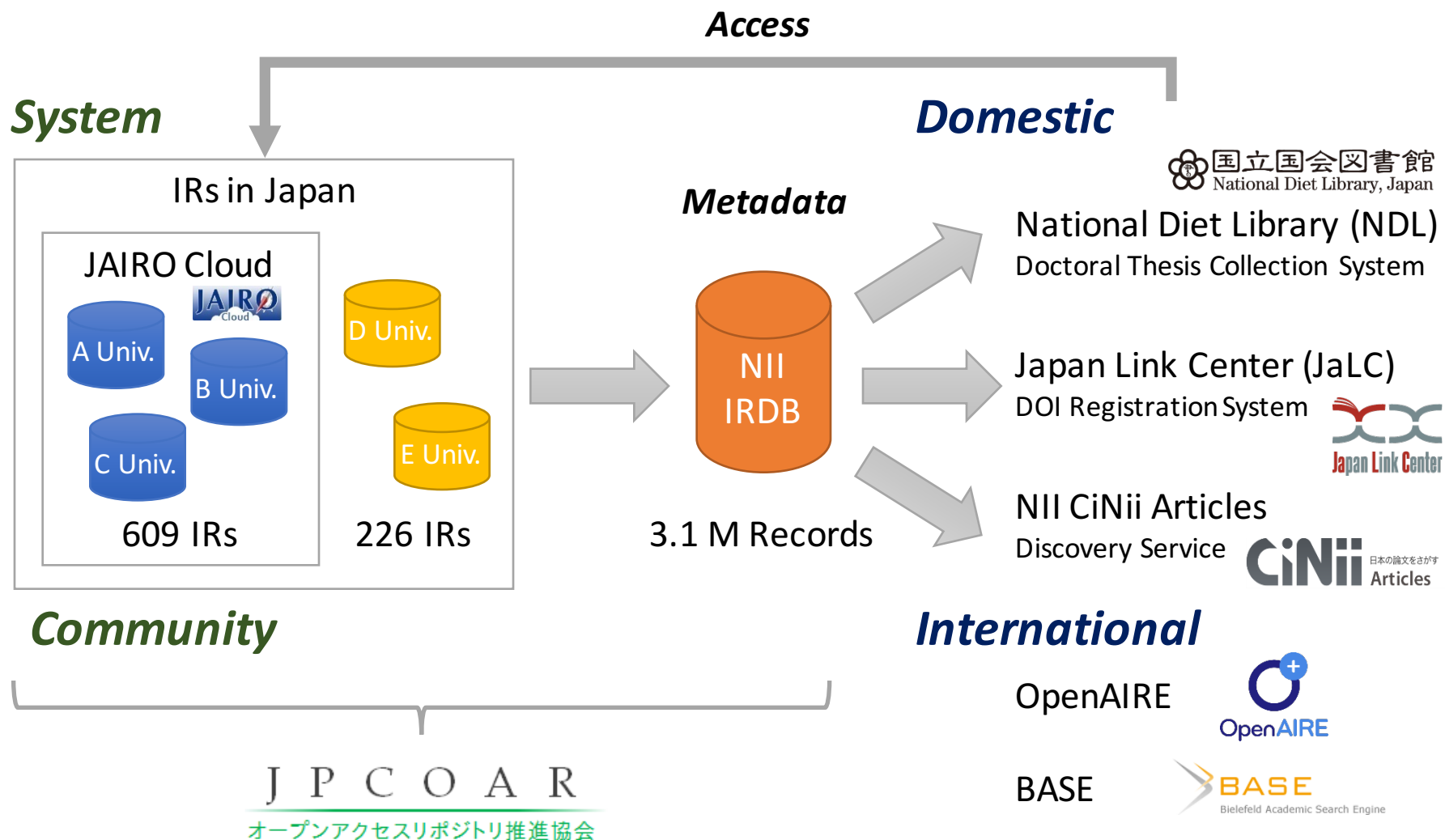
JAIRO Cloud is a good example for supporting long-tail

JAIRO Cloud Fee

Number of organization researchers	JPCOAR membership fee(JPY)*	JAIRO Cloud service fee(JPY including TAX)	Total cost (JPY including TAX)
0 – 100	20,000	43,200	63,200
101-200	20,000	86,400	106,400
201-300	20,000	129,600	149,600
301-400	20,000	172,800	192,800
401-500	20,000	216,000	236,000
501-600	20,000	259,200	279,200
601-700	40,000	302,400	342,400
701-800	40,000	345,600	385,600
801-900	40,000	388,800	428,800
901-1000	40,000	432,000	472,000
1001-1100	40,000	475,200	515,200
1101-1200	60,000	518,400	578,400
1201-1300	60,000	561,600	621,600
1301-1400	60,000	604,800	664,800
1401-1500	60,000	648,000	708,000
1501-	60,000	691,200	751,200

*If an institution requires to use JAIRO Cloud service, the institution should join JPCOAR with paying membership fee.

Japanese IR Network



JPCOAR

- Digital Repository Federation (DRF), since 2006
- JAIRO Cloud Community, since 2012
- Institutional Repository Promotion Committee, since 2013



- Japan Consortium for Open Access Repository (JPCOAR), since July 2016
 - Consist of 482 (as of May 1st 2017) Institutions
 - Organizing 3 WGs and 4 TFs
 - JAIRO Cloud Operation, Training and Promotion WGs
 - Metadata, Research Data, OA Policy, Researcher ID TFs

JPCOAR: International Activity

- COAR Annual Meeting and Working Group
- Open Repositories Conference
- Asia OA Meeting
- International Digital Curation Conference
- RDA Plenary Meeting

JPCOAR GA in March



JPCOAR: WG and TF

- Working Group
 - Training WG
 - JAIRO Cloud Operation WG
 - Promotion WG
- Task Force
 - Next Generation Metadata Schema TF
 - Research Data TF
 - OA Policy TF
 - System Interoperability TF



Cloud type (SaaS) service for Institutional Repository operated by JPCOAR and NII.

JPCOAR Member

Institutional Type	Institutions	JAIRO Cloud Users
National University	64	38
Public University	56	49
Private University	350	322
Inter-University Research Institute	12	11
Junior college	36	36
National Institute of Technology College	7	7
Others (Research Institute)	18	15
Total	543	478

Training WG

- Purpose
 - Provide two days training course to learn about institutional repository, open access and open science
- Agenda
 - Overview about Institutional Repository
 - System Operation and Metadata
 - Copy Right
 - Green OA Activity and Workflow
 - JAIRO Cloud Training Course (Day 2)
- Schedule
 - 5 times/year at different locations



Research Data TF

• RDM Training Course

1. Review and Analyze existing Training Materials
 Essentials 4 Data Support, MANTRA, RDM Rose, RDM Support, Research Data Management and Sharing (COURSERA)
2. Define Syllabus
3. Develop Slides, Scripts and then Video Production
4. Provide from JPCOAR Site (Slides) and Japanese MOOC (Course)

JPCOAR SITE	Access	DL
2017.06	936	903
2017.07	286	342
2017.08	393	318
2017.09	429	308
2017.10	362	238
2017.11	515	301
2017.12	355	113
2018.01	313	131
Total	3,589	2,654



	Participants	Completion Rate
RDM Course	2,305	25%
JMOOC Ave.	4,145	15%

Now Developing Next Version, especially focusing on RDM Supporters

OA Policy TF

- Purpose
 - Support development and deployment of open access policy at the universities.
- Results
 - OA Policy Guideline Ver.2
 - Chap 1: Development and Operation of OA Policy
 - Chap 2: Detailed Components (articles) of OA Policy
 - Appendix 1: Planning
 - Appendix 2: Template
 - Appendix 3: Overview of Open Access
 - Appendix 4: How to register to ROARMAP
 - Survey
 - Target: 15 institutions which has OA policy.
 - Composed by 18 questions to investigate difficulty and strategy based on the experience in each institution.

Support New Institutions

Key Metadata Elements for Services

junii2 Metadata Schema

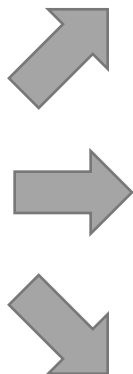
<http://irdb.nii.ac.jp/oai/junii2-3-1.xsd>



National Diet Library (NDL)
Doctoral Thesis Collection System

```

<metadata>
  <junii2 xsi:schemaLocation="http://irdb.nii.ac.jp/oai...
  <title lang="ja">
    A Formal and Corpus-based Analysis of Grammaticalization...
  ...
  <creator>Arai, Fumihito</creator>
  <degreename>博士 (言語科学) </degreename>
  <description>doctor</description>
  <grantor>神戸松蔭女子学院大学</grantor>
  <contributor lang="en">Kobe Shoin Women's University</contributor>
  <identifier>甲第6号</identifier>
  <grantid>34513甲第6号</grantid>
  <date>2014</date>
  <dateofgranted>2015-03-20</dateofgranted>
  <textversion>ETD</textversion>
  
```



Japan Link Center (JaLC)
DOI Registration System



```

<metadata>
  <junii2 xsi:schemaLocation="http://irdb.nii.ac.jp/oai...
  <title lang="ja">『君の名は。』大ヒットの要因：日本的悲恋物...
  <alternative lang="en">
    Reasons why "Your name" is a smash hit : Locating ...
  </alternative>
  <language>jpn</language>
  <subject>時間</subject>
  ...
  <subject>community</subject>
  <URI>http://id.nii.ac.jp/1044/00002038/</URI>
  <selfDOI ra="JaLC">info:doi/10.14946/00002038</selfDOI>
  <NIIttype>Departmental Bulletin Paper</NIIttype>
  
```

NII CiNii Articles
Discovery Service



```

<metadata>
  <junii2 xsi:schemaLocation="http://irdb.nii.ac.jp/oai...
  <title lang="ja">心の理論・実行機能の観点からみた認知的・言語的...
  <alternative lang="en">
    Cognitive and linguistic flexibility tasks in relation...
  </alternative>
  <language>jpn</language>
  <subject>実行機能</subject>
  ...
  <URI>http://id.nii.ac.jp/1044/00001744/</URI>
  <NIIttype>Journal Article</NIIttype>
  <creator lang="ja" id="http://rns.nii.ac.jp/nr/1000090581231">久津木...
  
```

Metadata TF

- junii2

- Current Schema
 - Since 2010
 - Current Version 3.1
- Not designed for
 - Layered Elements
 - Research Data
 - Interoperability with International Standards

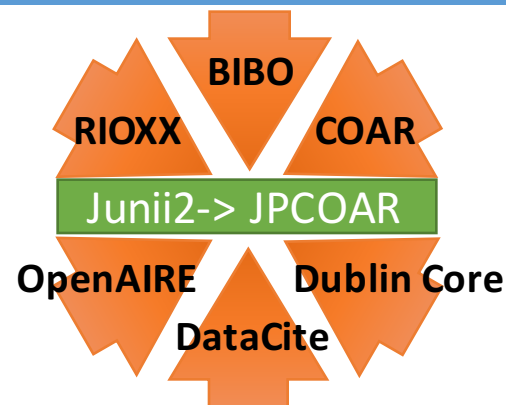


- JPCOAR

- Focusing on interoperability with established international metadata standards
- Adopting major identifiers (Crossref Funder id, ISNI, ORCID etc)
- Monitoring compliance with Open Access policies
- Hierarchizing some elements (creator, fundingReference etc)
- Enhancement of elements for research data

JPCOAR Schema Properties

- | | |
|-------------------------|----------------------------------|
| 1. dc:title | 17.jpcoar:identifierRegistration |
| 2. jpcoar:creator | 18.jpcoar:relation |
| 3. jpcoar:contributor | 19.dcterms:temporal |
| 4. jpcoar:accessRights | 20.datacite:geolocation |
| 5. rioxxterms:apc | 21.datacite:fundingReference |
| 6. dc:rights | 22.bibo:identifier |
| 7. jpcoar:rightsHolder | 23.bibo:journal |
| 8. jpcoar:subject | 24.bibo:volume |
| 9. datacite:description | 25.bibo:issue |
| 10.dc:publisher | 26.bibo:pageStart |
| 11.datacite:date | 27.bibo:pageEnd |
| 12.dc:language | 28.jpcoar:dissertationNumber |
| 13.coar:resourceType | 29.jpcoar:degreeName |
| 14.datacite:version | 30.jpcoar:dateGranted |
| 15.openaire:versionType | 31.jpcoar:degreeGrantor |
| 16.datacite:identifier | 32.jpcoar:file |



Example of hierarchized elements

```

<jpcoar:creator>
<jpcoar:nameIdentifier nameIdentifierScheme= "ORCID"
schemeURI= "http://orcid.org/0000-0003-2384-2166" >
0000-0003-2384-2166</jpcoar:nameIdentifier>
<jpcoar:creatorName xml:lang= "ja" > 大隅, 良典
</jpcoar:creatorName>
<jpcoar:creatorName xml:lang= "en" > Ohsumi, Yoshinori
</jpcoar:creatorName>
<jpcoar:affiliation>
<jpcoar:nameIdentifier nameIdentifierScheme= "ISNI"
schemeURI= "http://www.isni.org/0000000121792105" >
0000000121792105</jpcoar:nameIdentifier>
<jpcoar:affiliationName xml:lang= "en" >
Tokyo Institute of Technology
<jpcoar:affiliationName>
</jpcoar:affiliation>
</jpcoar:creator>
  
```

Community: Institutional Repository

- Japan Consortium for Open Access Repository (JPCOAR)
 - Working Group (Long-Term)
 - Training WG
 - JAIRO Cloud Operation WG
 - Promotion WG
 - **Task Force (Short-Term)**
 - **Next Generation Metadata Schema TF: JPCOAR Schema**
 - **Research Data TF: Training Course**
 - **OA Policy TF: OA Policy Toolkit and Deployment**
 - **System Interoperability TF: CRIS Link and ORCID**

Challenge

JPCOAR is based on Annual Plan
 JPCOAR has Annual Budget



JPCOAR x NII Joint TF



*How to be
 more flexible*

New Repository System joint TF

- Purpose

- Define required functionalities of New Repository System



- Activities

- Review Current Domestic and International Situation
- Point out Issues to be resolved
- Propose how to solve them

- Results

- Report “Our Next Generation Repository”

↓

WEKO3
 System Spec.

↓

JPCOAR
 Strategic Plan



WEKO3

- A flavor of Invenio v3 for Institutional Repository



Inter-University Research Institute Corporation /
 Research Organization of Information and Systems
 National Institute of Informatics

- Main features of WEKO3 (including future plan)
 - Integrate WEKO2 functions for IR based on Practical Requests from JAIRO Cloud Users
 - Flexible **metadata editor** and OAI-PMH provider feature
 - Flexible **workflow** feature for ingest workflow
 - **Cloud storage integration** for storing research data
 - **Multitenancy** features for providing perspective on needs of institution and the JAIRO Cloud service

Multi-repositories feature



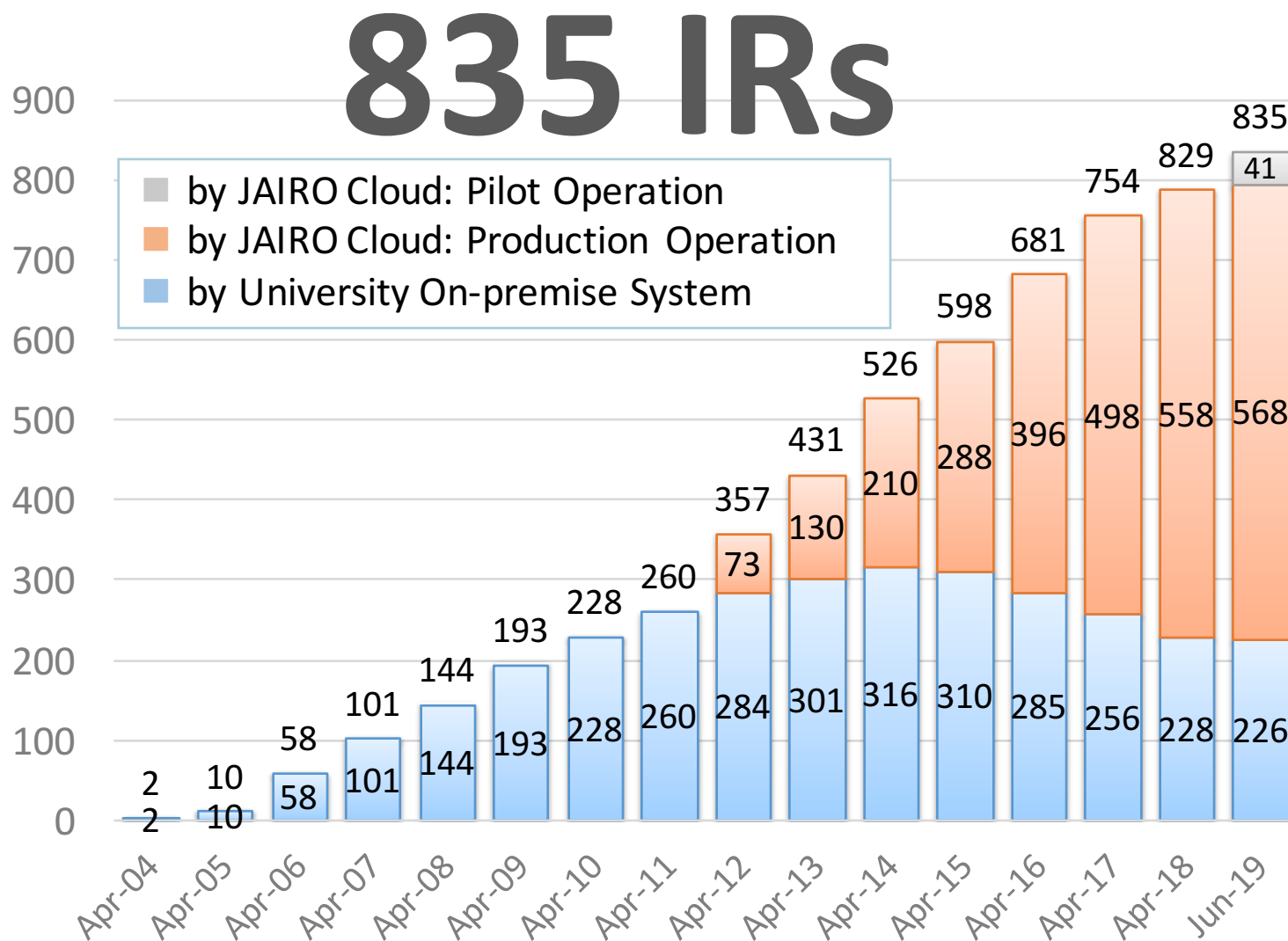
A part of institutional repository



User can manage multiple repositories by one repository software.

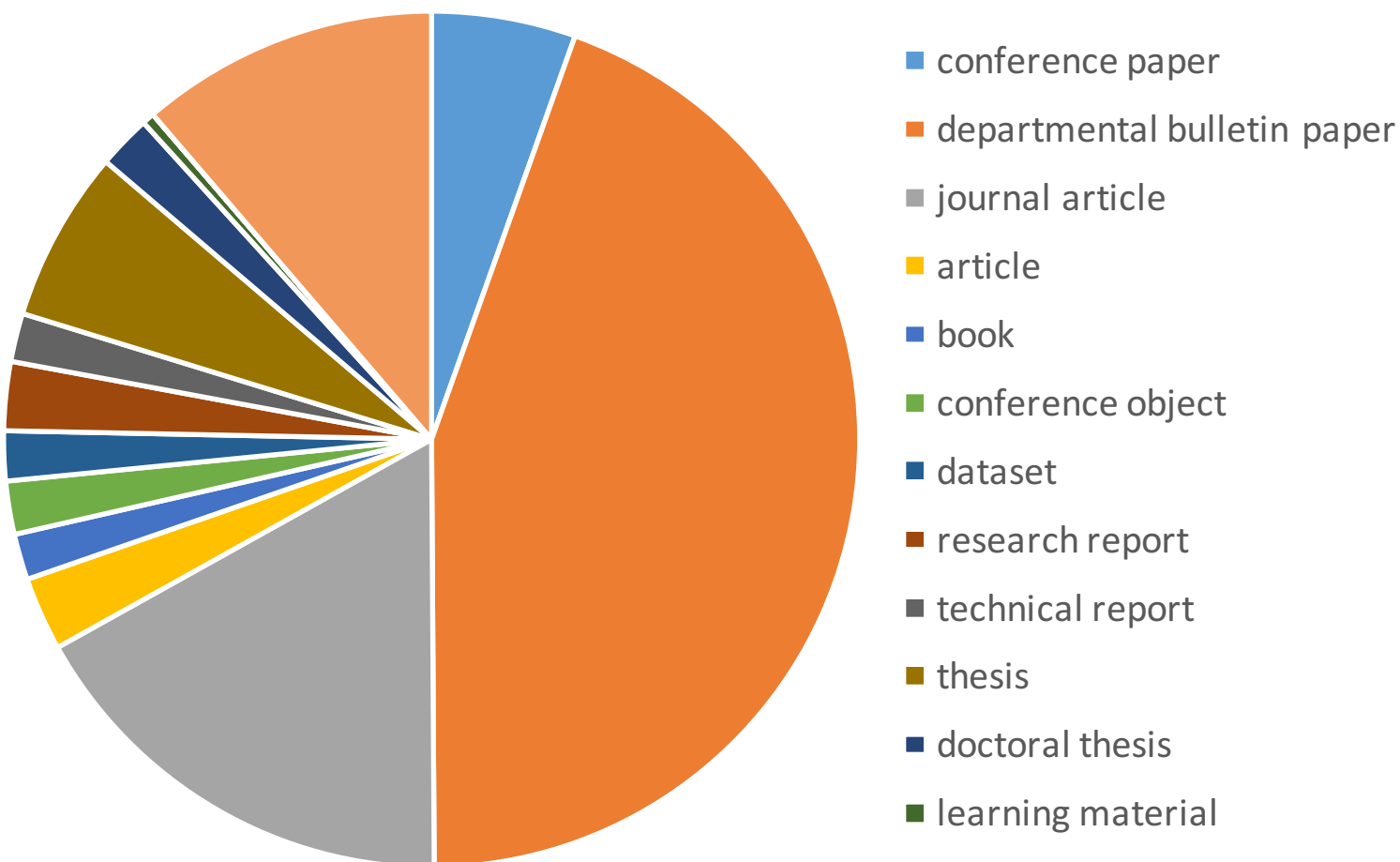


Number of Institutional Repository in Japan



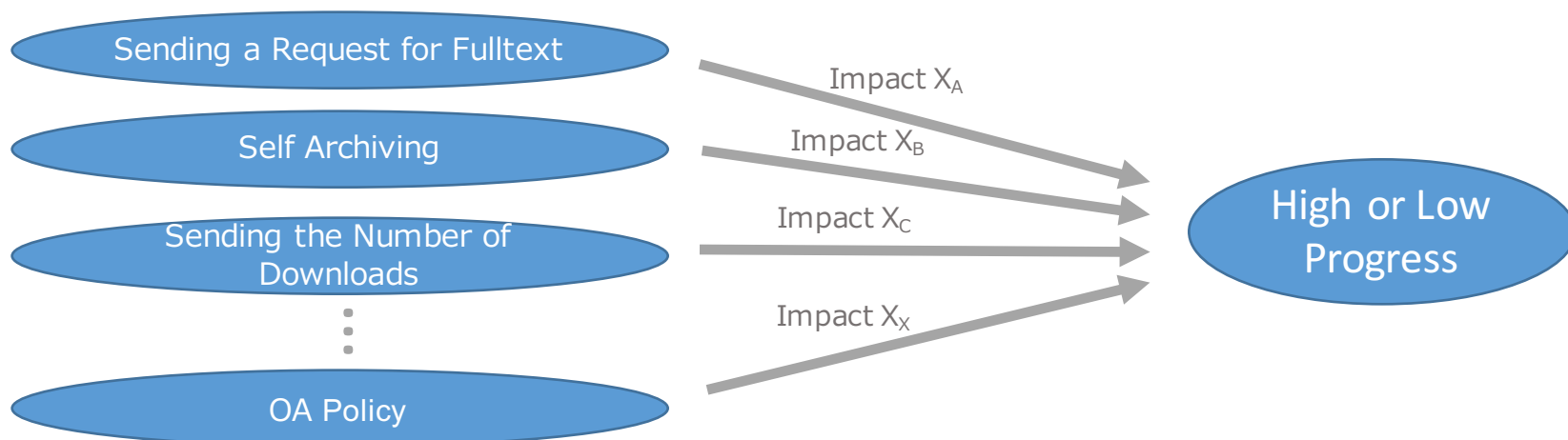
Types of Contents stored in Japanese IRs

total number	fulltext(rate)	number of DOI (rate)
3,112,589	2,369,250 (76.12 %)	366,815 (11.78 %)



Analytics about Open Access Progress

- Since the number of registered journal articles in IR (progress of Green OA) is low in most institutions in Japan, improving their progress is key to promoting Japan's Green OA.
- First step to improve this condition is finding the difference in approach to Green OA between institutions with high progress and those with low progress.
- For this purpose, we tried to identify the factor that separates the two, focusing on several library activities (e.g.: OA policy, self-archiving, OA seminar) as factors.



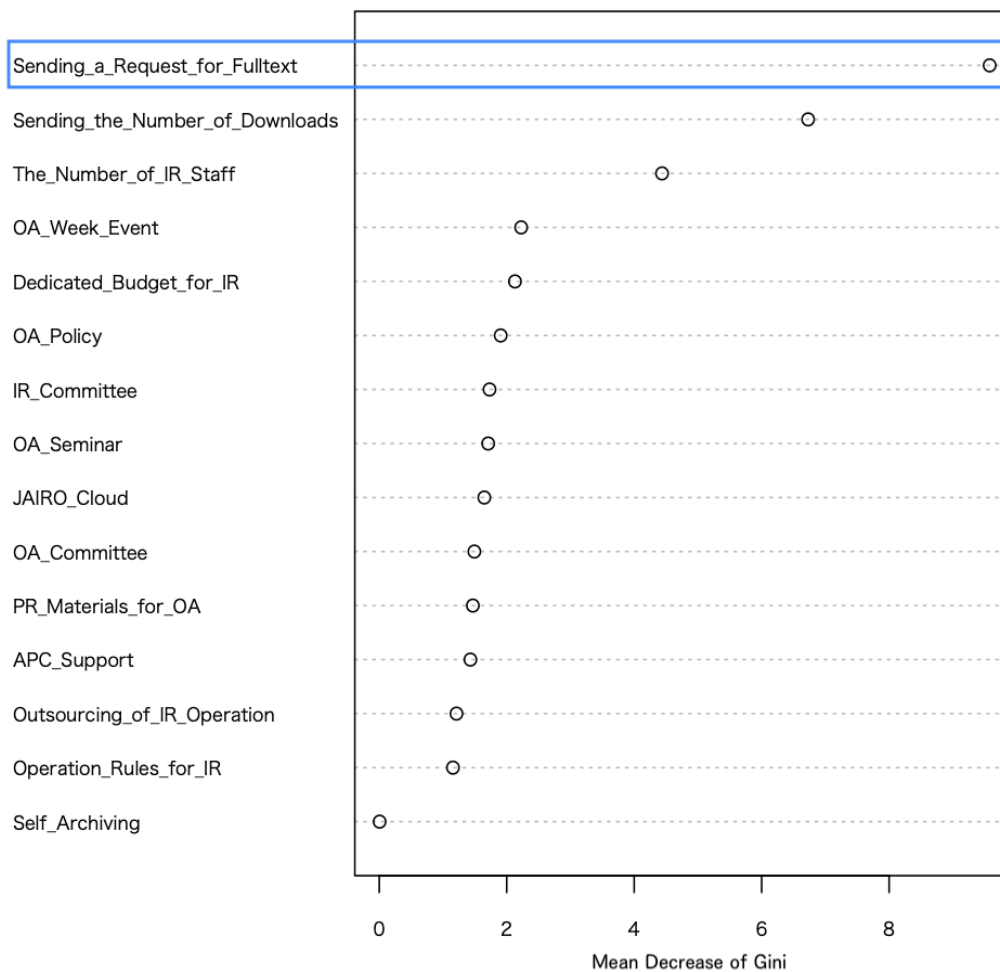
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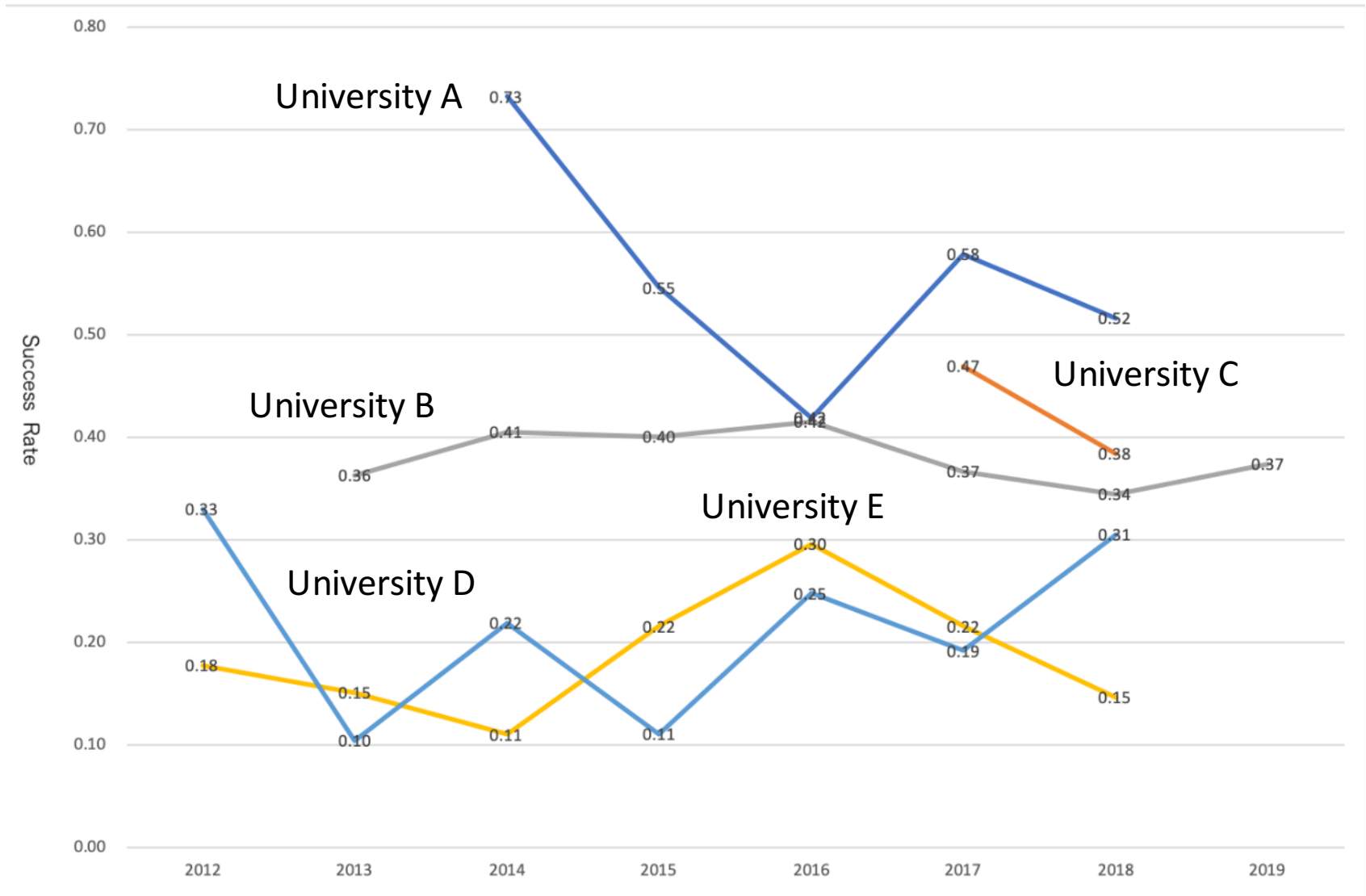


Randomforest Analysis

"sending a request for fulltext" is the most effective activity to promote Green Open Access.



Successful Rate for getting Green OA Contents by "sending a request for fulltext"



Workflow of "sending a request for fulltext"

①

- Periodically get publication list of the journal articles of each affiliated researcher

②

- Confirm the Green OA policy of each journal

③

- Sending e-mail to researcher to get author final version article

④

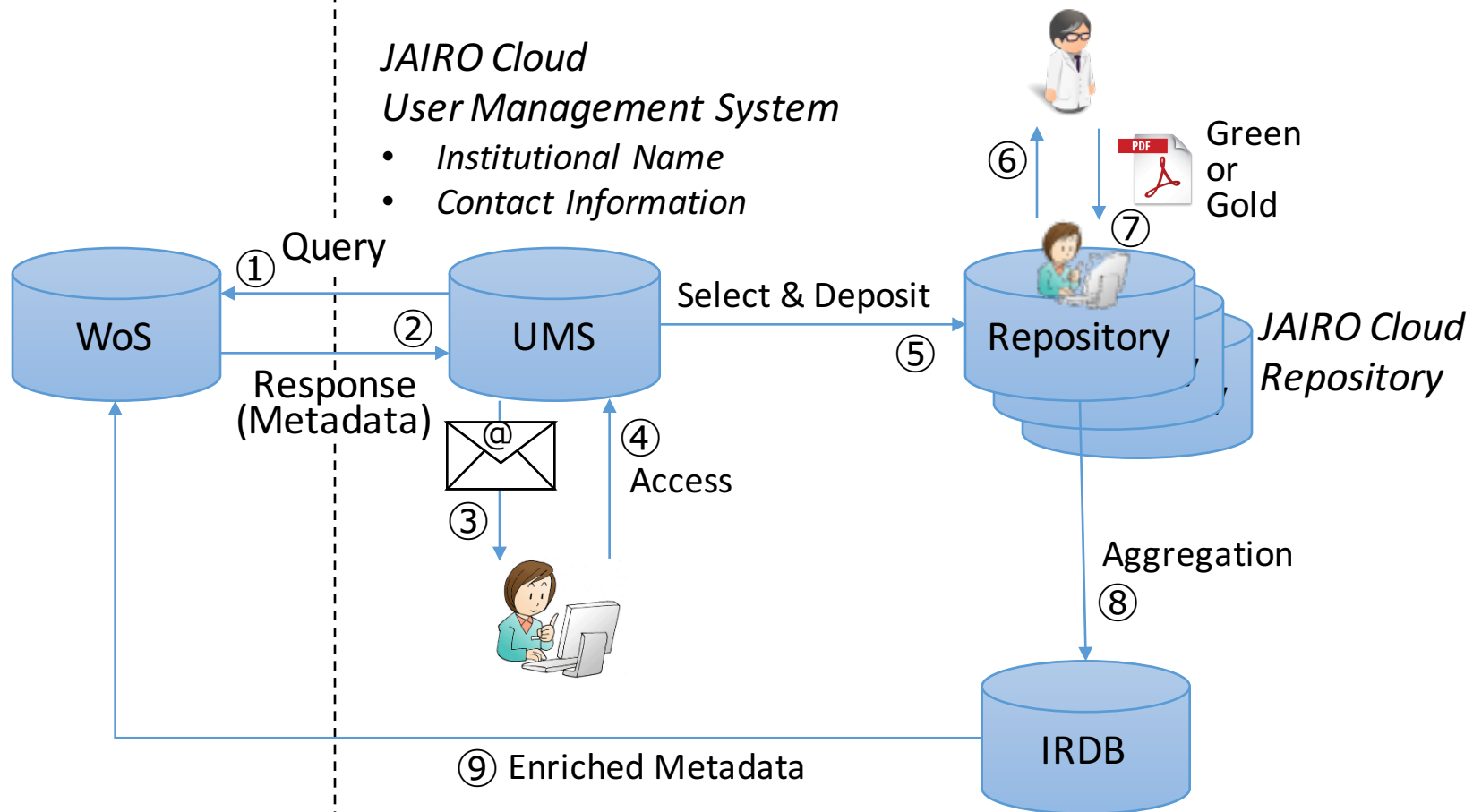
- Register metadata and fulltext to institutional repository

Procedure is a bit Complicated

Service for Enriching Journal Article

Crarivate

NII and Universities



①

Import Configuration

researchmapから取得されたコンテンツの中で本リポジトリへの登録対象のコンテンツ

フィールド	キーワード
所属機関	九州大学
所属機関	Kyushu University

新規キーワード追加

③

九州大学 管理者様 Email Notification

researchmap連携システムに203件の新規登録コンテンツが到着しました。これらのコンテンツをJAIRO CLOUDクラウド上のリポジトリに追加するには、以下のURLにアクセスしてください。

<https://idp.repo.nii.ac.jp/content/import/kyushu-u/2015/6/1>

新着コンテンツの概要は以下のとおりです。(20/302件)

<http://catalog.lib.kyushu-u.ac.jp/handle/2324/17769/c01.pdf>

二豊のユウジャク：現地調査の方法による中世村落史研究への試み
服部, 英雄

大分県立宇佐風土記の丘歴史民俗資料館研究紀要, Vol.5, No., pp.11-107(1988-03-31)

Link to Detail Information

④

Metadata Import

researchmapから取得したコンテンツのインポートが行なえます。

取得年月日

2015 年 6 月 1 日

戻る

検索

選択したコンテンツをインポートする

« 前ページ 1 2 3 4 5 6 7 8 9 ... 20 21 次ページ »

全てクリア 全て選択

選択	タイトル	著者	
<input checked="" type="checkbox"/>	二豊のユウジャク：現地調査の方法による中世村落史研究への試み	服部, 英雄	大分県立宇佐風土記の丘歴史民俗資料館研究紀要, Vol.5, No., pp.11-107(1988-03-31)
<input checked="" type="checkbox"/>	MISCIBILITY OF IONIC AND NONIONIC SURFACTANTS IN THE ADSORBED FILM AND MICELLE	Abe, Koii	

Import Selected Contents Button



Repository Cloud Service

Once we had a **core** system,
strategic action can be made.

RCOS

yamaji@nii.ac.jp