

ASEAN Data Archives Series No.1

Research Data Management (RDM) in Universities and Research Institutions, Vietnam : The Present and Future Perspectives

ASEAN Data Archives Research Group



Project Report
ASEAN Data Archive Series No. 1

Research Data Management (RDM)
in Universities and Research
Institutions, Vietnam

The Present and Future Perspectives

ASEAN Data Archives Research Group

Acknowledgements

Research Data Management (RDM), which aims to enhance research integrity and promote the sharing and utilization of knowledge through the appropriate preservation and management of research data, has become a critical global concern. In Japan, numerous academic institutions have already undertaken initiatives in response to this emerging issue.

In accordance with this international trend, the ASEAN Data Archives Research Group was established to examine the current status and prospects of RDM implementation in Southeast Asian countries. This project also aspires to create and strengthen opportunities for academic exchange that will contribute to sustainable collaboration and future joint research between the two regions.

We would like to extend our deepest appreciation to all the academic institutions in Vietnam for their generous cooperation and support in the course of this survey.

The authors thank the following members as below;

In Vietnam, Vietnam Academy of Social Sciences (VASS) and the affiliated research institutes as International Cooperation Committee, Institute of Social Sciences and Information (ISSI), Social Science Library of Hanoi, Research Institute of Han Nom Studies, Institute of Social Sciences of the Central Region and Tay Nguyen, Southern Institute of Social Sciences (SISS), Social Science Library of Ho Chi Minh city. And, Vietnam Japan University, Vietnam National University, Hanoi (VJU), University of Agriculture and Forestry, Hue University, Hue University of Sciences, General Sciences Library of Ho Chi Minh City.

In Japan, Research Center for Open Science and Data Platform (RCOS), National Institute of Informatics.

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ASEAN Data Archives Research Group

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Activity Schedule of the Project

2025	Date	Activity
1 Q.	Jan. 28	Online MTG
	Feb.	
	Mar. 04	Hybrid MTG
2 Q.	Apr. 09	Online MTG
	May 14	Online MTG
	21	Online MTG
	28	Online MTG
	June 6	Online MTG
	25	Hybrid MTG
3 Q.	July 6-13	Overview & Session @ Vietnamese Research Institutes
	7	Vietnam Academy of Social Sciences (VASS): Dept. of International cooperation
	7	Institute of Social Sciences and Information (ISSI), The Library of Social Sciences (Hanoi)
	8	Vietnam Japan University (VJU)
	9	Vietnam Academy of Social Sciences (VASS): Dept. of International cooperation
	9	Research Institute of Hannom Studies
	10	Institute of Social Sciences Central Region (ISSCR)
	11	University of Agriculture & Forestry, Hue University
	11	Hue University of Sciences
3 Q.	Aug. 8	Hybrid MTG
	28	Onsite MTG @ UoT
	Sep. 2	Online MTG
	17	Online MTG
	19-25	Overview & Session @ Vietnamese Research Institutes
	20-21	Institute of Social Sciences (ISSI)
	22	Session@ ISSI, VASS
	23	Southern Institute of Social Sciences, Library of Social Sciences (Ho Chi Minh city)
	24	Library of General Sciences (Ho Chi Minh city)
	26	Online MTG
4 Q.	Oct. 10	Onsite MTG @ UoT
	13	Session @ International Data Week (IDW) 2025
	22	Online MTG
	27	Online MTG
	Nov. 18	Hybrid MTG
	Dec.	Activity Report



Online MTG on May 14



Hybrid MTG on June 25

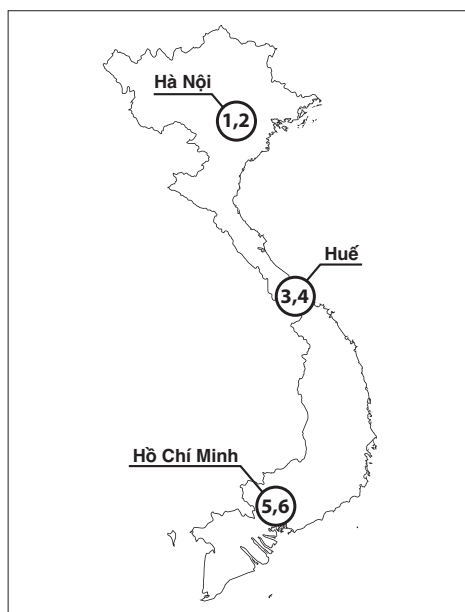


Session@ISSI, VASS on Sep. 22



Presentation@IDW on Oct. 13

Location of Participating Organizations in Vietnam



① Vietnam Academy of Social Sciences (VASS) / Viện Hàn lâm Khoa học xã hội Việt Nam

1-1 International Cooperation Committee / Ban Hợp tác quốc tế
1-2 Institute of Social Sciences and Information (ISSI) / Viện Thông tin Khoa học xã hội
1-3 Social Science Library of Hanoi / Thư viện Khoa học Xã hội Hà Nội
1-4 Research Institute of Han Nom Studies / Viện Nghiên cứu Hán Nôm
1-5 Institute of Social Sciences of the Central Region and Tay Nguyen / Viện Khoa học xã hội vùng Trung Bộ và Tây Nguyên
1-6 Southern Institute of Social Sciences (SISS) / Viện Khoa học xã hội vùng Nam Bộ
1-7 Social Science Library of Ho Chi Minh city / Thư viện Khoa học Xã hội Thành phố Hồ Chí Minh

② Vietnam Japan University, Vietnam National University, Hanoi (VJU) / Trường Đại học Việt Nhật, Đại học Quốc gia Hà Nội

2-1 R&D Promotion and Cooperation Development Office / Phòng Xúc tiến Nghiên cứu, Hợp tác và Phát triển
2-2 Faculty of Interdisciplinary Social Sciences (FISS) / Khoa Khoa học Xã hội Liên ngành
2-3 Library / Thư viện

③ University of Agriculture and Forestry, Hue University / Trường Đại học Nông Lâm (ĐHNL), Đại học Huế (ĐHH)

Library / Thư viện

④ Hue University of Sciences / Trường Đại học Khoa học, Đại học Huế

Library / Thư viện

⑤ General Sciences Library of Ho Chi Minh City / Thư viện Khoa học Tổng hợp Thành phố Hồ Chí Minh

⑥ Library of Social Sciences of Ho Chi Minh City / Thư viện Khoa học Xã hội Thành phố Hồ Chí Minh

| CHAPTER 1

Tutorial Workshop at Pacific Neighborhood Consortium (PNC)

Tutorial WS: Research Data Management (RDM) in Universities and Research Institutions, Vietnam: The Present and Future Perspectives

Shoichiro HARA, Mikiko ONO, and Yasuyuki MINAMIYAMA

Overview of the Session

This session was held to shed light on the current state and challenges of Research Data Management (RDM) in Japanese academia, particularly in the humanities and social sciences, areas where progress has tended to lag behind. Amidst the rapid development of information and communication technology and the global trend of open science, the proper management and sharing of research data have become essential elements for maximizing the transparency, reproducibility, and impact of research. This session aimed to report on specific RDM initiatives and national trends in Japanese universities, while also fostering international cooperation with academic institutions in Southeast Asian countries facing similar challenges. It served as an important opportunity for researchers, librarians, and archivists from the Asian region and the West Coast of the United States to share their knowledge.

Session Structure

This session aims to share specific initiatives in RDM at Japanese universities, conduct an RDM survey among session participants in a workshop format, and deepen discussions among experts interested in RDM in the Southeast Asian region. The program was divided into two parts. In the first part, Shoichiro HARA (Kyoto University) and Mikiko ONO (Kyoto University) presented a report on RDM activities at Kyoto University. In the second part, Yasuyuki MINAMIYAMA (University of Tokyo) presented a survey on the current state of RDM in Japan, followed by a participatory survey and discussion. The detailed program is shown on the following page.

Each presentation offered a multifaceted perspective on the challenges facing research data management in Japan and practical approaches to address them. The following sections provide an overview of the content of each presentation.

Chairperson: Shoichiro HARA (Professor Emeritus, Center for Southeast Asian Studies, Kyoto University)

Time JST (ICT)	Presentation Title	Presenter	Organization
12:15–12:35 (10:15–10:35)	Presentation 1: Rethinking Research Data Management Project of the Center for Southeast Asian Studies (CSEAS), Kyoto University	Shoichiro HARA	Professor Emeritus, Center for Southeast Asian Studies, Kyoto University
12:35–12:55 (10:35–10:55)	Presentation 2: Library Challenges in Implementing Research Data Management (RDM): A Perspective on Educational Support for Graduate and Foreign Students	Mikiko ONO, Kimiya KITANI	Kyoto University, Center for Southeast Asian Studies
12:55–13:15 (10:55–11:15)	Presentation 3: Current Status and Trends of Research Data Management Initiatives in Japanese and Vietnamese Universities and Research Institutions	Yasuyuki MINAMIYAMA	Center for Social Research and Data Archives, Institute of Social Science, University of Tokyo
13:15–13:45 (11:15–11:45)	Discussion		

Presentation Summaries

Presentation 1 by Shoichiro HARA “Rethinking Research Data Management Project of the Center for Southeast Asian Studies (CSEAS), Kyoto University”

This presentation will introduce the definition and practice of RDM at Kyoto University, as well as the international collaborative project RsDA being undertaken by the Center for Southeast Asian Studies (CSEAS). The background for the need for RDM can be summarized in three points: 1) the rapid development of information and communication technology (ICT) has led to the generation of vast amounts of data and its increasing use on networks; 2) global trends such as open science are creating a strong impetus to revitalize academic research by making research results more widely available; and 3) data underlying academic papers requires long-term preservation. Furthermore, appropriately managing the research data that researchers generate daily is expected to improve the continuity, efficiency, and integrity of research activities, and to lay the foundation for the publication and sharing of research results, thereby contributing to the further advancement of academic research.

In response to these international trends, concrete discussions have begun at Kyoto University. At Kyoto University, the concept of “research data” has been introduced in two contexts: “research integrity” and “research data management.” The former refers to “research materials that serve as the basis for published research results,” while the latter is defined as “information collected or generated by researchers in the course of their research activities.” Figure 1 illustrates the relationship between the two.

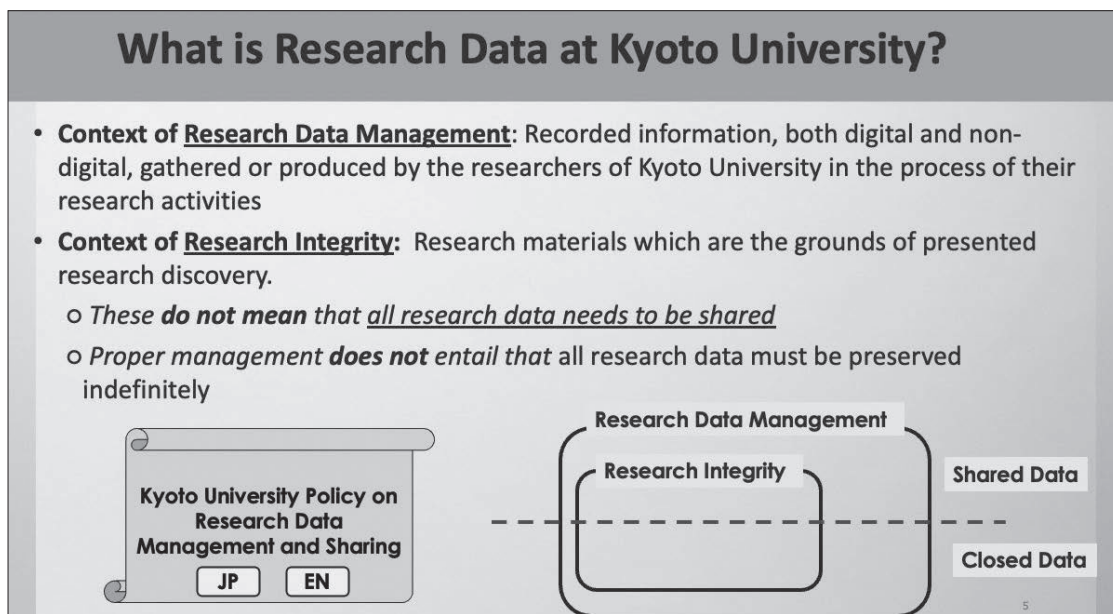


Fig. 1 Definition of research data at Kyoto University

It is important to note that “all research data does not need to be disclosed,” nor does “appropriate management” mean “preserving all research data permanently.” Furthermore, the benefits that RDM brings to researchers are multifaceted, including increased research impact, reduced data analysis time through proper management, long-term preservation and maintenance of data integrity, improved competitiveness in securing external funding, promotion of discovery and reuse, contribution to open access, and contribution to use by next-generation researchers.

Based on these considerations, CSEAS is considering at what level to provide RDM services. As a premise, there are three layers of RDM services in Japan (national level, university level, and institutional level). At the national level, there is “GakuNin RDM” provided by the National Institute of Informatics (NII), but it faces challenges such as limitations in storage capacity, limitations in external storage integration, instability in performance and availability, and limited support system. At the university level, while Kyoto University's institutional repository “KURENAI” is provided, it faces challenges such as limiting users mainly to researchers employed by Kyoto University, limited storage capacity, variability in the quality and consistency of metadata, and limited integration with international repositories.

To solve these problems, CSEAS has developed “MyDatabase” as an institutional-level service. Research data is a heterogeneous concept, consisting of a mixture of structured and unstructured data, and each data has its own unique metadata structure and is characterized by frequent specification changes. MyDatabase is designed as an “easy-to-use” database builder for humanities researchers who are unfamiliar with databases. Specifically, it does not require difficult database operations such as SQL or XQuery, provides intuitive operation using a web-based GUI, and can accept heterogeneous research data formats such as CSV, TSV, and XML.

Next, as an example of MyDatabase utilization, we will introduce the international collaborative project “Research small Data Alliance in East and Southeast Asia” (RsDA). RsDA is a workshop-based initiative to share needs and resources related to research data preservation in the Southeast

Asian region and to discuss ideas for promoting collaboration. Eighteen research institutions from nine countries in East and Southeast Asia participate, including Academia Sinica in Taiwan, Chiang Mai University in Thailand, and the National University of Singapore. Figure 2 shows a list of RsDA member institutions.

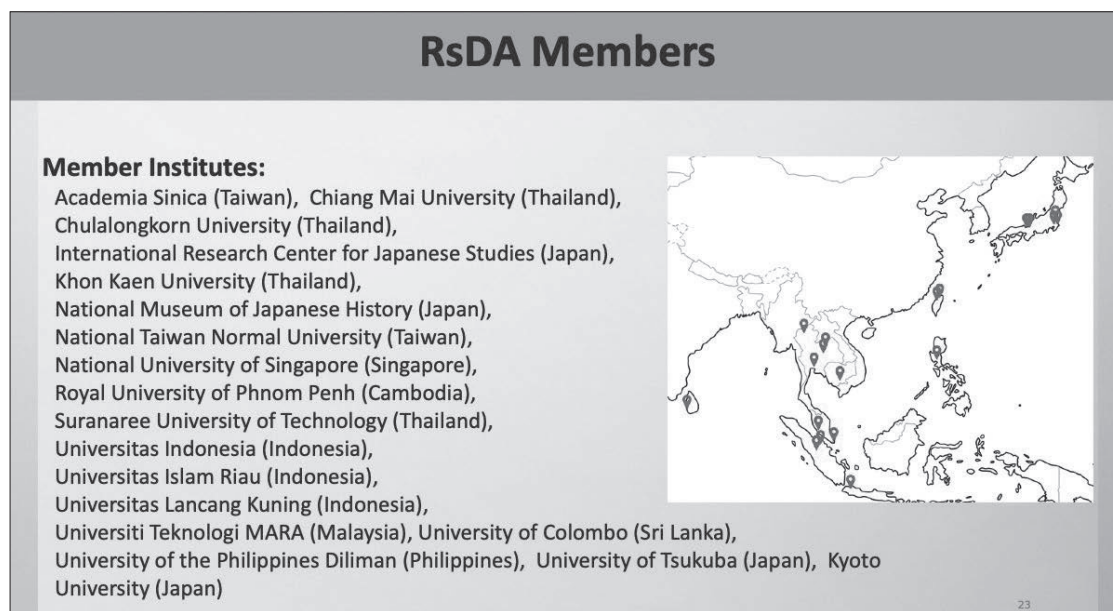


Fig. 2 List of RsDA member institutions

One of the objectives of RsDA is to build an inventory database for accumulating location information of research assets. As a concrete result, we have developed the RsDA inventory metadata model based on the Dublin Core metadata set and implemented it in MyDatabase. Going forward, it will be necessary to define detailed data collection rules and metadata description rules, and to continuously identify and track the locations of research data held by participating institutions.

Presentation 2 by Mikiko ONO and Kimiya KITANI “Library Challenges in Implementing Research Data Management (RDM): A Perspective on Educational Support for Graduate and Foreign Students”

This presentation reports on the RDM education support provided by the CSEAS Library for graduate students and international students. Since its establishment in 1965, CSEAS has operated as Japan's only library specializing in Southeast Asian studies, and its mission is to promote international collaborative research on Southeast Asia originating from Japan. To achieve this mission and to secure funding from overseas and disseminate research results through international academic journals, RDM has become a common challenge for both CSEAS and libraries in the Southeast Asian region. In response to this situation, since 2024, the CSEAS Library has shifted the focus of its exchange activities from traditional database development (e.g., the Southeast Asian Periodicals Database) to information gathering related to RDM. Currently, it is conducting surveys on the status of RDM implementation in countries such as Vietnam, Thailand, and Indonesia.

Next, as a trend deeply related to the services of the CSEAS Library, this presentation will introduce the current status of discussions regarding RDM services at Kyoto University. Kyoto University declared an open access policy in 2015 and formulated regulations concerning RDM, making it one of the first universities in Japan to work on policy formulation for RDM promotion. In early 2024, the RDM Support Center was established through the collaboration of three organizations: the Institute for Information Management and Communication (IIMC), the University Library (Main Library), and the Kyoto University Research Administration Center (KURA) under the Research Promotion Division. Figure 3 shows the organizational chart of the center.

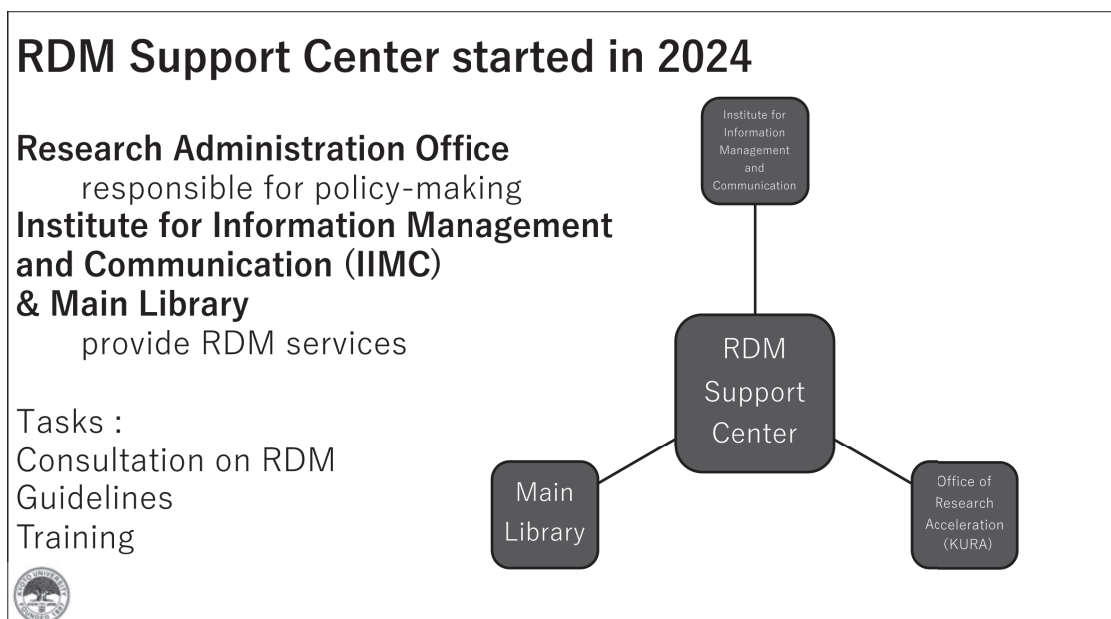


Fig. 3 Organizational chart of the Kyoto University RDM Support Center

This center is responsible for providing consultations on RDM, formulating operational rules, and conducting training sessions for university members. RDM services for users include the online storage service “RDM Drive” provided by IIMC (launched in May 2024) and a research data storage service utilizing the existing institutional repository “KURENAI” provided by the university library. IIMC's RDM Drive targets all types of research data generated during the research process and provides 2-20TB of capacity per project, but it is a paid service (free only for the first year) and is only available to KU faculty and staff. The library's KURENAI service, which has been provided since 2019, aims to store research data that supports research results, and while the capacity is limited to 5GB per item, it is available free of charge. System integration between the IIMC and university library services is planned for 2026.

From a researcher's perspective, the two services offered by Kyoto University mentioned above have two main challenges. One is the limited benefits of using RDM services for research purposes. Specifically, there is insufficient storage capacity, a fee structure (paid service), and a limitation on the maximum storage period of 10 years without renewal, meaning that sufficient convenience is not provided to researchers. The other is the lack of RDM-related education. Particularly among researchers in the humanities and social sciences, opportunities to receive RDM education are limited,

and despite the mandatory inclusion of research data descriptions in applications for Grants-in-Aid for Scientific Research (KAKENHI) from fiscal year 2024, many researchers are unaware of how to describe research data or create metadata. This situation suggests that the current RDM services may be a burden on researchers rather than supporting their research.

To address these challenges, particularly the issues of long-term storage and insufficient capacity, CSEAS is attempting an approach of distributing research data storage by utilizing existing systems within Kyoto University. Two specific examples deeply related to modern Vietnamese history were cited as illustrations. The first example involves materials and research data collected 40 years ago at a Vietnamese Buddhist temple in Bangkok, including Mahayana Buddhist scriptures and records of tombstones of Vietnamese people living abroad. This collection is historically significant, illustrating the transmission routes of Mahayana Buddhism from East Asia to Southeast Asia and the activities of Vietnamese Buddhist temple organizations in Thailand that supported the Vietnamese liberation movement during the Indochina War. The second example consists of over 1,300 inscribed texts and rubbings of temple bells collected approximately 20 years ago from temples and shrines in Hanoi's Old Quarter, providing valuable historical materials for studying Hanoi's urbanization and the migration and settlement of its citizens. Both cases require data retention for over 10 years, which is difficult to manage within existing frameworks. To make this long-term research data available for secondary use, CSEAS employs a distributed storage strategy. Specifically, image data is stored in the “Kyoto University Rare Materials Digital Archive,” metadata in the OPAC, some research data in the “KURENAI” repository, and original data in CSEAS's research data storage and IIMC's RDM Drive. Storage locations are distributed according to the type of data (documents, images, audio, field notes, etc.). Figure 4 shows an example of this approach.

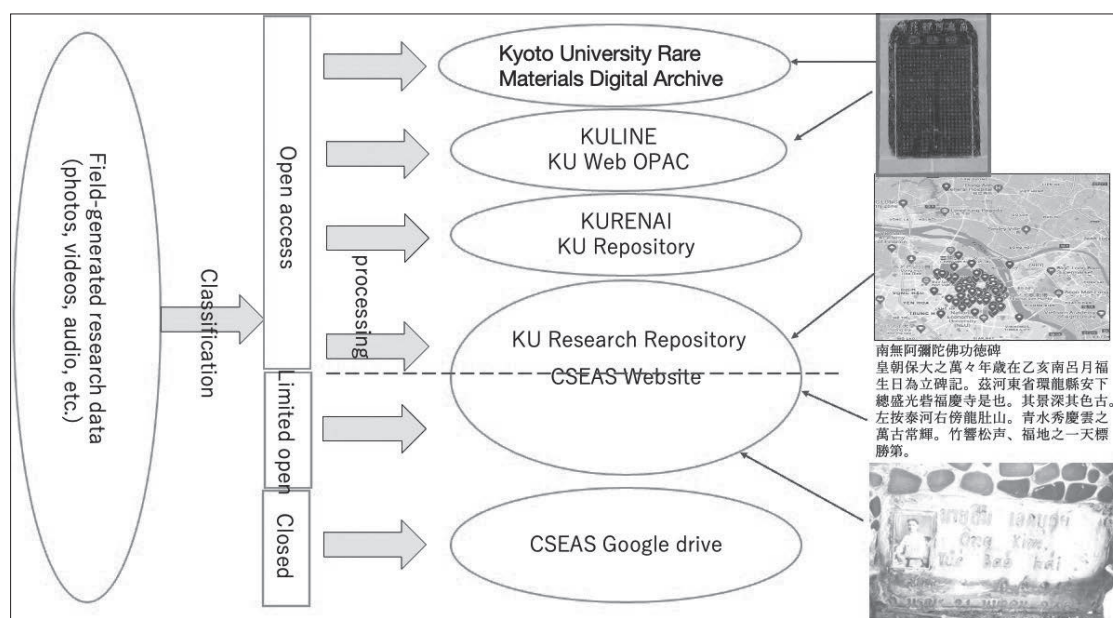


Fig. 4 An example of a storage distribution approach based on data type at Kyoto University.

Furthermore, research data collected in the past often lacks records of the process from generation to processing and publication, posing a challenge in terms of reusability. In the first case

study (the example of the Vietnamese Buddhist temple), a comparison with recent fieldwork revealed deficiencies in previously published results (including the intentional omission of facts), highlighting the importance of RDM. To address this challenge, the lecture emphasized the need for RDM education. Given that research data is now required as evidence, research data skills are essential for researchers, and the support of university libraries is indispensable. The mission of libraries should shift from simply supporting students' search and citation skills and media literacy education to incorporating RDM training into support for master's and doctoral thesis writing.

Presentation 3 by Yasuyuki MINAMIYAMA “Current Status and Trends of Research Data Management Initiatives in Japanese and Vietnamese Universities and Research Institutions”

This presentation reports on the current status of RDM in Japan and Vietnam, and international trends regarding its promotion. First, the background behind RDM becoming a critical issue in recent years stems from two major expectations and demands from society: ensuring research integrity and reusing research results. Open science policies primarily support the latter, the reuse of research results. For example, the UNESCO recommendation specifically stipulates that open research data should be curated according to the FAIR principles (Findable, Accessible, Interoperable, Reusable). The Japanese government is also responding to these international trends and implementing many policies. In particular, since the joint statement of the G8 Science and Technology Ministers' Meeting in 2013, policies related to open science have been announced annually. Among these, the “Basic Concepts on the Management and Use of Research Data Funded by Public Funds,” published in April 2021, is an important policy document that presents the concept of a national data platform. This is a concept in which metadata stored in data platforms held by universities and research institutions is aggregated and centrally managed in a central research data platform, demonstrating the importance of metadata integration. However, for many Japanese universities and research institutions at the time, RDM was a new concept, and there was a challenge in that concrete service development had not progressed.

To address this challenge, in Japan, the JPCOAR, a library community, is leading a large-scale survey to analyze the current status and trends of RDM. In conducting this survey, we developed a model to evaluate the maturity of RDM services, assessing five levels of maturity across six aspects: awareness, policy, budget, services, user needs, and IT infrastructure. Figure 5 shows an example of evaluating the status of initiatives by applying this model.

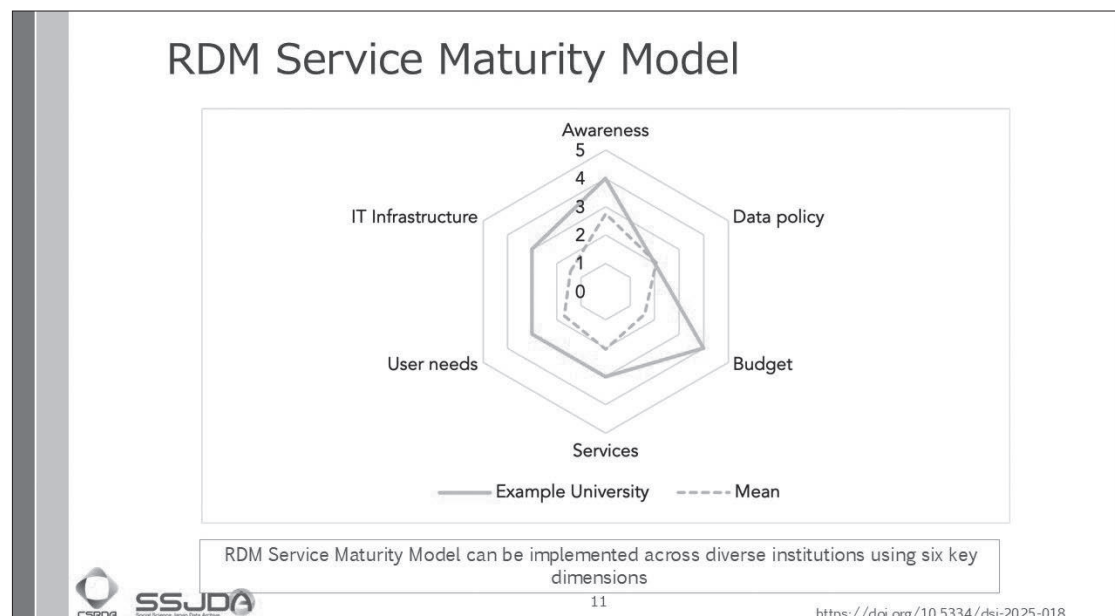


Fig. 5 Examples of applying the RDM service maturity model.

The calculation of the “mean” uses actual survey data conducted in 2022. The average evaluation for Japan as of 2022 shows that while progress has been made in terms of “awareness,” other aspects are still in the early stages of implementation.

Next, we will introduce the trends in RDM support services provided by Japanese university libraries, based on the latest JPCOAR survey results conducted from November to December 2024. Particularly strong growth is shown in three areas: the provision of institutional repositories, the provision of data storage, and support for creating DMP (Data Management Plans). Figure 6 shows the year-on-year changes in the implementation status of RDM services.

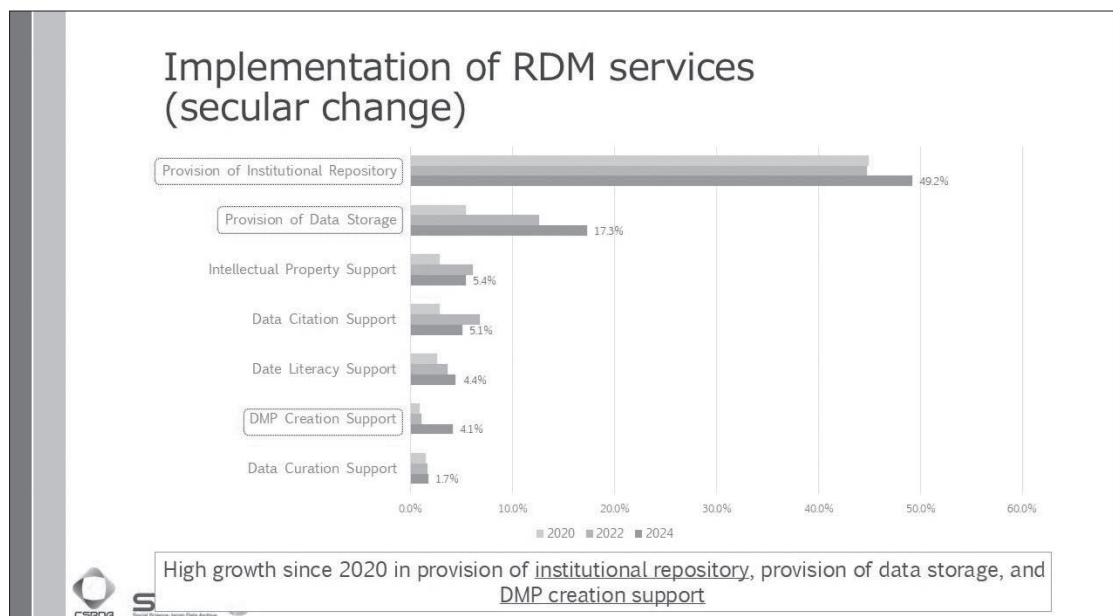


Fig. 6 Changes over time in the implementation status of RDM services.

Regarding the provision of institutional repositories, as of December 2024, approximately half of Japanese universities and research institutions possess a repository. This is largely due to the NII providing a hosting service called “JAIR Cloud,” particularly for small and medium-sized institutions, which has boosted the number of institutions with repositories. The provision of data storage has increased by approximately 5% since 2022, and the number of organizations considering implementation has more than doubled. This is thought to be due to the increased interest in data storage services within institutions, driven by the spread of institutional storage intermediary services such as GakuNin RDM, with national research and development corporations and national universities leading the average. The most significant increase was seen in DMP creation support, with the number of services provided quadrupling between 2022 and 2024. This surge is attributed to a policy decision by the Japan Society for the Promotion of Science (JSPS) to mandate the creation of DMPs for applications for Kakenhi (Grants-in-Aid for Scientific Research) from fiscal year 2025. This also suggests that the development of RDM support systems in Japan is strongly dependent on policy trends.

Conducting a Participatory Workshop

In the latter half of the session, a participatory workshop was held for researchers from Southeast Asia, using Japanese case studies as a common understanding. In this workshop, a questionnaire was conducted, based on a survey on RDM initiatives and trends implemented in Japan, with the questions organized from the perspective of researchers.

Prior to the workshop, a courtesy visit made by project members in July 2025 to the VASS and institutions under the Vietnam National University (VNU) was introduced. During this visit, interviews were conducted to gain insights into the RDM implementation system in Vietnam, and the results were reflected in the formulation of the questionnaire items. One of the results obtained from this interview survey was that in Vietnam, policies and budgets related to RDM are centralized, which is clearly

different from Japan, where each university and research institution has its own policies and budgets. In particular, the management of information infrastructure such as storage, data analysis software, and authentication systems is centrally managed by VASS and VNU, and the decision-making process is also centralized. While these policies and organizational structural differences are clear, it was also found that there is considerable variation among organizations regarding specific aspects such as information infrastructure and RDM services.

In the workshop, as survey items to understand this variation, participants were asked in a questionnaire format about the status of information infrastructure provision, responsible departments, the purpose and required capacity of data storage, and authentication systems. The survey items were designed to be comparable to the Japanese survey items, with the aim of utilizing them in future international collaborative projects. The questionnaire items are as shown in the appendix.

Summary

This session, using concrete case studies from Kyoto University and surveys on initiatives and trends across Japan, provided an opportunity to consider collaboration towards promoting RDM in the Southeast Asian region. To further accelerate this movement, it is essential to build a sustainable network of diverse professionals, including not only researchers but also librarians and archivists who support the knowledge infrastructure. It is hoped that opportunities for international exchange like this will be continuously provided and developed into collaborative projects aimed at solving specific challenges.

Research Data Management in Japanese Academic Research Institutions

Speakers:

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Mikiko ONO: Ph.D., Affiliated Associate Professor, Center for Southeast Asian Studies, Kyoto University, Japan

Yasuyuki MINAMIYAMA: Ph.D., Associate Professor, Center for Social Research and Data Archives, Institute of Social Science, The University of Tokyo, Japan

Track: Workshop

Category: Techniques and Technology of Cultural Memory (Digital archives)

Title: Research Data Management in Japanese Academic Research Institutions

Keywords: Research Data Management

Abstract:

Research data management (RDM) in Japanese academic research institutions has already been practiced in the natural sciences and engineering. However, it is difficult to say that there is sufficient understanding or implementation of research data in the humanities and social sciences. Academic institutions in Southeast Asian countries are also facing similar problems. The Center for Southeast Asian Studies (CSEAS), Kyoto University, has built networks with universities and communities in Southeast Asia. Using this network, we started an international exchange project to support the promotion of RDM. As its preliminary stage, we have surveyed the current state of RDM in Japan.

This workshop will shortly provide some RDM activities at Japanese universities, report our survey on the current situation of RDM in Japan, and show an overview of our exchange project. The workshop welcomes researchers, librarians, and archivists in the Asian region interested in or facing problems with academic RDM. By sharing our experiences and knowledge, the workshop aims to create a framework that promotes human resources development related to RDM in this region.

Presentation 1: Rethinking Research Data Management Project of the Center for Southeast Asian Studies (CSEAS), Kyoto University

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Keywords: RDM, Southeast Asian Studies, humanities

Abstract:

Research data management (RDM) in Japanese academic research institutions has already been practiced in the natural sciences and engineering. However, though humanities have created large volumes of digital data in their works, only a part of them are available as databases. Moreover, even though databases are created, researchers find accessing and sharing them difficult. The Center for Southeast Asian Studies (CSEAS), Kyoto University, developed “MyDatabase” and “Resource Sharing System” to solve these problems. MyDatabase was a Web service for researchers to develop and publish their research data without special knowledge about servers and data systems. Resource Sharing System was an advanced retrieval function of MyDatabase that could search for databases not only organized in MyDatabase but also operated outside CSEAS (e.g., OPAC of other university libraries).

On the other hand, CSEAS has a long history of building research networks with universities and communities in Southeast Asia. Using these research networks and our experiences with MyDatabase and Resource Sharing System, we organized “The Research small Data Alliance (RsDA),” a research group of institutions and libraries in Asia for building information infrastructure to share, preserve, and reuse research data. The “RsDA Inventory Database” is a part of the information infrastructure that organizes metadata about research data to make them easily discoverable. It is a collection of metadata describing the contents of a “website,” which is an entrance for a user to use a particular database or data file. We held RsDA workshops to define terms and their meanings of the inventory metadata (such as “title,” “subject,” “contributor,” “description,” and “source”), their description rules, and the collecting process of metadata.

As a result of the project, we defined metadata schema and implemented a trial database system. However, the project cannot be considered a success; participating institutions could not identify what and where they have research data, which hindered data registration, or our metadata description rules were not always clear, which resulted in inconsistent data accuracy and granularity. We have considered that the failure was caused by rushing ahead with metadata schema and database systems without thoroughly considering the current state of research data at each participating institution and the political and social circumference of the area. The above motivates this presentation.

This presentation will first provide an overview of RDM in Japan, then identify the position of RsDA research within this RDM framework, rethink our RsDA project, and think of ways for better international collaboration of sharing and reusing.

The following text is a transcription of the oral presentation.

[Slide 1.1, 2] (*see slides*)

[Slide 1.3] This session is for Research Data Management. However, why has research management become a significant issue in recent years? This slide shows some backgrounds.

1. The rapid advancement of information and communication technology has led to the generation of vast amounts of data, and the use of this data across networks continues to grow.
2. In line with global movements such as open science, there is a strong push to enhance academic research by making research outcomes more widely accessible.
3. At the same time, the data that forms the foundation of academic papers must be preserved over the long term.

So, proper management of the research data generated daily helps researchers improve the continuity, efficiency, and integrity of their work.

[Slide 1.4] This slide shows key terms related to research data management.

Research Data Management (RDM) refers to the methods by which information used or generated during research is organized, preserved, and managed.

Research Integrity requires that research data be stored appropriately for at least ten years after the publication of results. Furthermore, data should be disclosed in accordance with Kyoto University's regulations on promoting research integrity.

Data Management Plan (DMP) is a document that sets out policies for the storage, management, disclosure, sharing, and use of research data. Beginning in fiscal year 2024, a DMP will be required for all applications to Grants-in-Aid for Scientific Research in Japan.

[Slide 1.5] The term “research data” is used in various contexts, but Kyoto University introduces this concept in two contexts: “research integrity” and “research data management.” In the context of research integrity, research data refers to “research materials that form the basis of published research results.” Conversely, in the context of research data management, research data is defined as “information collected or generated by researchers during the course of research activities.”

Thus, research data in the context of research integrity is a subset of the research data handled in research data management. Two critical issues are:

- We need not think that “all research data must be disclosed,” and
- “appropriate management” does not mean permanently storing all research data.

It is also crucial to distinguish between data “to be disclosed” and data “to be kept confidential.”

[Slide 1.6] So, what are the benefits for researchers? I think there are many. For example:

- Increasing the impact of your research
- Reducing data analysis time through proper management

- Ensuring long-term (permanent) data preservation and maintaining data integrity
- Meeting funding agency requirements and enhancing competitiveness for grant acquisition
- Promoting discoveries, effective sharing, and reuse
- Supporting open access
- Contributing to the next generation of researchers' utilization

[Slide 1.7] Moreover, appropriate RDM is now widely adopted by academic institutions. It enables them to evaluate and enhance their research capabilities, while also establishing the necessary infrastructure and offering practical support. For example:

- RDM implementation by **researchers**
- RDM policies by **research institutions**
- Support for RDM by **libraries** and other institutions

[Slide 1.8] I think there are at least three levels of DRM Services in Japan.

- **National Level: GakuNin RDM is a research data management system provided by the National Institute of Informatics. It centrally manages diverse data held by research teams, supporting the efficient and equitable use of data.**

Problems:

- Limited storage capacity and file size (100 GB per user)
- Restrictions on external storage integration
- Occasional instability in performance and availability
- Limited support system
- Uncertainty about future cost and pricing model

- **University Level: KURENAI is Kyoto University's institutional repository.**

Problems:

- Coverage is limited mainly to Kyoto University-employed researchers
- Limited storage capacity and file size (mostly 5GB)
- Metadata quality and consistency vary across records
- Integration with international repositories and data platforms remains limited

To solve the above problems, institutional support is necessary. Moreover, at CSEAS, Kyoto University, we developed MyDatabase.

[Slide 1.9-13] (*see slides for detailed figures and tables*)

[Slide 1.14] MyDatabase is a database builder that can manage heterogeneous metadata. This slide shows some aspects of MyDatabase.

[Slide 1.15-20] (*see slides for detailed figures and tables*)

[Slide 1.21] As an application of MyDatabase, we conducted international collaborative research.

[Slide 1.22] The project name was “Research small Data Alliance in East and Southeast Asia” or RsDA. “RsDA” is an international collaborative activity aimed at sharing local needs and seeds for research data preservation, as well as discussing ideas for developing a network to promote collaboration in the region. This is a workshop-based project. And its aims are:

- to understand and share the current circumstances of academic digital data in this region,
- to provide opportunities for the members to exchange and share thoughts, views, and ideas about RDM,
- to discuss practical approaches to build a network for collaboration, and
- to develop tools.

[Slide 1.23] 18 research institutes, university libraries, museums, and archives from 9 countries join together.

[Slide 1.14,25] (*see slides for detailed figures and tables*)

[Slide 1.26] One of the outputs of the RsDA project was a Metadata Model for a research data repository. This slide shows the current metadata model. Here, “Dataset” refers to a description of a “Source Object,” and “Source Object” is the “description” of digital data. We introduce “Source Object Entity.” This is actual data records, images, etc. We introduce it to clarify the role of “Source Object.”

In many cases, the language used to describe the original materials differs from that in the database records. We add “Data” to describe the situation of the “Source Object”, such as language, etc. And “Data Entity” is the actual data schema, which is used to clarify the role of “Data”.

Then, we collect the necessary information from “Dataset,” “Source Object,” and “Data” to organize “Inventory Metadata.”

[Slide 1.27] This slide shows the example of “RsDA Inventory Metadata.” As you can see, this metadata is based on the Dublin Core Metadata sets.

[Slide 1.28] We have built a search interface for “RsDA Inventory Metadata.” This slide illustrates searching a dataset using “map” as a keyword.

[Slide 1.29] RDM is a curtail theme for researchers and academic institutions in this century. We are struggling to build a new social system and IT platform to support the RDM environment, but unfortunately, we are halfway there and still behind Europe and the United States.

Through an international collaboration, we have developed a platform for researchers, librarians, and archivists to share knowledge and data across areas in Southeast and East Asia. The “RsDA Inventory Database” was a core product of the project.

However, we face many problems:

- We focused on configuring the metadata model and didn't have enough time to define data collection rules and data description rules.
- Since many participants were at the managerial level, it was challenging to carry out tasks such as metadata creation.
- Participating institutions were unclear about the location of research data held by their organizations.

We recognized the need to understand the specific circumstances surrounding the research data of each institute in order to promote a project related to research data management.

Our new project here is to explore the possibilities of finding information about RMD in this region. Furthermore, we hope for your kind cooperation.

[Slide 1.30] (*See slide*)



Rethinking Research Data Management Project of the Center for Southeast Asian Studies (CSEAS), Kyoto University

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hara.shoichiro.42w@st.kyoto-u.ac.jp

PNC 2025 in Hanoi, 2025-09-22 @VASS

Slide. 1.1

Research Data Management at Kyoto University



2

Slide. 1.2

Why is Research Data Management Necessary?

1. The advancement of information and communication technology has generated vast amounts of data, and its utilization on networks is increasing.
 2. Global trends, such as open science, aim to invigorate academic research by making research outcomes accessible.
 3. The data underpinning academic papers requires long-term preservation.
- ✂ By properly managing the research data generated daily, researchers can enhance the continuity, efficiency, and integrity of their research activities. Using routine data management as a foundation for publishing and sharing research findings is expected to advance academic research further.

3

Slide. 1.3

Research Data Management and Research Integrity

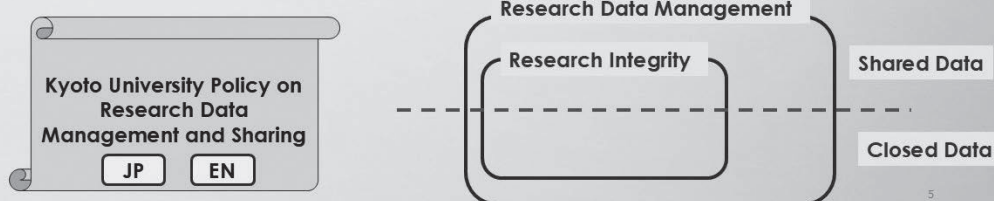
- **Research Data Management**, or RDM: The methods by which information used or generated in research is organized, preserved, and managed.
- **Research Integrity**: Research data must be appropriately stored for at least ten years after the publication of results. In addition, data should be disclosed, when necessary, in accordance with Kyoto University's regulations on promoting research integrity.
- **Data Management Plan**, or DMP: A document that establishes policies for the storage, management, disclosure, sharing, and utilization of research data. From fiscal year 2024, a DMP will be required when applying for Grants-in-Aid for Scientific Research in Japan.

4

Slide. 1.4

What is Research Data at Kyoto University?

- **Context of Research Data Management:** Recorded information, both digital and non-digital, gathered or produced by the researchers of Kyoto University in the process of their research activities
- **Context of Research Integrity:** Research materials which are the grounds of presented research discovery.
 - These **do not mean** that all research data needs to be shared
 - Proper management **does not entail** that all research data must be preserved indefinitely



Slide. 1.5

What are the Benefits for Researchers?

RDM is an essential part of responsible research and offers the following benefits to researchers themselves and to the research community:

- Increasing the impact of your research.
- Reducing data analysis time through proper management.
- Ensuring long-term (permanent) data preservation and maintaining data integrity.
- Meeting funding agency requirements and enhancing competitiveness for grant acquisition.
- Promoting discoveries, effective sharing, and reuse.
- Supporting open access.
- Contributing to the utilization by the next generation of researchers.

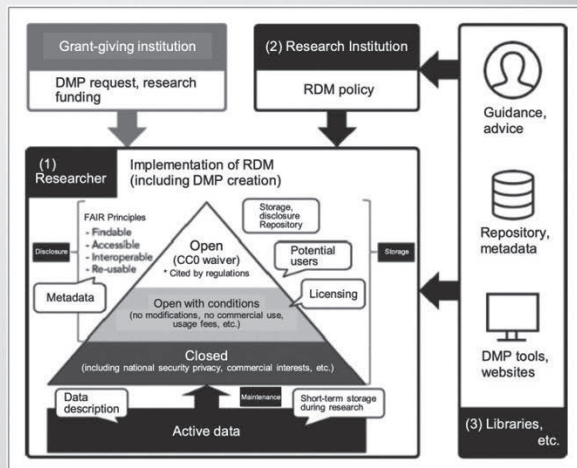
Slide. 1.6

RDM and Stakeholders

Appropriate RDM is now widely adopted by academic institutions, as it enables them to assess and enhance their research capabilities, thereby establishing the necessary infrastructure and providing support.

RDM and Stakeholders

- RDM implementation by **researchers**
- RDM policies by **research institutions**
- Support for RDM by **libraries** and other institutions



Slide. 1.7

Research Data Management Services

- **National Level:** **GakuNin RDM** is a research data management system provided by the **National Institute of Informatics**. It centrally manages diverse data held by research teams, supporting the efficient and equitable use of data.

Problems :

- Limited storage capacity and file size (100 GB per user)
- Restrictions on external storage integration
- Occasional instability in performance and availability
- Limited support system
- Uncertainty about future cost and pricing model

- **University Level:** **KURENAI** is Kyoto University's institutional repository

Problems:

- Coverage is limited mainly to Kyoto University-employed researchers
- Limited storage capacity and file size (mostly 5GB)
- Metadata quality and consistency vary across records
- Integration with international repositories and data platforms remains limited

- **Importance of Institutional Level Service ⇒ MyDatabase**

Slide. 1.8

“MyDatabase” as Basis for Research Data Repository at the Center for Southeast Asian Studies, Kyoto University



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Slide. 1.9

Research Data is Heterogeneous!

	Libraries, Archives	Researches (MyDatabase)
Target	Public	Individual / Research Group
Object	Public / General	Research / Specific
Collection Organization	Institutional	Individual / Research Group
Variety	Large	Large
Collection Policy	Consistent	Inconsistent / Changeable
Collection	Whole	Parts
Size	Large	Small
Metadata	Standard(general) / Large / Complex	Heterogeneous(Specific) / Small / Simple
Usage	Simple	Complex / Inconsistent
Durability (life time)	Long	Short

A research Database is a different system from library Information systems

- ✓ Research Data: **Heterogeneous** (specific) metadata (non-standard metadata)

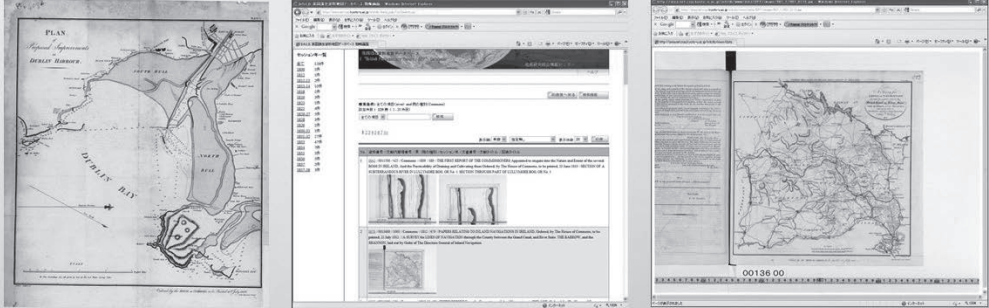
Frequent specification changes (metadata, interface, applications ...)

Standards often restrict researchers' originality or innovation

10

Slide. 1.10

Heterogeneous Research Data Example - Map Database of British Parliamentary Papers -



ID	Survey No.	page	Parts	Cat.	Year	Book	Text	Caption	
21	6100	408	1	Commons	1806	365	ACCOUNTS, &c. PRESENTED TO THE HOUSE OF COMMONS, RELATING TO THE INLAND NAVIGATIONS OF IRELAND, AND TO THE PORT OF DUBLIN. Ordered to be printed 10th July 1806.	PLAN of Proposed Improvements in DUBLIN HARBOUR.	D:\DISK1\BR01_1\BR01_0021.jpg

Slide. 1.11

Heterogeneous Research Data Example - Islamic Magazine Database -



bil.	tahun	bln.	m/s	ruangan	tajuk	penulis	mikro film
1	1950	7-8	1	gambar kulit	Bu Kamo (Isteri President Sukarno)		
1	1950	7-8	2		(keterangan gambar kulit & gambar hadiah)		12

Slide. 1.12

Heterogeneous Research Data Example - Indian Cinema Database -



No.	Title cover	Classification/Key Words	Title in Tamil	Title in Romanised Tamil	Title in English Translation	Language	Colour	Year Released	Place Produced	Duration	Stars	Director	Cinematographers	Editor	Story
1		Love/Romance	கர்ணன்	KARNAN	Aacharya	Tamil	Colour	2004	Chennai	161 min	Cheran (lead actor), Sivaprasadam, Cheran, Emilia (lead actress), Kamla, Gopika (introduction), Malika (introduction),		Franko Mahendra, Draganarath, Vijay Meiton, S. Ravivarmam	S. Sathish, J.N. Eswara	Cheran

Dialogue	Music Director	Songwriters	Singers	Producer	Production House	Synopsis	Relevant Cultural/Historical Information	Other Relevant Details	Relevant Web Links
Cheran	Shardha	P. Vijay, K.S. Chitra, Roshan, Cheran	Umi Menon, Harsh, Raga vedra, Yugaandran	Cheran	Not available	Aradh (Cheran), an advertising executive, is getting married to Thennmozhi (Kamla). He wants to invite the important people of his youth to his wedding. He tracks down and invites Kamla.....	1. It is a cultural practice to invite important people of the past for the wedding. However, it is highly unusual to invite former girlfriends as this would unnecessarily stir up past experiences and cause possible embarrassment or envy to the bride (or groom)	1. The film was screened at the Lyon Asian Film Festival in France and at the Montreal World Film Festival in Canada. 2. When it was released in February 2004 in India, the film met with critical acclaim and commercial success.	Autograph Movie: http://www.imdb.com/title/tt041131/ . Autograph Movie: http://en.wikipedia.org/wiki/Autograph_Movie

Slide. 1.13

MyDatabase as a Database Builder

- **MyDatabase is an “Easy to Use” database builder for humanities**
 - ✓ Database theory is not easy for humanities’ researchers ⇒ MyDatabase provides minimum and essential functions
 - ✓ Database operations (SQL or XQuery) are difficult ⇒ MyDatabase provides intuitive operations using a web-based GUI
- **There are no significant restrictions on the metadata structure**
 - ✓ MyDatabase accepts CSV, TSV, and XML
 - ✓ CSV and TSV must satisfy the First Normal Form of the relational database
 - ✓ XML must satisfy well-formed
- **Limited Search functions (basic functions)**
 - ✓ HTML form
 - ✓ If researchers need advanced search functions or user interfaces, they can use **MyDatabase API**

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Slide. 1.14

Building your Database by MyDatabase - Data Example (CSV) -

ID		Terms		Field Attributes		Time		Place					
A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	ID	地震名	地震ID	史料名	レコード番号	レコードID	和暦	西暦	記載地名	現在地名	LAT	LONG	ノート
2	SID	ENAME	EID	RNAME	RID	RECID	JDATE	NDATE	ONAME	PNAME	LAT	LONG	NOTE
3	ID	BASIC	PRIME	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC
4	1	貞元元年六月十八日	9760722	〔日本紀略〕	22	1151	貞元元年六月十八日癸丑	9760722	山城国/京都府/宮城	京都府/京都市/上京区/小山市	35.015	135.7452778	千本丸太町交差点近くに大極殿基壇跡の石碑(平成6年)あり
5	2	貞元元年六月十八日	9760722	〔日本紀略〕	22	1151	貞元元年六月十八日癸丑	9760722	山城国/京都府/宮城/八省院	京都府/京都市/上京区/小山市	35.015	135.7452778	千本丸太町交差点近くに朝堂院(=八省院)跡のプレートあり
6	3	貞元元年六月十八日	9760722	〔日本紀略〕	22	1151	貞元元年六月十八日癸丑	9760722	山城国/京都府/宮城/豊楽院	京都府/京都市/中京区/築港通西町	35.015	135.7452778	平安宮豊楽殿跡
7	4	貞元元年六月十八日	9760722	〔日本紀略〕	22	1151	貞元元年六月十八日癸丑	9760722	山城国/京都府/東寺	京都府/京都市/南区/九条町	34.97777778	135.7494444	左は東寺(教王護国寺)の現在地
8	5	貞元元年六月十八日	9760722	〔日本紀略〕	22	1151	貞元元年六月十八日癸丑	9760722	山城国/京都府/西寺	京都府/京都市/南区/鷹橋平垣町	34.97861111	135.7386111	左は西寺の現在地
9	6	貞元元年六月十八日	9760722	〔日本紀略〕	22	1151	貞元元年六月十八日癸丑	9760722	山城国/京都府/清水寺	京都府/京都市/東山区/清水一丁目	34.99138889	135.7669444	左は清水寺の現在地
10	7	貞元元年六月十八日	9760722	〔日本紀略〕	22	1151	貞元元年六月十八日癸丑	9760722	山城国/京都府/円覚寺	京都府/京都市/上京区/柳風呂町	35.02638889	135.7694444	左は円覚寺の現在地

Slide. 1.15

Building your Database by MyDatabase - File Upload -

登録データ管理
ヘルプ

ファイルアップロード(CSV)
ファイルアップロード(XML)

■ CSV形式のデータファイルをアップロードする

登録種別	◎ 新規登録
システム項目指定 Table Structure	☒ 日本語あり ☒ 英語あり ☐ 属性あり csvファイルのシステム項目(1行目~3行目)の指定有無を選択してください。
データファイル File Path	I:\HARA_DOCS\DOC2014\じんもんこん20 参照... csv形式、またはzip、lzh形式で圧縮したファイルを選択してください。
データファイルの形式 File Format	カンマ区切り アップロードするファイルの区切り文字を選択してください。
データファイルの文字コード Character Code	シフト JIS アップロードするファイルの文字コードを選択してください。

アップロード
キャンセル

16

Slide. 1.16

Building your Database by MyDatabase - Fixing Data Attributes -

No	1	2	3	4	5	6	7
Data Item Name (JP)		延喜式社名	比定社名	緯度	経度	式内社国名	式内社郡名
Data Item Name (EN)		Shikinaisha	IdentifiedName	Lat	Lon	CountryName	CountyName
Data Attribute	編集 ID フィールド追加	編集 PRIME フィールド追加	編集 BASIC フィールド追加	編集 SEARCH フィールド追加	編集 SEARCH フィールド追加	編集 BASIC input_type=listbox フィールド追加	編集 BASIC フィールド追加
属性(プレビュー)	ID	PRIME	BASIC	SEARCH	SEARCH	BASIC input_type=listbox	BASIC
1	20000493	阿高神社	阿高神社	34.85418667	135.5627778	福津園	嵯下郡
2	20002117	阿比多神社	阿比多神社	37.16	138.1663889	越後園	野城郡
3	20000506	阿比太神社	阿比太神社	34.82527778	135.4563889	福津園	豊嶋郡
:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:
2840	20002449	今城青八奈稲寛神社	天神社	36.24918667	139.1127778	筑前園	賀美郡
2841	20002450	今城青板稲寛支御魂神社	長持部神社に合祀	36.24305556	139.1108333	筑前園	賀美郡
2842	20002451	今城青板稲寛池上神社	今城青板稲寛池上神社	36.26888889	139.1536111	筑前園	賀美郡

Slide. 1.17

Building your Database by MyDatabase - Database Access Configuration -

This Database

Recourse Sharing System

Group Sharing

OAI Repository

データベース公開設定 ヘルプ

■ 1. 個別検索

状態: 非公開中 **Private Use** 非公開 ▼ 更新

■ 2. 全体検索

状態: 非公開中 **Not in Use** 公開にする

※全体検索の変更は夜間バッチ処理で反映されます。

■ 3. グループ検索

状態: 非公開中 **Not in Use** 公開にする

※グループ検索の変更は夜間バッチ処理で反映されます。

■ Option. OAI リポジトリ

状態: 非公開中 **Not in Use** 公開にする

※OAIリポジトリのデータは夜間バッチ処理で反映されます。

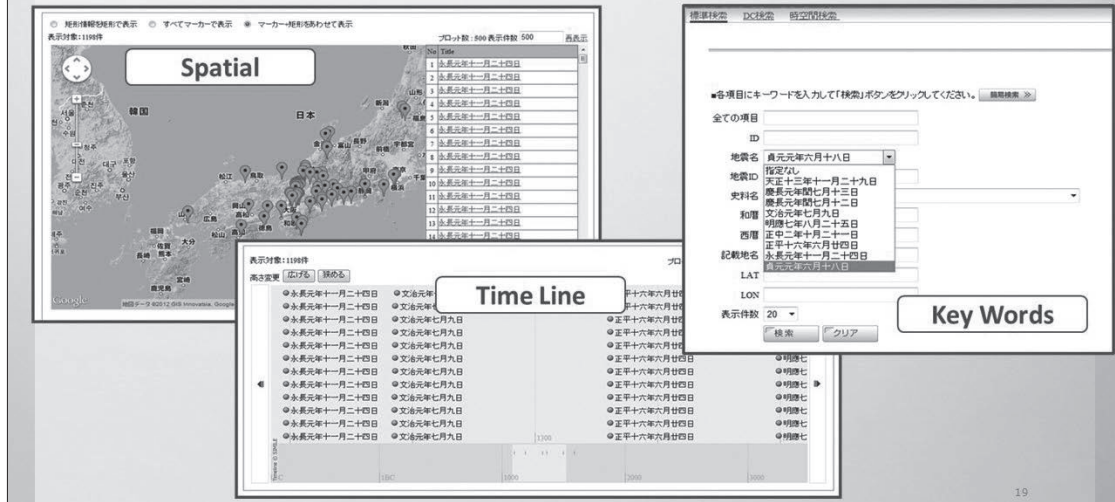
現在のデータを再取得するにはここをクリック

■ 4. データベース名・提供者名・ソートキー

ソートキー	Shikinaisha
データベース名(日本語)	式内社サンプルデータベース
データベース名(英語)	Shikina Sample DB
提供者名(日本語)	氏

Slide. 1.18

Building a Database by MyDatabase - Publishing -



Slide. 1.19

Building a Database by MyDatabase - Using My Database API -



Slide. 1.20

Application of MyDatabase

RsDA (Research small Data Alliance) Project at The Center for Southeast Asian Studies, Kyoto University



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Slide. 1.21

What is RsDA?

- RsDA is an international collaborative activity to share local needs and seeds for research data preservation and to discuss ideas to develop a network to promote collaboration in the region. It is a workshop-based project to:
- understand and share the current circumstances about academic data assets in the leading East and Southeast Asian academic institutes and memory institutions
- discuss practical approaches to build a network for collaboration rather than presentation of papers
- develop information tools to try or evaluate discussions
- **Tentative Goal:** An inventory database to accumulate locational information about research assets
- **We also conducted a tutorial on MyDatabase**



Slide. 1.22

RsDA Members

Member Institutes:

Academia Sinica (Taiwan), Chiang Mai University (Thailand),
Chulalongkorn University (Thailand),
International Research Center for Japanese Studies (Japan),
Khon Kaen University (Thailand),
National Museum of Japanese History (Japan),
National Taiwan Normal University (Taiwan),
National University of Singapore (Singapore),
Royal University of Phnom Penh (Cambodia),
Suranaree University of Technology (Thailand),
Universitas Indonesia (Indonesia),
Universitas Islam Riau (Indonesia),
Universitas Lancang Kuning (Indonesia),
Universiti Teknologi MARA (Malaysia), University of Colombo (Sri Lanka),
University of the Philippines Diliman (Philippines), University of Tsukuba (Japan), Kyoto
University (Japan)



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Slide. 1.23

RsDA Activities

- **1st meeting: 2016-11-20@Pullman Bangkok Grande Sukhumvit (Thailand)**
"International Workshop on Academic Asset Preservation and Sharing in Southeast Asia" as a preliminary workshop for iPRES2017 hosted by Kyoto University
- **2nd meeting: 2017-09-25@Kyoto University (Japan)**
"International Workshop on Academic Asset Preservations and Sharing in Southeast Asia" with iPRES2017 hosted by Kyoto university
- **3rd meeting: 2018-08-23 and 24@INTEKMA Resort & Convention Center**
"International Workshop on the Academic Asset Preservations and Sharing in Southeast Asia" hosted by Universiti Teknologi Mara
- **4th meeting: 2019-0-23 and 24@Pullman Khon Kaen Raja Orchid Hotel (Thailand)**
"International Workshop on Academic Asset Preservation and Sharing in Southeast Asia" with "Research Data Management and Libraries: Relationship, Activities, Drivers and Influences" hosted by Khon Kaen University
- **2020-08-25 ~ 2024-03-06 by ZOOM**



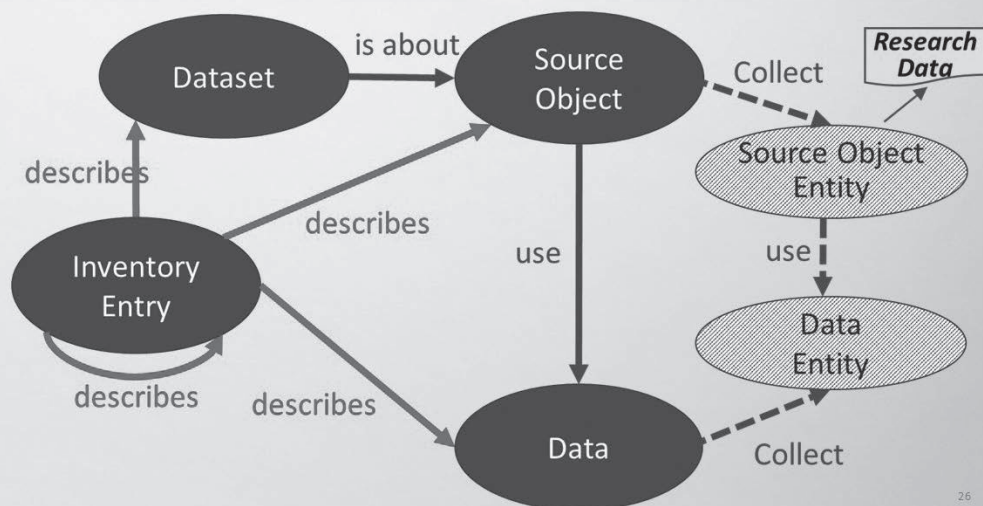
Slide. 1.24

RsDA Activities



Slide. 1.25

Metadata Model for RsDA



Slide. 1.26

Example of the RsDA Inventory Metadata

[illegible]

Slide. 1.27

Example of the RsDA Inventory Database

Example of the RsDA Inventory Database

Slide. 1.28

Conclusion

- Establishing an international collaboration framework (RsDA)
 - Building the inventory database to share research data assets in East and Southeast Asia
 - Offering a forum for discussing long-term use and preservation of data
 - Problems
 - ✓ We focused on configuring the metadata model and didn't have enough time to define data collection rules and metadata description rules.
 - ✓ Participating institutions were unclear about the location of research data held by their organizations
- ⇒ Necessity of identifying or grasping the circumstances about the research data of each institute to promote a project related to research data management.

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Slide. 1.29

Thank you for listening
Cám ơn vì đã lắng nghe



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Slide. 1.30

Presentation 2: Library Challenges in Implementing Research Data Management (RDM)

A Perspective on Educational Support for Graduate and Foreign Students

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Keywords: Library, User Support, RDM Education, Southeast Asian Studies

Abstract:

This year the CSEAS Library started an investigation into the state of Research Data Management (RDM) implementation in several Southeast Asian countries, including Vietnam, Thailand, and Indonesia.

From 2015 to 2020, the CSEAS Library on collecting information on the status of library database construction in Southeast Asian countries and engaged in personnel exchanges with local library staff. However, as RDM has emerged as an urgent issue, the focus has shifted from library databases to RDM.

The following two points can be cited as the background for this shift. First, CSEAS's mission inside Japan is to promote international collaborative research on Southeast Asia from Japan, with the aim of acquiring research funding from within Japan and overseas, including Europe and the USA. To achieve this, the implementation of RDM is essential for both CSEAS and our research partners. Secondly, and this is the focus of this paper, RDM is an essential task in fulfilling one of the core missions of the CSEAS Library: to support researchers of Southeast Asia, both in Japan and abroad.

The CSEAS Library is a specialized library focused on Southeast Asian studies. From that perspective, we have supported media literacy education for graduate students at Kyoto University - particularly those from Southeast Asian countries - who are pursuing research in this field. We have also provided reference materials on Southeast Asian studies for domestic and foreign researchers who are staying or visiting the library.

In a situation where RDM has become an essential requirement for promoting research, there is an urgent need to incorporate RDM education into library user support operations.

In university libraries, there have long been discussed concerns about the abilities of undergraduate and graduate students who are unable to search for and cite literature at the graduate and master's theses stage. However, since the responsibility for evaluating and reviewing these lies with the supervising professors, libraries have not been held directly responsible.

RDM is now required as supporting evidence for everything from undergraduate theses to doctoral dissertations, there is a growing need to incorporate RDM into media literacy education to better support library users. Nevertheless, this need has not yet been adequately addressed in Kyoto University.

In responding these circumstances in Kyoto University, the CSEAS Library seeks to investigate the current situation of RDM in Southeast Asian countries and, with consideration for local contexts, to explore a framework for implement RDM into graduate-level education.

The CSEAS Library has an established track record of networking with libraries in Southeast Asian countries. The staff responsible for media literacy and reference services are subject librarians who hold at least a master's degree and are engaged in Southeast Asian studies, enabling them to contribute to graduate-level education. There are also numerous opportunities for collaboration with informatics, particularly in projects such as digital archiving or constructing specific databases.

Our RDM research project will focus on Vietnam, Thailand, and Indonesia that those countries sent a significant number of students to Kyoto University. We will start by investigating the current situation of RDM in these countries and, through this research, aim to conduct joint research projects to promote RDM with research institution libraries in each country.

The following text is a transcription of the oral presentation.

[Slide 2.1] Now I will begin my presentation. My name is Mikiko Ono, from the Center for Southeast Asian Studies (CSEAS), Kyoto University. This presentation is a joint report by three sections of CSEAS: the Library (my section), the Information Processing Office (represented by Kitani Kimiya), and the Map & Document Room. At CSEAS, these three sections are involved in providing RDM support. In this presentation, we will introduce RDM initiatives at Japanese universities, focusing on the cases of Kyoto University and CSEAS.

[Slide 2.2] I would like to begin by briefly introducing the CSEAS Library and its activities. The CSEAS Library is part of the Kyoto University Library Network which comprises more than 30 libraries of various sizes. Since its establishment in 1965, the CSEAS Library has been the only library in Japan dedicated to Southeast Asian studies. It has built a comprehensive collection of materials on Southeast Asia and related fields. Over 80% of the library's collection is in European languages, with Indonesian, Thai, and Vietnamese being the most common Southeast Asian languages. Today, these resources are widely used by researchers and students from Japan as well as from Southeast Asian countries.

(The main library building, with a history of over 130 years, is regarded as a typical example of Meiji-period architecture and is designated as a national cultural property.)

[Slide 2.3] The mission of CSEAS is to promote international collaborative research on Southeast Asia originating from Japan. To achieve this, we need to seek overseas funding and disseminate research outputs through international academic journals. Therefore, Research Data Management (RDM) has become an essential matter for both CSEAS and our research partners in Southeast Asia.

In response to this situation, since 2024 the library has shifted the focus of its exchange activities from database development to collecting information on RDM. Starting this year, we have begun surveys on the implementation of RDM in countries such as Vietnam, Thailand, and Indonesia, and this session is part of those efforts.

[Slide 2.4] We have been promoting personnel exchanges with Southeast Asian libraries. In particular, before the COVID-19 pandemic, we focused on building networks with Southeast Asian libraries and collecting information on library database development.

[Slide 2.5] As an outcome of these networking projects, the CSEAS Library, in cooperation with the Information Processing Office, constructed a database named the *Southeast Asian Periodical Database*.

Why did we build a database that contains information on journals and newspapers published in Southeast Asia? Periodical materials in Southeast Asia, especially those in local languages, are difficult to search in computer catalogs because of the use of various scripts other than the alphabet. They are also difficult to access because holdings are scattered even within their home countries.

The Southeast Asian Periodicals Database provides comprehensive information on bibliographic details and holdings. This database was first launched in 2011 and has undergone several upgrades since then, and now also includes information from online sources. This database also includes information provided by research institutions and libraries in the three Indochinese countries of Vietnam, Cambodia, and Laos.

[Slide 2.6] Next, we would like to explain the situation regarding RDM at Kyoto University.

In 2015, Kyoto University declared its Open Access Policy and formulated regulations related to RDM. Kyoto University was one of the earliest institutions in Japan to respond to policymaking for promoting RDM.

In 2017, an RDM Study Working Group, known as the Kudzu Unit, was established to explore RDM support within the library under the leadership of Professor Shoichiro Hara, the chair of this session. After further discussions by several working groups, Kyoto University announced its ICT Basic Strategy in 2022.

I would like to emphasize that, through this process, RDM was firmly recognized as a university-wide responsibility at Kyoto University.

[Slide 2.7] Currently, three organizations at Kyoto University are involved in RDM: the Institute for Information Management and Communication (IIMC), the Main Library, and the Research Administration Office (commonly called KURA) under the Research Promotion Headquarters. In early 2024, the RDM Support Center was launched, with representatives from these three organizations participating.

Its duties include providing RDM support (such as consultations on research data management), formulating RDM-related operational rules, and organizing training sessions for the university.

[Slide 2.8] The IIMC and the Main Library are two main access points for RDM services at Kyoto University. IIMC provides a service called the RDM Drive, designed to store and share research data

generated during the course of research. Each project is allocated a storage capacity ranging from 2 to 20 terabytes. The service operates on a fee-based model; however, the first year of use is free of charge.

Eligibility for this service is primarily limited to faculty members. Researchers outside Kyoto University can also use the service, provided they are registered as project members.

[Slide 2.9] The Main Library has been providing a research data storage service since 2019. This service uses Kyoto University's institutional repository, KURENAI, to store research data that serve as evidence supporting research outputs.

Users can choose whether to make their data open or restricted at the time of registration. The storage capacity is limited to 5 GB per item, but the service is free of charge.

By 2026, the research data storage services offered by the IIMC and the Main Library are scheduled to be integrated.

[Slide 2.10] Next, we would like to highlight two key issues regarding the RDM operational framework at Kyoto University from the researcher's perspective.

- 1. Limited Benefits for Researchers:** The current RDM operational framework offers few tangible benefits to researchers. For example, the storage capacity is insufficient, the system is fee-based, and the retention period is limited to up to 10 years without renewal. These constraints are particularly problematic for researchers in the humanities and social sciences, who often require long-term data preservation due to extended research cycles. Once a research project ends, the fee-based system makes it difficult to maintain access to research data, further discouraging sustainable data management practices.
- 2. Lack of RDM-related Education:** Another critical issue is the lack of education and training related to RDM. We believe this represents a new challenge for the university library. In Japan, many researchers receive JSPS KAKENHI grants to conduct their projects. Starting this year, KAKENHI reports must include descriptions of research data. However, many researchers—especially in the humanities and social sciences—have not received adequate RDM education. As a result, they often do not know how to describe research data properly or how to create metadata. Without sufficient support and training, the current RDM framework may hinder rather than help researchers in fulfilling these new requirements.

[Slide 2.11] Next, we would like to introduce our efforts regarding the first issue. Our approach is to utilize existing systems within Kyoto University to distribute the storage of research data. By doing so, we aim to overcome challenges such as insufficient storage capacity, fee-based systems, and short retention periods. We will present two examples; both closely related to Vietnamese modern history.

CSEAS has accumulated a substantial collection of research data as valuable resources. The examples shown here are:

Example 1: Materials and research data on Vietnamese Buddhist temples in Thailand

Example 2: Rubbing materials of temples and shrines in Hanoi's Old Quarter, along with their related research data

[Slide 2.12] The research data for Example 1 was collected approximately forty years ago. It consists of *Mahāyāna* Buddhist scriptures written in Sino-Vietnamese and Nom, discovered in a Vietnamese Buddhist temple in Bangkok. It also includes tombstone records of overseas Vietnamese located within the temple grounds.

[Slide 2.13] These materials are directly related to the transmission routes of *Mahāyāna* Buddhism from East Asia to Southeast Asia and to the activities of overseas Vietnamese, who were key agents in this process. *Mahāyāna* Buddhism in Thailand was originally established by Vietnamese communities. Furthermore, the Vietnamese Buddhist temple association in Thailand, known as *Annamnikai*, supported the Vietnamese liberation movement during the Indochina War. This research dataset constitutes important historical materials for Vietnam.

[Slide 2.14] The research data for Example 2 was collected nearly twenty years ago. It consists of more than 1,300 rubbings taken from donation inscriptions and temple bells in Hanoi's Old Quarter. These inscriptions date from the 17th century to the latter half of the 20th century. We plan to use this dataset as primary sources for studying urbanization in Hanoi and the mobility of its citizens.

[Slide 2.15] Two examples illustrate that, in the fields of humanities and social sciences, research spans are often so long that the current research data operation framework cannot adequately accommodate them. In both cases, the research data had been stored for an extended period, far exceeding the standard 10-year retention limit, and research on these datasets resumed only in recent years.

[Slide 2.16] Next, we would like to address issues such as insufficient capacity and fee-based systems. Responding to these problems, we are working on decentralizing and storing research data. We plan to preserve research data by distributing them across existing systems. Specifically, image data will be stored in the Kyoto University Rare Materials Digital Archive, material metadata in the OPAC, part of the research data in KURENAI, and raw data in the research data storage provided by CSEAS. In addition, we will utilize the research data drive of IIMC.

[Slide 2.17] Research data include paper and digital documents, temple image data, audio recordings of scriptures, field notes, and published papers. Accordingly, both storage locations and methods are diverse.

We have transformed research data collected during on-site field surveys into a platform for secondary use. In fact, we collected numerous cultural materials during field surveys in Thailand, Laos, and Vietnam, such as photos, videos, and documents. These field data will be categorized and processed for integration into appropriate platforms.

Rubbings have been digitized, and digitized photos with metadata will be published on Kyoto University websites, making them easily accessible worldwide. Research reports will be released through the institutional repository, KURENAI. Certain types of research data will be made fully open, partially open, or restricted on the CSEAS website or stored on its dedicated drive for preservation. We will adopt selective release strategies and cost-saving measures to ensure long-term preservation.

[Slide 2.18] However, one difficulty still remains. Research data collected in the past often lack documentation of the processes involved in data generation, processing, and publication, making reuse virtually impossible.

In the case of Example 2, the rubbings of inscriptions from Hanoi's Old Quarter, notes on data generation and processing procedures were preserved by information science researchers for GIS applications. This has become a rare instance where traceability and reuse evaluation are possible.

By contrast, in the case of Example 1, a comparison with the results of recent fieldwork unfortunately revealed flaws in previously published research outcomes. It was discovered that the author had deliberately omitted references to certain related facts.

From these two examples, it is clear that research data management skills have become essential for researchers.

[Slide 2.19] In conclusion, we emphasize that the mission of the Library regarding the second issue is to address the need for RDM education in university libraries.

In Japanese university libraries, students' search and citation skills have long been a concern. However, checking papers has traditionally been the responsibility of supervisors, so libraries were not deeply involved. Now that research data management (RDM) is required as evidence, library support has become essential. At Kyoto University, the focus was previously on media literacy for undergraduates, but RDM training is now also necessary for thesis work.

The CSEAS Library at Kyoto University has long provided Southeast Asian resources and media literacy support for graduate students. However, since RDM is now vital for research, it must be integrated into user support. This study examines the current state of RDM in Vietnam, Thailand, and Indonesia, explores ways to incorporate RDM into graduate education, and promotes RDM through joint projects with libraries in these countries.

[Slide 2.20] Thank you very much.

Library Challenges in Implementing Research Data Management (RDM)

-A Perspective on Educational Support for Graduate and Foreign Students-

ONO Mikiko, KITANI Kimiya

Center for Southeast Asian Studies (CSEAS), Kyoto University

 Center for Southeast Asian Studies
Kyoto University



Slide 2.1

Introduction

Center for Southeast Asian Studies (CSEAS) & CSEAS Library



Main Building was built in 1870s

Open Hours:

Weekdays 9:00-17:00

E-mail: libinfo@cseas.kyoto-u.ac.jp

Tel: +81-75-753-7306

Fax: +81-75-753-7364

<http://www.cseas.kyoto-u.ac.jp/library/en/>

 Center for Southeast Asian Studies
Kyoto University

Slide 2.2

CSEAS Mission and RDM Initiatives

Mission: Promote international collaborative research projects on Southeast Asia from Japan

Need for RDM:

Essential for both CSEAS and our research partners in SEA countries

Library Activities' Shift (since 2024):

from DB development → to RDM information collection

Current Activities:

Conducting RDM implementation surveys in SEA

 Center for Southeast Asian Studies
Kyoto University

Slide 2.3



Slide 2.4

Activities of CSEAS Library 2 Constructing Southeast Asian Periodicals Database

The image shows two screenshots of the Southeast Asian Periodicals Database v3.1 interface. The left screenshot is the search page, featuring a search bar, filters for TYPE (MAGAZINE, NEWSPAPER, GAZETTE, Others), Keyword, Title/Author, Publication Area, ISSN, and Country Code, Language Code. The right screenshot is the detail page for 'Social science Diliman', showing fields for TYPE, No., Country, Language code, Frequency, Title/Author, Other Title, First & Last Issue, Publication Office, Publisher, Year, ISSN, and LON. Below the detail page is a table with columns: Information No., Library, Vol. and No., Year, Country, Call No., Microform, and Comment.

Slide 2.5

Research Data Management at Kyoto University

Process

- 2015 KU declared “Open Access Policy”
formulated regulations relating with RDM
(i.e. storage and disclosure of research data)
- 2017-2020 Consideration of policies and operations by WG
- 2022 KU completed “Basic ICT Strategy”
- 2024 KU established Data Management Support
Infrastructure Center

RDM as a university-wide task, not just for the library.

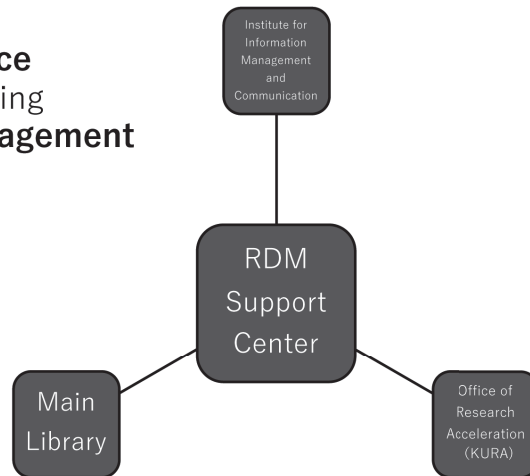


Slide 2.6

RDM Support Center started in 2024

Research Administration Office
responsible for policy-making
**Institute for Information Management
and Communication (IIMC)**
& **Main Library**
provide RDM services

Tasks :
Consultation on RDM
Guidelines
Training



Slide 2.7

Institute of Information management & Communication (IIMC)

Purpose: To store and share research data generated in the course of research

Capacity: 2–20 TB per project

Cost: fee-based
(only this first first year is free)

Eligibility: primarily for faculty members
Researchers outside of KU need to be registered as project members



利用開始手続きが完了した方は
[RDM Drive] にアクセス

Slide 2.8

Main Library - Institutional Repository KURENAI(紅) for RD

Since 2019

Purpose: To store the items stored are research data for serving as evidence for research outputs
users can choose RD on open or close

Capacity: 5 GB per item

Cost: free of charge



The RD storage provided by IIMC and the Main Library will be interlinked in 2026.

Slide 2.9

Two Key Issues from researchers' perspective and Our Efforts

Issues

1. Few benefits of RDM operational framework
 - insufficient storage capacity,
 - fee-based system
 - limited storage period (Up to 10 years without renewal)
2. Lack of RDM-related Education
 - > Library's new challenge

Slide 2.10

Our Approach> Issue 1.

Use existing systems @ KU to distribute RD storage
<Limited storage capacity • Fee-based system • Short retention period

Example 1: Materials and research data on Vietnamese Buddhist temples in Thailand

Example 2: Rubbing materials of temples and shrines in Hanoi's Old Quarter and their related research data

Slide 2.11

Example 1: Materials and research data on Vietnamese Buddhist temples in Thailand

Collected 40 years ago in Bangkok



Slide 2.12

Contents:

Mahayana Buddhist scriptures in Chinese and Chữ Nôm Vietnamese

Gravestones of overseas Vietnamese (Việt Kiều)

Significance:

Demonstrates the Mahayana Buddhist transmission route from East Asia to SEAsia and the role of Việt Kiều as its carriers

The first Mahayana temples in Thailand were established by Vietnamese

Vietnamese Buddhist temple organizations in Thailand supported Vietnam's liberation movement during the Indochina War

Slide 2.13

Example 2: Rubbing materials of temples and shrines in Hanoi's Old Quarter and their related research data

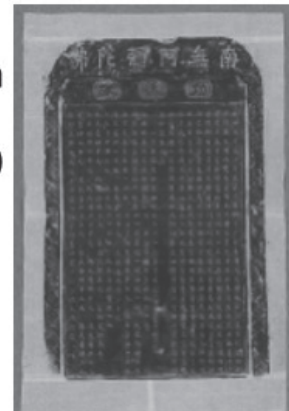
Collected 20 years ago

Contents: more than 1,300 rubbings of donation inscriptions and bells from shrines and temples (From the 17th century to the late 20th century)

Significance:

the urbanization of Hanoi

analysis of the mobility and settlement of Hanoi's citizens



Slide 2.14

Challenges and Case Studies in RD Re-use

limited storage period(Up to 10 years without renewal)

In the fields of humanities & social sciences, the research span is so long, the current RD operation framework cannot cope with it

insufficient storage capacity, fee-based system

Challenges:

Diverse storage locations and methods

Preservation Strategy:

Images → Kyoto University Rare Materials Digital Archive

Metadata → OPAC KULINE

Research data (part) → Repository KURENAI

Raw data → Research data storage (IIMC, CSEAS)

Slide 2.15

景福寺漢喃本目録データベース (デモ)

キーワード

 タイトル

*対応ブラウザ: Edge, Chrome, Firefox
 ターゲット: [PDF]
 ヒット件数: 39

ID	書件目録	刊行ID	書目ID	資料ID	タイトル	収録 方法	形式	収録 形式	頁	内容	作成者
59000033005	Chien, K. J.	59000033005	0000590304	200541569333	景福寺 木/金 書	抄 本	紙 本	24 (8+14+1 頁)	[30]頁		
59000033006	Tsai, J. H.	59000033006	0000590305	200541569332	景福寺 木/金 書	抄 本	紙 本	25.2+13.1 頁)	[33]頁		
59000033007	Chen, K. J.	59000033007	0000590306	200541569331	景福寺 木/金 書	抄 本	紙 本	24 (8+14+1 頁)	[30]頁		

TOTAL: 100

Images: 3,125

Kyoto University Rare Materials Digital Archive

Kyoto University Rare Materials Digital Archive

Collection Search News About Library

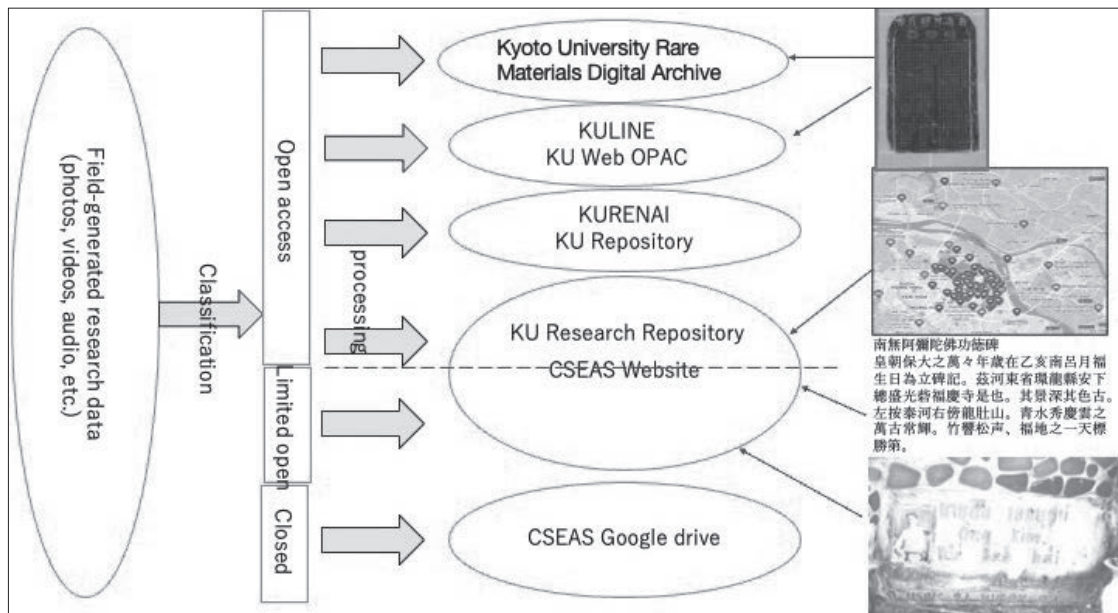
Content 景福寺漢喃本目録

景福寺漢喃本目録

Record ID: 59000033005
 Language: 中国語, 日本語
 Publication year: 2005
 Title in Latin: In chuen han of the peng ting

Please use the left button to link to this page:
<https://rmda.kulib.jp/en/record/59000033005>
 Related record:
<https://rmda.kulib.jp/en/record/59000033006>

Slide 2.16



Slide 2.17

Still remains many difficulties

Many previously collected research datasets lack records of the processes from generation- processing-publication
As a result, reuse is difficult

Ex. 2- rare case : traceability and reuse evaluation are possible
-Notes on the generation and processing of the by informatics researchers for GIS applications

Ex. 1 - Field survey comparisons revealed flaws in previously published research outcomes

- It was found that the author had deliberately omitted certain related facts



research data skills are now essential for researchers

Slide 2.18

The Need for RDM Education in University Libraries and Ongoing Initiatives

The need to incorporate RDM education into media literacy



Slide 2.19

Thank you for listening
Xin cảm ơn các bạn đã lắng nghe

Slide 2.20

Presentation 3: Current Status and Trends of Research Data Management Initiatives in Japanese and Vietnamese Universities and Research Institutions

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Keywords: Research Data Management, Organizational Benchmark, Data Policy, Open Science

Abstract:

This presentation will present research data management initiatives' current status and trends in Japanese universities and Research Institutions. In response to recent social demands for research integrity and the re-use of research results, as well as the trend towards open science policies, a national policy on research data was formulated in Japan in February 2024. Prior to the formulation of this policy, the Japan Consortium for the Open Access Repository (JPCOAR) and the Academic eXchange for Information Environment and Strategy (AXIES) have been conducting online surveys on the status of research data management efforts among universities and research institutions in Japan in 2020, 2022, and 2024.

Comparing the results of the 2020 survey (352 valid responses), the 2022 survey (309 valid responses), and the 2024 survey (295 valid responses), the number of institutions that have formulated or are considering data policies increased from 23.6% to 70.9%, and the number of institutions that have established or are considering RDM systems increased from 23.0% to 53.9%. Also, the number of institutions considering or implementing the release of research data in institutional repositories increased from 35.7% to 78.0%. Furthermore, the number of institutions considering or implementing research data storage service increased from 22.9% to 64.8%. Japanese research supporters such as librarians or IT engineers play a certain role in all of these activities, but their contributions vary widely. However, in reality, only 24.4% of the institutions have experiences of data release through institutional repositories, and the main issue is the lack of human resources to implement data curation.

At the time of the presentation, I will report on the survey results with an emphasis on changes over time as described above. Also, I will show a preliminary report on the results of a survey on the state of research data management initiatives in Viet Nam, which is being conducted as an international comparative study in 2025. Through this study, I would like to attempt to discuss the similarities and differences between research data management initiatives in Japan and Viet Nam.

The following text is a transcription of the oral presentation.

[Slide 3.1] I'm Yasuyuki Minamiyama, working at the Institute of Social Science, the University of Tokyo, Japan.

In the latter part of this session, I would like to introduce the current status and trends of research data management.

[Slide 3.2] This slide shows the overall picture of my presentation. First, I will briefly introduce the policy background situation in Japan. Then, I will introduce the current status and trends of research data management in Japan, especially the efforts of libraries from a national-level survey. Next, I will show a preliminary survey we recently conducted in Vietnam. Finally, I will explain a questionnaire survey for an international comparison between Vietnam and Japan.

[Slide 3.3] Now let's move on to the first topic.

[Slide 3.4] In our previous two presentations, they talked about the state of research data management at Kyoto University. As you know, this trend is not unique to Japan. Before starting my main topic, I would like to talk the Japanese context, especially why now research data management for social aspects.

Research data management has become a very hot topic in the last decade. Broadly speaking, the expectations and demands from society include two aspects, research integrity and the re-use of research results. This slide shows the ratio of the number of retraction notices and cumulative number of data articles. Unfortunately I cannot explain the details due to time constraints, but importantly, in both contexts, research data management is a key phrase.

[Slide 3.5] Also, various recent recommendations on open science have given social significance to research data management: for example, the UNESCO Recommendation on Open Science sets out how open research data should be. It specifies the requirement that data be curated in accordance with the FAIR Principles. Maybe many of you will be familiar with this principle, which are a leading practice in research data sharing.

[Slide 3.6] Even in Japan, many policies have been implemented in response to these trends. This slide shows the main open science policy streams in Japan, with policies relating to open science being launched every year, since the joint statement by the G8 Science Ministers in 2013. As the most influential policies, I will briefly explain the 2021 policy that triggered the survey.

[Slide 3.7] In April 2021, an important policy document entitled 'Fundamentals of the Management and Use of Research Data using Public Funds' was published. The document outlines the concept of a national data platform, as illustrated in the figure. It is really busy figure, but the important point is that metadata stored in various data platforms, universities and research institutions will be consolidated and centrally managed in a central research data platform.

[Slide 3.8] In the previous slide, I explained the importance of consolidating metadata in research data infrastructure. However, research data management was still a new concept for many Japanese

universities and research institutions at that time. For most institutions, it was not clear what service could be established to make this concept a reality.

To overcome this situation, the library community in Japan named JPCOAR has been leading a large-scale survey for analyzing RDM current status and trends.

[Slide 3.9] So I would now like to show a quick overview of the survey and what we found out.

[Slide 3.10] As mentioned in the previous slide, the survey is being led by JPCOAR, the library community. Also, AXIES which is a community of information infrastructure centres, is responsible for the survey's supervisor, and NISTEP, a policy think-tank, is responsible for data analysis.

[Slide 3.11] For the survey, we compared various models and developed a new model to assess the maturity of RDM services. The model allows for a five-stage maturity assessment on six dimensions: awareness/policy/budget/services/user needs/IT infrastructure. For more information on model development please see our paper from the URL.

The means shown in the figure are the average for Japan as of 2022 using the model. The figure shows that while Awareness is relatively advanced, the other dimensions have only just begun.

[Slide 3.12] Based on the model presented on the previous slide, we have been conducting our research since 2020. The survey is conducted every two years, with 300-350 institutions responding each time. The major survey items are Basic information, Understanding user needs, Status of developing data policies and procedures, Status of research data management services, and Status of IT infrastructure. Due to the time constraints, I will introduce some key findings in the RDM services.

[Slide 3.13] Now we are focusing the main topics of this presentation. As noted on the previous slide, the 2024 Survey was conducted between November and December 2024. The questions are so varied that I cannot present them all, but I will focus here on the RDM support service provided by Japanese libraries.

[Slide 3.14] This figure presents changes in RDM services over time. As highlighted in the figure, provision of institutional repository, provision of data storage and DMP creation support have shown high growth. Especially, many libraries are involved in the provision of institutional repositories and DMP creation support.

[Slide 3.15] As of December 2024, about half of Japanese universities and research institutions have their own institutional repositories. In particular, many small and medium-sized public and private universities are major stakeholders. The reason for this is that Japan offers a national repository hosting service named JAIRO Cloud for small and medium-sized universities and research institutions. This JAIRO Cloud service has raised the number of institutional repositories held.

[Slide 3.16] Having said that, there are challenges in actual operation. This question asks about the challenges and possible barriers to share research data through institutional repositories. IR policy issues and budgeting issues have decreased over the years. However, awareness and practical issues have increased over the years.

[Slide 3.17] Next, I would like to introduce findings for DMP creation support. The DMP creation support is still in its infancy compared to the provision of institutional repositories, but has seen a fourfold increase in provision between 2022 and 2024. National research and development agencies and national universities are pushing up the average, and the main reason can be seen that Japanese funding agencies adopt the creation of DMP mandatory from 2025, so universities will now need to seriously consider DMP support. As can be seen from this example, progress in building an RDM support structure in Japan is strongly dependent on policy directions.

[Slide 3.18] Next, let's move on the third topic regarding to preliminary survey in Vietnamese institutions.

[Slide 3.19] In this year July, we visited several institutions, including VASS, and we discussed various aspects regarding to RDM. I think we both agreed on the importance of working collaboratively.

[Slide 3.20] We got a variety of information coming from the research organization structure in Viet Nam from previous visit. For example, VASS and VNU have a unified policy on RDM; institutions under the umbrella of VASS and VNU do not have independent policies or budgets, a clear difference from Japan where each university or research institute has its own policy and budgets.

There are also significant differences in the management systems for information infrastructure. In particular, storage, data analysis software and authentication systems are centrally managed by VASS and VNU, and these systems are managed in the so-called thin client. Also, which services to focus on is also discussed centrally by VASS and VNUs, and the decision-making process is centralized.

[Slide 3.21] These findings show that the differences between Viet Nam and Japan are very much in the policy and organizational structure aspects. These differences are clear and already comparable. On the other hand, other aspects defined in the maturity model, especially information infrastructure and RDM services, leave more room in each organization. We wanted to know how much variance these two aspects accounted for. Therefore, we would like to invite you to fill in a short questionnaire at this workshop.

[Slide 3.22] I think you will find a questionnaire in the handouts we have handed out today. Alternatively, you can find the questionnaire form via this QR code.

The slide shows the questionnaire overview. There are ten questions in total, 8 of which are multiple-choice questions. If you would like to help us to answer them, you can use either the online form or your paper. In the slides that follow, I will read out each question and then proceed to answer your questions in a hands-on format.

[Slide 3.23] So, I would now like to move on to a brief explanation. This question checks the services provided by your institution. If there is more than one, it is fine to check all of them. If you don't know, please check 'others' and describe 'don't know'.

[Slide 3.24] This question asks which department is responsible for the information infrastructure in your institution. We assume that the answer is, for example, IT centre or Library, but perhaps it is carried out by an individual technical staff. If you face any other situation, please describe your situation briefly.

[Slide 3.25] This question asks whether there is any discussion within your institution about the provision of data storage. If there is a discussion at the institution or departmental level, please check the top two boxes. If you have not heard of it, please check the third or fourth box.

[Slide 3.26] This question is for those who answered 'on the institution-wide scale' or 'at each faculty and department scale' in the previous question. We want to know what motivates you to provide storage. If this does not apply or you are not sure, you may skip this question.

[Slide 3.27] This question is still for those who provide storage in their institution or department. In terms of how storage is provided, please answer first whether you have your own servers or whether you provide it in a cloud environment. If you have not yet implemented this or have no plans to do so, please check the relevant box for each.

[Slide 3.28] This question asks how much data storage you would like to see prepared as a researcher. In other words, we want you to answer this question in terms of how much space you normally use to carry out your own research and how much data you would like to have accumulated for long-term storage.

[Slide 3.29] From so on, the question is related to the data analysis software. The simple image of data analysis software is the basic shared folder. Other analysis tools such as SPSS or integrated analysis platforms such as google colaboratory are also included in this question. If you do not use any of the tools provided by your institution, please check 'Not use or provide'.

[Slide 3.30] This question asks about authentication systems for using the information infrastructure. In Japan, email addresses in the organizational domain are generally used to authenticate individual researchers. In such cases, you can check the second box. Otherwise, a different authentication system may be required when submitting to international journals or when accessing the organization's internal storage. Please check the system appropriate to your situation respectively.

[Slide 3.31] This question asks about RDM services that you consider particularly important as a

researcher. The examples from the Japanese survey, such as Data Management Plan, analytical support, long-term preservation support and data sharing support, which were particularly requested. If you have any other suggestions, please list them under 'others'.

[Slide 3.32] This is the last question. Please feel free to describe what you expect from each organization in terms of research data management services.

[Slide 3.33] (*see slide*)

Current Status and Trends of Research Data Management Initiatives in Japanese and Vietnamese Universities and Research Institutions

Center for Social Research and Data Archives,
Institute of Social Science, The University of Tokyo
Yasuyuki Minamiyama
minamiyama@iss.u-tokyo.ac.jp
ORCID ID:0000-0002-7280-3342

Slide 3.1

Overview

1. Japanese context
2. RDM Current Status and Trends in Japanese Universities and Research Institutions
3. Preliminary RDM survey in Vietnamese Institutions
4. Explanation for RDM questionnaire

Slide 3.2

1. Japanese context

3

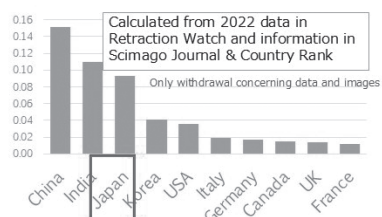
SSJDA
Social Science Japan Data Archive

Slide 3.3

Scientific papers and research data

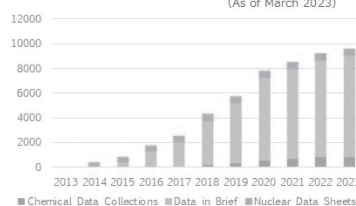
Addressing research integrity

Ratio of the number of retraction notices in the same year to the number of publications



Reuse of research results

Cumulative number of articles in Elsevier data journals
(As of March 2023)



(Data journal: articles with data and commentary as outcomes)

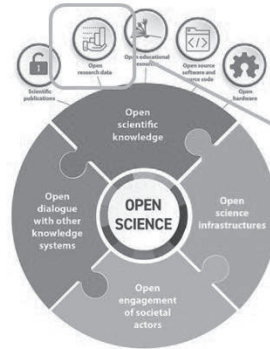
Research Data Management becomes the key phrase
both in the context of research integrity and the reuse of research results

4

Ref: Retraction watch database <http://retractiondatabase.org/>
ScienceDirect <https://www.sciencedirect.com/>

Slide 3.4

UNESCO Recommendation on Open Science



"Open research data are available in a timely and user-friendly, human- and machine-readable and actionable format, in accordance with principles of good data governance and stewardship, notably the **FAIR (Findable, Accessible, Interoperable, and Reusable) principles**, supported by regular curation and maintenance"



FAIR principle: the best-known standard for appropriate sharing and publication of research data

The sharing and re-use of research data across disciplines is beginning to take on social significance



5

Ref: UNESCO Recommendation on Open Science
<https://unesdoc.unesco.org/ark:/48223/pf0000379949/locale=en>

Slide 3.5

Major open science policy streams in Japan

2013.6	A joint statement by the G8 Science Ministers on making research data open
2015.3	"Promoting Open Science in Japan-Opening up a new era for the advancement of Science," Expert Panel on Open Science, based on Global Perspectives, Cabinet Office
2016.1	5 th Science and Technology Basic Plan
2016.2	"Promoting Openness of Academic Information (A Summary of Deliberations)," Academic Information Committee, Subdivision on Science, Council for Science and Technology
2016.7	"Recommendations Concerning an Approach to Open Science that Will Contributes to Open Innovation", Science Council of Japan
2017.6	"Comprehensive Strategy for Scientific and Technological Innovation 2017", Cabinet Office
2018.6	"Guideline for Establishing Data Policy at National Research and Development Agencies", Cabinet Office
2020.5	"Proposal for Toward Deepening and Promoting Open Science", Science Council of Japan
2021.3	6 th Basic Plan for Science, Technology and Innovation
2021.4	"Fundamentals of the Management and Use of Research Data using Public Funds", Council for Integrated Innovation Strategy
2022.12	"Responses to deliberations on the promotion of research DX - especially from the perspective of promoting open science and data utilization -", Science Council of Japan
2024.2	"National Policy on Promoting Open Access to Publicly Funded Scholarly Publications and Scientific Data", Cabinet Office



6

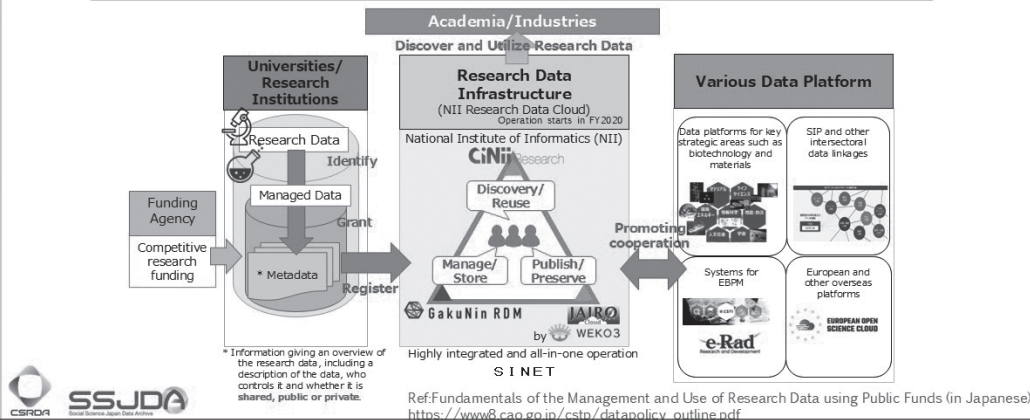
<https://rcos.nii.ac.jp/en/document/policy/>

Slide 3.6

Fundamentals of the Management and Use of Research Data using Public Funds

Building national data platform with a research data infrastructure at its core

→ Promotes publication and sharing of research data, enabling users in industry, academia and government to discover for data



Slide 3.7

Community-driven Initiatives

- › To strategically develop research data infrastructures, it is necessary to **analyze the progress of universities and research institutions for RDM services development**
- › The library community (JPCOAR), the information infrastructure center community (AXIES) and policy think tanks (NISTEP) worked together to **conduct a large-scale survey for analyzing RDM Current Status and Trends in Japan**

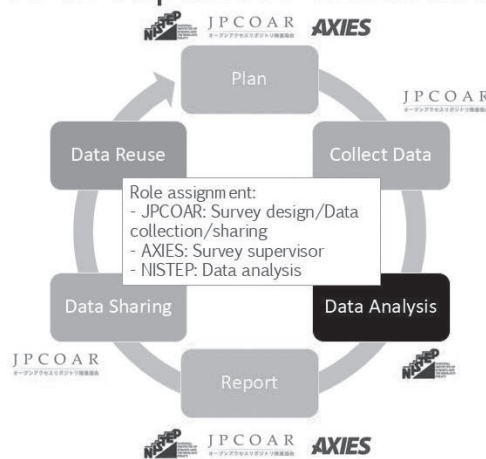
Slide 3.8

2. RDM Current Status and Trends in Japanese Universities and Research Institutions

9

Slide 3.9

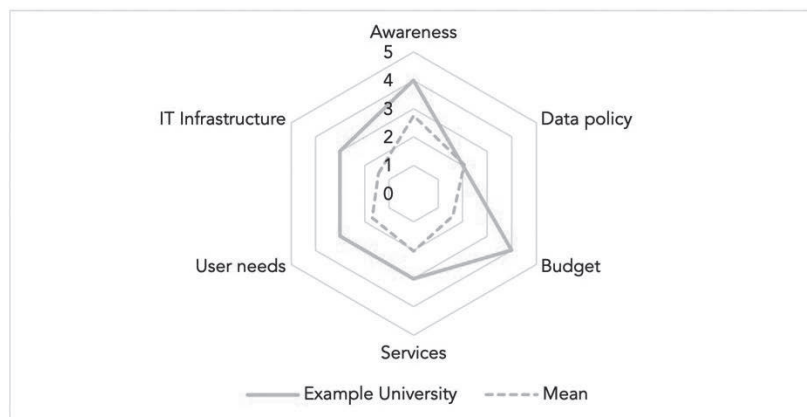
Survey of Research Data Management Initiatives in Japanese Institutions



10

Slide 3.10

RDM Service Maturity Model



RDM Service Maturity Model can be implemented across diverse institutions using six key dimensions

11

<https://doi.org/10.5334/dsj-2025-018>

Slide 3.11

Summary

Survey Title	Survey of RDM Initiatives in Japanese Institutions, 2020	Survey of RDM Initiatives in Japanese Institutions, 2022	Survey of RDM Initiatives in Japanese Institutions, 2024
Universe	Japanese universities and research institutions	Japanese universities and research institutions	Japanese universities and research institutions
Sample Size	352 valid responses (about 53.4% within the JPCOAR)	309 valid responses (about 42.7% within the JPCOAR)	295 valid responses (about 38.1% within the JPCOAR)
Date of collection	November 27, 2020, to December 28, 2020	November 28, 2022, to December 28, 2022	November 25, 2024, to December 27, 2024
Major Survey Items	*Basic information	*Basic information	*Basic information
	*Understanding user needs	*Understanding user needs	*Understanding user needs
	*Status of developing data policies and procedures	*Status of developing data policies and procedures (including Budgets)	*Status of developing data policies and procedures (including Budgets)
	*Status of research data management services	*Status of research data management services	*Status of research data management services
Data URL	*Status of IT infrastructure	*Status of IT infrastructure	*Status of IT infrastructure
	https://doi.org/10.34500/SSJDA.1587	https://doi.org/10.34500/SSJDA.1588	(Scheduled for release in FY2025)

Conducted biennially from 2020; responses received from 300-350 institutions, mainly JPCOAR participating institutions

12

Slide 3.12

2024 survey results (summary)

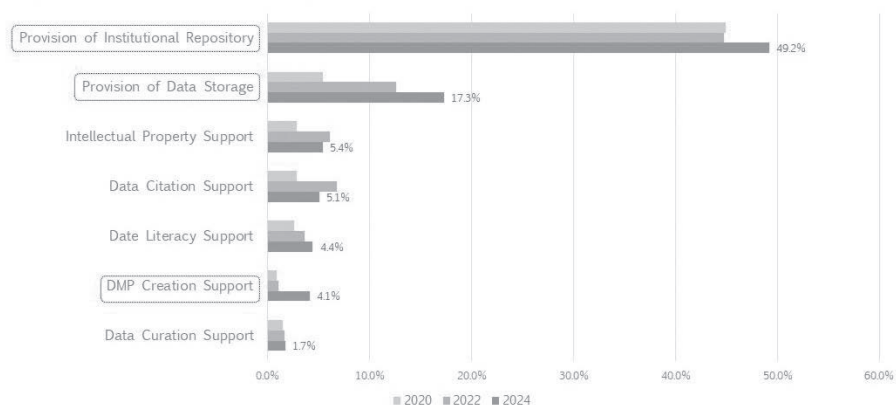
- › Significant increase in the rate of data policy formulation, particularly at national universities
 - The establishment of the service structure itself is in the process of implementation
- › Budgeting is progressing, particularly for IT infrastructure and RDM support services
 - In FY2024, the impact of the OA acceleration project was also observed
- › RDM support services implemented by libraries include **the provision of institutional repositories, as well as a high growth rate in support for provision of data storage and DMP creation support**
 - Data sharing through institutional repositories has not changed significantly in terms of performance, but awareness of the issues is increasing year by year



13

Slide 3.13

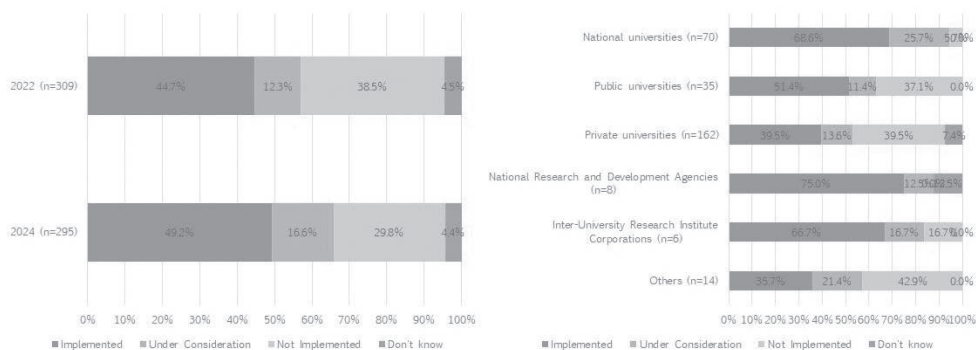
Implementation of RDM services (secular change)



High growth since 2020 in provision of institutional repository, provision of data storage, and DMP creation support

Slide 3.14

Provision of Institutional Repository



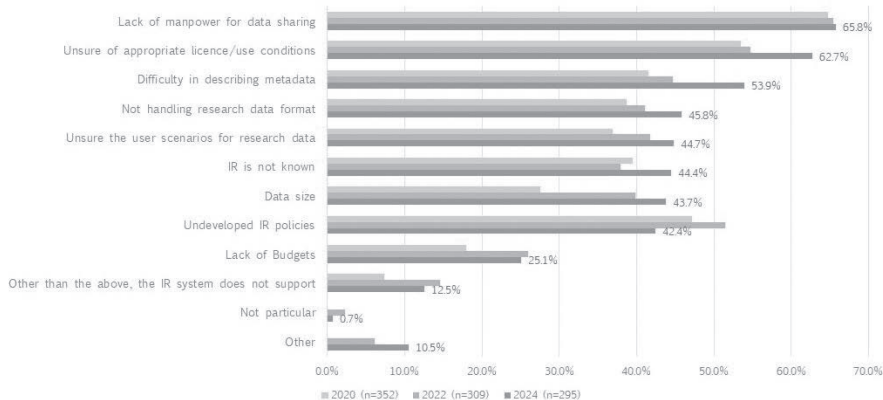
- Around half of institutions have their own repositories as of December 2024
- Many small and medium-sized public/private universities are served by themselves
- (Reason) Institutional repository hosting services (JAIR Cloud) for small and medium-sized institutions are provided at the national level, leading to an overall increase in the number of institutions



15

Slide 3.15

Challenges and possible barriers to share research data through institutional repositories



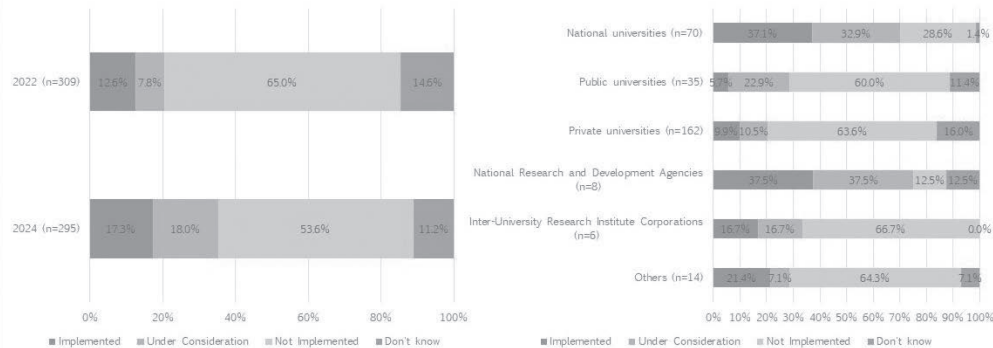
While policy and budgetary issues have decreased, awareness of challenges and practical issues are increasing year by year



16

Slide 3.16

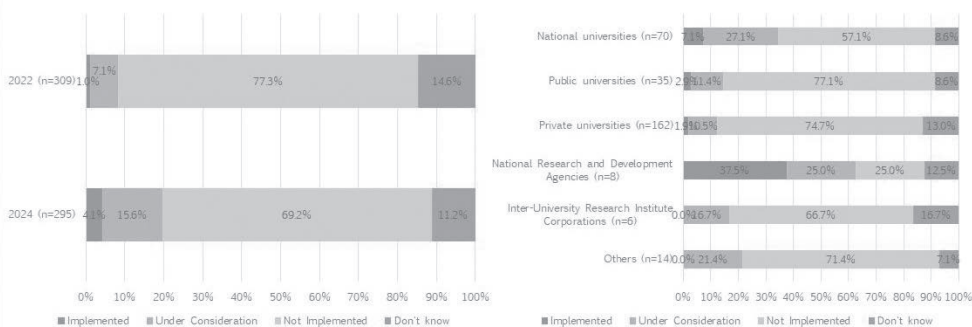
Provision of Data Storage



- Provision of data storage has increased about 5% since 2022, with the number of organizations considering it more than doubling
- **National Research and Development Agencies and national universities are pushing up the average**
- (Reason) Multiple factors are possible; one possible reason is that GakuNin RDM, an institutional storage brokering service, has gained popularity and the institutional data storage service has become more visible

Slide 3.17

DMP Creation Support



- Service implementing organizations increase almost four-fold between 2022 and 2024
- **National Research and Development Agencies and national universities are pushing up the average**
- (Reason) The creation of DMPs will become mandatory for Japanese funding agencies from 2025

Slide 3.18

3. Preliminary RDM survey in Vietnamese Institutions

19

SSJDA
Social Science Japan Data Archive

Slide 3.19

Courtesy call in July



Slide 3.20

Preliminary survey results

- › In VASS and VNU, the parent organization set a policy/budgets relating to RDM
 - There are no different policies/budgets for research institutions
- › The information infrastructure is managed centrally in VASS and VNUs
 - Storage
 - Software for data analysis
 - Authentication systems
- › Discussion for user needs are ongoing on which services to focus on



21

Slide 3.21

Towards an international comparison of Vietnam and Japan

- › Developing simple questionnaire based on Japanese RDM survey, focusing on interest areas of comparison
- › Currently requesting review of questionnaire by Vietnamese experts from visited institutions
- › The questionnaire will be presented in the next and subsequent slides (in English)

English



Vietnamese



22

Slide 3.22

Questionnaire overview

1. Number of questionnaire: 10 (of 8 are multiple-choice)
2. Overview about Academic Information infrastructure
 - Storage
 - Software for data analysis
 - Authentication system
3. Needs for Research Data Management Services

English



Vietnamese



23

Slide 3.23

Q1. Please list up services relating to the information infrastructure that your institution provides to its members.

- › ☐ Storage
- › ☐ Software for data analysis
- › ☐ Authentication system
- › ☐ Others:



24

Slide 3.24

Q2. Which is the department in charge of the information infrastructure at your institution?

› (Free description)



25

Slide 3.25

Q3-1. Storage for research data is already prepared or under consideration?

- › ☐ on the institution-wide scale
- › ☐ at each faculty and department scale
- › ☐ Up to the individual researcher
- › ☐ Recognize the necessity but have not taken any steps to considered or implemented.
- › ☐ I don't know
- › ☐ Others:



26

Slide 3.26

Q3-2. Please tell the purpose of the storage implementation.

- › ☐ Support for individual researchers in managing research data
- › ☐ Temporary data storage for data analysis
- › ☐ Sharing research data among members of a collaborative research project
- › ☐ For responding to an academic journals' requirement of data disclosure at the article's contribution
- › ☐ For responding requests to preserve research data in domestic and overseas



27

Slide 3.27

Q3-3. How does your institution provide storage to users?

- › ☐ Offered on-premise
- › ☐ Offered by commercial cloud services (Microsoft 365, Dropbox, etc.)
- › ☐ Offered or under consideration in one or both above types - on premise or commercial cloud services
- › ☐ No plans to offer
- › ☐ I don't know
- › ☐ Others:



28

Slide 3.28

Q3-4. What basic capacity do you think is required per user for long-term storage of research data?

- › ☐ Less than 1GB
- › ☐ 1GB-10 GB
- › ☐ 10 GB-100GB
- › ☐ 100 GB-1 TB
- › ☐ More than 1 TB
- › ☐ I don't know
- › ☐ Others:

Q4. data analysis infrastructure; Does your institution provide any data analysis infrastructure, such as shared computers, to its members?

- › ☐ Use or provide
- › ☐ Not use or provide
- › ☐ I don't know
- › ☐ Others:

Q5. Authentication system for using information infrastructure; What kind of authentication system does your institution have in place when researchers use the information infrastructure listed above?

- › ☐ Use an international authentication system (i.e. ORCID ID)
- › ☐ Use the specific authentication system at institution scale. (i.e. issue unique ID accounts to user)
- › ☐ Use an authentication system provided by commercial services (e.g. Microsoft 365/Dropbox)
- › ☐ I don't know
- › ☐ Others:



31

Slide 3.31

Q6. What services do you think are most in demand among researchers?

- › ☐ Support for creating research data management plans (DMP)
- › ☐ Support for analyzing research data
- › ☐ Support for preserving research data
- › ☐ Support for sharing research data
- › ☐ I don't know
- › ☐ Others:



32

Slide 3.32

Q7. Please tell us any other comments or perspectives on research data management services in your institution

› (Free description)

› _____



33

Slide 3.33

| CHAPTER 2

Research Presentation at International Data Week (IDW)

IDW combines the RDA Plenary Meeting, the biannual meeting of this international member organisation working to develop and support global infrastructure facilitating data sharing and reuse, and SciDataCon, the scientific conference addressing the frontiers of data in research organised by CODATA and WDS.

The presentation recorded here was held as a session at SciDataCon, with HARA and MINAMIYAMA also serving as session organizers.

Session title: *Research data stewardship in the Asia Pacific – What is happening now and how to move forward?*

Session description: Research funding organizations in the Asia Pacific are moving forward to develop support for research data management (RDM), especially for data-intensive research. At the same time, researchers and students are becoming more proactive in sharing datasets to enhance research visibility and impact. The convergence of top-down data policies and bottom-up initiatives is shaping a culture of data management and sharing that supports research integrity and trustworthy science.

This session offers a platform for institutions to share experiences with research data management support in the Asia Pacific. It will address what programs are in place, how they are implemented, how data communities engage with policymakers, and the challenges encountered. Four presenter groups from different research data contexts will share their ongoing stewardship efforts across the region.

Toward the Establishment of Research Data Management Schemes in Japan and Southeast Asia

Yasuyuki MINAMIYAMA

Ph.D., Associate Professor, Center for Social Research and Data Archives,
Institute of Social Science, The University of Tokyo, Japan
minamiyama@iss.u-tokyo.ac.jp

Abstract:

Research data management in Japanese academic research institutions has already been practiced in the natural sciences and engineering. However, it is difficult to say that there is sufficient understanding or implementation of research data in the humanities and social sciences. Academic institutions in Southeast Asian countries are also facing similar problems, and there is a delay in establishing appropriate systems and frameworks to manage, preserve, and reuse research data. Then, Kyoto University, which has built up networks with universities and various communities in Southeast Asia, started an international exchange project to support the promotion of RDM in this area. Through joint surveys of the current state of RDM in the Southeast Asian area, this exchange project aims to create a framework that promotes the development of human resources related to RDM activities adapted to each area's situation. To this end, we will provide training on GakuNin RDM, a research data management platform, and introduce examples of RDM implementation at higher research and educational institutions such as Kyoto University. At the same time, through this exchange, we will explore ways to promote RDM in the humanities and social sciences in Japan. In this session, we will provide an overview of our project and report on the current situation of RDM in Japan and Southeast Asia.

The following text is a transcription of the oral presentation.

[Slide 4.1] (*see slide*)

[Slide 4.2] This presentation is a part of our new project. First, I'll give you a brief overview of the project, which focuses on an international exchange program related to research data management at Kyoto University. Then, I'll introduce the university's current RDM activities. Finally, I'll talk about the primary outcome of the project, titled "The Current Situation of RDM in Japan and Southeast Asia."

Through these three parts, I hope to share our efforts in building international collaboration in the field of RDM.

[Slide 4.3] The first is the brief overview of the project.

[Slide 4.4] Our project is officially titled “Support for Constructing a Research Management Scheme in Vietnamese Universities and Research Institutes.” It's part of the “NEXUS Y-tech Program,” run by the Japan Science and Technology Agency or JST. This program primarily supports young people under 40 in Southeast Asian countries, including students, researchers, and instructors. This year, we sent RDM experts to Vietnam to train researchers at the “Vietnam Academy of Social Sciences” and “Vietnam-Japan University.” Through this, we aim to build human networks and promote future joint research.

[Slide 4.5] Next, I'll introduce current RDM activities at Kyoto University.

[Slide 4.6] At Kyoto University, we use the term “research data” in two main contexts: research integrity and research data management. In research integrity, research data means the materials that form the basis of published results. In research data management, it refers to all data collected or generated during the research process. So, data for research integrity is actually a subset of data managed under RDM.

It's also important to remember two things:

- First, not all data needs to be shared publicly.
- And second, good data management doesn't mean keeping everything forever.

[Slide 4.7] There are many stakeholders involved in research data management. At Kyoto University, the three main ones are researchers, institutions, and libraries.

- Researchers are responsible for implementing RDM in their projects.
- Institutions set policies and guidelines for managing data.
- And libraries, along with other support units, provide advice, training, and technical help.

Together, these groups form the foundation of Kyoto University's RDM ecosystem.

[Slide 4.8] Currently, three organizations play a central role in RDM at Kyoto University:

1. The Institute for Information Management and Communication, or IIMC
2. The Main Library
3. The Research Administration Office, or we call KURA

In early 2024, three organizations jointly launched the RDM Support Center. The center offers consultations for researchers, develops rules related to RDM, and organizes training sessions for faculty. This collaboration has enabled the university to provide more consistent and effective RDM support.

[Slide 4.9] For researchers, there are two main gateways to Kyoto University's RDM services: The IIMC and the Main Library.

The IIMC offers an online storage service called “RDM Drive,” which was launched in May of this year. Its main features are as follows:

- Its purpose is to allow researchers to store and share their data.
- Its capacity is that each project can use between 2 and 20 terabytes of storage.
- It is free of charge, but it is within this year only.
- And as for its eligibility, currently, this service is available to faculty members only.

[Slide 4.10] The Main Library also provides a research data storage service. It started in 2019 and uses the university's institutional repository, KURENAI. In this system:

- Users can register research data as evidence supporting their publications.
- Users can also choose whether to make their data open or keep it closed.
- This service is free of charge, but each data capacity is less than 5 gigabytes.

By 2026, the IIMC and the Main Library plan to integrate their systems, so researchers can manage their data more seamlessly across both platforms.

[Slide 4.11] In Japan, RDM services can be divided into three levels.

At the national level, we have GakuNin RDM, operated by the National Institute of Informatics. At the national level, we have GakuNin RDM, operated by the National Institute of Informatics. It supports collaborative data management but faces several issues such as:

- Limited storage capacity and file size (100 GB per user)
- Restrictions on external storage linkage
- Occasional instability in performance and availability
- Limited support system
- Uncertainty about future cost and pricing model

At the university level, Kyoto University, for example, services KURENAI, as mentioned. But it also has some limitations, such as follows:

- Coverage is limited to Kyoto University-employed researchers.
- Limited storage capacity and file size (mostly 5GB).
- Metadata quality and consistency vary across records.
- Integration with international repositories and data platforms remains limited.

That's why institutional support is so important. At CSEAS, Kyoto University, we have developed MyDatabase to help address some of these problems, particularly in the humanities and social sciences.

[Slide 4.12] MyDatabase is an "Easy to Use" database builder for the humanities. The advantages of MyDatabase are:

- It can accept metadata schemas tailored to the researchers' research needs.
- It provides an API for creating advanced GUIs.

Before this current project, we organized another international collaboration using MyDatabase.

[Slide 4.13] The project name was RsDA, the Research Small Data Alliance in East and Southeast Asia. 18 institutions from 9 countries and areas took part, including libraries, museums, and archives. Together, we discussed how to share our experiences and knowledge about research data management in this region.

As the main product, we developed an inventory metadata schema and an inventory database for research data repositories using MyDatabase. However, we faced a significant problem. Many members were unclear about what data they had, who had it, and where and how it was stored.

We learned that understanding the current situation of research data in each institution is essential before building an RDM framework.

That's why, in our new project, one of our key goals is to clarify the current RDM environment in this region.

[Slide 4.14-16] (*see slides*)

[Slide 4.17] Based on the model presented on the previous slide, we have been conducting our research since 2020. The survey is conducted every two years, with 300-350 institutions responding each time. The major survey items are Basic information, Understanding user needs, Status of developing data policies and procedures, Status of research data management services, and Status of IT infrastructure. Due to the time constraints, I will introduce some key findings in the RDM services.

[Slide 4.18-19] (*see slides*)

[Slide 4.20] These findings show that the differences between Viet Nam and Japan are very much in the policy and organizational structure aspects. These differences are clear and already comparable. On the other hand, other aspects defined in the maturity model, especially information infrastructure and RDM services, leave more room in each organization. We wanted to know how much variance these two aspects accounted for. Therefore, we would like to invite you to fill in a short questionnaire at this workshop.

[Slide 4.21-25] (*see slides*)

Toward the establishment of Research Data Management schemes in Japan and Southeast Asia

Yasuyuki Minamiyama (University of Tokyo)

Shoichiro Hara (Kyoto University)



Slide 4.1

Overview

1. Project background
2. Research Data Management at Kyoto University
3. Current situation of RDM in Japan and Southeast Asia



Slide 4.2

1. Project background



INTERNATIONAL
DATA WEEK
13-16 October 2025
Brisbane, Australia

Slide 4.3

JST NEXUS Y-tech Project

NEXUS 日ASEAN 科学技術
イノベーションを促進するための日ASEAN 連携推進事業

日本語 / ENGLISH JST Japan Science and Technology Agency

TOP About Information on open calls for applications List of exchange plans and achievements

Exchange plans and achievements

JST Top > Networked Exchange, United Strength for Stronger Partnerships between Japan and ASEAN (NEXUS) > Young Talents Exchange and Capacity Development Program > List of exchange plans and achievements > Exchange plans and achievements

Leadership Exchange Course FY2024

Support for constructing a research data management (RDM) scheme in Vietnamese universities and research institutes

Japanese Organization	Kyoto University
Principal Implementer	Associate Prof. OHNO Mikiko (Center for Southeast Asian Studies)
ASEAN Organization	Vietnam Vietnam Academy of Social Sciences, Vietnam Japan University (VJU)
Number of Participants	[ASEAN to Japan] — [Japan to ASEAN] Vietnam 2

Aims to create opportunities to build, maintain, and develop human exchanges for future joint research between the two countries

<https://www.ist.go.jp/aspire/nexus/y-tec/en/theme/2024/vol023.html>

Slide 4.4

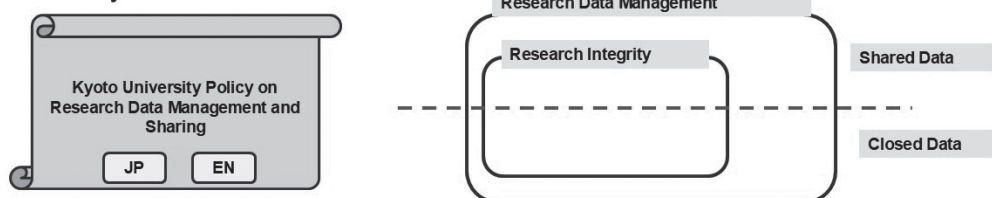
2. Research Data Management at Kyoto University



Slide 4.5

What is Research Data at Kyoto University?

- **Context of Research Data Management:** Recorded information, both digital and non-digital, gathered or produced by the researchers of Kyoto University in the process of their research activities
- **Context of Research Integrity:** Research materials which are the grounds of presented research discovery.
 - These **do not mean** that all research data needs to be shared
 - Proper management **does not entail** that all research data must be preserved indefinitely



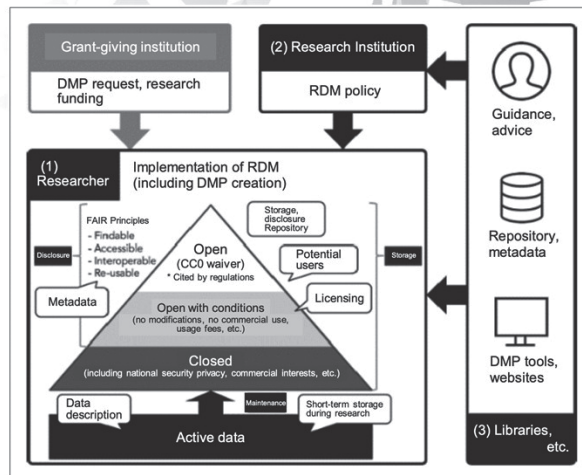
Slide 4.6

RDM and Stakeholders

Appropriate RDM is now widely adopted by academic institutions, as it enables them to assess and enhance their research capabilities, thereby establishing the necessary infrastructure and providing support.

RDM and Stakeholders

- RDM implementation by **researchers**
- RDM policies by **research institutions**
- Support for RDM by **libraries** and other institutions



Slide 4.7

RDM Support Center started in 2024

Research Administration Office

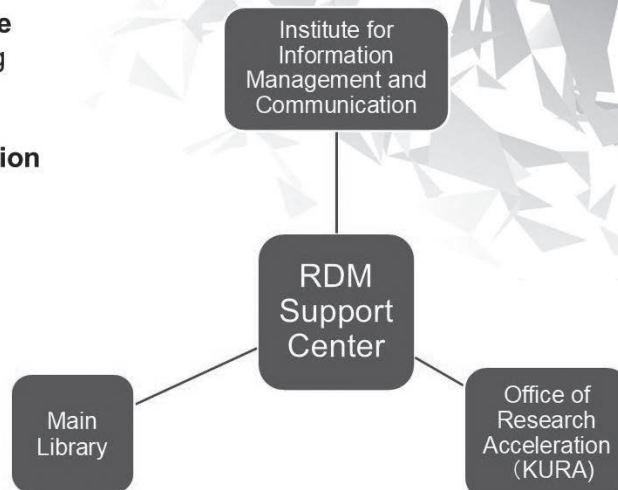
- responsible for policy-making

Institute for Information Management and Communication (IIMC) & Main Library

- provide RDM services

Tasks

- Consultation on RDM
- Guidelines
- Training



Slide 4.8

Institute of Information management & Communication (IIMC)

Purpose: To store and share research data generated in the course of research

Capacity: 2–20 TB per project

Cost: Fee-based (only this first first year is free)

Eligibility: Primarily for faculty members.
Researchers outside of KU need to be registered as project members.



利用開始手続きが完了した方は
[RDM Drive] にアクセス



Slide 4.9

Main Library - Institutional Repository KURENAI (紅) for RD

Since 2019

Purpose: To store the items stored are
research data for serving as evidence
for research outputs users can choose
RD on open or close

Capacity: 5 GB per item

Cost: free of charge



The RD storage provided by IIMC and the Main Library will be interlinked in 2026

Slide 4.10

Hierarchy of Research Data Management Services

1. **National Level:** **GakuNin RDM** is a research data management system provided by the National Institute of Informatics (NII). It centrally manages diverse data held by research teams, supporting the efficient and equitable use of data.

Problems :

- Limited storage capacity and file size (100 GB per user)
- Restrictions on external storage integration
- Occasional instability in performance and availability
- Limited support system
- Uncertainty about future cost and pricing model

2. **University Level:** **KURENAI** is Kyoto University's institutional repository

Problems:

- Coverage is limited mainly to Kyoto University-employed researchers
- Limited storage capacity and file size (mostly 5GB)
- Metadata quality and consistency vary across records
- Integration with international repositories and data platforms remains limited

3. **Importance of Institutional Level Service** → **MyDatabase (Center for Southeast Asian Studies)**

Slide 4.11

MyDatabase

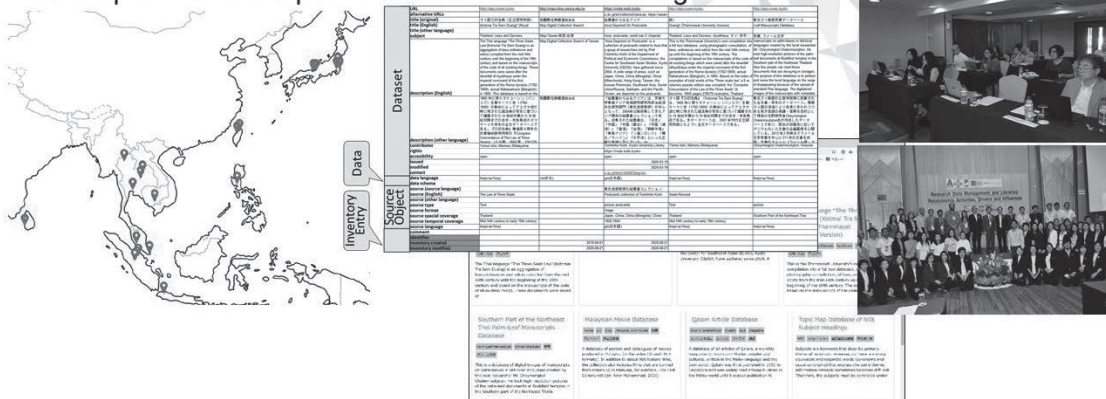
- MyDatabase is an “Easy to Use” database builder for humanities
- There are no significant restrictions on the metadata structure
- MyDatabase API for advanced GUI



Slide 4.12

Research small Data Alliance in East and Southeast Asia (RsDA)

RsDA is an international collaborative activity to share local needs and seeds for research data preservation and to discuss ideas to develop a network to promote collaboration in the region.



Slide 4.13

3. Current situation of RDM in Japan and Southeast Asia

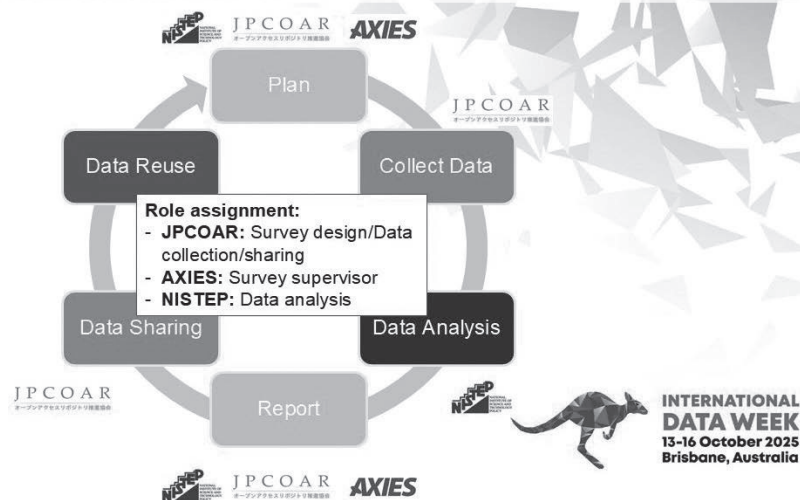


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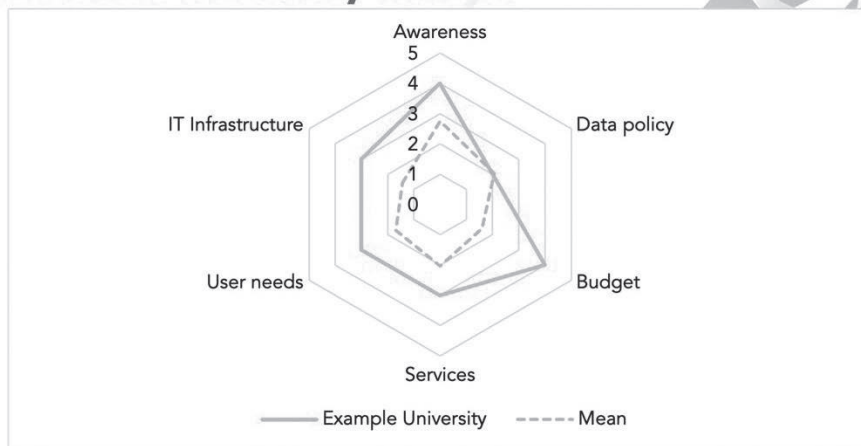
Slide 4.14

Survey of Research Data Management Initiatives in Japanese Institutions



Slide 4.15

RDM Service Maturity Model



RDM Service Maturity Model can be implemented across diverse institutions using six key dimensions

Ref: Maturity Model for Organizational Research Data Management Services
<https://doi.org/10.5334/141.2025.040>

Slide 4.16

Summary

Survey Title	Survey of RDM Initiatives in Japanese Institutions, 2020	Survey of RDM Initiatives in Japanese Institutions, 2022	Survey of RDM Initiatives in Japanese Institutions, 2024
Universe	Japanese universities and research institutions	Japanese universities and research institutions	Japanese universities and research institutions
Sample Size	352 valid responses (about 53.4% within the JPCOAR)	309 valid responses (about 42.7% within the JPCOAR)	295 valid responses (about 38.1% within the JPCOAR)
Date of collection	November 27, 2020, to December 28, 2020	November 28, 2022, to December 28, 2022	November 25, 2024, to December 27, 2024
Major Survey Items	• Basic information • Understanding user needs • Status of developing data policies and procedures • Status of research data management services • Status of IT infrastructure	• Basic information • Understanding user needs • Status of developing data policies and procedures (including Budgets) • Status of research data management services • Status of IT infrastructure	• Basic information • Understanding user needs • Status of developing data policies and procedures (including Budgets) • Status of research data management services • Status of IT infrastructure
Data URL	https://doi.org/10.34500/SSJDA.1587	https://doi.org/10.34500/SSJDA.1588	(Scheduled for release in FY2025)

Conducted biennially from 2020; responses received from 300-350 institutions, mainly JPCOAR participating institutions

Slide 4.17

2024 survey results (summary)

- Significant increase in the rate of data policy formulation, particularly at national universities
 - The establishment of the service structure itself is in the process of implementation
- Budgeting is progressing, particularly for IT infrastructure and RDM support services
 - In FY2024, the impact of the OA acceleration project was also observed
- RDM support services implemented by libraries include **the provision of institutional repositories, as well as a high growth rate in support for provision of data storage and DMP creation support**
 - Data sharing through institutional repositories has not changed significantly in terms of performance, but awareness of the issues is increasing year by year



Slide 4.18

Preliminary Survey in Viet Nam



Courtesy call to Vietnam Academy of Social Sciences in July



International workshop at PNC 2025 in September

<https://vass.gov.vn/tin-tuc/hop-tac-quoc-te/trung-tam-nghien-cuu-dong-nam-a-thuoc-dai-hoc-kyot-d18-t9566.html>
<https://sites.google.com/view/pnc2025>

Slide 4.19

Towards an international comparison of Vietnam and Japan

- Developing simple questionnaire based on Japanese RDM survey, focusing on interest areas of comparison
- Currently requesting review of questionnaire by Vietnamese experts from visited institutions
- The questionnaire will be presented in the next and subsequent slides (in English)

English



Vietnamese



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Slide 4.20

Short-Questionnaire at PNC 2025 Overview

1. Universe: PNC invited session participants + α
2. Date of collection: September 22, 2025, to October 3, 2025
3. Sample size: 36 valid responses
 - Vietnam: 7
 - Thailand: 11
 - Taiwan: 5
 - Philippines: 6
 - Other Countries (Malaysia, Laos, Indonesia, China, Cambodia): 7
4. Major Survey Items (10 questionnaire)
 - Needs for Research Data Management Services
 - Storage
 - Software for data analysis
 - Authentication system

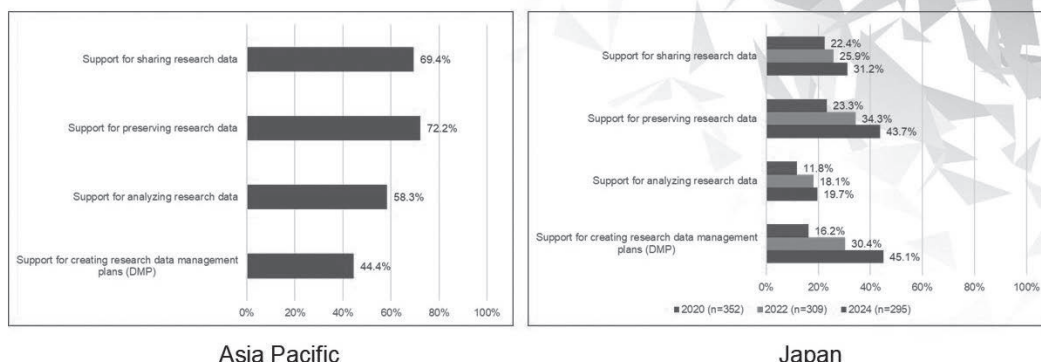


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Slide 4.21

Q6. What services do you think are most in demand among researchers? (Mark all that apply)



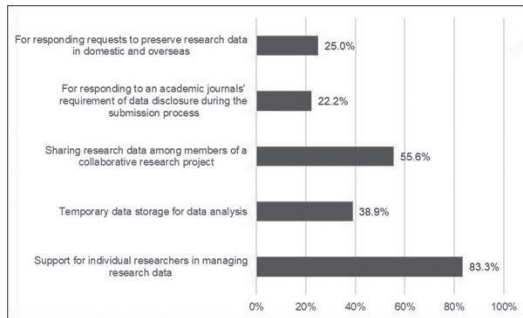
Asia Pacific

Japan

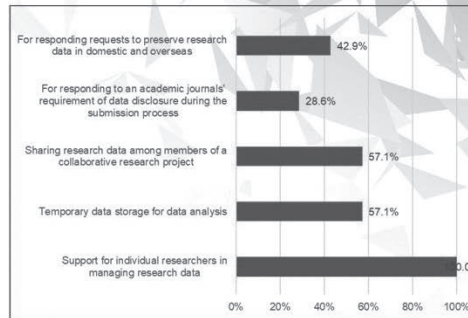
Priority difference: Preservation tops in Asia-Pacific, but DMP tops in Japan

Slide 4.22

Q3-2. Please tell the purpose of the storage implementation. (Mark all that apply)



Asia Pacific



Viet Nam

No change in priorities; but increased awareness of long-term preservation and data analysis?

Slide 4.23

Interviews in Vietnam

- In VASS and VJU, the parent organization set a policy/budgets relating to RDM
 - There are no different policies/budgets for research institutions
- The information infrastructure is managed centrally in VASS and VJUs
 - Storage
 - Software for data analysis
 - Authentication systems
- Discussion for user needs are ongoing on which services to focus on



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Slide 4.24

Conclusion

1. Project background
 - Overview of JST Nexus Y-tec Project
1. Research Data Management at Kyoto University
 - Establishment of RDM schemes in Japan: the case of Kyoto University
 - Provides IT infrastructure at three levels: national, university and research group level
2. Current situation of RDM in Japan and Southeast Asia
 - Large-scale surveys on the status of RDM initiatives are being conducted at national level in Japan
 - Seeking to expand into Southeast Asia, particularly Vietnam, which is a cooperating country in this project



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Slide 4.25

| CHAPTER 3

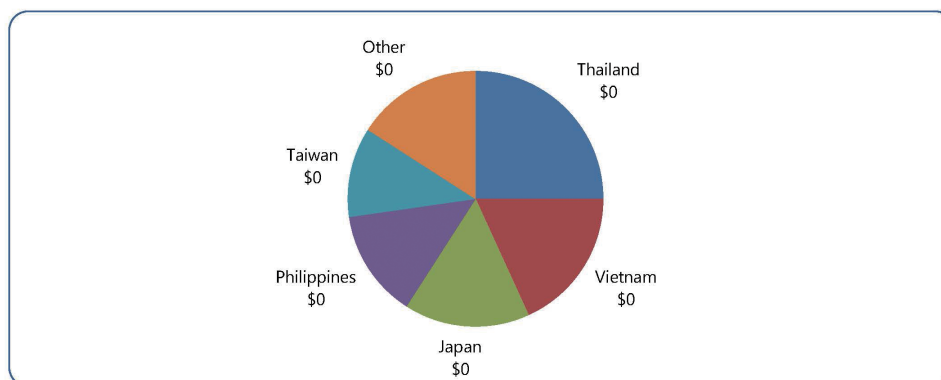
RDM Survey Analysis

This chapter presents preliminary results from the RDM survey analysis conducted during the PNC2025 special session. The survey targeted participants of that session and was conducted using an online form and questionnaire. The survey period ran from September 22, 2025, to October 3, 2025, with a total of 44 valid responses. The questionnaire comprised 10 items, primarily inquiring about needs for RDM services, storage, software for data analysis, and the status of authentication systems. We note that Q2 and Q7 are free description sections; as they contain some personal information, we excluded related description from this report.

Questionnaire on research data management in East and Southeast Asian countries and regions 單純集計結果

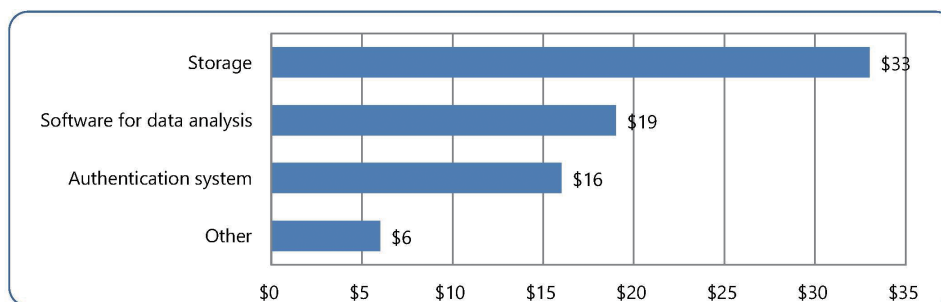
Country

Category	Frequency	Percent
1 Thailand	11	25.0%
2 Vietnam	8	18.2%
3 Japan	7	15.9%
4 Philippines	6	13.6%
5 Taiwan	5	11.4%
6 Other	7	15.9%
Total	44	100.0%



Q1. Please list up services relating to the information infrastructure that your institution provides to its members. (Mark all that apply)

Category	Frequency
1 Storage	33
2 Software for data analysis	19
3 Authentication system	16
4 Other	6
Total	74

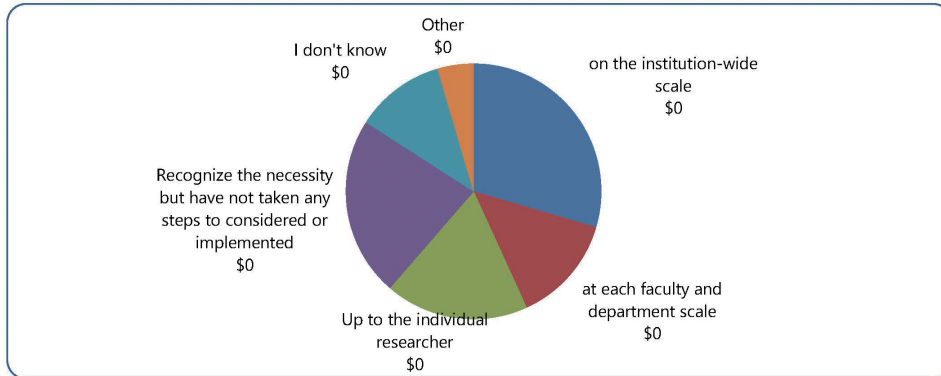


Response trends:

Q1 asked respondents to select all applicable service types provided by their institution. The most frequently selected option was “Storage,” which was reported by 33 institutions (approximately 75%). “Data analysis software” was reported by 19 institutions (43.1%), and “Authentication system” was reported by 16 institutions (36.3%).

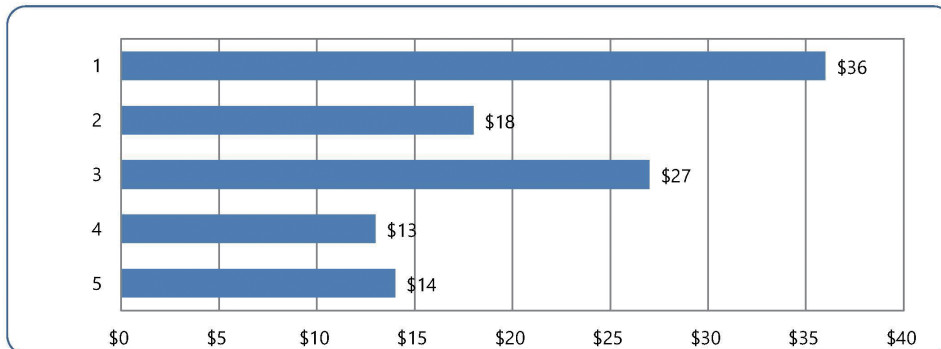
Q3-1. Storage for research data is already prepared or under consideration?

Category	Frequency	Percent
1 on the institution-wide scale	13	29.5%
2 at each faculty and department scale	6	13.6%
3 Up to the individual researcher	8	18.2%
4 Recognize the necessity but have not taken any steps to considered or implemented	10	22.7%
5 I don't know	5	11.4%
6 Other	2	4.5%
Total	44	100.0%



Q3-2. Please tell the purpose of the storage implementation. (Mark all that apply)

Category	Frequency
1 Support for individual researchers in managing research data	36
2 Temporary data storage for data analysis	18
3 Sharing research data among members of a collaborative research project	27
4 For responding to an academic journals' requirement of data disclosure during the submission process	13
5 For responding requests to preserve research data in domestic and overseas	14
Total	108



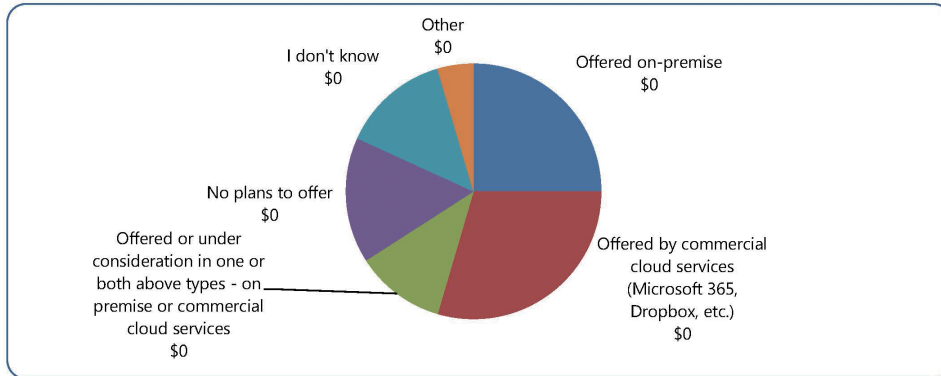
Response trends:

Q3-1 asked whether there was any discussion within each institution about the provision of data storage. The most common answer was “on the institution-wide scale,” selected by 29.5% of respondents. An additional 13.6% chose “at each faculty or department scale,” meaning that, combined, 40% of respondents reported that their institution provides data storage services. In contrast, 18.2% chose “up to the individual researcher,” and 22.7% responded “recognize the necessity but have not taken any steps to consider or implement,” indicating that a comparable proportion of institutions have not yet implemented data storage services.

Q3-2 was for those who answered “on the institution-wide scale” or “at each faculty or department scale” in the previous question. The most common purpose of providing storage services was “support for individual researchers in managing research data,” with 36 responses, followed by “sharing research data among members of a collaborative research project” (27 responses) and “temporary data storage for data analysis” (18 responses). These results suggest a primary focus on research-phase usage. Conversely, 13 responses cited “responding to an academic journal’s requirement for data disclosure during the submission process,” and 14 responses mentioned “responding to requests to preserve research data domestically and internationally,” indicating some awareness of post-research data management needs.

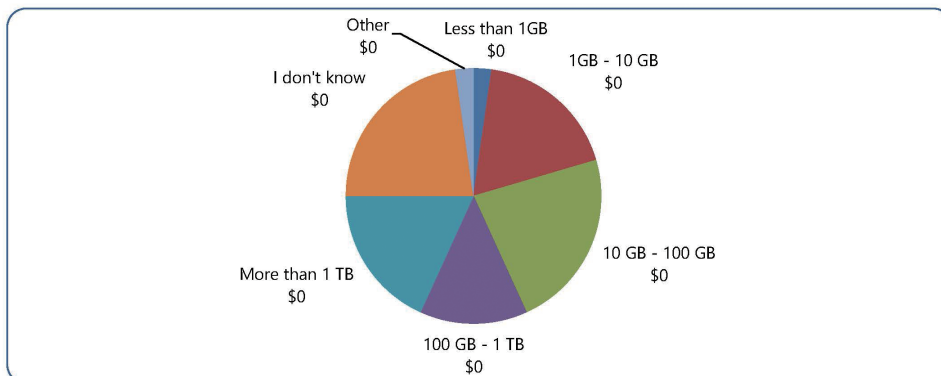
Q3-3. How does your institution provide storage to users?

Category	Frequency	Percent
1 Offered on-premise	11	25.0%
2 Offered by commercial cloud services (Microsoft 365, Dropbox, etc.)	13	29.5%
3 Offered or under consideration in one or both above types - on premise or commercial cloud services	5	11.4%
4 No plans to offer	7	15.9%
5 I don't know	6	13.6%
6 Other	2	4.5%
Total	44	100.0%



**Q3-4. What basic capacity do you think is required per user for long-term storage of research data?
(In case of more than 5 years' storing by on-premise or commercial cloud).**

Category	Frequency	Percent
1 Less than 1GB	1	2.3%
2 1GB - 10 GB	8	18.2%
3 10 GB - 100 GB	10	22.7%
4 100 GB - 1 TB	6	13.6%
5 More than 1 TB	8	18.2%
6 I don't know	10	22.7%
7 Other	1	2.3%
Total	44	100.0%



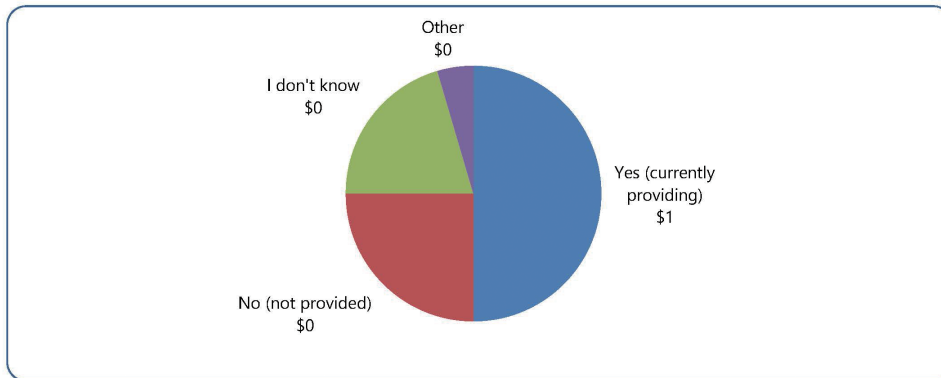
Response trends:

Q3-3 asked how institutions provided storage to users. 25.0% of institutions reported offering on-premises storage, while 29.5% reported using commercial cloud services (e.g., Microsoft 365, Dropbox), indicating a relatively high adoption of cloud-based solutions.

Q3-4 asked how much data storage researchers would like to have available. The most common answer, at 22.7%, was “10GB to 100GB.” However, this did not represent a dominant trend, as 18.2% of institutions reported a smaller range (“1GB to 10GB”), while another 18.2% reported a larger range (“1TB or more”).

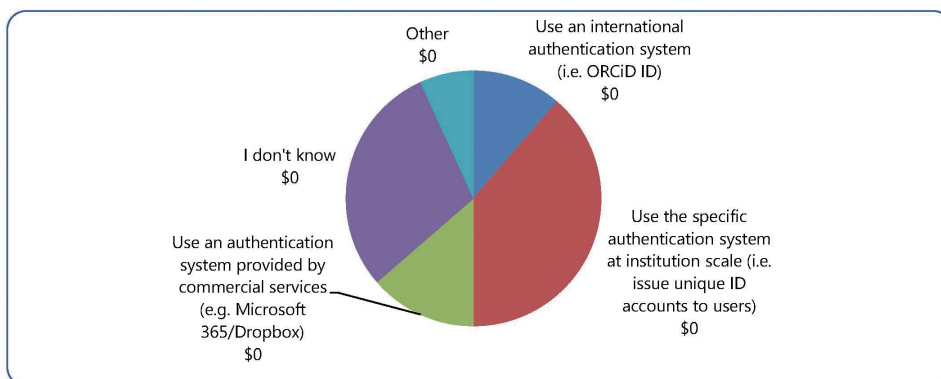
Q4. data analysis infrastructure; Does your institution provide any data analysis infrastructure, such as shared computers, to its members?

Category		Frequency	Percent
1	Yes (currently providing)	22	50.0%
2	No (not provided)	11	25.0%
3	I don't know	9	20.5%
4	Other	2	4.5%
	Total	44	100.0%



Q5. Authentication system for using information infrastructure; What kind of authentication system does your institution have in place when researchers use the information infrastructure listed above? (Research data management storage, repository, data analysis infrastructure, etc.).

Category		Frequency	Percent
1	Use an international authentication system (i.e. ORCID ID)	5	11.4%
2	Use the specific authentication system at institution scale (i.e. issue unique ID accounts to users)	17	38.6%
3	Use an authentication system provided by commercial services (e.g. Microsoft 365/Dropbox)	6	13.6%
4	I don't know	13	29.5%
5	Other	3	6.8%
	Total	44	100.0%



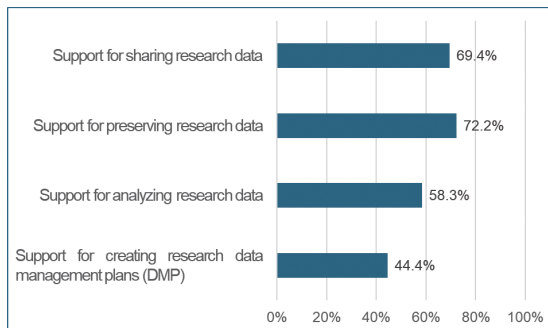
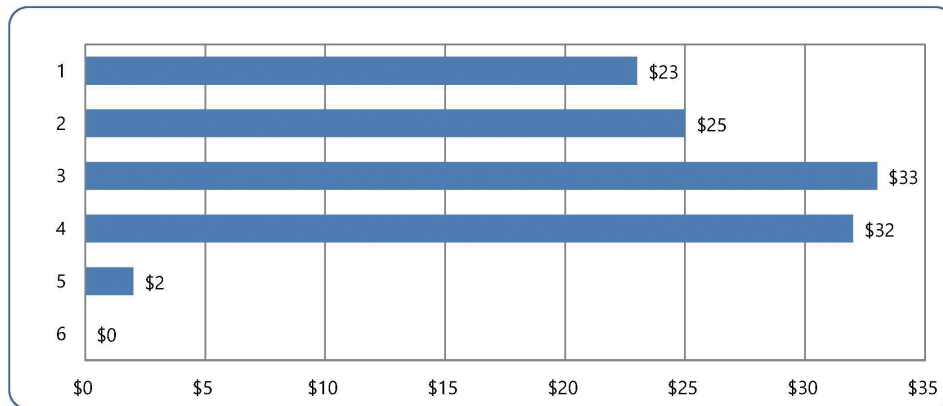
Response trends:

Q4 asked whether institutions provided data analysis infrastructure as part of their basic services. 50.0% of respondents chose “Yes” and 25.0% chose “No,” indicating that offering some form of analysis tools or shared folders was relatively common.

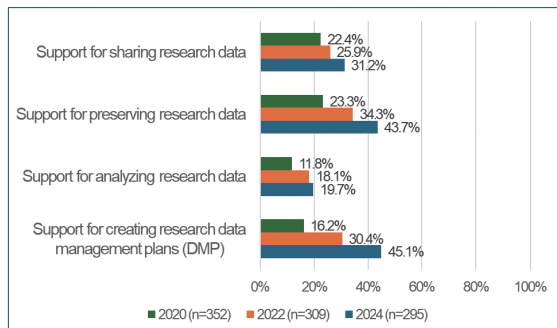
Q5 asked about authentication systems for accessing the information infrastructure. The most common method was using an institution-wide authentication system (e.g., issuing unique ID accounts), reported by 38.6% of institutions. Other methods included using an international authentication system (e.g., ORCID ID) at 11.4%, and using authentication systems provided by commercial services (e.g., Microsoft 365, Dropbox) at 13.6%, indicating that these services were relatively uncommon.

Q6. What services do you think are most in demand among researchers? (Mark all that apply)

Category	Frequency
1 Support for creating research data management plans (DMP)	23
2 Support for analyzing research data	25
3 Support for preserving research data	33
4 Support for sharing research data	32
5 I don't know	2
6 Other	0
Total	115



Asia Pacific



Japan

Response trends:

Q6 asked about RDM services considered particularly important by researchers. There were 33 responses for “support for preserving research data” and 32 responses for “support for sharing research data,” suggesting an emphasis on services provided in the post-research phase rather than during research.

Q6 also included an international comparison between the Asia-Pacific region and Japan. Priorities differed: preservation ranked highest in the Asia-Pacific region, whereas DMP support was the top priority in Japan. Policy requirements appear to be strongly reflected in Japan, indicating that care is needed when applying these policies in full-scale research within Asia-Pacific countries.

Appendix

1. Questionnaire on Research Data Management
in Vietnam (For Research Institutions)
(Vietnamese / English)
2. RDM Glossary

Appendix 1

Phiếu câu hỏi về quản lý dữ liệu nghiên cứu tại Việt Nam (Dành cho các Viện nghiên cứu)

Questionnaire on Research Data Management in Vietnam
(For Research Institutions)

Nội dung

Contents

I. Tổng quan về bảng câu hỏi

Overview about this questionnaire

I. Thông tin cơ bản

Basic Information

III. Tổng quan về cơ sở hạ tầng thông tin học thuật

Overview about Academic Information infrastructure

IV. Nhu cầu xây dựng hệ thống quản lý dữ liệu nghiên cứu (RDM)

Understanding needs for constructing a research data management (RDM) system

I. Tổng quan về bảng câu hỏi

I. Overview about this questionnaire

1. Mục tiêu và Bối cảnh / Objective and Background

Mục đích của bảng câu hỏi này là biên soạn các báo cáo nghiên cứu về các vấn đề liên quan đến quản lý dữ liệu nghiên cứu (RDM) mà các tổ chức nghiên cứu hàn lâm ở cả Việt Nam và Nhật Bản nên cùng nhau giải quyết. Các tổ chức nghiên cứu hàn lâm ở hai quốc gia sẽ chia sẻ nhiệm vụ này và cùng nhau giải quyết, qua đó thúc đẩy nghiên cứu hợp tác quốc tế.

Trong những năm gần đây, quản lý dữ liệu nghiên cứu đã trở thành yêu cầu thiết yếu đối với các tổ chức nghiên cứu học thuật trên toàn thế giới.

Ví dụ, các xu hướng sau đây là lý do tại sao các tổ chức nghiên cứu học thuật cần quản lý dữ liệu nghiên cứu.

Ở Châu Âu và Mỹ, có xu hướng ngày càng tăng là đưa “quản lý dữ liệu nghiên cứu có tổ chức tốt” thành một yêu cầu để xin tài trợ nghiên cứu.

Các tạp chí học thuật quốc tế yêu cầu dữ liệu nghiên cứu có trong bài viết phải có thể tham khảo như một điều kiện để xuất bản.

Tại Nhật Bản, các khoản tài trợ nghiên cứu ngày càng yêu cầu phải nộp kế hoạch quản lý dữ liệu nghiên cứu.

Ở Nhật Bản, các viện nghiên cứu học thuật giới thiệu RDM cũng đã tăng nhanh trong vài năm qua. Tuy nhiên, phong trào này chỉ mới bắt đầu và vẫn đang trong giai đoạn thử nghiệm.

Chúng tôi tập trung vào các vấn đề RDM trong nghiên cứu hợp tác quốc tế, đặc biệt là trong lĩnh vực khoa học xã hội và nhân văn.

Phiếu câu hỏi này được các thành viên dự án của chúng tôi biên soạn dựa trên nội dung được thực hiện tại Nhật Bản, có tính đến hoàn cảnh của các tổ chức Việt Nam.

Kết quả nghiên cứu sẽ được chia sẻ với các tổ chức hợp tác của Việt Nam và dự

án. Và báo cáo nghiên cứu sẽ được nộp cho các tổ chức hợp tác của Việt Nam, Cơ quan Khoa học và Công nghệ Nhật Bản (JST) và Đại học Kyoto.

The purpose of this questionnaire is to compile research reports on issues related to research data management (RDM) that academic research institutions in both Vietnam and Japan should work together to address. Academic research institutions in two countries will share this task and work together to address it, thereby promoting international collaborative research.

In recent years, research data management has become essential requirements for academic research institutions around the world.

The following trends, for example, are reasons why academic research institutions need to manage research data.

In Europe and the United States, there is a growing trend to make "well-organized research data management" a requirement for applying research funds.

International academic journals require that the research data contained in an article be available for reference as a condition for publication.

In Japan, research grants are increasingly requiring the submission of a research data management plan.

In Japan too, academic research institutions introducing RDM has been rapidly increasing in the past few years. However, this movement has only just begun and is still in the trial-and-error stage.

We focus on RDM issues in international collaborative research especially in the fields of humanities and social sciences.

This questionnaire is compiled by our project members based on the content conducted in Japan, taking into consideration the circumstances of the Vietnamese institutions.

The research results will be shared with the Vietnamese collaborating organizations and the project. And the research report will be submitted to the Vietnamese collaborating institutions, the Japan Science and Technology Agency (JST) and Kyoto University.

2. Các mục câu hỏi / Question items

“Dữ liệu nghiên cứu”

đề cập đến thông tin kỹ thuật số được thu thập và tạo ra thông qua việc triển khai nghiên cứu, chẳng hạn như “tài liệu kỹ thuật số”, “dữ liệu đo lường”, “dữ liệu thử nghiệm”, “nội dung phương tiện” và “chương trình”.

“Quản lý dữ liệu nghiên cứu của các tổ chức học thuật”

đề cập đến việc thiết lập một môi trường để lưu trữ, chia sẻ và xuất bản dữ liệu nghiên cứu và thúc đẩy việc sử dụng dữ liệu này, do các trường đại học (không phải các nhà nghiên cứu riêng lẻ) đứng đầu.

“Mục đích chính của Quản lý dữ liệu nghiên cứu của các cơ sở học thuật”

- Thúc đẩy khoa học mở (các nhà nghiên cứu sử dụng dữ liệu nghiên cứu của nhau để tăng hiệu quả nghiên cứu).
- Thúc đẩy công lý trong nghiên cứu (việc lưu trữ dữ liệu dựa trên kết quả nghiên cứu được công bố trên các bài báo với tư cách là một tổ chức giúp việc tiết lộ dữ liệu dễ dàng hơn khi cần thiết).

“Research Data”

refers to digital information collected and generated through research implementation, such as “digital materials”, “measurement data”, “test data”, “media content”, and “programs”.

“Research Data Management by academic institutions”

refers to the establishment of an environment for storing, sharing, and publishing research data and promoting its use, led by universities (not individual researchers).

“Main purpose of Research Data Management by academic institutions” is as follows:

- Promotion of open science (researchers use each other's research data to increase research efficiency).
- Promoting research justice (reserving data based on research results published in papers as an institution makes it easier to disclose data when necessary).

II. Thông tin cơ bản

II. Basic Information

Q1. Xin vui lòng cho chúng tôi biết tên cơ quán của bạn.

Please tell us the name of your institution.

Q2. Xin vui lòng chọn loại cơ quán của bạn. (Chỉ đánh một dấu.)

Please select the type of your institution. Please mark only one.

☐ Đại học quốc gia / National University

☐ Viện nghiên cứu quốc gia / National Research Institute

☐ Loại khác (Viết tự do) / Others (Free description):

Q3. Xin vui lòng trả lời quy mô của cơ quán của bạn

Please answer the size of your institution.

1) Số lượng khoa và viện nghiên cứu / Number of faculties and research institutes
_____ đơn vị / units

2) Số lượng sinh viên / Number of undergraduate students
_____ người / pers.

3) Số lượng nghiên cứu sinh và nghiên cứu viên (thạc sĩ và tiến sĩ) / Number of graduate students and postdoctoral researchers
_____ người / pers.

4) Số lượng Giáo sư (bao gồm Giảng viên, Phó Giáo sư) / Number of Professors (including Assistant, Associate Professors)
_____ người / pers.

5) Số lượng cán bộ và nhân viên / Number of Staff
_____ người / pers.

Q4. Xin vui lòng cho chúng tôi biết những phòng ban nào đã trả lời bảng câu hỏi này. (Có thể chọn nhiều)

Please tell us which departments were involved in responding this questionnaire. (Multiple answers possible)

- ☐ Ban điều hành của cơ quán / Executives of the institution
 - ☐ Phòng Nghiên cứu và Hợp tác / Department of Research Promotion and Cooperation
 - ☐ Trung tâm thông tin và hệ thống / Center for Information & Systems
 - ☐ Thư viện / Library
 - ☐ Bảo tàng / Museum
 - ☐ Cục Lưu trữ / Archives
 - ☐ Cục xuất bản / Publishing department
 - ☐ Cục Sở hữu trí tuệ / Department of Intellectual Property
 - ☐ Thành lập nhóm làm việc liên phòng / Setting up a cross-departmental working group
 - ☐ Loại khác (Viết tự do) / Others (Free description):
-

III. Tổng quan về cơ sở hạ tầng thông tin học thuật

III. Overview about Academic Information infrastructure

Q1. Xin vui lòng liệt kê cơ sở hạ tầng thông tin mà tổ chức của bạn cung cấp cho các thành viên. (Viết tự do)

Please list the information infrastructure that your institution provides to its members. (Free description)

Q2. Bộ phận nào tại cơ quán của bạn chịu trách nhiệm quản lý và điều hành cơ sở hạ tầng thông tin? (Viết tự do)

Which department at your institution is responsible for managing and operating the information infrastructure? (Free description)

Đối với người trả lời câu hỏi Q1 và Q2; Xin vui lòng cho biết thông tin chi tiết về từng cơ sở hạ tầng thông tin.

For Respondents to Q1 and Q2; Please tell the details about each information infrastructure.

Q3. Về Lưu trữ dữ liệu nghiên cứu

Storage for research data

Q3-1. Chuẩn bị lưu trữ dữ liệu nghiên cứu đang ở giai đoạn nào? Đã chuẩn bị hay đang xem xét? (Chỉ đánh một dấu.)

At what stage is preparing storage for research data? Already prepared or under consideration? Please mark only one.

☐ Đã được chuẩn bị hoặc đang được xem xét trên quy mô toàn cơ quán / Prepared already or under consideration on the institution-wide scale

☐ Đã được chuẩn bị hoặc đang được xem xét theo đơn vị, khoa và bộ phận /
Under consideration and implementation at each faculty and department scale

☐ Tùy thuộc vào từng nhà nghiên cứu / Up to the individual researcher

☐ Nhận thấy sự cần thiết nhưng chưa có biện pháp nào được xem xét hoặc triển khai. / Recognize the necessity but have not taken any steps to considered or implemented.

☐ Không rõ / Unknown

☐ Loại khác (Viết tự do) / Others (Free description):

Q3-2. Đối với Bên trả lời “Đã thực hiện hoặc đang xem xét” trong Q3-1

For Respondents to “Implemented or Under consideration” on Q3-1;

Xin vui lòng cho biết mục đích của việc triển khai lưu trữ (Có thể chọn nhiều)

Please tell the purpose of the storage implementation. (Multiple mark possible)

☐ Hỗ trợ cho các nhà nghiên cứu cá nhân trong việc quản lý dữ liệu nghiên cứu /
Support for individual researchers in managing research data

☐ Lưu trữ dữ liệu tạm thời để phân tích dữ liệu / Temporary data storage for data
analysis

☐ Chia sẻ dữ liệu nghiên cứu giữa các thành viên của một dự án nghiên cứu hợp
tác / Sharing research data among members of a collaborative research project

☐ Để đáp ứng yêu cầu của tạp chí học thuật về việc tiết lộ dữ liệu tại phần đóng
góp của tạp chí học thuật / For responding to an academic journals' requirement of data
disclosure at the article's contribution

☐ Để đáp ứng các yêu cầu bảo quản dữ liệu nghiên cứu trong nước và nước
ngoài / For responding requests to preserve research data in domestic and overseas

☐ Loại khác (Viết tự do) / Others (Free description):

Q3-3. Cơ quán của bạn cung cấp dung lượng lưu trữ cho người dùng như thế nào? (Chỉ đánh một dấu.)

How does your institution provide storage to users? Please mark only one.

- ☐ Được cung cấp tại chỗ / on-premises Offered on-premise
 - ☐ Được cung cấp bởi các dịch vụ đám mây thương mại (Microsoft 365, Dropbox, etc.) / Offered by commercial cloud services (Microsoft 365, Dropbox, etc.)
 - ☐ Được cung cấp hoặc đang xem xét ở một hoặc cả hai loại trên - dịch vụ đám mây tại chỗ on premise hoặc thương mại / Offered or under consideration in one or both above types - on premise or commercial cloud services
 - ☐ Không có kế hoạch cung cấp / No plans to offer
 - ☐ Không rõ / Unknown
 - ☐ Loại khác (Viết tự do) / Others (Free description):
-

Q3-4. Bạn nghĩ dung lượng cơ bản nào là cần thiết cho mỗi người dùng để lưu trữ dữ liệu nghiên cứu lâu dài? (Trong trường hợp lưu trữ trên đám mây tại chỗ premise hoặc thương mại trong hơn 5 năm) (Chỉ đánh một dấu.)

What basic capacity do you think is required per user for long-term storage of research data? (In case of more than 5 years' storing by on-premise or commercial cloud). Please mark one.

- ☐ Dưới 1GB / Less than 1GB
- ☐ Từ 1GB đến 10GB / 1GB-10 GB
- ☐ Từ 10GB đến 100GB / 10 GB-100GB
- ☐ Trên 100GB và dưới 1TB / 100 GB-1 TB
- ☐ Hơn 1 TB / More than 1 TB

☐ Không rõ / Unknown

☐ Loại khác (Viết tự do) / Others (Free description):

Q4. Tiết lộ dữ liệu nghiên cứu

Disclosure of research data

Chính sách của cơ quán bạn về việc tiết lộ dữ liệu nghiên cứu là gì? (Chỉ đánh một dấu.)

What is your policy regarding the disclosure of research data?

☐ Sử dụng hoặc Đề xuất các kho lưu trữ theo chủ đề cụ thể (ví dụ: ICPSR, CESSDA, SSJDA tại Nhật Bản) / Use or Recommend subject-specific repositories (i.e. ICPSR, CESSDA, SSJDA in Japan)

☐ Các tổ chức và đơn vị xây dựng kho lưu trữ riêng của mình / Institutions and departments build their own repositories

☐ Sử dụng hoặc đề xuất các kho lưu trữ mở cho dữ liệu học thuật (ví dụ: Figshare, Zenodo) / Use or Recommend open repositories for academic data (i.e. Figshare, Zenodo)

☐ Nhận xét ra sự cần thiết nhưng đang xem xét để cung cấp / Recognize the necessity but under consideration to offer

☐ Không có kế hoạch cung cấp / No plans to offer

☐ Không rõ / Unknown

☐ Loại khác (Viết tự do) / Others (Free description):

Q5. Cơ sở hạ tầng phân tích dữ liệu

data analysis infrastructure

Cơ quán của bạn có cung cấp cơ sở hạ tầng phân tích dữ liệu, chẳng hạn như máy tính dùng chung, cho các thành viên không? (Chỉ đánh một dấu.)

Does your institution provide any data analysis infrastructure, such as shared computers, to its members?

- ☐ Đã sử dụng hoặc cung cấp / Use or provide
 - ☐ Không sử dụng hoặc cung cấp / Not use or provide
 - ☐ Không rõ / Unknown
 - ☐ Loại khác (Viết tự do) / Others (Free description):
-

Q6. Hệ thống xác thực sử dụng cơ sở hạ tầng thông tin

Authentication system for using information infrastructure

Cơ sở của cơ quán bạn áp dụng hệ thống xác thực nào khi các nhà nghiên cứu sử dụng cơ sở hạ tầng thông tin được liệt kê ở trên? (Có thể chọn nhiều)

What kind of authentication system does your institution have in place when researchers use the information infrastructure listed above? (Research data management storage, repository, data analysis infrastructure, etc.). (Multiple answers possible)

- ☐ Sử dụng hệ thống xác thực quốc tế (ví dụ: Orcid, liên đoàn Eduroam Gakunin tại Nhật Bản) / Use an international authentication system (i.e. Orcid, Eduroam Gakunin federation in Japan)
- ☐ Sử dụng hệ thống xác thực cụ thể ở quy mô tổ chức. (tức là cấp tài khoản ID duy nhất cho người dùng) / Use the specific authentication system at institution scale. (i.e. issue unique ID accounts to user)

☐ Sử dụng hệ thống xác thực do các dịch vụ thương mại cung cấp (ví dụ: Microsoft 365/Dropbox) / Use an authentication system provided by commercial services (e.g. Microsoft 365/Dropbox)

☐ Không rõ / Unknown

☐ Loại khác (Viết tự do) / Others (Free description):

IV. Hiểu nhu cầu xây dựng hệ thống quản lý dữ liệu nghiên cứu (RDM)

IV. Understanding needs for constructing a research data management (RDM) system

Q1. Chính sách dữ liệu cho quản lý dữ liệu nghiên cứu

Data Policy for Research Data Management

Q1-1. Cơ quan của bạn có chính sách dữ liệu nào liên quan đến quản lý dữ liệu nghiên cứu không? (Chỉ đánh một dấu.)

Does your institution have any data policies regarding research data management? Please mark one.

☐ Đã được triển khai hoặc đang được xem xét trên quy mô toàn cơ quan. / Implemented or under consideration on the institution-wide scale.

☐ Đã triển khai hoặc đang xem xét tại từng khoa và đơn vị / Implemented or under consideration at each faculty and department

☐ Nhận xét ra sự cần thiết nhưng đang được xem xét / Recognize the necessity but under consideration

☐ Không rõ / Unknown

☐ Loại khác (Viết tự do) / Others (Free description):

Q1-2. Đối với Bên trả lời “Đã thực hiện hoặc đang xem xét” trong Câu hỏi 1-1; Cơ quan bạn có hướng dẫn thủ tục để quản lý dữ liệu nghiên cứu không? (Chỉ đánh một dấu.)

For Respondents to “Implemented or Under consideration” on Q1-1;

Do you have procedure manuals for managing research data? Please mark only one.

☐ Sổ tay hướng dẫn thủ tục đã được xây dựng hoặc đang trong quá trình xây dựng trên quy mô toàn cơ quán. / The procedure manuals have been created or in the process on the institution-wide scale.

☐ Sổ tay hướng dẫn thủ tục đã được xây dựng hoặc đang trong quá trình xây dựng tại từng khoa và đơn vị. / The procedure manuals have been created or in the process at each faculty and department scale.

☐ Các hướng dẫn thủ tục chưa được tạo ra. / The procedure manuals have not been created.

☐ Không rõ / Unknown

☐ Loại khác (Viết tự do) / Others (Free description):

Q2. Đào tạo về RDM

Training about RDM

Q2-1. Cơ quán của bạn có tổ chức hoặc cân nhắc tổ chức bất kỳ buổi đào tạo, hội thảo, hội nghị nào về chuyên đề quản lý dữ liệu nghiên cứu không?

Does your institution conduct or consider to conducting any training sessions, workshops, symposiums, etc. for regarding research data management?

☐ Đã thực hiện hoặc có kế hoạch thực hiện / Already held or planned

☐ Việc thực hiện đang được xem xét / Under consideration

☐ Không có kế hoạch / No plans

☐ Không rõ / Unknown

☐ Loại khác (Viết tự do) / Others (Free description) :

Những câu hỏi sau đây sẽ được hỏi những người trả lời “Đã triển khai”, “Đang có kế hoạch triển khai” hoặc “Đang cân nhắc triển khai” cho Câu hỏi

2-1. For Respondents to “held or planned or under consideration” on Q2-1;

Q2-2. Đối tượng nào được đào tạo? (Có thể chọn nhiều)

Who is the training aimed at? (Multiple answers possible)

☐ Sinh Viên / Undergraduate students

☐ Nghiên cứu sinh và nghiên cứu viên / Graduate students and postdoctoral researchers

☐ Giáo sư/Phó giáo sư/Giảng viên / Professors (including Assistant, Associate Professors) _____

☐ Cán bộ và nhân viên chuyên môn của thư viện, bảo tàng, nhà xuất bản, v.v. / Professional staff of libraries, museums, publishing bureaus, etc.

☐ Cán bộ và nhân viên phụ trách việc hỗ trợ nghiên cứu và vấn đề học thuật như URA / Research support staff of academic affairs' departments or University Research Administrators (URAs)

☐ Loại khác (Viết tự do) / Others (Free description):

Q3. Nhu cầu quản lý dữ liệu nghiên cứu

Needs for Research data management

Q3-1. Cơ quan của bạn có khảo sát nhu cầu về quản lý dữ liệu nghiên cứu không? (Chỉ đánh một dấu.)

Does your institution surveyed a needs assessment regarding research data management?
Please mark only one.

☐ Đã được triển khai hoặc đang được xem xét trên quy mô toàn cơ quan. / Already conducted or planned at Institution level

☐ Việc thực hiện đang được xem xét / Under consideration

☐ Không có kế hoạch / No plans to survey

☐ Không rõ / Unknown

☐ Loại khác (Viết tự do) / Others (Free description):

Đối với Bên trả lời “Đã thực hiện hoặc đang xem xét” trong Câu hỏi Q3-1

For Respondents to “conducted already or planned or under consideration” on Q3-1;

Q3-2. Xin vui lòng cho chúng tôi biết quy mô nghiên cứu mà bạn đang tiến hành hoặc đang cân nhắc. (Chỉ đánh một dấu.)

What scale of research are you conducting or considering? Please mark only one.

☐ Tất cả các nhà nghiên cứu đều thuộc cơ quán / All researchers belong to the institution

☐ Các nhà nghiên cứu trong các khoa đơn vị cụ thể. / Researchers in specific faculty or departments.

☐ Khảo sát mẫu / Sample Survey

☐ Không rõ / Unknown

☐ Loại khác (Viết tự do) / Others (Free description):

Q3-3. Cơ quán bạn sẽ tiến hành hoặc có kế hoạch tiến hành nghiên cứu như thế nào? (Có thể chọn nhiều)

How will you conduct or plan to conduct your research? (Multiple options available)

☐ Khảo sát bằng bảng câu hỏi / Questionnaire survey

☐ Khảo sát phỏng vấn cá nhân / Individual interview survey

☐ Không rõ / Unknown

☐ Loại khác (Viết tự do) / Others (Free description):

Q4. Nhu cầu về dịch vụ quản lý dữ liệu nghiên cứu

Needs for Research Data Management Services

Q4-1. Dịch vụ nào được các nhà nghiên cứu ưa chuộng nhất? (Có thể chọn nhiều)

What services do you think are most in demand among researchers? (Multiple choices possible)

☐ Hỗ trợ tạo kế hoạch quản lý dữ liệu nghiên cứu (DMP) / Support for creating research data management plans (DMP)

☐ Tổ chức các buổi đào tạo cho các nhà nghiên cứu và nhân viên hỗ trợ nghiên cứu / Organizing training sessions for researchers and research support staff

☐ Hỗ trợ quản lý sở hữu trí tuệ của dữ liệu nghiên cứu / Support for intellectual property management of research data

☐ Hỗ trợ quản lý dữ liệu / Data curation support

☐ Hỗ trợ thúc đẩy việc sử dụng dữ liệu nghiên cứu / Support for promoting the use of research data

☐ Không rõ / Unknown

☐ Loại khác (Viết tự do) / Others (Free description):

Q4-2. Cơ quan bạn nghĩ cụ thể còn thiếu những yếu tố nào để phát triển dịch vụ quản lý dữ liệu nghiên cứu? (Có thể chọn nhiều)

What are the insufficient factors to developing research data management services at your institution? (Multiple choices possible)

☐ Thiếu hiểu biết và nhân sự trong quản lý dữ liệu nghiên cứu / not enough Know-how and personnel

☐ Thiếu ví dụ tham khảo cho việc quản lý dữ liệu nghiên cứu / not enough Reference case

☐ Không rõ / Unknown

☐ Loại khác (Viết tự do) / Others (Free description):

Appendix 2

RDM Glossary (Vietnamese-English-Japanese)

Bảng thuật ngữ liên quan đến Quản lý Dữ liệu Nghiên cứu này được xây dựng với sự hợp tác của Nhóm Công tác Dữ liệu Nghiên cứu JPCOAR, dựa trên việc lựa chọn thuật ngữ và giải thích do Nhóm Công tác URDP thuộc Ban AXIES-RDM biên soạn. Các giải thích bổ sung chỉ được đưa vào khi cần thiết trong bối cảnh xây dựng chính sách dữ liệu nghiên cứu. Mặc dù ban đầu, bảng thuật ngữ này nhằm mục đích cung cấp các định nghĩa có thể được sử dụng trực tiếp trong các chính sách của trường, nhưng do phạm vi của "dữ liệu nghiên cứu" khác nhau giữa các trường đại học nên chúng tôi quyết định chỉ trình bày ý nghĩa chung. Mỗi trường đại học được khuyến khích tự xác định phạm vi áp dụng của mình, phản ánh các thảo luận nội bộ.

This Glossary of Terms Related to Research Data Management was developed with the cooperation of the JPCOAR Research Data Working Group, based on term selection and explanations prepared by the AXIES-RDM Division's URDP Working Group. Additional explanations were included only when necessary in the context of research data policy development. Although the glossary initially aimed to provide definitions that could be directly used in institutional policies, differences in the scope of "research data" across universities led to the decision to present only general meanings. Each university is encouraged to define its own scope of applicability reflecting internal discussions.

本「研究データ管理関連用語集」は、JPCOAR 研究データ作業部会の協力のもと、AXIES-RDM 部会 URDP-WG が用語を選定・説明したものである。ポリシー策定で補足が必要な場合のみ追加説明を行った。当初はポリシーで直接利用できる定義を想定したが、大学ごとの適用範囲の違いから一般的な意味の提示にとどめた。各大学は自校の議論を反映し、固有の適用範囲を定義に明記することが望ましい。

dữ liệu | data | データ

Một dạng biểu diễn thông tin được định dạng sao cho phù hợp để truyền tải, diễn giải hoặc xử lý và có thể được diễn giải lại thành thông tin.

A representation of information that is formatted so as to be suitable for transmission, interpretation, or processing, and can be interpreted again as information.

情報の表現であって、伝達、解釈または処理に適するように形式化され、再度情報として解釈できるもの。

dữ liệu nghiên cứu | research data | 研究データ

Dữ liệu được thu thập hoặc tạo ra trong quá trình nghiên cứu hoặc là kết quả của nghiên cứu. Theo nghĩa rộng, dữ liệu này bao gồm tất cả dữ liệu mà các nhà nghiên cứu tiếp xúc trong quá trình nghiên cứu. Phạm vi được xác định khác nhau tùy thuộc vào chính sách của từng tổ chức và có thể bao gồm dữ liệu nghiên cứu phi kỹ thuật số.

Data that are collected or generated in the course of, or as a result of, research. In a broad sense, this includes all data that researchers come into contact within the course of their research. The scope defined varies depending on each institution's policy and may include non-digital research data.

研究の過程、あるいは研究の結果として収集・生成されるデータのこと。広義には、研究者が研究上で触れたあらゆるデータが含まれる。各機関のポリシーによって定義される範囲は異なり、非デジタルの研究データを含めることもある。

dữ liệu nghiên cứu từ nguồn tài trợ công | research data from public funding | 公的資金による研究データ

Dữ liệu nghiên cứu được thu thập hoặc tạo ra từ các nghiên cứu được tài trợ công. Vì kết quả nghiên cứu được tài trợ bằng nguồn lực công được kỳ vọng sẽ đóng góp trở lại cho xã hội, nên dữ liệu đó cần được công khai và sử dụng rộng rãi nhất có thể.

Research data collected or generated from publicly funded research. Since research outcomes funded by public resources are expected to contribute back to society, such data are required to be made as openly available and widely utilized as possible.

公的資金による研究から収集・生成された研究データのこと。公的資金による研究成果は社会への還元が求められていることから、公開・共有等の最大限の利活用が求められる。

Dữ liệu bằng chứng của một bài viết | evidence data of an article | 論文の根拠データ (エビデンスデータ)

Dữ liệu nghiên cứu đóng vai trò là bằng chứng (cơ sở) cho các kết quả nghiên cứu như bài báo học thuật và đảm bảo khả năng tái tạo của chúng. Ngày càng nhiều tạp chí học thuật yêu cầu nộp hoặc công bố công khai những dữ liệu hỗ trợ này, và việc lưu trữ chúng trong một khoảng thời gian nhất định đã trở thành một nghĩa vụ. Theo báo cáo “Cải thiện Tính chính trực trong Nghiên cứu Khoa học” của Hội đồng Khoa học Nhật Bản, thời hạn lưu giữ tài liệu (tài liệu, dữ liệu số, hình ảnh, v.v.) về nguyên tắc là mười năm sau khi bài báo liên quan được xuất bản, và nhiều trường đại học cũng quy định các điều khoản tương tự.

Research data that serve as the evidence (basis) for research results such as academic papers and ensure their reproducibility. An increasing number of academic journals now require the submission or public disclosure of such supporting data, and their preservation for a certain period has become an obligation. According to the Science Council of Japan’s report, “Improving Integrity in Scientific Research,” the retention period for materials (documents, numerical data, images, etc.) is, in principle, ten years after the publication of the relevant paper, and similar provisions are stipulated by many universities.

論文等の研究成果の根拠（エビデンス）となり、その再現性を担保する研究データのこと。根拠データの提出や公開を求める学術ジャーナルが増えており、一定期間の保存が責務となっている。日本学術会議「回答『科学研究における健全性の向上について』」においては、資料（文書・数値データ・画像など）の保存期間は原則として当該論文等の発表後 10 年間とされており、多くの大学において同様の内容が規定されている。

Dữ liệu đang hoạt động | Active data | アクティブデータ

Dữ liệu nghiên cứu hiện đang được sử dụng cho nghiên cứu.

Research data currently in use for research.

研究に使用中の研究データのこと。

Dữ liệu chính (dữ liệu nguồn, dữ liệu thô), Dữ liệu thứ cấp | Primary data (source data, raw data), Secondary data | 一次データ (ソースデータ、生データ)、二次データ

Dữ liệu sơ cấp đề cập đến dữ liệu nghiên cứu gốc mới được thu thập hoặc tạo ra từ các đối tượng nghiên cứu. Dữ liệu thứ cấp đề cập đến dữ liệu nghiên cứu có nguồn gốc từ dữ liệu sơ cấp, chẳng hạn như dữ liệu đã xử lý (dữ liệu đã được sửa đổi) hoặc dữ liệu đã được phân tích (dữ liệu đã được diễn giải hoặc phân tích).

Primary data refer to original research data newly collected or generated from research subjects. Secondary data refer to research data derived from primary data, such as processed data (data that have been modified) or analyzed data (data that have been interpreted or analyzed).

一次データとは、研究対象から新規に収集・生成されたオリジナルの研究データのこと。二次データとは、一次データを加工した研究データ（加工データ）や、一次データを解析・分析した研究データ（解析データ）などのこと。

Bộ dữ liệu nghiên cứu, Hồ sơ nghiên cứu | Research data set, Research record | 研究データセット、研究レコード

Tập dữ liệu nghiên cứu là tập hợp các dữ liệu nghiên cứu được thu thập hoặc tổ chức cho một mục đích cụ thể. Bản ghi nghiên cứu là đơn vị nhỏ nhất cấu thành nên một tập dữ liệu nghiên cứu.

A research dataset refers to a collection of research data that are gathered or organized for a specific purpose. A research record is the smallest unit that constitutes a research dataset.

研究データセットとは、ある目的のために集められたり、整理されたりしている研究データのまとまりのこと。研究レコードとは、研究データセットを構成する最小の単位のこと。

Bản gốc, Bản sao | original, copy | オリジナル、コピー

“Bản gốc” là phiên bản gốc của dữ liệu nghiên cứu. “Bản sao” là dữ liệu nghiên cứu được sao chép từ bản gốc.

“Original” refers to the master version of the research data. “Copy” refers to research data that have been duplicated from the original.

オリジナルとは、研究データの原本のデータのこと。コピーとは、オリジナルを複製した研究データのこと。

Dữ liệu số | Digital data | デジタルデータ

Dữ liệu số là dữ liệu đã được chuyển đổi thành dạng điện tử.

Digital data refer to data that have been converted into electronic form.

デジタルデータとは、電子化されたデータのこと。

Cơ sở dữ liệu, Lưu trữ dữ liệu | Database, Data archive | データベース、データアーカイブ

Cơ sở dữ liệu là tập hợp thông tin hoặc dữ liệu có cấu trúc được tổ chức, thường được lưu trữ điện tử trên máy tính. Lưu trữ dữ liệu gần như đồng nghĩa với cơ sở dữ liệu, nhưng nó nhấn mạnh vào việc tích lũy dữ liệu và có thể ít có cấu trúc hơn cơ sở dữ liệu.

A database refers to an organized collection of structured information or data, typically stored electronically on a computer. A data archive is almost synonymous with a database, but it emphasizes the accumulation of data itself and may be less structured than a database.

データベースとは、構造化した情報またはデータの組織的な集合のことで、通常はコンピューターにより電子的に保管されたものを指す。データアーカイブもデータベースとほぼ同義であるが、データを単に集積したものであることに重点がおかれ、データベースより構構性が弱い場合がある。

vật liệu, mẫu | material, sample | 資料、試料

Vật liệu đề cập đến các nguồn tài nguyên cơ bản tạo thành nền tảng cho nghiên cứu hoặc điều tra. Mẫu đề cập đến các chất, sinh vật hoặc các mẫu vật khác được sử dụng để phân tích, thử nghiệm hoặc kiểm tra. Chúng là những ví dụ điển hình về dữ liệu nghiên cứu phi kỹ thuật số.

Materials refer to the fundamental resources that form the basis of research or investigation. Samples refer to substances, organisms, or other specimens used for analysis, testing, or examination. They are typical examples of non-digital research data.

資料とは、研究・調査の基礎となる材料のこと。試料とは、分析・試験・検査の対象として使う物質や生物等のサンプルのこと。非デジタルの研究データの代表的な事例である。

dữ liệu có cấu trúc | structured data | 構造化データ

Dữ liệu được mô tả theo các quy tắc nhất định để có thể được xử lý theo cách chuẩn hóa. Các định dạng dữ liệu điển hình bao gồm tệp CSV, tệp XML, tệp có độ dài cố định và tệp Excel.

Data that is described according to certain rules so that it can be processed in a standardized manner. Typical data formats include CSV files, XML files, fixed-length files, and Excel files.

定型的に処理が行えるように、一定のルールに基づき記述されているデータのこと。データ形式としては、CSV ファイル、XML ファイル、固定長ファイル、Excel ファイルなどが該当する。

dữ liệu bí mật (Dữ liệu nhạy cảm) | confidential data (Sensitive data) | 機密データ

Dữ liệu cần được xử lý cẩn thận. Cụ thể, dữ liệu này bao gồm dữ liệu chứa thông tin cá nhân hoặc liên quan đến quyền riêng tư, dữ liệu bị hạn chế theo thỏa thuận nghiên cứu chung hoặc hợp đồng cá nhân, và dữ liệu bị hạn chế do an ninh quốc gia hoặc quan hệ quốc tế.

Data that require careful handling. Specifically, this includes data containing personal or privacy-related information, data restricted under joint research agreements or individual contracts, and data subject to restrictions due to national security or international relations.

慎重な取扱いが求められるデータのこと。具体的には、個人情報やプライバシー情報が含まれるデータ、共同研究契約や個別の契約により制限されているデータ、国家安全保障・国際関係などにより制限されているデータ等がある。

quản lý dữ liệu nghiên cứu: RDM | research data management: RDM | 研究データ管理

Điều này đề cập đến toàn bộ các hoạt động liên quan đến dữ liệu nghiên cứu, bao gồm không chỉ việc xử lý dữ liệu nghiên cứu do các nhà nghiên cứu tạo ra, thu thập hoặc phân tích trong quá trình nghiên cứu, mà còn cả việc xây dựng và sửa đổi các kế hoạch quản lý dữ liệu, cũng như việc lưu trữ, sử dụng, bảo quản, xử lý, công bố hoặc không công bố, tổ chức và cấu trúc dữ liệu nghiên cứu. Theo nghĩa rộng hơn, nó cũng bao gồm việc quản lý các tài liệu khác nhau liên quan đến nghiên cứu, chẳng hạn như sổ ghi chép thí nghiệm, phần mềm được sử dụng, kết quả nghiên cứu bao gồm các bài báo, đề xuất nghiên cứu, bình duyệt và các nguồn tài nguyên liên quan khác. Việc quản lý dữ liệu nghiên cứu đúng cách góp phần hiện thực hóa nghiên cứu có thể tái tạo.

This refers to the overall set of activities related to research data, including not only the handling of research data generated, collected, or analyzed by researchers during their research activities, but

also the formulation and revision of data management plans, as well as the storage, use, preservation, disposal, disclosure or non-disclosure, organization, and structuring of research data. In a broader sense, it also encompasses the management of various materials associated with research, such as lab notebooks, software used, research outputs including papers, research proposals, peer reviews, and other related resources. Proper research data management contributes to the realization of reproducible research.

研究者が研究活動中に生成・収集・解析した研究データの取扱いの他、研究データの管理計画の策定・更新、研究データの保管・利用・保存・廃棄、公開・非公開、組織化・構造化といった研究データに関わる一連の活動全般のこと。広義には、ラボノートや利用ソフトウェア、論文等の研究成果物、研究計画、査読、その他研究に付帯する様々な資料の管理も含まれる。適切な研究データ管理により再現性のある研究の実現に繋がる。

chính sách quản lý dữ liệu nghiên cứu | research data management policy | 研究データポリシー

Điều này đề cập đến chính sách cơ bản liên quan đến việc xử lý (quản lý và sử dụng) dữ liệu nghiên cứu do các tổ chức học thuật, v.v. thiết lập.

This refers to the basic policy regarding the handling (management and utilization) of research data established by academic institutions, etc.

学術機関等において定められた研究データの取扱い（管理・利活用）に関する基本方針のこと。

kế hoạch quản lý dữ liệu: DMP | data management plan: DMP | 研究データ管理計画

Kế hoạch này xác định cách thức xử lý dữ liệu nghiên cứu trong một dự án nghiên cứu. Cụ thể, kế hoạch này mô tả các khía cạnh như loại và định dạng dữ liệu, chính sách truy cập và chia sẻ, và kế hoạch lưu trữ kết quả nghiên cứu. Ngày càng nhiều cơ quan tài trợ nghiên cứu yêu cầu nộp các kế hoạch này tại thời điểm nộp đơn xin tài trợ hoặc khi dự án được phê duyệt.

A plan that defines how research data will be handled within a research project. Specifically, it describes aspects such as the types and formats of data, policies for access and sharing, and plans for the storage of research outputs. Increasingly, research funding agencies require the submission of such plans at the time of grant application or upon project approval.

研究プロジェクト等における研究データの取扱いを定める計画のこと。具体的にはデータの種類、フォーマット、アクセス及び共有のための方針、研究成果の保管に関する計画等について記載する。研究助成申請時もしくは採択時に計画の提出を求める研究助成機関が増えつつある。

vòng đời dữ liệu nghiên cứu | research data lifecycle | 研究データのライフサイクル

Một mô hình thể hiện quy trình tuần hoàn trong đó dữ liệu nghiên cứu được tạo ra, xử lý, phân tích, lưu trữ, xuất bản và tái sử dụng. Mô hình này dựa trên nguyên tắc dữ liệu mở, theo đó dữ liệu nghiên cứu được bảo quản và xuất bản đúng cách sẽ được tái sử dụng để tạo ra nghiên cứu mới.

A model that represents the cyclical process through which research data are generated, processed, analyzed, stored, published, and reused. It is based on the principle of open data, whereby properly preserved and published research data are reused to generate new research.

研究データが生成、加工、分析、保存、公開、再利用というプロセスを経て、循環していくことを表現したモデル。適切に保存・公開された研究データは、再利用されることにより新しい研究を生み出していくというオープンデータの理念に基づく。

Công bố dữ liệu nghiên cứu

Access to research data

研究データの公開

truy cập mở, truy cập bán mở, truy cập bán đóng, truy cập đóng | open access, semi-open access, semi-closed access, closed access | 公開、制限公開、制限共有、非公開

Công bố là trạng thái mà bất kỳ ai cũng có thể tự do truy cập và sử dụng dữ liệu trên Internet (truy cập mở). Phạm vi công bố khác nhau tùy thuộc vào chính sách của từng tổ chức và đôi khi có thể bao gồm khái niệm chia sẻ dữ liệu. Công bố hạn chế có nghĩa là dữ liệu nghiên cứu chỉ được cung cấp cho những người dùng đáp ứng các điều kiện nhất định. Chia sẻ hạn chế là việc chia sẻ dữ liệu nghiên cứu giới hạn trong các nhóm cụ thể, chẳng hạn như trong một nhóm nghiên cứu cụ thể; sự khác biệt giữa

công bố hạn chế và chia sẻ hạn chế không phải lúc nào cũng rõ ràng. Không công bố có nghĩa là dữ liệu không thể được truy cập hoặc sử dụng bởi bất kỳ ai khác ngoài người tạo, người thu thập hoặc người quản trị dữ liệu. Nếu siêu dữ liệu cũng được giữ lại, dữ liệu vẫn hoàn toàn riêng tư và bảo mật, không có khả năng bị người khác biết.

Publication refers to a state in which anyone can freely access and use data on the Internet (open access). The scope of what constitutes publication varies depending on each institution's policy and may sometimes include the concept of data sharing. Restricted publication means that research data are made available only to users who meet certain conditions. Restricted sharing refers to the sharing of research data limited to specific groups, such as within a particular research team; the distinction between restricted publication and restricted sharing is not always clear. Non-publication means that data cannot be accessed or used by anyone other than the data creator, collector, or administrator. If metadata are also withheld, the data remain completely private and confidential, with no possibility of being known to others.

公開とは、インターネット上で誰もが無料でアクセス・利用できる状態(オープンアクセス)のこと。各機関のポリシーによって定義される範囲は異なり、共有の概念も含めることもある。制限公開とは、条件を満たした利用者に限り、研究データが公開されること。制限共有とは、特定の研究グループ内等に限定して研究データが共有されること。制限公開との違いは必ずしも明確ではない。非公開とは、データ作成者・収集者あるいはデータ管理者以外はアクセス・利用できないこと。メタデータも公開しなければ、完全に非公開・秘密となり、他人に知られることはなくなる。

ẩn danh dữ liệu | data anonymization | データの匿名化

Quá trình xóa thông tin khỏi tập dữ liệu có thể xác định danh tính của một cá nhân cụ thể nhằm bảo vệ thông tin cá nhân và quyền riêng tư.

The process of removing information from a dataset that could identify specific individuals, in order to protect personal information and privacy.

個人情報・プライバシー保護のために、データセットから特定の個人を識別できる情報を削除する処理のこと。

dữ liệu mở | open data | オープンデータ

Dữ liệu có thể được sử dụng, tái sử dụng và phân phối lại miễn phí bởi bất kỳ ai mà không cần trả phí sử dụng hoặc thủ tục xin phép. Ngoài dữ liệu nghiên cứu, phong trào dữ liệu mở cũng đang phát triển đối với dữ liệu công do chính quyền quốc gia và địa phương cung cấp. Trong cách sử dụng thông thường, thuật ngữ “dữ liệu mở” thường chủ yếu đề cập đến dữ liệu thuộc khu vực công.

Data that can be freely used, reused, and redistributed by anyone without payment of usage fees or the need for permission procedures. In addition to research data, the open data movement is also advancing for public data provided by national and local governments. In common usage, the term “open data” often primarily refers to such public-sector data.

利用料支払いや利用許諾手続き等をせずに、誰でも自由に利用でき、かつ再利用・再配布できるデータのこと。研究データの他、国・自治体等の公共データのオープンデータ化も進められている。慣用的には、国・自治体等の公共データを中心的に指すことが多い。

Dữ liệu mở 5 sao | 5 Star Open Data | 5つ星オープンデータ

Được đề xuất bởi Tim Berners-Lee, đây là một trong những chỉ số đánh giá xác định các cấp độ công bố dữ liệu mở theo năm giai đoạn. Cấp độ 1: Có sẵn trên web theo giấy phép mở. Cấp độ 2: Bổ sung cho Cấp độ 1, được cung cấp dưới dạng dữ liệu có cấu trúc. Cấp độ 3: Bổ sung cho Cấp độ 1–2, được cung cấp ở định dạng tệp không độc quyền (mở). Cấp độ 4: Bổ sung cho Cấp độ 1–3, sử dụng URI làm định danh. Cấp độ 5: Bổ sung cho Cấp độ 1–4, bao gồm các liên kết đến các nguồn dữ liệu khác.

Proposed by Tim Berners-Lee, this is one of the evaluation indicators that define the levels of open data publication in five stages. • Level 1: Available on the web under an open license. • Level 2: In addition to Level 1, provided as structured data. • Level 3: In addition to Levels 1–2, provided in a non-proprietary (open) file format. • Level 4: In addition to Levels 1–3, uses URIs as identifiers. Level 5: In addition to Levels 1–4, includes links to other data sources.

ティム・バーナーズ＝リーにより提唱され、オープンデータの公開レベルを5段階で定めたオープンデータ評価指標の一つ。レベル1:オープンライセンスの下でウェブ上から入手可能レベル2:レベル1に加えて、構造化データとして提供レベル3:レベル1-2に加えて、プロプライエタリ（非オープンソース）でないファイル形式レベル4:レベル1-3に加えて、URIを識別子として使用レベル5:レベル1-4に加えて、他のデータソースへのリンクを含む。

Trích dẫn dữ liệu nghiên cứu

Citation of Research Data

研究データの引用

Trích dẫn | citation | 引用

Chỉ ra nguồn tài liệu tham khảo và dữ liệu nghiên cứu được sử dụng lại trong các bài báo và ấn phẩm khác. Trong những năm gần đây, ngày càng nhiều tạp chí học thuật khuyến nghị nên trích dẫn dữ liệu nghiên cứu trong danh sách tài liệu tham khảo để dữ liệu nghiên cứu - vốn thường bị đánh giá thấp như một sản phẩm nghiên cứu - có thể được công nhận đúng mức. Do đó, việc trích dẫn dữ liệu nghiên cứu một cách phù hợp được khuyến khích.

Indicating the sources of references and reused research data in papers and other publications. In recent years, more academic journals have been recommending that research data be cited in reference lists so that research data—which has often been undervalued as a research output—can be properly recognized. Appropriate citation of research data is thus encouraged.

論文等において、参照した文献や再利用した研究データの出典を示すこと。研究データの引用については、これまで研究成果として評価されにくかった研究データが正当に評価されるように、研究データを参考文献リストで引用することを推奨する学術ジャーナルが増えている。研究データの適切な引用を推奨することができる。

Ghi nguồn | Attribution | 帰属

Thông tin chỉ ra nguồn gốc của dữ liệu nghiên cứu được trích dẫn, bao gồm ghi nhận nguồn (chẳng hạn như người tạo hoặc nhà cung cấp dữ liệu) và vị trí của dữ liệu (ví dụ: URL, DOI). Ghi nguồn đóng vai trò đặc biệt là cơ sở cho uy tín và sự công nhận của giới học thuật, và việc ghi rõ điều này có thể được yêu cầu theo giấy phép như một điều kiện để sử dụng dữ liệu nghiên cứu. Lưu ý: Điều này khác với quyền sở hữu trong bối cảnh quản lý dữ liệu. Khuyến nghị nên cấp giấy phép phù hợp cho người tạo dữ liệu nghiên cứu để đảm bảo ghi nguồn chính xác.

Information indicating the source of the cited research data. Specifically, it includes credit to the source (such as the creator or provider of the data) and its location (e.g., URL, DOI). Attribution serves as the basis for academic credibility and recognition, and specifying it may be required by a license as a condition for using the research data. Note: This differs from ownership in the context of data management. It is recommended that appropriate licenses be granted to the creators of research data to ensure proper attribution.

研究データの引用元を示す情報。具体的には、引用元のクレジット（データの作成者・提供者等）や所在（URL、DOI等）。学術的な信用や評価の根拠となり、これを示すことが研究データを利用する際の条件としてライセンスで指定されることがある。注：データ管理の文脈における帰属（ownership）とは異なる。研究データの帰属について、研究データの作成者に適切なライセンスの付与を推奨することができる。

Tuyên bố Chung về Nguyên tắc Trích dẫn Dữ liệu (JDDCP) | Joint Declaration of Data Citation Principles: JDDCP | データ引用原則の共同宣言

Một tuyên bố chung do FORCE11 biên soạn năm 2014. Tuyên bố này nêu ra tám nguyên tắc chính liên quan đến trích dẫn dữ liệu: tầm quan trọng, uy tín và ghi nhận, bằng chứng, nhận dạng, truy cập, tính bền vững, tính cụ thể và khả năng xác minh, và khả năng tương tác và linh hoạt. Nguyên tắc “Uy tín và Ghi nhận” nhấn mạnh tầm quan trọng của việc thống nhất các đóng góp học thuật của tất cả các cá nhân tham gia vào quá trình tạo dữ liệu, trong khi các nguyên tắc “Nhận dạng” và “Duy trì” đề xuất sử dụng DOI để nhận dạng dữ liệu và truy cập lâu dài.

A joint declaration compiled by FORCE11 in 2014. It outlines eight key principles concerning data citation: importance, credit and attribution, evidence, identification, access, persistence, specificity and verifiability, and interoperability and flexibility. The “Credit and Attribution” principle emphasizes the importance of acknowledging the scholarly contributions of all individuals involved in data creation, while the “Identification” and “Persistence” principles suggest the use of DOIs for data identification and long-term access.

2014 年に FORCE11 により取りまとめられた共同宣言。データ引用について、重要性、クレジットと帰属、エビデンス、識別、アクセス、永続性、特定性と検証可能性、相互運用性と柔軟性の 8 項目から記述している。「クレジットと帰属」においてはデータ作成に貢献した全ての人々の学術的功績を認めることが重要とされ、「識別」「永続性」においては DOI の利用が示唆されている。

Tạp chí Dữ liệu | Data Journal | データジャーナル

Một tạp chí học thuật được xuất bản với mục đích phổ biến các bài báo khoa học mô tả, giải thích và cung cấp thông tin về việc lưu trữ hoặc truy cập dữ liệu nghiên cứu. Ví dụ về các tạp chí này bao gồm Dữ liệu Khoa học và Dữ liệu Tóm tắt.

An academic journal published with the aim of disseminating scholarly articles that describe, explain, and provide information on the storage or access of research data itself. Examples of such journals include Scientific Data and Data in Brief.

研究データそのものに関する解説・記述・保存先情報等を、学術の成果（論文）として公表することを目的に発行されている学術ジャーナルのこと。“Scientific Data”、“Data in Brief”などの学術ジャーナルがある。

Siêu dữ liệu, Sơ đồ Siêu dữ liệu | metadata, metadataschema | メタデータ、メタデータスキーマ

Siêu dữ liệu Dữ liệu mô tả thông tin về phần chính của dữ liệu. Có thể xác định các quy tắc để gán siêu dữ liệu cho dữ liệu nghiên cứu và áp dụng giấy phép cho siêu dữ liệu. **Sơ đồ Siêu dữ liệu** Một khuôn khổ xác định các thành phần và cấu trúc để mô tả siêu dữ liệu. Các ví dụ về sơ đồ siêu dữ liệu tương ứng với dữ liệu nghiên cứu bao gồm Sơ đồ JPCOAR, Sơ đồ DataCite và OpenAIRE.

Metadata Data that describe information about the main body of data. It is possible to define rules for assigning metadata to research data and for applying licenses to metadata. **Metadata Schema** A framework that defines the elements and structure for describing metadata. Examples of metadata schemas corresponding to research data include the JPCOAR Schema, DataCite Schema, and OpenAIRE.

メタデータ本体のデータに関する情報が記述されたデータのこと。研究データへのメタデータ付与や、メタデータへのライセンス付与について定めることができる。メタデータスキーマメタデータの記述項目や記述形式を定めたもの。研究データに対応したメタデータスキーマとしては、JPCOAR スキーマ、DataCite Schema、OpenAIRE などがある。

mã định danh cố định: PID, DOI, Mã định danh đối tượng kỹ thuật số: ORCID (Mã số nhà nghiên cứu và cộng tác viên mở), Sổ đăng ký nhà tài trợ: Sổ đăng ký nhà tài trợ mở / Sổ đăng ký nhà tài trợ Crossref | persistent identifier : PID, DOI , Digital Object Identifier : ORCID (Open Researcher and Contributor ID), Funder Registry : Open Funder Registry / Crossref Funder Registry | 永続的識別子、デジタルオブジェクト識別子

Mã định danh cố định là mã định danh được thiết kế để cung cấp nhận dạng vĩnh viễn. Các mã định danh liên quan đến dữ liệu nghiên cứu bao gồm DOI, có thể được gán cho nhiều đối tượng kỹ thuật số khác nhau như bài báo và dữ liệu nghiên cứu; ORCID, có thể được gán cho các nhà nghiên cứu và tác giả; và Funder Registry, có thể được gán cho các tổ chức tài trợ nghiên cứu.

An identifier refers to information (such as a name, code, string, or number) used to identify and distinguish a specific digital object. A persistent identifier refers to an identifier intended to provide

permanent identification. Identifiers related to research data include DOI, which can be assigned to various digital objects such as papers and research data; ORCID, which can be assigned to researchers and authors; and the Funder Registry, which can be assigned to research funding organizations.

永続的識別子とは、恒久的に識別することを意図している識別子のこと。研究データに関する識別子としては、論文や研究データ等のあらゆるデジタルオブジェクトに対して付与することのできる“DOI”、研究者や著者に対して付与することのできる“ORCID”、研究助成機関に対して付与することのできる“Funder Registry”などがある。

quản lý dữ liệu | data curation | データキュレーション

Điều này đề cập đến các quy trình kỹ thuật được thực hiện để quản lý, chia sẻ và công bố dữ liệu nghiên cứu. Cụ thể, nó bao gồm các tác vụ như chuyển đổi, định dạng và làm sạch dữ liệu; tạo siêu dữ liệu; gán mã định danh; xử lý giấy phép; lưu trữ và công bố dữ liệu.

This refers to the technical processes carried out for the management, sharing, and publication of research data. Specifically, it includes tasks such as data conversion, formatting, and cleaning; metadata creation; identifier assignment; license processing; and data storage and publication.

研究データ管理・共有・公開のために行われる技術的な処理のこと。具体的には、研究データの変換・整形・クリーニング、メタデータ作成、識別子付与、ライセンス処理、データの保存・公開等の処理が該当する。学内で行われるデータキュレーションについて、その方法や手続き、担当の部署等について定めることができる。

từ vựng thông dụng, từ vựng có kiểm soát | common vocabulary, controlled vocabulary

| 共通語彙、統制語彙

Từ vựng chung là một tập hợp các thuật ngữ được chuẩn hóa, thống nhất ký hiệu, ý nghĩa và cấu trúc dữ liệu của các thuật ngữ và khái niệm được sử dụng trong nhiều lĩnh vực khác nhau, cho phép trao đổi thông tin giữa các hệ thống, ngành học và khu vực khác nhau. Từ vựng được kiểm soát là một tập hợp các thuật ngữ được chọn lọc trước, có ý nghĩa và cách sử dụng được quy định để tránh sự mơ hồ, thiếu sót và trùng lặp trong tìm kiếm. Nó được sử dụng trong các lĩnh vực như thư viện và khoa học thông tin, cơ sở dữ liệu, và được áp dụng trong các công cụ như từ điển đồng nghĩa và danh sách tiêu đề chủ đề.

A common vocabulary refers to a set of standardized terms that unify the notation, meaning, and data structure of terms and concepts used across various fields, enabling information exchange across different systems, disciplines, and regions. A controlled vocabulary refers to a set of pre-selected terms whose meanings and usage are regulated to prevent ambiguity, omissions, and duplication in searches. It is used in fields such as library and information science and databases, and is applied in tools like thesauri and subject heading lists.

共通語彙とは、異なるシステム間であっても分野や地域を横断した情報交換を可能にするために、さまざまな分野で利用される用語・概念の表記・意味・データ構造を共通化した一連の語彙のこと。統制語彙とは、言葉のあいまいさや検索の漏れと重複を防ぐために、あらかじめ選定され、意味の範囲や使い方が規制された一連の語彙のこと。図書館情報学やデータベースの分野で使われ、シソーラスや件名標目表等に利用されている。

kho lưu trữ, kho dữ liệu | repository, data repository | リポジトリ、データリポジトリ

Kho lưu trữ là một cơ sở dữ liệu (kho lưu trữ điện tử) trong đó nhiều dữ liệu và tài nguyên thông tin được lưu trữ và quản lý một cách có hệ thống. Các kho lưu trữ bảo quản và quản lý các kết quả nghiên cứu và dữ liệu học thuật được phân loại, dựa trên phạm vi thu thập, thành kho lưu trữ tổ chức, kho lưu trữ chuyên ngành và kho lưu trữ đa năng. Kho lưu trữ dữ liệu là một kho lưu trữ điện tử thu thập, bảo quản và quản lý dữ liệu nghiên cứu và các tài liệu liên quan như chương trình.

A repository refers to a database (electronic archive) in which multiple data and information resources are systematically stored and managed. Repositories that preserve and manage scholarly outputs and research data are categorized, based on their scope of collection, into institutional repositories, disciplinary repositories, and general-purpose repositories. A data repository is an electronic archive that collects, preserves, and manages research data and associated materials such as programs.

リポジトリとは、複数のデータや情報などが体系的に保存・管理されているデータベース（電子アーカイブ）のこと。学術成果や研究データ等を保存・管理するリポジトリは、その収集範囲から、機関リポジトリ、分野別リポジトリ、汎用リポジトリに分類される。データリポジトリとは、研究データやそれに付随するプログラム等を収集・保存・管理する電子アーカイブのこと。

kho lưu trữ của tổ chức (IR) | institutional repository (IR) | 機関リポジトリ

Đây là kho lưu trữ điện tử trực tuyến, nơi các trường đại học và các tổ chức khác thu thập, lưu giữ và công khai kết quả nghiên cứu của họ để mọi người có thể truy cập miễn phí. Theo định nghĩa mới năm 2019 của Ủy ban Truy cập Mở thuộc Hiệp hội

Thư viện Đại học Quốc gia Nhật Bản, dữ liệu nghiên cứu và tài liệu nghiên cứu số hóa cũng nằm trong phạm vi của kho lưu trữ này.

This refers to an online electronic archive where universities and other institutions collect, preserve, and make their research outputs publicly available for anyone to access free of charge. According to the 2019 redefinition by the Japan Association of National University Libraries Open Access Committee, research data and digitized research materials are also included as part of its scope.

大学等が自機関の研究成果を収集・保存・公開し、誰もが無料で利用することのできるインターネット上の電子アーカイブのこと。2019年に国立大学図書館協会オープンアクセス委員会の再定義によると、研究データやデジタル化された研究資料も対象となることが謳われている。学内の研究データの保管・公開先として指定すること、あるいは候補として挙げることができる。指定する場合は、機関リポジトリの運用ポリシーと連動させる必要がある。

kho lưu trữ chủ đề, máy chủ bản in trước | subject repository, preprint server | 分野別リポジトリ、プレプリントサーバ

Thuật ngữ này đề cập đến một kho lưu trữ điện tử trực tuyến, nơi các tài nguyên nghiên cứu trong một lĩnh vực học thuật cụ thể có thể được đăng ký, lưu trữ và công khai. Các ví dụ tiêu biểu bao gồm arXiv.org trong toán học và vật lý, RePEc trong kinh tế học, và PubMed Central (PMC) trong khoa học y sinh. Nhiều kho lưu trữ chuyên ngành cũng hoạt động như các máy chủ bản thảo trước khi xuất bản, lưu trữ các bài báo trước khi được bình duyệt.

This refers to an online electronic archive where research resources in a specific academic field can be registered, preserved, and made publicly available. Representative examples include arXiv.org in mathematics and physics, RePEc in economics, and PubMed Central (PMC) in biomedical sciences. Many disciplinary repositories also function as preprint servers that host papers prior to peer review.

特定の学術研究分野の研究資源を登録・保存・公開できるインターネット上の電子アーカイブのこと。代表的なものとして、数学・物理学分野の arXiv.org、経済学分野の RePEc、生命医学分野の PubMed Central (PMC) などがあり、プレプリント（査読前論文）サーバとして機能している分野別リポジトリも多い。

kho lưu trữ mục đích chung | general-purpose repository | 汎用リポジトリ

Một kho lưu trữ điện tử trực tuyến cho phép đăng ký, xuất bản và chia sẻ nhiều loại dữ liệu khác nhau, bất kể lĩnh vực nghiên cứu. Các kho lưu trữ dữ liệu nghiên cứu tiêu biểu bao gồm Zenodo, do Tổ chức Nghiên cứu Hạt nhân Châu Âu (CERN) và

OpenAIRE phát triển; Figshare, hợp tác với các tạp chí học thuật như PLOS và cũng cung cấp dịch vụ lưu trữ cho các kho lưu trữ của tổ chức; và Mendeley Data, do Elsevier cung cấp.

An online electronic archive that allows the registration, publication, and sharing of a wide range of data regardless of the research field. Representative research data repositories include Zenodo, developed by the European Organization for Nuclear Research (CERN) and OpenAIRE; Figshare, which collaborates with academic journals such as PLOS and also provides hosting services for institutional repositories; and Mendeley Data, provided by Elsevier.

分野に関わらず、幅広いデータを登録・公開・共有できるインターネット上の電子アーカイブのこと。代表的な研究データリポジトリとしては、欧州原子核研究機構（CERN）と OpenAIRE が開発した Zenodo、PLOS 等の学術ジャーナルと連携し、機関リポジトリのホスティングサービスも提供している Figshare、Elsevier 社が提供する Mendeley Data などがある。

Lưu trữ nóng, lưu trữ lạnh | hot storage, cold storage | ホットストレージ、コールドストレージ

Lưu trữ nóng” đề cập đến các hệ thống hoặc dịch vụ lưu trữ hiệu suất cao cho phép truy cập nhanh vào dữ liệu thường xuyên sử dụng (dữ liệu nóng). Ngược lại, “lưu trữ lạnh” đề cập đến các hệ thống hoặc dịch vụ lưu trữ có thể lưu trữ dữ liệu ít được truy cập (dữ liệu lạnh) trong thời gian dài với chi phí thấp. Ví dụ bao gồm lưu trữ trên băng từ hoặc đĩa quang, cũng như các dịch vụ như Amazon S3 Glacier. Để giảm chi phí lưu trữ dữ liệu nghiên cứu, có thể sử dụng lưu trữ nóng và lưu trữ lạnh một cách phù hợp tùy thuộc vào tần suất truy cập.

“Hot storage” refers to high-performance storage systems or services that allow fast access to frequently used data (hot data). In contrast, “cold storage” refers to storage systems or services that can store infrequently accessed data (cold data) for long periods at a low cost. Examples include storage on magnetic tape or optical discs, as well as services such as Amazon S3 Glacier. To reduce the cost of storing research data, it is possible to use hot and cold storage appropriately depending on access frequency.

ホットストレージとは、アクセス頻度が高くよく使われるデータ（ホットデータ）に高速にアクセスできる高機能なストレージシステムやサービスのこと。一方、コールドストレージとは、アクセスが低頻度になったデータ（コールドデータ）を長期間・安価に保管できるストレージシステムやサービスのことで、代表例としては、磁気テープや光ディスクへの保管の他、Amazon S3 Glacierなどのサービスもある。研究データの保管コストを抑えるために、ホットストレージとコールドストレージを使い分けることができる。

bản quyền | copyright | 著作権

Bản quyền đề cập đến quyền của tác giả đối với việc quyết định cách thức sử dụng tác phẩm đó, và quyền này được bảo vệ theo Đạo luật Bản quyền của Nhật Bản. Các tác phẩm được Đạo luật Bản quyền bảo vệ phải thể hiện “suy nghĩ hoặc cảm xúc”. Do đó, dữ liệu nghiên cứu thường không được bảo vệ bởi bản quyền, ngoại trừ trường hợp chúng tạo thành cơ sở dữ liệu thể hiện sự sáng tạo thông qua việc lựa chọn hoặc sắp xếp thông tin một cách có hệ thống.

Copyright refers to the right held by the creator of a work to decide how that work is used, and it is protected under Japan’s Copyright Act. Works protected by the Copyright Act must express “thoughts or emotions.” Therefore, research data are generally not protected by copyright, except in cases where they constitute a database that exhibits creativity through the selection or systematic arrangement of information.

著作権とは、作品を創作した者が有し、どのように使われるか決めることができる権利のことで、日本では著作権法で保護される。著作権法により保護される著作物は、「思想又は感情」を表現したものであることが条件であるため、研究データについては、「データベースでその情報の選択又は体系的な構成によって創作性を有するもの」を除き、著作権法で保護されないとされている。

quyền sở hữu | ownership | 所有権

Quyền sở hữu đề cập đến quyền tự do sử dụng, hưởng lợi và định đoạt các đối tượng hữu hình (vật chất), và được định nghĩa theo Bộ luật Dân sự Nhật Bản. Trong số dữ liệu nghiên cứu, tài sản vô hình (dữ liệu số) không thuộc diện sở hữu theo Bộ luật Dân sự. Do đó, khi chuyển nhượng quyền hoặc điều kiện sử dụng cho dữ liệu nghiên cứu số, cần phải thực hiện thông qua giấy phép hoặc hợp đồng. Lưu ý rằng dữ liệu nghiên cứu hữu hình thuộc diện sở hữu theo Bộ luật Dân sự; tuy nhiên, giống như dữ liệu nghiên cứu số, giấy phép hoặc hợp đồng cũng có thể được áp dụng cho việc sử dụng hoặc cung cấp dữ liệu.

Ownership refers to the right to freely use, profit from, and dispose of tangible objects (physical things), and it is defined under the Civil Code in Japan. Among research data, intangible assets (digital data) are not subject to ownership under the Civil Code. Therefore, when assigning rights or usage conditions to digital research data, it is necessary to do so through licenses or contracts. Note

that tangible research data are subject to ownership under the Civil Code; however, as with digital research data, licenses or contracts may also be applied to their use or provision.

所有権とは、物（有体物）を自由に使用・収益・処分する権利のことで、日本では民法で規定される。研究データのうち無体物（デジタルデータ）は、民法の所有権の対象外である。このため、デジタルである研究データについて何らかの権利や利用条件を付す場合は、ライセンスや契約に依る必要がある。なお、有体の研究データは民法の所有権の対象となるが、その利用・提供においてはデジタルの研究データと同様、ライセンスや契約を付してもよい。

quản trị dữ liệu | data governance | データガバナンス

Quản trị dữ liệu đề cập đến việc thiết lập một khuôn khổ tổ chức và triển khai cụ thể dựa trên một triết lý rõ ràng về quản lý dữ liệu. Đây là một khái niệm đã được sử dụng trong những năm gần đây khi các tổ chức nhận thức được tầm quan trọng của dữ liệu. Tại các trường đại học, quản trị dữ liệu chủ yếu liên quan đến dữ liệu của tổ chức (như dữ liệu nhân sự, tài chính và học thuật) và nhằm mục đích đảm bảo tính nhất quán của dữ liệu giữa các khoa, hỗ trợ ra quyết định dựa trên bằng chứng, đồng thời duy trì tính bảo mật và tuân thủ dữ liệu. Trong trường hợp dữ liệu nghiên cứu, vì dữ liệu được tạo ra bởi các nhà nghiên cứu, nên cấu trúc quản trị khác với cấu trúc dữ liệu của tổ chức. Quản trị dữ liệu nghiên cứu được thực hiện theo chính sách dữ liệu nghiên cứu.

Data governance refers to the establishment of an organizational framework and its concrete implementation based on a clear philosophy for managing data. It is a concept that has come into use in recent years as institutions have come to recognize the importance of data. At universities, data governance primarily concerns institutional data (such as personnel, financial, and academic data) and aims to ensure data consistency across departments, support evidence-based decision-making, and maintain data security and compliance. In the case of research data, since the data are generated by researchers, the governance structure differs from that of institutional data. Research data governance is carried out in accordance with the research data policy.

データ管理に対して、組織として、明確な理念のもとに体制を構築し、具体的に実施するようにすること。機関におけるデータの重要性が認識されるようになり、近年使われるようになった概念。大学におけるデータガバナンスはもっぱら機関データ（人事、財務、教務データ等）を対象とし、部署間のデータの整合性の担保や、エビデンスに基づく意思決定、データセキュリティ、コンプライアンスなどを目的とする。研究データの場合は研究者がデータを生成するため、機関データのデータガバナンスと体制が異なる。研究データのデータガバナンスは、研究データポリシーに即して行われる。

chủ sở hữu dữ liệu | data owner | データオーナー

Một vị trí hoặc thẩm quyền có thể được xác định trong một tổ chức theo góc độ quản trị dữ liệu. Nó đề cập đến chủ sở hữu dữ liệu. Trong trường hợp dữ liệu của tổ chức tại các trường đại học (chẳng hạn như dữ liệu nhân sự, tài chính hoặc học thuật), hiệu trưởng hoặc ban quản lý trường đại học có thể được chỉ định là chủ sở hữu dữ liệu. Chủ sở hữu dữ liệu chỉ định một người được ủy thác dữ liệu và chịu trách nhiệm cuối cùng đối với dữ liệu của tổ chức. Đối với dữ liệu nghiên cứu, chủ sở hữu dữ liệu có thể là nhà nghiên cứu đã tạo ra dữ liệu hoặc ban quản lý trường đại học. Lưu ý rằng nhân viên hỗ trợ nghiên cứu tạo ra dữ liệu dưới sự chỉ đạo của nhà nghiên cứu (nhà nghiên cứu viên chính, PI) không được coi là chủ sở hữu dữ liệu. Trong một số trường hợp, chủ sở hữu dữ liệu nghiên cứu được chỉ định rõ ràng. Khi quyền sở hữu được chỉ định rõ ràng, nên thiết lập các quy trình cho các trường hợp nhà nghiên cứu rời khỏi tổ chức hoặc nghỉ hưu hoặc chuyển sang trường đại học khác. Các thỏa thuận có thể bao gồm dữ liệu được nhà nghiên cứu rời đi lưu giữ, chuyển giao cho một thành viên của nhóm nghiên cứu hoặc trưởng khoa, hoặc vẫn ở lại trường đại học trước hoặc sau khi chuyển giao.

A position or authority that may be defined within an organization from the perspective of data governance. It refers to the data owner. In the case of institutional data at universities (such as personnel, financial, or academic data), the president or university administration may be designated as the data owner. The data owner appoints a data trustee and holds ultimate responsibility for the institutional data. For research data, the data owner may be either the researcher who generated the data or the university administration. Note that research support staff who generate data under the direction of a researcher (principal investigator, PI) are not considered data owners. In some cases, the research data owner is explicitly specified. When ownership is explicitly designated, it is advisable to establish procedures for cases where a researcher leaves or retires from the institution or transfers to another university. Possible arrangements include the data being retained by the departing researcher, transferred to a member of the research group or the head of the department, or remaining with either the university before or after the transfer.

データガバナンスの観点で組織内に位置づけられることのある地位、権限の一つ。データ所有者を意味し、大学の機関データ（人事、財務、教務データ等）については学長あるいは大学当局が該当の者として挙げられる場合がある。データトラスティーを任命し、機関データについて最終責任を有する。研究データについては、研究データを生成した研究者が該当する場合と、大学当局が担う場合とがある。なお、研究者（PI）の指示の下にデータ

を生成した研究支援者は、データオーナーとはならない。研究データのオーナーを明示する場合がある。明示する場合は、研究者が離職・退職する際や、他大学に異動する際の手続きを定めておくといよい。当該研究者が引き続き継承する場合、研究グループのメンバーや所属組織の部局長等に継承する場合、異動前 / 後の大学とする場合などがありえる。

người quản lý dữ liệu | data trustee | データトラスティー

Một vị trí hoặc thẩm quyền được xác định trong một tổ chức theo góc độ quản trị dữ liệu. Quản trị dữ liệu tại các trường đại học chủ yếu liên quan đến dữ liệu của tổ chức (chẳng hạn như dữ liệu nhân sự, tài chính và học thuật). Thuật ngữ “ủy thác” được dịch là “người được ủy thác” hoặc “người quản lý” và thường dùng để chỉ một cá nhân hoặc công ty được giao nhiệm vụ quản lý đất đai hoặc tài sản. Tại một trường đại học, người được ủy thác dữ liệu thường là một giám đốc điều hành hoặc quản trị viên của trường đại học, người chịu trách nhiệm cuối cùng trong việc quản lý dữ liệu trong phạm vi thẩm quyền của họ (ví dụ: phó chủ tịch phụ trách giáo dục hoặc giám đốc các vấn đề học thuật có thể là người được ủy thác dữ liệu cho dữ liệu học thuật). Họ giám sát những người quản lý dữ liệu và người giám sát dữ liệu chịu trách nhiệm cho các lĩnh vực tương ứng của họ. (Vai trò này hiếm khi được mô tả trong các chính sách dữ liệu nghiên cứu.)

A position or authority defined within an organization from the perspective of data governance. Data governance at universities primarily concerns institutional data (such as personnel, financial, and academic data). The term trustee is translated as “fiduciary” or “administrator” and generally refers to a person or company entrusted with the management of land or property. At a university, a data trustee is typically a university executive or administrator who holds ultimate responsibility for managing data within their area of authority (for example, the vice president for education or the director of academic affairs may serve as the data trustee for academic data). They supervise the data stewards and data custodians responsible for their respective domains. (This role is seldom described in research data policies.)

データガバナンスの観点で組織内に位置づけられる地位、権限の一つ。大学におけるデータガバナンスは主として大学の機関データ（人事、財務、教務データ等）を対象とする。トラスティー（trustee）は「被信託人」「管理人」と訳され、土地や財産の管理を請け負って管理する人や管理会社を一般に指す。「大学におけるデータトラスティー」は大学の役員や管理職により担われ、自身の担当領域のデータの管理について最高責任を負う（教育担当理事あるいは教務部長が教務データのデータトラスティー等）。自身の担当領域のデータスチュワードやデータカストディアンを監督する。（研究データポリシーに記載されることは少ない）

người giám sát dữ liệu, quyền giám sát dữ liệu | data custodian, data custodianship | デー

タカストディアン、データカストディアンシップ

Một vị trí hoặc thẩm quyền được xác định trong một tổ chức theo góc độ quản trị dữ liệu. Thuật ngữ “người giám hộ” được dịch là “người bảo vệ” hoặc “người quản trị” và dùng để chỉ người quản lý hoặc bảo trì các tòa nhà hoặc đất đai. Tại một trường đại học, người giám hộ dữ liệu chịu trách nhiệm lưu trữ, quản lý và bảo vệ dữ liệu, và vai trò này thường do bộ phận quản lý thông tin hoặc CNTT đảm nhiệm. Đối với dữ liệu nghiên cứu, nhà nghiên cứu có thể đóng vai trò là người giám hộ dữ liệu, nhưng trong một số trường hợp, một người phụ trách quản lý dữ liệu trong phòng thí nghiệm (chẳng hạn như trợ lý giáo sư hoặc nhân viên kỹ thuật) có thể đảm nhận vai trò này. Khi sử dụng dịch vụ lưu trữ đám mây của trường đại học, trung tâm cơ sở hạ tầng thông tin hoặc một bộ phận tương tự sẽ đóng vai trò là người giám hộ dữ liệu. (Vai trò này hiếm khi được mô tả trong các chính sách về dữ liệu nghiên cứu.)

A position or authority defined within an organization from the perspective of data governance. The term custodian is translated as “guard” or “administrator” and refers to a person who manages or maintains buildings or land. At a university, a data custodian is responsible for the storage, management, and protection of data, and this role is often carried out by the information management or IT department. For research data, the researcher may serve as the data custodian, but in some cases, a person in charge of data management within the laboratory (such as an assistant professor or technical staff member) may take on this role. When university cloud storage services are used, the information infrastructure center or a similar department serves as the data custodian. (This role is seldom described in research data policies.)

データガバナンスの観点で組織内に位置づけられる地位、権限の一つ。カストディアン (custodian) は「守衛」「管理人」と訳され、建物や土地を管理、維持する。「大学におけるデータカストディアン」は、データの保存管理や保護について責任を有し、情報管理や IT 部門により担われることが多い。研究データについては、研究者自らがデータカストディアンの場合もあるが、研究室内でデータの管理を担当する者（助教、技術職員等）が該当する場合もある。大学のクラウドストレージを利用する場合は、情報基盤センター等がデータカストディアンとなる。（研究データポリシーに記載されることは少ない）

giấy phép

license

ライセンス

giấy phép | license | ライセンス

Hành động cấp phép hoặc ủy quyền, hoặc tài liệu chứng nhận việc cấp phép. Khi dữ liệu nghiên cứu được công khai hoặc chia sẻ, chúng thường không được bảo vệ theo luật pháp Nhật Bản bởi bản quyền hoặc quyền sở hữu. Do đó, cần phải nêu rõ các điều khoản sử dụng thông qua giấy phép, chẳng hạn như Creative Commons hoặc Public Domain. Khi dữ liệu nghiên cứu trong tổ chức được công khai, chia sẻ hoặc cung cấp để sử dụng, nên đính kèm giấy phép nêu rõ các điều kiện sử dụng.

The act of granting permission or authorization, or the document that certifies it. When research data are made public or shared, they are often not protected under Japanese law by copyright or ownership rights. Therefore, it is necessary to clearly indicate the terms of use through a license, such as Creative Commons or Public Domain. When research data within the institution are made public, shared, or provided for use, it is desirable to attach a license that clearly specifies the conditions of use.

許可・許諾すること、もしくは、その証明となる書類のこと。研究データを公開・共有する場合、日本の法律では著作権・所有権の保護の対象外になる可能性が高く、クリエイティブコモンズやパブリックドメインなどのライセンスにより利用条件を明示する必要がある。学内の研究データを公開・共有、もしくは利用に供する場合、利用条件を明示するライセンスを付与しておくことが望ましい。

lệnh cấm vận, lệnh hoãn lại | embargo, moratorium | エンバーゴ、モラトリアム

Thời hạn cấm vận trước khi công bố rộng rãi. Khi các kết quả nghiên cứu, chẳng hạn như các bài báo được công bố trên các tạp chí học thuật, được cung cấp thông qua kho lưu trữ của tổ chức, thời hạn cấm vận thường được đặt ra như một trong những điều kiện. Tương tự, đối với dữ liệu nghiên cứu, thời hạn cấm vận có thể được thiết lập vì lý do liên quan đến nghiên cứu. Khi công khai, chia sẻ hoặc cung cấp dữ liệu nghiên cứu của tổ chức, việc áp dụng lệnh cấm vận cũng có thể được thực hiện.

A period of embargo before public release. When research outputs such as papers published in academic journals are made available through an institutional repository, an embargo period is often set as one of the conditions. Similarly, in the case of research data, an embargo period may be established for research-related reasons. When making institutional research data public, sharing it, or providing it for use, it is also possible to allow the application of an embargo.

公開猶予期間のこと。学術ジャーナルに掲載された自機関の論文等の研究成果を機関リポジトリで公開する場合、条件の一つとして公開猶予期間が設けられることが多い。また、研究データの場合、研究上の都合から公開猶予期間が設けられることがある。学内の研究データを公開・共有、もしくは利用に供する場合、エンバーゴの付与を可能とすることもできる。

Chính sách

Policies

政策・ポリシー

Các nguyên tắc dữ liệu FAIR | The FAIR data principles | FAIR 原則

Các nguyên tắc về công bố và chia sẻ dữ liệu được thiết lập vào năm 2014 dựa trên các cuộc thảo luận tại FORCE11. Từ viết tắt này là viết tắt của Findable (Có thể tìm thấy), Accessible (Có thể truy cập), Interoperable (Có thể tương tác) và Reusable (Có thể tái sử dụng), chỉ ra các phương pháp phù hợp để công khai và chia sẻ dữ liệu.

The principles for data publication and sharing established in 2014 based on discussions at FORCE11. The acronym stands for Findable, Accessible, Interoperable, and Reusable, indicating the appropriate methods for making data publicly available and shareable.

2014 年に FORCE11 での議論に基づき作成されたデータ公開・共有に関する原則のこと。Findable（見つけれれる）、Accessible（アクセスできる）、Interoperable（相互運用できる）、Reusable（再利用できる）の頭文字を取った略語で、データ公開・共有の適切な方法を示している。

Truy cập mở | Open Access (OA) | オープンアクセス (OA)

Trạng thái mà các kết quả nghiên cứu như bài báo được công bố trên internet, cho phép bất kỳ ai cũng có thể tự do xem, tải xuống, sao chép, phân phối, in ấn, tìm kiếm

và sử dụng chúng miễn phí. Thuật ngữ “Truy cập Mở (OA)” thường được dùng để chỉ các ấn phẩm và tài liệu học thuật khác, chứ không phải dữ liệu nghiên cứu. Đối với dữ liệu, thuật ngữ “Dữ liệu Mở” tồn tại, nhưng thường được dùng để chỉ việc công bố dữ liệu chính phủ hơn là dữ liệu nghiên cứu. Việc quản lý và công bố dữ liệu nghiên cứu là chương trình nghị sự trọng tâm của “Khoa học Mở”, và việc công bố dữ liệu nghiên cứu thường được coi là một phần của khái niệm này.

The state in which research outputs such as papers are made available on the internet, allowing anyone to freely view, download, reproduce, distribute, print, search, and otherwise use them at no cost. The term “Open Access (OA)” is conventionally used to refer to publications and other scholarly literature, rather than research data. For data, the term “Open Data” exists, but it is often used to refer to the publication of government data rather than research data. The management and publication of research data are central agendas of “Open Science,” and the publication of research data is generally regarded as part of this concept.

論文等の研究成果がインターネットで公開され、誰もが無料で閲覧・ダウンロード・複製・配布・印刷・検索等の利用が可能な状態にすること。OAは慣用的には、研究データではなく、論文などの文献情報に対して用いられる表現。データについては「オープンデータ」という表現が存在するが、慣用的には（研究データではなく）政府データの公開を指す場合がある。研究データの管理・公開は「オープンサイエンス」の中心のアジェンダで、研究データの公開は慣用的にはこの中に含まれる。

Khoa học mở | Open Science | オープンサイエンス

Mặc dù chưa có định nghĩa rõ ràng, khoa học mở đề cập đến nhiều hoạt động khác nhau giúp chuyển đổi khoa học theo hướng cởi mở hơn thông qua công nghệ ICT. Các hoạt động này bao gồm truy cập mở, dữ liệu mở (công bố nghiên cứu và dữ liệu chính phủ), bình duyệt mở (minh bạch hóa quy trình bình duyệt) và khoa học công dân (sự tham gia của công chúng vào nghiên cứu). “Kế hoạch Cơ bản Khoa học và Công nghệ lần thứ 5” và “Chiến lược Đổi mới Tích hợp” thúc đẩy khoa học mở, đặc biệt chú trọng đến dữ liệu mở. Kế hoạch này có thể đóng vai trò là nguyên tắc chỉ đạo cho việc chia sẻ và công bố dữ liệu nghiên cứu tại các trường đại học.

Although a clear definition has not yet been established, open science refers to various activities that transform science in a more open direction through ICT technologies. These include open access, open data (publication of research and government data), open peer review (making the peer review process transparent), and citizen science (public participation in research). The “5th Science and

Technology Basic Plan” and the “Integrated Innovation Strategy” promote open science, with a particular emphasis on open data. It can serve as a guiding principle for the sharing and publication of research data at universities.

明確な定義はまだ定まっていないが、ICT 技術によりオープンな方向に科学を変容させる諸活動のことで、オープンアクセス、オープンデータ（研究データや政府データの公開）、オープンピアレビュー（査読プロセスのオープン化）、シチズンサイエンス（研究への市民参加）などが含まれる。「第 5 期科学技術基本計画」「統合イノベーション戦略」では、オープンサイエンス推進を謳っており、オープンデータに重点が置かれている。大学における研究データ共有・公開の拠り所となる理念として挙げることができる。

Cơ sở hạ tầng trong nước

Domestic Infrastructure

国内インフラ

NII Research Data Cloud (NII RDC), cơ sở hạ tầng quản lý, cơ sở hạ tầng công cộng, cơ sở hạ tầng tìm kiếm | NII Research Data Cloud (NII RDC), management infrastructure, public infrastructure, search infrastructure | NII Research Data Cloud (NII RDC)、管理基盤、公開基盤、検索基盤

NII Research Data Cloud là một cơ sở hạ tầng thông tin do Viện Tin học Quốc gia (NII) cung cấp (hoặc dự kiến cung cấp). NII cho phép quản lý, xuất bản và tìm kiếm dữ liệu nghiên cứu và các tài liệu liên quan được tạo ra trong quá trình hoạt động nghiên cứu học thuật. NII bao gồm ba thành phần chính: Nền tảng Quản lý (GakuNin RDM), cho phép chia sẻ độc lập dữ liệu nghiên cứu và các tệp liên quan trong mỗi dự án nghiên cứu. Nền tảng Xuất bản (JAIR Cloud mới: WEKO3), cho phép xuất bản các bài báo nghiên cứu và một phần dữ liệu nghiên cứu được sử dụng trong các nghiên cứu sau khi hoàn thành các dự án nghiên cứu. Nền tảng Tìm kiếm (CiNii Research), cho phép người dùng tìm kiếm các kết quả học thuật đã xuất bản và thông tin liên quan.

NII Research Data Cloud is an information infrastructure provided (or planned to be provided) by the National Institute of Informatics (NII). It enables the management, publication, and search of research data and related materials generated in the course of academic research activities. It consists of three main components: The Management Platform (GakuNin RDM), which allows independent sharing of research data and related files within each research project. The Publication Platform (new JAIRO Cloud: WEKO3), which enables the publication of research papers and portions of research data used in the studies after the completion of research projects. The Search Platform (CiNii Research), which allows users to search for published academic outputs and related information.

NII Research Data Cloudとは、国立情報学研究所（NII）が提供（予定）している情報インフラのこと。学術研究活動の過程で生成される研究データや関連の資料を管理・公開・検索することができ、それぞれに独立した、研究プロジェクトごとに研究データや関連のファイルを共有できる「管理基盤」（GakuNin RDM）、研究プロジェクトが終了後、学術論文やその素となった研究データの一部などを公開できる「公開基盤」（新 JAIRO Cloud : WEKO3）、公開された学術成果等を検索できる「検索基盤」（CiNii Research）で構成されている。

GakuNin RDM

Dịch vụ quản lý dữ liệu nghiên cứu do Viện Tin học Quốc gia (NII) cung cấp. Dịch vụ này cho phép các nhà nghiên cứu cá nhân hoặc nhóm nghiên cứu quản lý dữ liệu nghiên cứu theo từng dự án. Dịch vụ này có thể được triển khai tại các trường đại học như một nền tảng dữ liệu nghiên cứu để các nhà nghiên cứu sử dụng trong các hoạt động nghiên cứu của họ.

A research data management service provided by the National Institute of Informatics (NII). It allows individual researchers or research groups to manage research data on a per-project basis. It can be implemented at universities as a research data platform for researchers to use during their research activities.

国立情報学研究所(NII)が提供している研究データ管理サービス。個人の研究者や研究者グループが研究プロジェクト単位で研究データを管理できる。研究者が研究活動期間中に利用する研究データ基盤として、大学に導入することができる。

JAIRO Cloud (JC)

Dịch vụ kho lưu trữ dữ liệu tổ chức dựa trên đám mây (Dịch vụ Kho lưu trữ Chia sẻ) do Viện Tin học Quốc gia (NII) và Liên minh Kho lưu trữ Truy cập Mở Nhật Bản (JPCOAR) cùng vận hành. Phần mềm cốt lõi của dịch vụ sử dụng WEKO, do NII phát triển. Tính đến ngày 31 tháng 3 năm 2020, dịch vụ này đã được 609 tổ chức

sử dụng. JAIRO Cloud mới, dự kiến ra mắt vào năm tài chính 2020, sẽ áp dụng WEKO3, hỗ trợ lược đồ JPCOAR và bao gồm các tính năng như chức năng đa kho lưu trữ và khả năng lưu trữ kỹ thuật số. Dịch vụ này cũng được lên kế hoạch liên kết với GakuNin RDM và CiNii Research. Thông qua dịch vụ này, các tổ chức có thể xây dựng và vận hành các kho lưu trữ tổ chức để xuất bản nhiều nguồn tài nguyên học thuật được tạo ra trong trường đại học — bao gồm các bài báo nghiên cứu, luận án tiến sĩ, bản tin, tài liệu giảng dạy, ghi chú bài giảng, dữ liệu nghiên cứu, cơ sở dữ liệu và các tài liệu khác.

A cloud-based institutional repository service (Shared Repository Service) operated jointly by the National Institute of Informatics (NII) and the Japan Consortium for Open Access Repositories (JPCOAR). The core software of the service uses WEKO, developed by NII. As of March 31, 2020, the service was used by 609 institutions. The new JAIRO Cloud, scheduled for launch in FY2020, will adopt WEKO3, support the JPCOAR schema, and include features such as multi-repository functions and digital archive capabilities. It is also planned to be linked with GakuNin RDM and CiNii Research. Through this service, institutions can build and operate institutional repositories to publish a wide range of academic resources generated within the university — including research papers, doctoral theses, bulletins, teaching materials, lecture notes, research data, databases, and other materials.

国立情報学研究所（NII）とオープンアクセスリポジトリ推進協会（JPCOAR）が運営するクラウド型の機関リポジトリ環境提供サービス（共用リポジトリサービス）。核となるソフトウェアにNII開発のWEKOを採用。2020年3月31日現在、609機関が利用。2020年度中に提供開始予定の新JAIRO Cloudは、WEKO3採用、JPCOARスキーマ対応、マルチリポジトリ機能、デジタルアーカイブ機能等の特徴を有し、GakuNin RDMやCiNii Researchとの連携も予定している。学内で生成された各種学術資源（論文、博士論文、紀要、教材、講演資料、研究データ、DB、その他）を公開する機関リポジトリを同サービスの利用により展開できる。

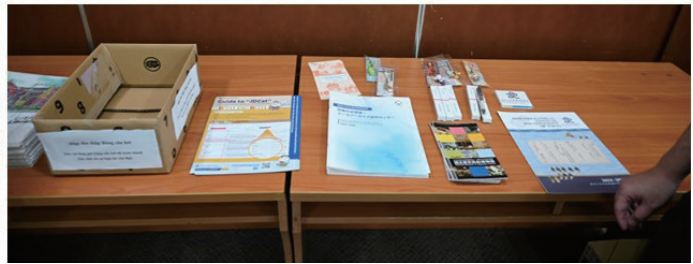
CiNii Research

Dịch vụ tìm kiếm toàn diện sẽ được cung cấp bởi Viện Tin học Quốc gia (NII). NII sẽ cho phép tìm kiếm tích hợp thông tin kết quả nghiên cứu như bài báo học thuật, sách, luận án tiến sĩ và dữ liệu nghiên cứu, cũng như thông tin về các nhà nghiên cứu và dự án nghiên cứu đã tạo ra những kết quả đó. Ở giai đoạn hiện tại, dịch vụ này đóng vai trò là dịch vụ tìm kiếm thông tin học thuật dành cho từng nhà nghiên cứu, nhưng các chức năng phân tích kết quả nghiên cứu do các tổ chức tạo ra cũng sẽ được giới thiệu,

cho phép các văn phòng IR (Nghiên cứu Thể chế) của trường đại học và các URA (Quản trị viên Nghiên cứu Đại học) sử dụng trong tương lai.

A comprehensive search service to be provided by the National Institute of Informatics (NII). It will enable integrated searches of research outcome information such as academic papers, books, doctoral theses, and research data, as well as information about the researchers and research projects that produced those outcomes. At the current stage, it serves as an academic information search service for individual researchers, but functions for analyzing research outputs produced by institutions will also be introduced, allowing use by university IR (Institutional Research) offices and URAs (University Research Administrators) in the future.

国立情報学研究所（NII）が提供予定の包括的検索サービス。学術論文や図書、博士論文、研究データなどの研究成果情報、それらの成果を生み出した研究者、研究プロジェクトの情報などを包括的に検索できる。現段階では研究者個人が利用する学術情報検索サービスであるが、機関の生み出す研究成果を分析する機能も導入し、大学 IR や URA も利用できるようにする予定。





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若手人材交流プログラム (Y-tec)
ASEAN 諸国と新たなイノベーションを共創し、持続可能な研究エコシステムの構築を目指す



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