九州大学学術情報リポジトリ Kyushu University Institutional Repository

デジタルトランスフォーメーション(DX)時代のデータキュレーションと情報管理

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https://hdl.handle.net/2324/4738597

出版情報:2021-12-09. University of Illinois Urbana Champaign

バージョン: 権利関係: Kyushu-Illinois Strategic Partnership Colloquia Series:

DATA CURATION AND INFORMATION MANAGEMENT IN THE AGE OF DIGITAL TRANSFORMATION

Talk #4 (Kyushu)

Challenge to Promote Research Data Management in Kyushu University

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Four Requirements for Research Data Management and Publication

■ Submission of Data Management Plan (DMP)

- Major overseas funding agencies require submission of DMPs on applying.
- In Japan, submission of DMPs is already required for JST/AMED, etc. and submission of DMPs will be required for all new applications for public research funds by FY2023.

■ Management and Preservation of Data for Research Fairness

• In Japan, research data must be **retained for 10 years** after publishing the relevant paper, etc. in principle **even if the researcher transfers or retires**. However, under the current situation, there is a concern that research data may be lost as researchers transfer or retire.

Publishing evidence data of submitted papers

- Many journals demand that authors preserve and publish evidence data in a reliable repository.
- Publishers offer data support services

■ Publishing Research Data

- Contribute to the creation of new knowledge by promoting research data use in society (Open Science)
- COVID-19 disaster has increased its importance and necessity.

What Japanese Universities are expected to do

Infrastructure and Regulations

- Establish infrastructure for data management in cooperation with National Institute of Informatics (NII)
- Establish regulations for research data management

■ Human Resources

- Establish a research data management system composed of mainly technical staffs, URA and library staffs
- Study and promote the establishment of a system to train data curators, etc.
- To achieve them, consider strategic allocation of human resources and ensure new specialized human resources

■ Support Services

 Support researchers in making a data management plan and in implementing management in accordance with that plan

Evaluation of data creator

Evaluate data citations as achievements of the creator of the data.

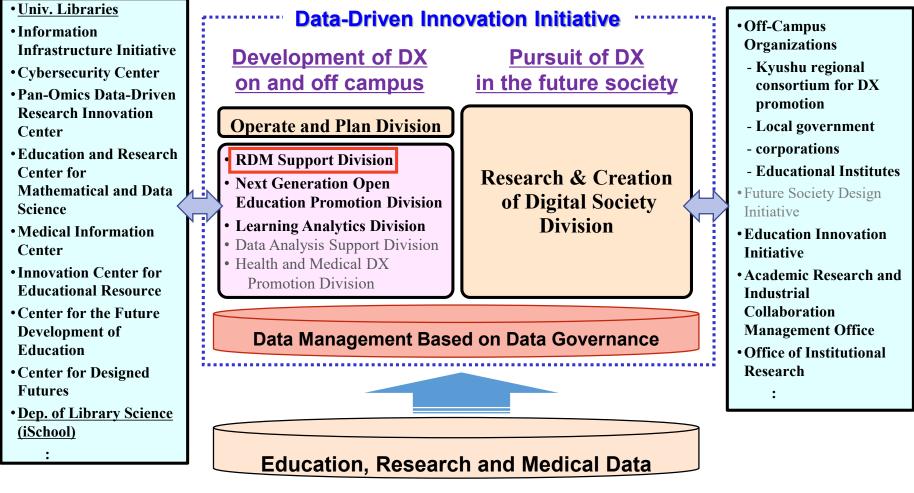
This is not the official English name of this committee or report.

FROM: The 8th Committee for Academic Resources by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan

"Promoting openness of academic resources (Summary of deliberations)," Feb. 2016

Kyushu Univ. Data-Driven Innovation Initiative

- Realize the utilization, accumulation, and publication of academic resources such as teaching materials and research and education data, and the formation of communities.
- Discover and create new values based on data across disciplines, and create data-driven innovations that will transform society and envision a future society.



RDM Support Division

University Libraries

Open Science Promotion Unit

Dep. Library Science

RDM Support Service

Academic Research and Industrial Collaboration Management Office

 Develop human resources for RDM support

Institutional Research Room

Support for publishing research data

- Data Curation
- Publish data from the institutional repository (QIR)

Storage

preserve research data for 10 years

inherit

data

Kyushu University Institutional Repository (QIR) reuse make up DMP Support for making up DMP

make up a plan on research and apply grants

generate/collect data

Literacy education about RDM

research process a data

Advice on RDM

analyze a data

preserve a data

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Hot Storage

N

NII GakuNin RDM (RDM Infrastructure)

Information Infrastructure Initiative

Research Institute for Information Technology

RDM Infrastructure Unit

submit

papers

publish

evidence data

 Prepare and operate RDM infrastructure (hot/cold storage, management software)

write papers

share

a data

Develop systems to cope with large scale

How can we encourage researchers to surely preserve their research data?

Infrastructure

Not just a storage system for 10-year preservation, but a system that covers the entire life cycle of research.

The following system is ideal (?):

- hot-storage and cold-storage coordinate
- Data can be used in the same environment anywhere (cloud storage)
- Easy data sharing among members of a research project
- Introduction of electronic lab notebook that is easy-to-use
- Semi-automatically preserve and discard research data according to the DMP.

Support Services

- Enlightenment activities to convey the importance of appropriate management and preservation of research data
 - Already created e-Learning materials
- Literacy education for students on research data management

How did you work on this at the University of Illinois?

How can we encourage researchers to publish their research data?

Support Services

- Curation
- Introduce the appropriate repository
- :

Researcher Awareness

- Do researchers publish data that they have not yet finished using?
 - When the data is too large to be analyzed only by the project members, there is an incentive to publish it so that others can use it and increase the value of the data.
- What is the incentive to publish data that is not that large?
 - ? Increase in the number of citations
 - ? Evaluate data citations as achievements of the creator of the data

How did you work on this at the University of Illinois?