The Importance of metadata for Asian Scholarship

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Relawan Jurnal Indonesia

Robbykha Rosalien

Member Support Specialist, Crossref

Wednesday, January 28, 2026

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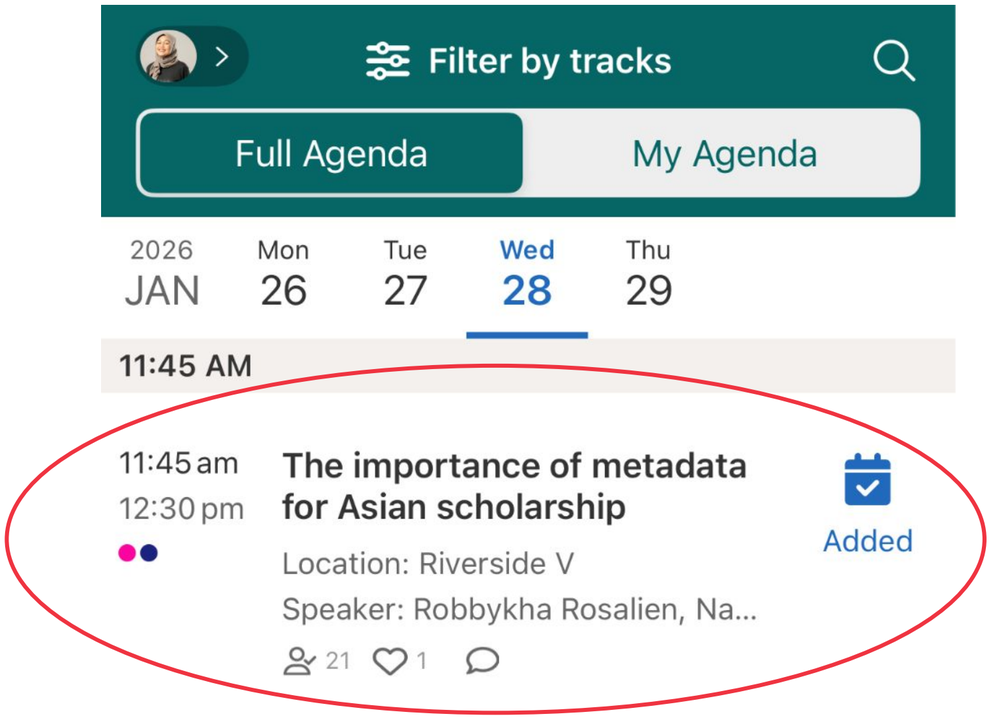
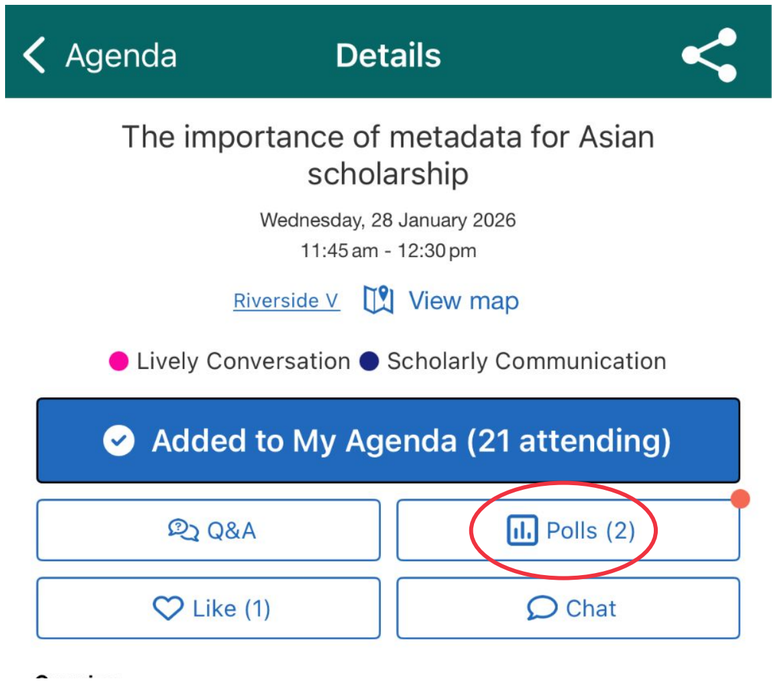
ISSUES IN BOOK AND SERIAL ACQUISITION

Poll Questions

Please login Whova Event Apps and search “The importance of Metadata for Asian scholarship”





Questions:
1). The importance of metadata for Asian scholarship

2). What are key challenges to adoption of rich metadata in your country/institution?

Asian Metadata in Crossref

Robbykha Rosalien
Member Support Specialist, Crossref

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What is Crossref?

We're a not-for-profit membership organisation that exists to make scholarly communications better

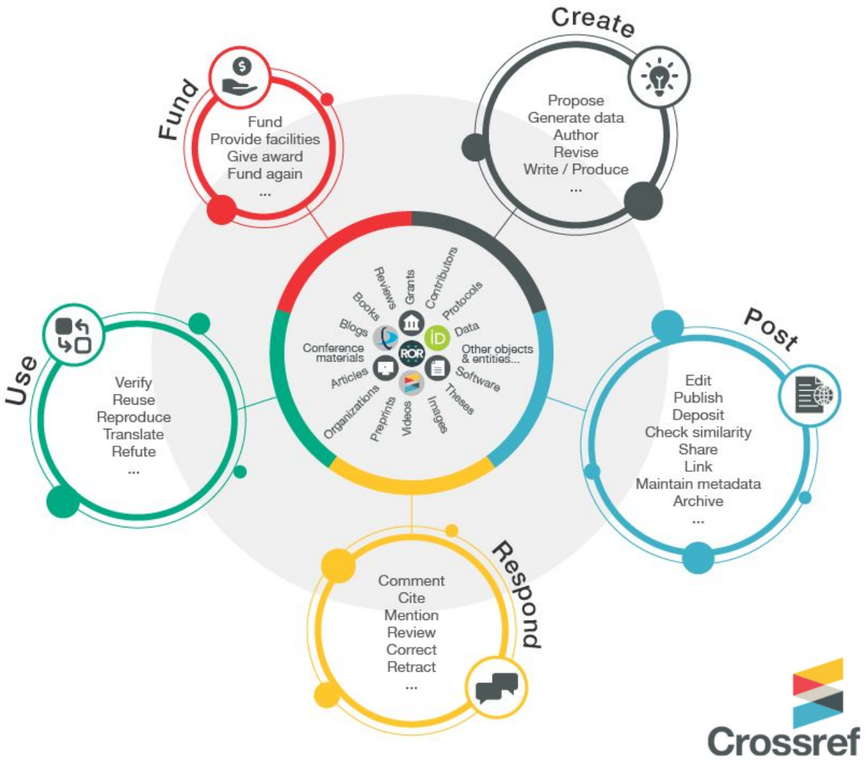
Together with 24,000 members in 164 countries **who maintain >177 million Crossref DOI records**, we drive metadata exchange and support nearly 2 billion monthly API queries

Crossref makes research objects easy to find, cite, link, assess, and reuse (such as articles, preprints, books, grants, standards, datasets, and more)

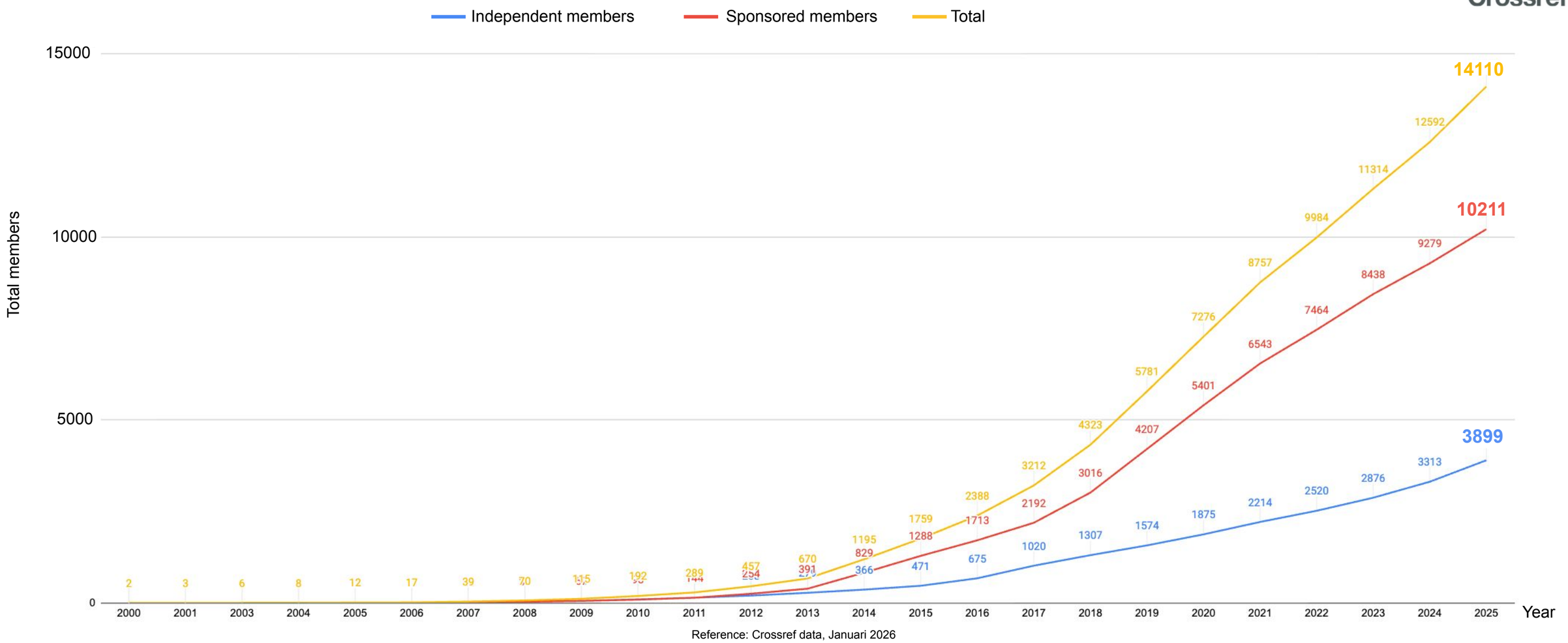
Crossref

Research Nexus vision

“A rich and reusable open network of relationships connecting research organizations, people, things, and actions; a scholarly record that the global community can build on forever, for the benefit of society."



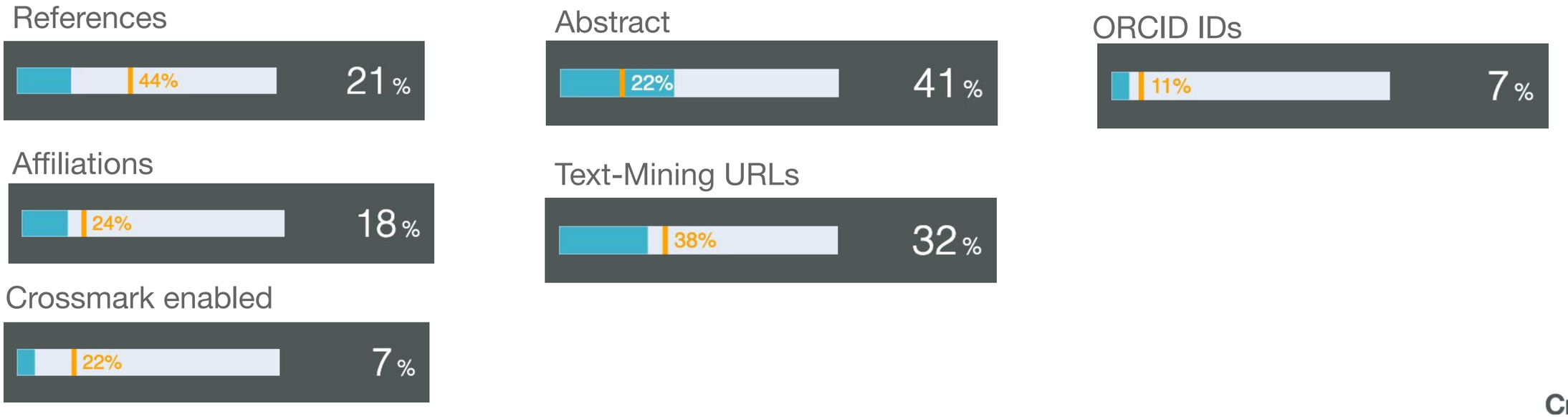
Total members in Asia



Reference: Crossref data, Januari 2026

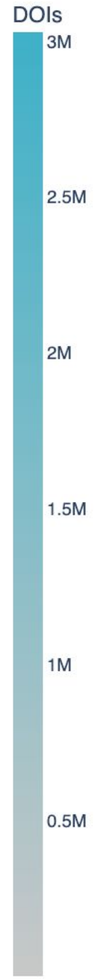
Asian metadata coverage in numbers

- **13.8M** registered DOIs as of January 19th, 2026
  - Growth of 93% over the last 5 years, vs 47% at World level
- Coverage of optional fields compared with the world average :



Crossref

Works registered in the region



Top 5:
Indonesia (3.02M)
Japan (2.73M)
India (2.52M)
South Korea (1.28M)
Turkey (793,198)

Crossref

Policy and support for adoption of persistent identifiers and metadata in Indonesia

Mochammad Tanzil Multazam

Universitas Muhammadiyah Sidoarjo

Relawan Jurnal Indonesia

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A Research Ecosystem of Unprecedented Institutional Scale

5,510

Universities, institutes, and higher education institutions form the foundation of Indonesia's research landscape (Source: SINTA).

Imagine the volume of theses, dissertations, and research outputs if every institution maintains an open repository. This represents one of the largest potential research footprints in the region.

A Global Leader in Open Access Journal Publishing

27,807
Scholarly Journals

5,161
Publishers

Data as of 13 January 2026, Portal Garuda.

This is likely one of the largest and fastest-growing Open Access journal ecosystems in the world.

Indonesia's production is not in question. **The real question is: can this scale be be captured properly through metadata?**

Diagnosis 1: ‘OAI-Friendly’ Is Not Metadata-Complete

Most of Indonesia’s 27,807 journals use Open Journal Systems (OJS), making them easily harvestable via OAI-PMH. This has enabled basic discoverability at a national level.

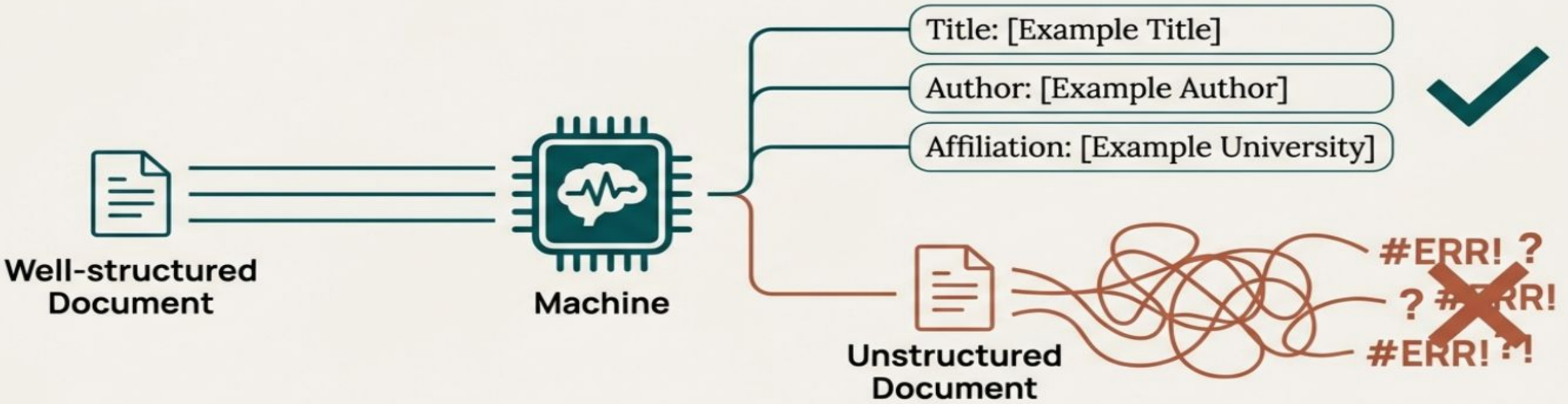
However, OAI-PMH primarily exposes only basic metadata. For true global connection and assessment, richer metadata is essential.

Provided by OAI			Missing from OAI		
✓		Basic Title	✗		Structured Affiliations
✓		Author	✗		Author ORCID
✓		Abstract	✗		Institutional ROR
			✗		References
			✗		Licence Information

If basic metadata is inconsistent, even this limited harvesting becomes misleading and machine indexing fails.

Diagnosis 2: Open Acess Content ≠ Open, Machine-Readable Knowledge

The metadata within the PDF and Galley files of Open Access articles is often not standardised or curated.



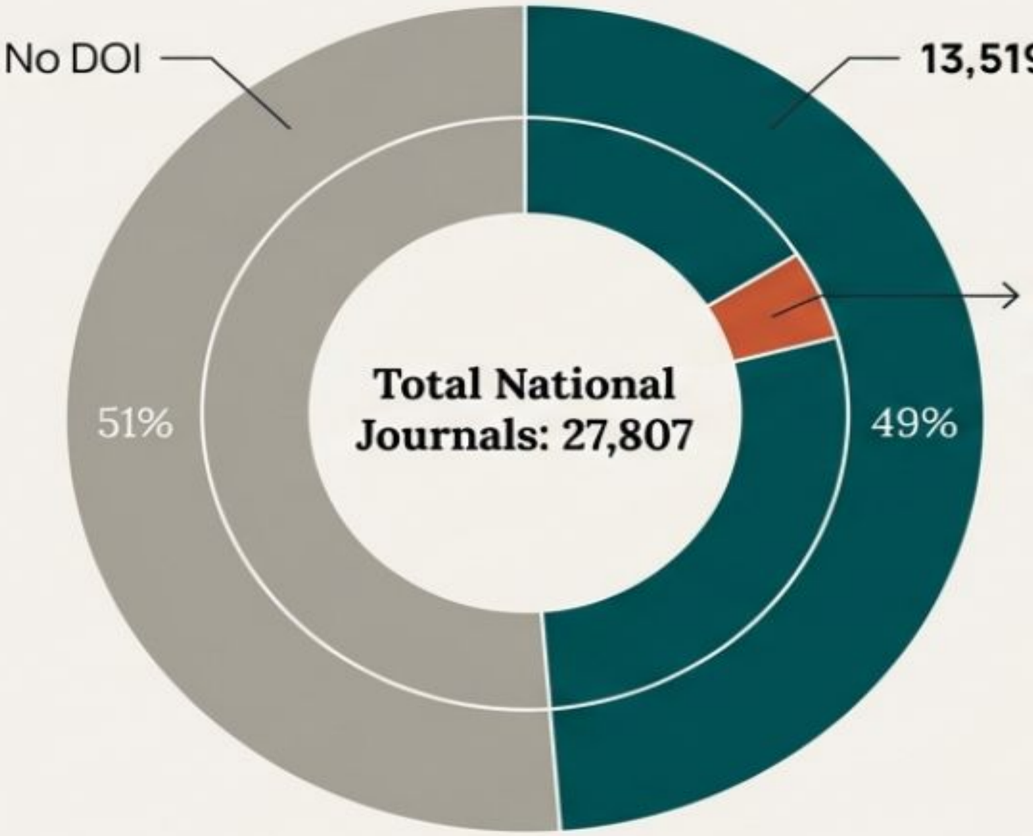
For Human Readers

Confusion from missing headers, inconsistent author details, and incorrect citation information upon download.

For Machines

Text mining and semantic extraction fail when PDF structure is inconsistent, lacks metadata tags, or contains formatting noise.

Diagnosis 3: DOI Adoption Is a Start, Not the Destination



Of **27,807 national journals**, approximately **13,519 have registered DOIs correctly** (Source: SINTA, 13 Jan 2026).

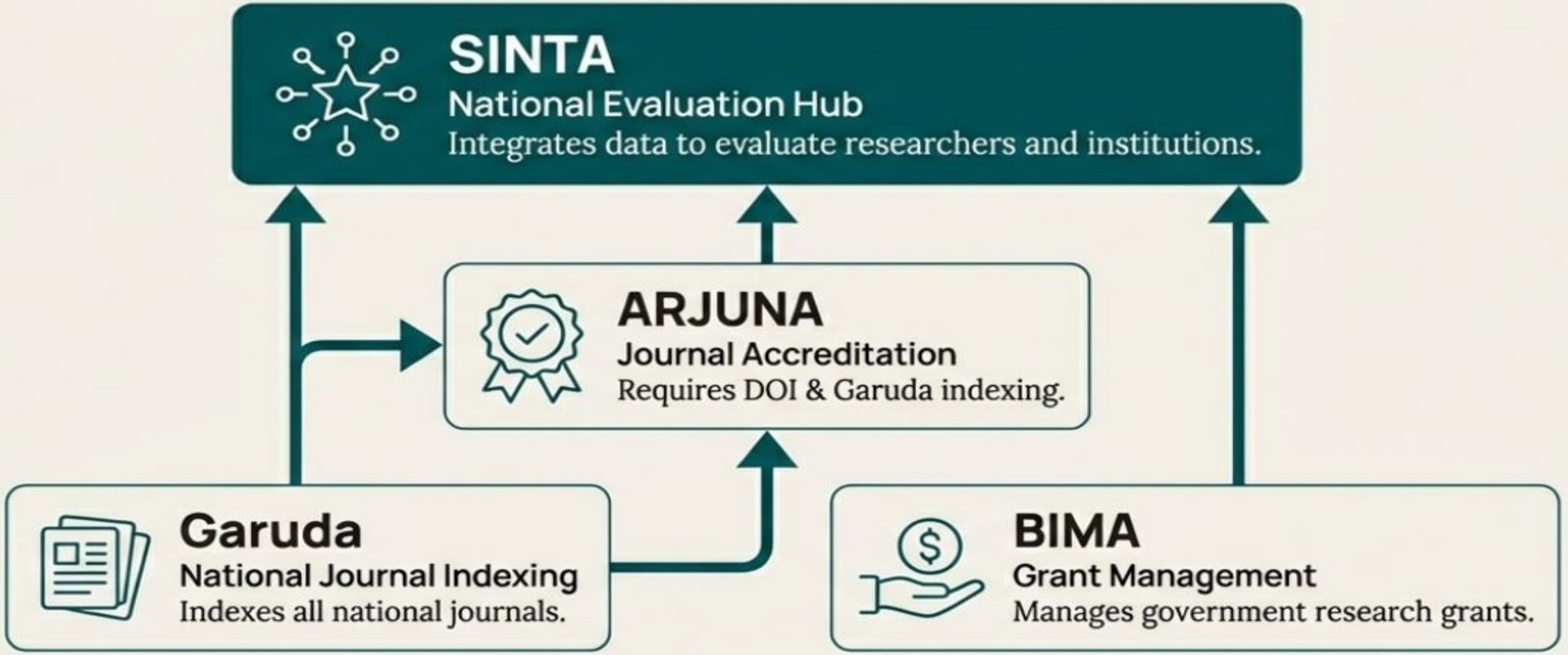
Having a DOI is not enough. Its real value is unlocked when the DOI record contains **rich, interoperable metadata** that describes the relationships between outputs, people, and institutions.

What Makes a DOI Rich?

- ORCID for each author
- ROR for affiliations
- Full reference deposits
- Accurate CRediT and licensing metadata

A Cohesive National Ecosystem Is Already in Place

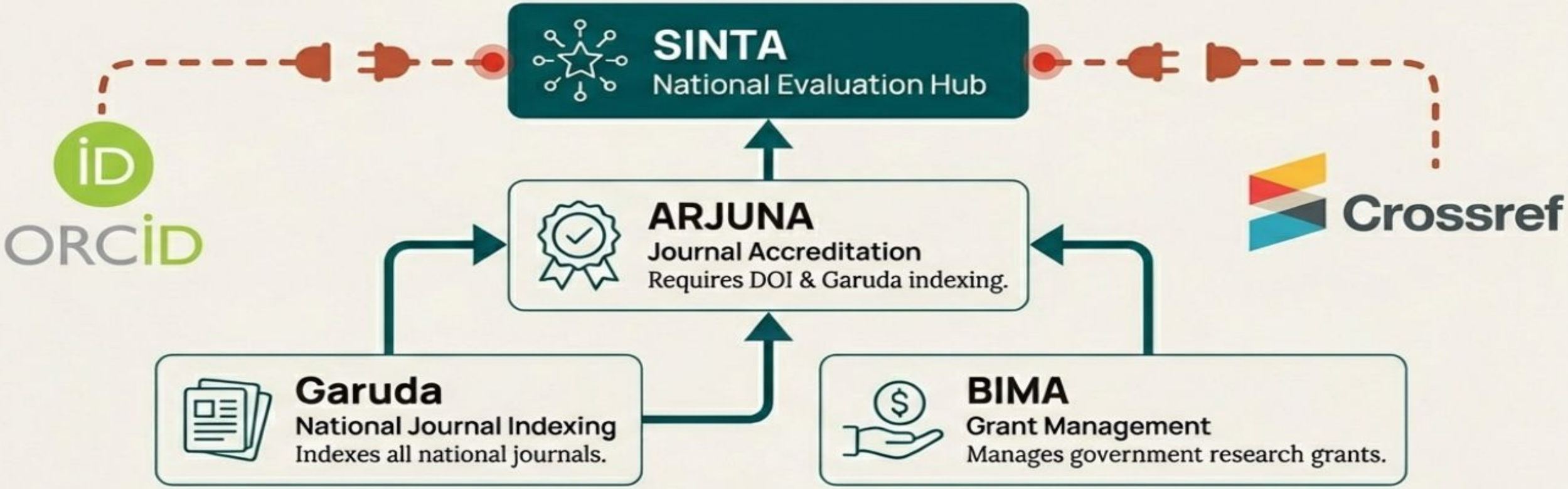
Indonesia has a strong, integrated system of national portals designed to support and evaluate research.



The structural foundation for a high-quality data ecosystem exists.

The Strategic Gap: Integrating Global Persistent Identifiers

The primary gap in the current system is that SINTA, the national evaluation hub, is not yet integrated with the global infrastructures of ORCID and Crossref.



Policy is already moving in this direction. Closing this integration gap is the single most impactful next step for connecting Indonesian research to the world.

The Evolution of Indonesia's Metadata Policy

Phase 1: Digitisation & Basic Interoperability

Focus: Repositories

National push to put theses/dissertations online and integrate them via OAI-PMH into Indonesia OneSearch.

Goal: To map the landscape of Indonesian research outputs.

Phase 2: Standardisation & Compliance

Focus: Scholarly Publishing

Ministry requirement for accredited journals to have active DOIs and be OAI-harvestable.

Goal: To enforce basic standards for national journals.

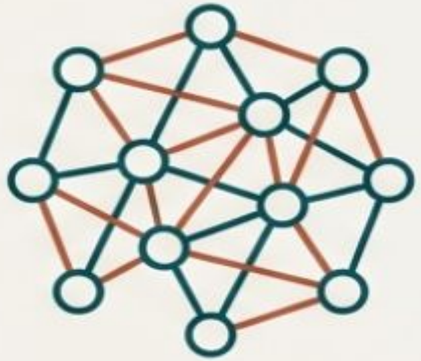
From Ticking Boxes to Building Bridges: A Needed Shift in Policy Focus

The Current Focus

In practice, policies have rewarded indicators of **compliance**.

The Needed Focus

The next evolution requires a shift to rewarding indicators of **metadata maturity**.



Compliance Indicators (Current)

- Has a DOI
- Is OAI-harvestable

Maturity Indicators (Future)

- Completeness & Structure
- Identity Resolution (ORCID/ROR)
- Reference & Relationship Deposits
- Licence Clarity

The Path Forward: A Maturity Model for Scholarly Metadata

Stage 1: Compliance
(Current State)

- "Has a DOI,"
- "Is OAI-harvestable."

Outcome
Basic national discoverability.

Stage 2: Completeness
(Next Step)

- "Clean basic metadata,"
- "Structured affiliations."

Outcome
Improved data quality and reliability.

Stage 3: Connectivity
(Future Goal)

- "Rich PIDs (ORCID, ROR),"
- "Full reference deposits,"
- "Global integration."

Outcome
Full discoverability, trust, and global connection.

Metadata Landscape in Thai Academia

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Thailand DOI Service Center Project, NRCT

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Types of Metadata in Thai Academia

Most research databases in Thailand use Descriptive and Administrative Metadata such as ThaiLIS Digital Collection (TDC), Chulalongkorn University Intellectual Repository – CUIR(Chula DigiVerse)

TDC | Home | Basic Search | Advance Search | Browse | Help

Title	Integrated digital literacy & internal brand communication
Creator	*Name:* Kankeawl Putthianan
Subject	*keyword:* Siam City Cement
Publisher	King Mongkut's University of Technology Thonburi. KMUTT Library *Address:* BANGKOK *Email:* info.lib@mail.kmutt.ac.th
Contributor	*Name:* Chokeanand Bussracumpkorn *Role:* Advisor
Date	*Created:* 2014 *Modified:* 2558-05-23 *Issued:* 2015-05-23
Type	วิทยานิพนธ์/Thesis
Format	application/pdf
Source	*CallNumber:* ARC1141
Language	eng
Thesis	*DegreeName:* Master of Science *Level:* Master's Degree *Descipline:* Design and Planning *Grantor:* King Mongkut's University of Technology Thonburi

ลำดับที่.	ชื่อแฟ้มข้อมูล	ขนาดแฟ้มข้อมูล
1	ARC1141.pdf	1.79 MB

21 Feb 2024 162

Restore Up

Report a problem

Academic management strategies of secondary schools in Cambodia based on the concept of innovation leadership skills is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.

Collections	CHULA e-Theses Faculty of Education
ID CU Digital	CUIR20491
Title	Academic management strategies of secondary schools in Cambodia based on the concept of innovation leadership skills
Title Alternative	กลยุทธ์การบริหารวิชาการโรงเรียนมัธยมศึกษาในประเทศกัมพูชาตามแนวคิดทักษะความเป็นผู้นำด้านนวัตกรรม
Author	Nguon Siek
Advisor	Pruet Siribanpitak Sukanya Chaemchoy
Subject	High schools -- Cambodia education (Education) โรงเรียนมัธยมศึกษา -- กัมพูชา การบริหารการศึกษา การศึกษา
Issued Date	2022
DOI	10.58837/CHULA.THE.2022.122
Pagination	350 pages
Abstract	This study aimed to 1) study conceptual frameworks of academic management of secondary schools in Cambodia and innovation leadership skills, 2) study students' innovation leadership skills levels,

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Join ThaiLIS Digital Collection – TDC.
7 Thai digital repositories certify by CoreTrustSeal.

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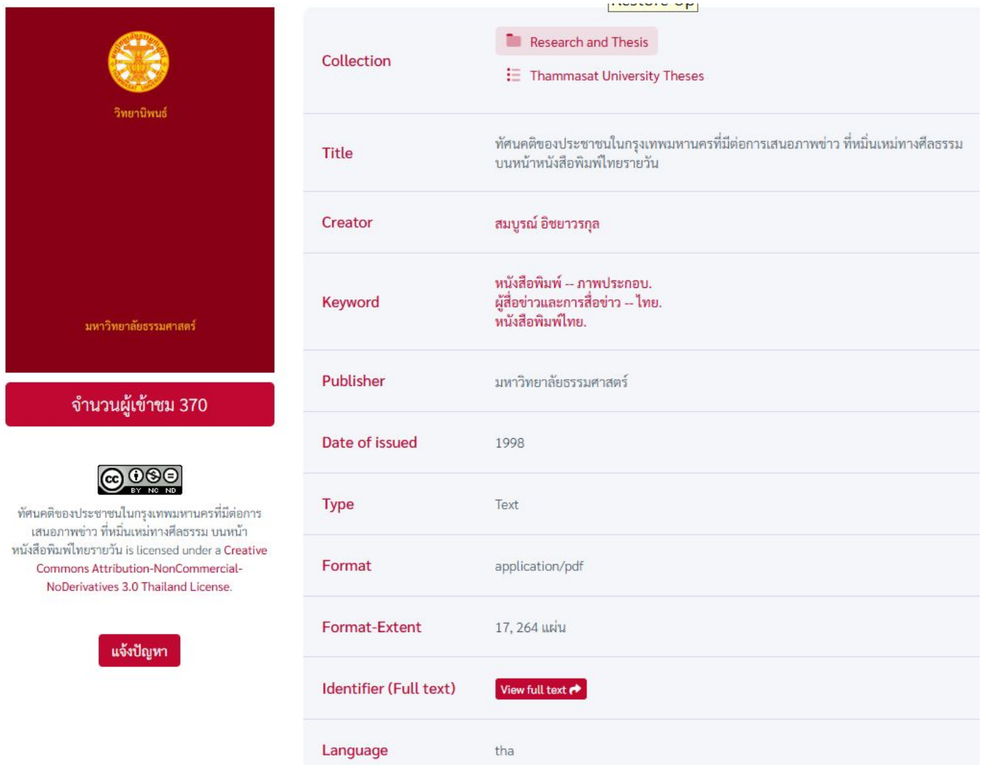
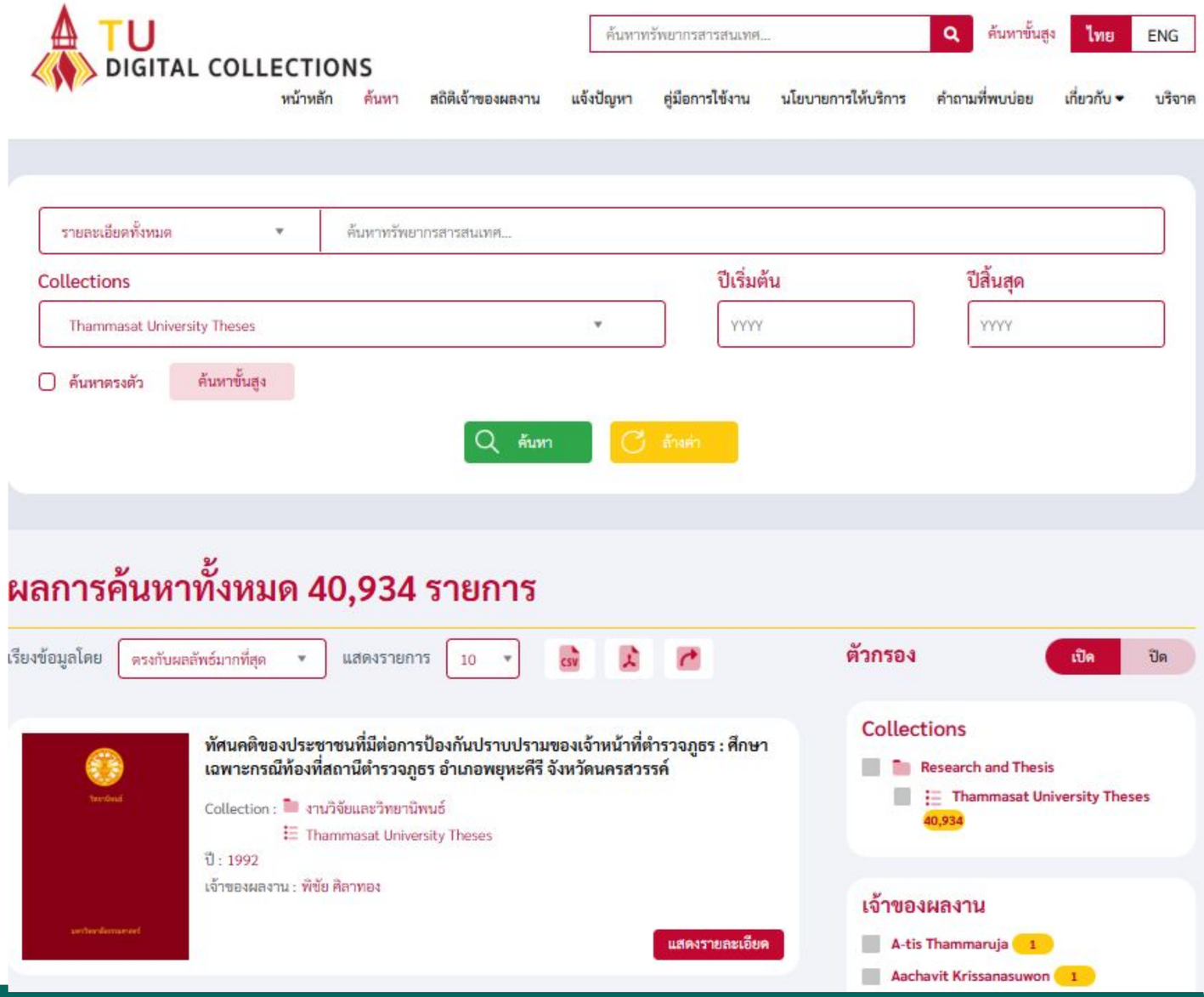
Dublin Core Metadata in Digital Collections





There are more than 100 digital collections in Thai universities/organizations.

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Thai Research Archives: ISAD(G)Metadata

Identity area

Reference code	TH NRCT AG5-1-1.1-1.5-2022-07-28/1152-2022-07-28/1154
Title	CoreTrustSeal Certification Approved : Kasetsart University Knowledge Repository
Date(s)	• 2022-07-12 (Creation)
Level of description	Item
Extent and medium	1/1

Context area

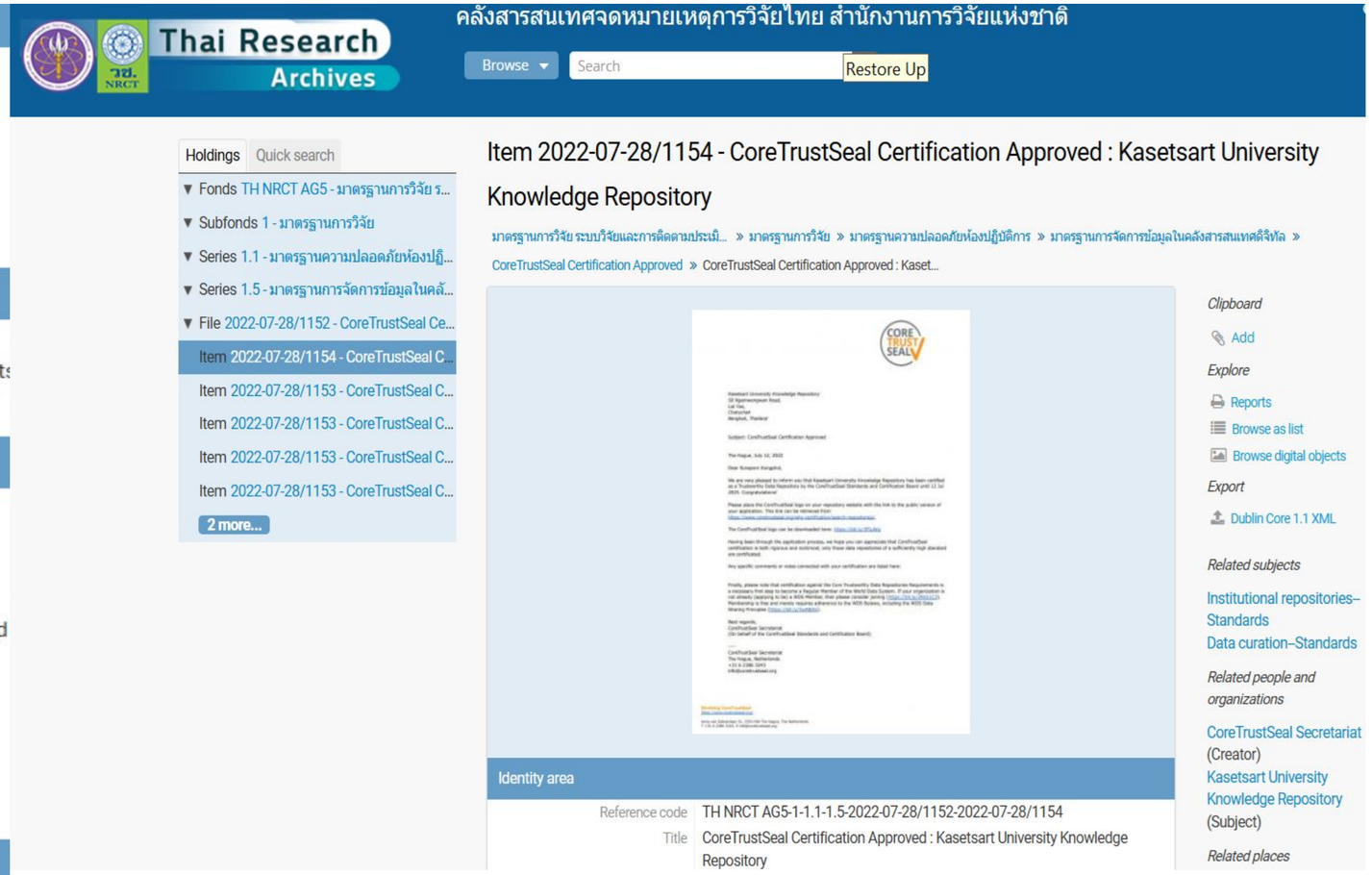
Name of creator	CoreTrustSeal Secretariat
Archival history	The National Research Center of Thailand contributed the archival documents for Thai National Research Archive Project on October 4th, B.E. 2564.

Content and structure area

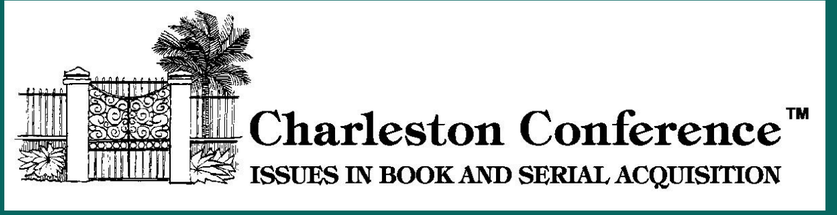
Scope and content	CoreTrustSeal Secretariat inform to Kasetsart University Knowledge Repository has been certified as a Trustworthy Data Repository by the CoreTrustSeal Standards and Certification Board until 12 July 2025.
Appraisal, destruction and scheduling	These documents have been evaluated, by the National Research Center, as the record documents with appropriate values for long term preservation and archive against the test of time
Accruals	Since the Thai National Research Project means responsiblity for a large number of old documents as individual, there shall be no additional documents accrued hereafter.
System of arrangement	The documents are arranged by the date the files were created.

Conditions of access and use area

Conditions governing access	The researchers must comply with the conditions for using the service of documents.
Conditions governing reproduction	The researchers must comply with the conditions for copying the documents
Language of material	• English
Language and script notes	English
Finding aids	The documents list compiled by the National Research Center.



More than 20 archives applies ISAD(G) in their digital archives.



Thai Journals Metadata

- Metadata
- Components
- Checklist
- Author Guidelines

Coverage

Coverage will typically indicate a work's spatial location (a place name or geographic coordinates), temporal period (a period label, date, or date range) or jurisdiction (such as a named administrative entity).

☐ Enable coverage metadata

Languages

Language indicates the work's primary language using a language code ("en") with an optional country code ("en_US").

☐ Enable language metadata

Rights

Any rights held over the submission, which may include Intellectual Property Rights (IPR), Copyright, and various Property Rights.

☐ Enable rights metadata

Source

The source may be an ID, such as a DOI, of another work or resource from which the submission is derived.

☐ Enable source metadata

Subjects

Subjects will be keywords, key phrases or classification codes that describe a topic of the submission.

☐ Enable subject metadata

Type

The nature or genre of the main content of the submission. The type is usually "Text", but may also be "Dataset", "Image" or any of the Dublin Core types.

☐ Enable type metadata

Disciplines

Disciplines are types of study or branches of knowledge as described by university faculties and learned societies.

☐ Enable disciplines metadata

Keywords

Keywords are typically one- to three-word phrases that are used to indicate the main topics of a submission.

☑ Enable keyword metadata

○ Do not request keywords from the author during submission.
◉ Ask the author to suggest keywords during submission.
○ Require the author to suggest keywords before accepting their submission.

Funding Agencies (Funding Name/Grant Number, if available) e.g. "National Research Council of Thailand/P68-12345"

Supporting agencies may indicate the source of research funding or other institutional support that facilitated the research.

☑ Enable supporting agencies metadata

○ Do not request supporting agencies from the author during submission.
◉ Ask the author to disclose any supporting agencies during submission.
○ Require the author to disclose any supporting agencies before accepting their submission.

References

Collect a submission's references in a separate field. This may be required to comply with citation-tracking services such as Crossref.

☑ Enable references metadata

○ Do not request references from the author during submission.
◉ Ask the author to provide references during submission.
○ Require the author to provide references before accepting their submission.

Publisher ID

The publisher ID may be used to record the ID from an external database. For example, items exported for deposit to PubMed may include the publisher ID. This should not be used for DOIs.

☐ Enable for Publications
☐ Enable for Galleys
☐ Enable for Issues
☐ Enable for Issue Galleys

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T.L.A. BULLETIN

HOME CURRENT PREVIOUS ISSUE ANNOUNCEMENTS AUTHOR GUIDELINES ABOUT

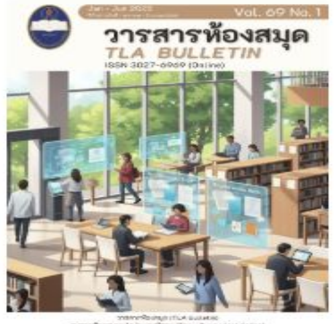
HOME / ARCHIVES / VOL. 69 NO. 1 (2025): JANUARY-JUNE 2025 / Research Article

Thammasat University Library Support of Academic Publishing through the Read & Publish Model

Kwanchanok Sathapornpiboon
Thammasat University Library

DOI: https://doi.org/10.64798/tlabulletin.v69i1.283816

Keywords: Academic publishing, Open Access, Thammasat University, Read & Publish



PDF

ABSTRACT

This study examines Thammasat University Library facilitation of academic publishing by adopting the Read & Publish model. It analyzes the library's support of instructors, researchers, and students to maximize benefits of the model. Recommendations and strategic guidelines are also provided to heighten the effectiveness of library services and ensure their continued relevance as academic publishing evolves.

During the first year of the program, Thammasat University authors published 10 articles. Of the available 186 publication tokens, 141 were used. According to terms of the scheme, the 45 unused tokens could not be carried over to the following year. To maximize token use and further promote benefits of this scheme, the Thammasat University Library will expand outreach efforts to inform more instructors and researchers about the opportunities provided by Read & Publish. The library should also organize more seminars on research support services, such as advanced literature search techniques; selecting suitable journals for publication; and citation and referencing methods.

PUBLISHED
2025-06-20

HOW TO CITE

Sathapornpiboon, K. (2025). Thammasat University Library Support of Academic Publishing through the Read & Publish Model. *TLA Bulletin (Thai Library Association)*, *69*(1), 178–189. https://doi.org/10.64798/tlabulletin.v69i1.283816

There are 1,198 journals in Thai – Journal Citation Index.

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Government Catalog Portal

The Digital Government Development Agency (DGA)'s metadata focused on the Government Data Catalog for government data.

ฟิลด์	ค่า
* ประเภทชุดข้อมูล	ข้อมูลประเภทอื่นๆ
	Visualization
ยินยอมให้นำชื่อชุดข้อมูลไปใช้ที่ GD-Catalog	ยินยอม
* ชื่อฝ่ายงานสำหรับติดต่อ	กลุ่มวิชาการสถิติและวางแผน
* อีเมลสำหรับติดต่อ	saraban_lopburi@nso.mail.go.th
* วัตถุประสงค์	พันธกิจหน่วยงาน
* หน่วยความถี่ของการปรับปรุงข้อมูล	ครึ่งปี
ค่าความถี่ของการปรับปรุงข้อมูล (ความถี่น้อยที่สุด)	1
* ขอบเขตเชิงภูมิศาสตร์หรือเชิงพื้นที่	ไม่มี
* แหล่งที่มา	โครงการจัดทำระบบบัญชีข้อมูลภาครัฐระดับพื้นที่ (Government Data Catalog)
* รูปแบบการเก็บข้อมูล	HTML
* หมวดหมู่ข้อมูลตามธรรมาภิบาลข้อมูลภาครัฐ	ข้อมูลสาธารณะ
ระดับชั้นข้อมูล	
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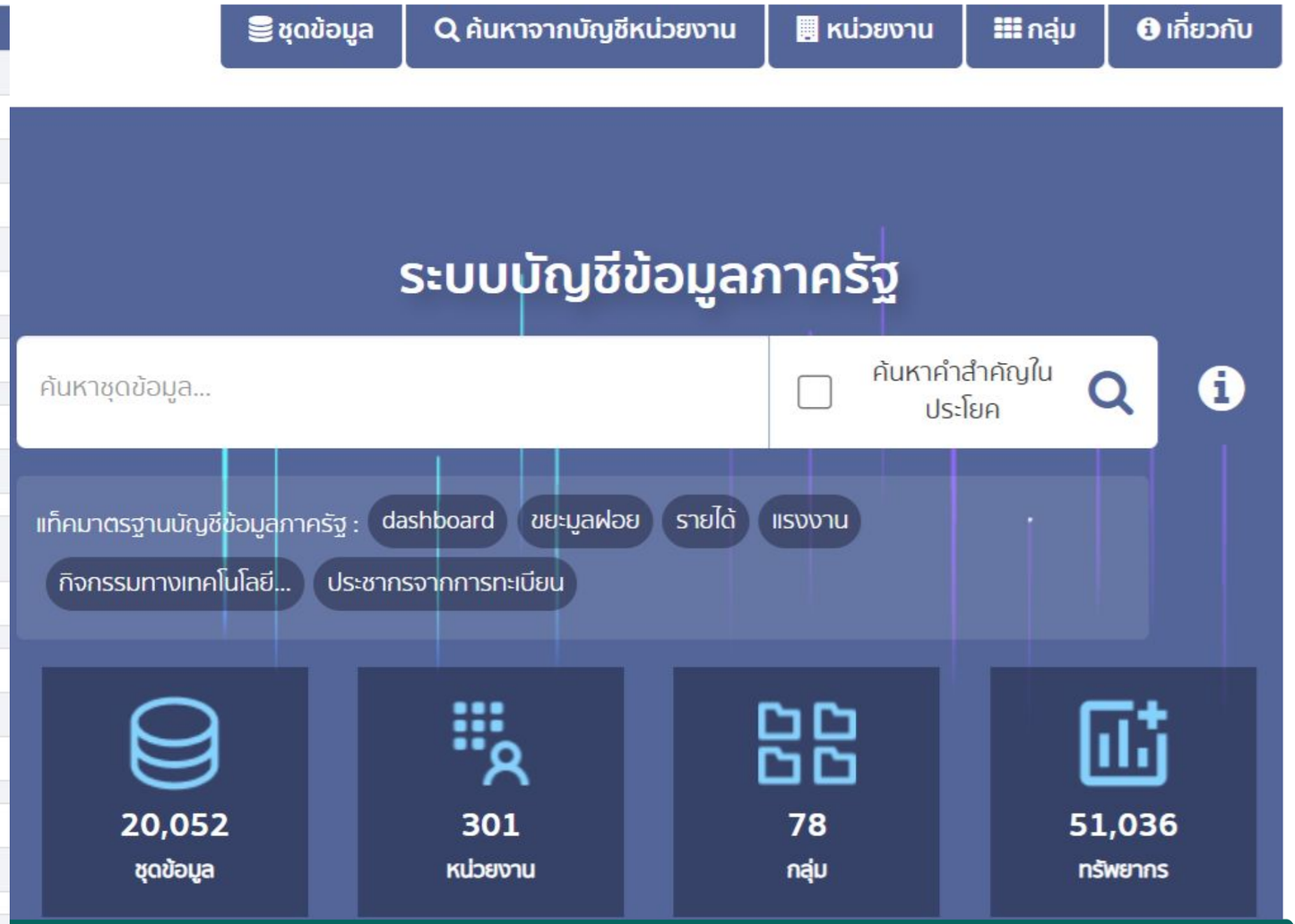
ผู้สนับสนุนหรือผู้ร่วมดำเนินการ	
หน่วยที่ย่อยที่สุดของการจัดเก็บข้อมูล	
URL ข้อมูลเพิ่มเติม	https://app.powerbi.com/view?r=eyJrIjoiMGM2MDdiMzQtMWU4ZiOOMjZmLTg3NGUtN2MxMjIjOWZkZjNlIiwidCI6ImY2NGQzMTgzLTc2OTEtNGZjYi1hNWVmLTM5ZWJjMDgyYmZmOSIsImMiOjEwfQ%3D%3D&pageName=ReportSection
ภาษาที่ใช้	ไทย



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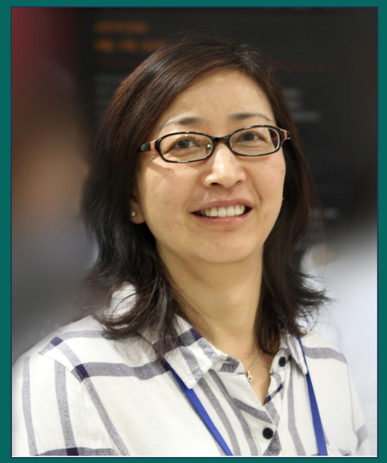
The importance of Metadata: This table shows different domains (Libraries, Archives, and Government) to speak the same language by mapping their specific fields to a common standard.

Core Element	Dublin Core (Digital/Web)	ISAD(G) (Archives)	DG Catalog (Gov/Open Data)	MARC 21 (Library)	Purpose in Sharing
Title	dc.title	3.1.2 Title	title	245 $a	Identifying the resource
Identifier	dc.identifier	3.1.1 Ref Code	id / url	020/022/856	Creating a unique link
Creator	dc.creator	3.2.1 Name of Creator	maintainer	100/110 $a	Assigning authorship/origin
Date	dc.date	3.1.3 Date(s)	issued / modified	260/264 $c	Sorting by timeline
Description	dc.description	3.3.1 Scope & Content	description	520 $a	Context for search engines
Subject	dc.subject	3.3.4 Index terms	tags	650 $a	Discovery via keywords
Rights	dc.rights	3.4.1 Conditions/Access	license	506/540 $a	Legal "Rules of Use"
Type/Format	dc.type	3.1.5 Level of Description	format	336/338	Determining how to open it

Thai academic communities and industrial society need to work closely to prioritize the DG Catalog Standard and to bridge identifiers for DOI or ORCID to prevent duplicate records, data sharing and reuse.

Open Metadata Utilization in Asia

A Case Study



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Crossref Ambassador in Asia

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ISSUES IN BOOK AND SERIAL ACQUISITION

Primary Scholarly DOI Services Used in Asia

Chinese DOI 2007

1st Asian DOI RA, China, ISTIC & Wanfang Data Literature & Science Data DOI

Ariti DOI 2010

Taiwan, Ariti, Literature DOI

JaIC 2012

Japan, JaIC (JST, NIMS, NII, NDL) Literature, Research Data, e-Learning Resources DOI

CNKI DOI 2013

China, CNKI, Literature DOI

KDC 2016

Korea, KISTI, Literature, IP, Science Data, Universal Data DOI

Crossref 2000

24,000 organisational members from **164** countries

- **50%** of members are based in Asia
- **40%** of members are universities or scholar-led

177 million open metadata records. Open API

- Literature, Preprints, Datasets, Funder & Grants……
- Rich metadata support Research nexus vision

DataCite 2005

107 mil DOIs, 1710 members from 66 countries, Research Data, Open metadata & API

Usage of Crossref Metadata in Asia

Survey regions: Singapore, Malaysia, Mainland China, Hong Kong and Macau

Crossref member 760+

- 90%+ Publisher Members, almost all small/tiny ones
- 10%- Affiliates, university libraries, using OpenURL
- 10 Metadata Plus, technical companies in China
- No Affiliates in Malaysia, nor OpenURL/metadata service user

Open API Usage

- **2 billion** calls globally to our API every month by **0000s** (?) systems ingesting and reusing this open metadata
- **No** usage/traffic tracking to the public pool of the REST API

Use Cases of Open Metadata

NSFC utilizes FLS and open metadata to retrieve outcomes funded by NSFC's grants, integrating them onto its NSFC platform for Open Access

Crossref Grant Linking System

DELIVER ON OPEN SCIENCE POLICY
CREATE OPEN DATA
LINK FUNDING WITH OUTPUTS
SAVE RESEARCHERS TIME
LEARN FROM OTHER FUNDERS
REPORT & ACT ON OUTCOMES

en Metadata

Watch data, for real-time citation

✓ **Transparency & Openness**

- Data sources include Crossref, OpenCitations, Retraction Data, ORCID, ROR, and more
- All datasets are accessible under the CC BY license.

Thanks for listening!

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Sin-Chn Scientific Press PTE LTD (Singapore)

URL: https://doi.sin-chn.com

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DISCUSSION

The importance of metadata for Asian scholarship

Poll question

What’s the biggest benefit of complete metadata?

Poll Results

- we will get information in one go
- Exchange
- Discoverability
- accurate data
- it increases the discovery and retrieval
- discoverability
- Accessibility
- Easy discovery to find the accurate information
- Improves discoverability
- accurate information
- exchange
- visibility
- value
- Accessibility to information resources.
- provide rich data and information

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Poll question

What are key challenges to adoption of rich metadata in your country/institution?

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