

Current Research Data Management Support  
for Researchers in the U.K.

# 英国における研究データ管理 支援の動向

第3回 SPARC Japanセミナー (2013/10/25)

筑波大学大学院図書館情報メディア研究科

池内 有為 <http://oui-oui.jp>

# 本日の話題



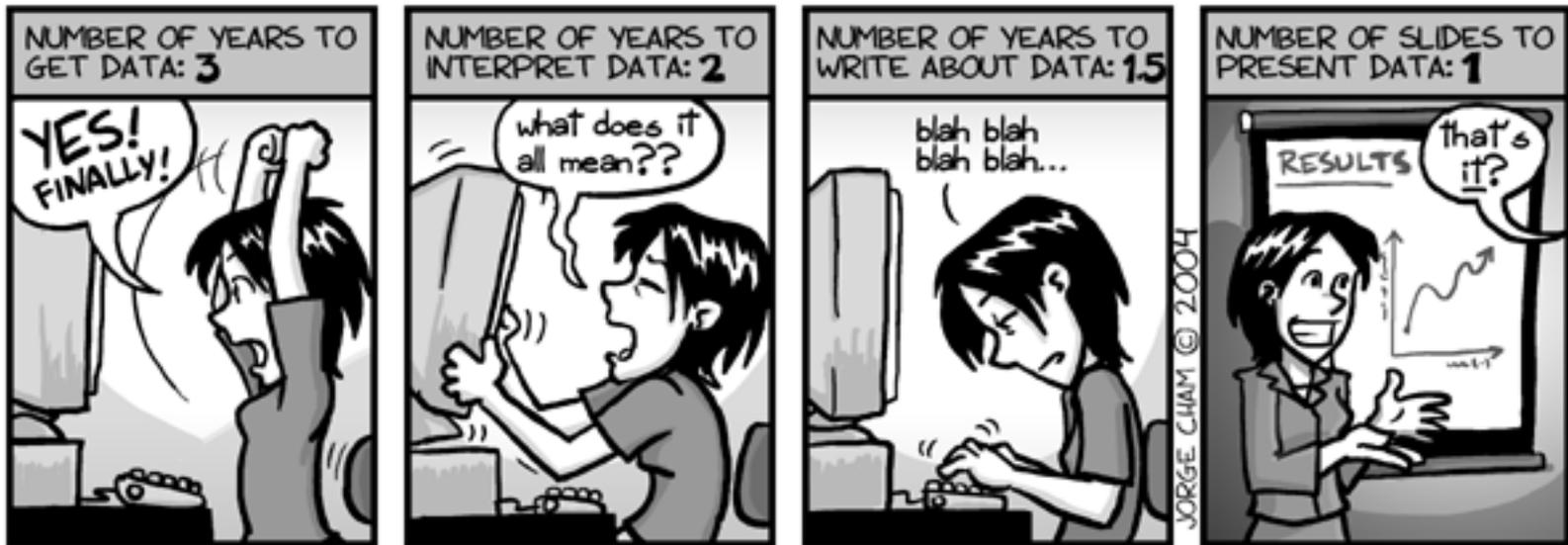
1. 研究データの公開と再利用の背景
2. 英国の大学図書館における研究データ管理支援
  - エディンバラ大学, グラスゴー大学
  - デジタルキュレーションセンター (DCC)
3. 日本の研究データ管理支援にむけて

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# 研究データの公開と再利用の背景

# 研究データの公開と再利用

## DATA: BY THE NUMBERS



3年

2年

1.5年

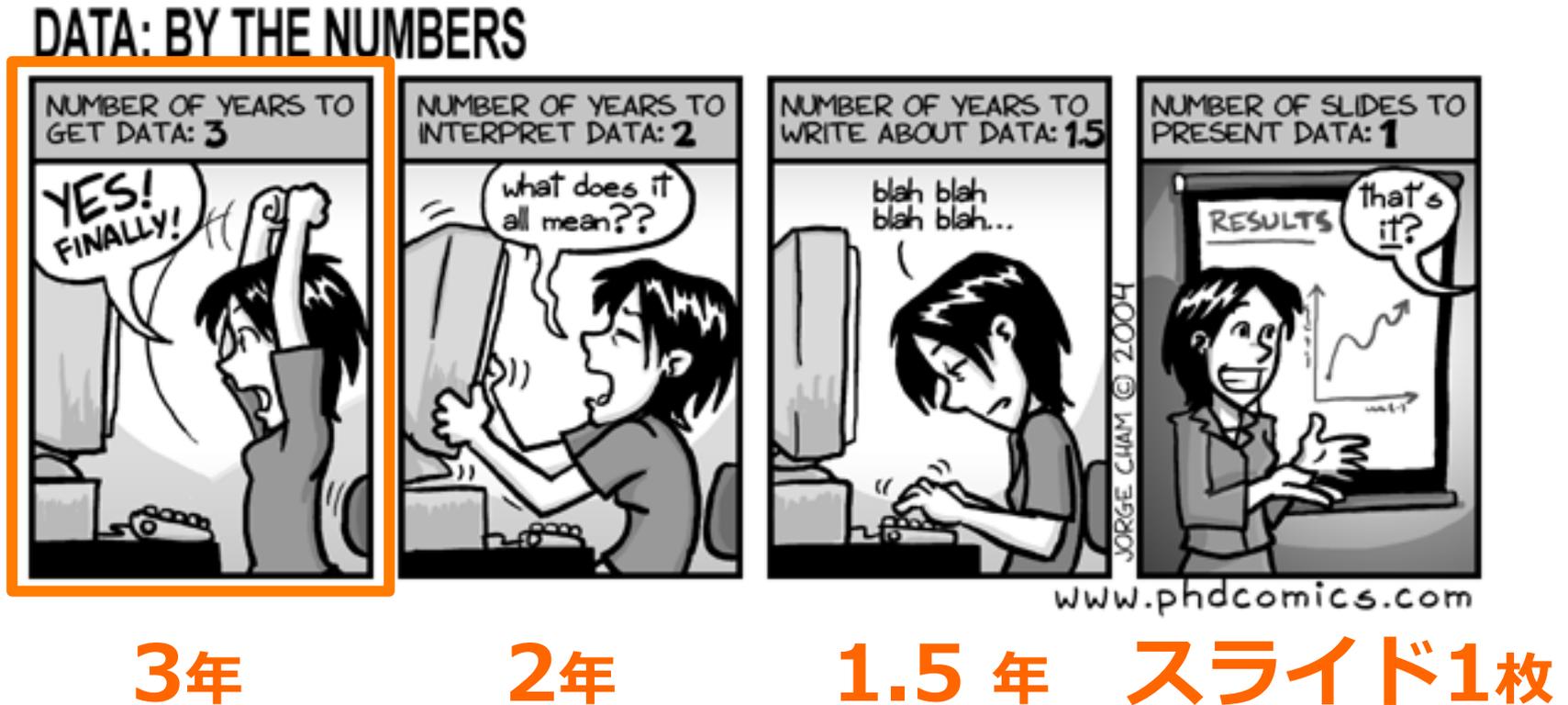
スライド1枚

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Callaghan, S. Research Data Overview. OpenAIRE/LIBER Workshop. 28 May 2013, Ghent Belgium

<http://libereurope.eu/blog/dealing-with-data-workshop-videos-presentations>

# 研究データの公開と再利用



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# 研究データの公開と再利用



## DATA: BY THE NUMBERS



**3年**



**2年**



**1.5年**



**スライド1枚**

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Callaghan, S. Research Data Overview. OpenAIRE/LIBER Workshop. 28 May 2013, Ghent Belgium

<http://libereurope.eu/blog/dealing-with-data-workshop-videos-presentations>

# 研究の信頼性



**Forbes** - **New Posts** (+4 posts this hour) | **Popular** (A Walk Down Silk Road) | **Lists** (TV's Highest-Paid Actors) | **Videos** (America's Most Influential)



**Larry Husten**, Contributor  
I'm a medical journalist covering cardiology news.  
[+ Follow](#) (146)

PHARMA & HEALTHCARE | 10/22/2013 @ 8:39AM | 627 views

## A Paper In The American Journal Of Cardiology About A Study That Was 'Not Real'

[+ Comment Now](#) [+ Follow Comments](#)

New allegations about scientific misconduct have been raised about a cardiology group in a hospital in Italy. Some of the allegations come from a surprising source: Maria Grazia Modena, the former and highly prominent chief of cardiology at the hospital where the research was said to have been performed.

The new allegations are the latest episode in an ongoing saga that began last year involving many of the same researchers, including Maria Grazia Modena herself. As I [first reported](#) last November, nine Italian cardiologists were arrested as part of a broad investigation into serious medical misconduct at Modena Hospital (*Policlinico di Modena*). The charges included conspiracy, fraud, embezzlement, bribery, forgery and performing unauthorized clinical trials. The most prominent person arrested was Maria Grazia Modena, who is also a former president of the Italian Society of Cardiology. (The fact that she shares her last name with the city and the hospital where she works appears to be a coincidence.)

7

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Home > Science Magazine > 4 October 2013 > Bohannon, 342 (6154): 60-65

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Science 4 October 2013:  
Vol. 342 no. 6154 pp. 60-65  
DOI: 10.1126/science.342.6154.60

< Prev | Table of Contents | Next >

Leave a comment (200)

NEWS

**Who's Afraid of Peer Review?**

John Bohannon

A spoof paper concocted by *Science* reveals little or no scrutiny at many open-access journals.

On 4 July, good news arrived in the inbox of Occorfoo Cobange, a biologist at the Wasee Institute of Medicine in Asmara. It was the official letter of acceptance for a paper he had submitted 2 months earlier to the *Journal of Natural Pharmaceuticals*, describing the anticancer properties of a chemical that Cobange had extracted from a lichen.

In fact, it should have been promptly rejected. Any reviewer with more than a high-school knowledge of chemistry and the ability to understand a basic data plot should have spotted the paper's short-comings immediately. Its experiments are so hopelessly flawed that the results are meaningless.

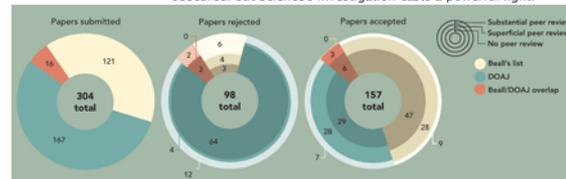
I know because I wrote the paper. Occorfoo Cobange does not exist, nor does the Wasee Institute of Medicine. Over the past 10 months, I have submitted 304 versions of the wonder drug paper to open-access journals. More than half of the journals accepted the paper, failing to notice its fatal flaws. Beyond that headline result, the data from this sting operation reveal the contours of an emerging Wild West in academic publishing.

From humble and idealistic beginnings a decade ago, open-access scientific journals have mushroomed into a global industry, driven by author publication fees rather than traditional subscriptions. Most of the players are murky. The identity and location of the journals' editors, as well as the financial workings of their publishers, are often purposefully obscured. But *Science's* investigation casts a powerful light.



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ILLUSTRATION: DAVID PLUNKERT



# 研究データ公開の義務化と関連組織



**DIGITAL AGENDA FOR EUROPE**  
A Europe 2020 Initiative

**Results of the consultation on Open Research Data**

Open science is at the heart of scientific endeavour, and rapid technological change has profound implications for the way in which science is conducted and communicated. Research is being transformed in particular by the increasing availability of digital data and new technologies for gathering, processing and generating digital resources.

In the Communication 'Towards better access to scientific information', the Commission announces that it will 'provide a framework and encourage open access to research data in Horizon 2020, taking into account any restrictions that may be needed in order to protect intellectual property or legitimate commercial interests'.

On 2nd of July 2013, the EC held a one-day public consultation on open research data in Brussels to debate the input of all concerned stakeholders on this important and sensitive issue. Attendees included stakeholders from the research and publishing communities, as well as libraries, universities and industry representatives. The outcome of the consultation will help the Commission to develop its policies on open research data.

**Key questions addressed**

- How can we define research data?
- How should the issue of data reuse be addressed?
- When and how does openness need to be limited?
- Where should research data be stored and made accessible?
- How can we enhance data awareness and a culture of sharing?

**Key documents**

- List of participants
- Contributions
- Agenda open research data consultation
- Report consultation Open Research Data

政府機関

**BMJ** Helping doctors make better decisions

**Open Data**

Hidden clinical trial data are systematically undermining doctors' abilities to prescribe treatment with confidence. A whole range of widely used drugs across all fields of medicine have been reassessed as safer and more effective than they are, endangering people's lives and wasting public money.

As of January 2013, the BMJ will no longer publish any trial of drugs or devices where the authors do not commit to making the research anonymized patient-level data available, upon reasonable request.

On this page we are documenting some of the BMJ's coverage of adverse outcomes associated with hidden clinical trial data. We are also highlighting the extent of the problem, as shown in our hidden data special issue, published in 2012.

We are also asking you to help us catalogue drugs, devices, and treatments for which a lack of complete clinical trial data has resulted in a skewed evidence base. Fill in our online form to tell us where and when you have seen this reported.

**Latest developments**

2013 is fast becoming the year of open data. Tim Groves, deputy editor of the BMJ, has blogged with an extensive list of recent developments and upcoming milestones. In a separate blog, she outlines the current state of data sharing, and how different companies are approaching the issue.

One key development is the European Medicines Agency's plan to systematically share all of the clinical trial data submitted to its companies seeking regulatory approval for a drug or device.

This breakthrough in transparency came in 2010, after parental open data advocate Peter Gøtzsche, director of the Nordic Consumers Centre, sought a ruling from the European Ombudsman on the right of the public to scrutinize these data. This triggered the policy and has now led to the field in advanced general evaluation.

The plan is now under threat as two companies, AstraZeneca and Biogen, have obtained an interim ruling from the General Court of the European Union to prevent the agency from data sharing, arguing that the patient level data requested 'did not meaningfully contribute to the scientific review or evaluation of our products'.

**BMJ OPEN DATA CAMPAIGN**

**We need your help with hidden data**

Fill in this form with details of any examples you have seen

**CRITICAL DATA NEWS**

- A summary of arguments for and against clinical data sharing can be found in 'The BMJ's head-to-head' 'Are clinical trial data shared sufficiently today?' Arguing for it is Ben Goldacre, arguing Yes is John Castleman.
- MUGAB has had its meeting on Tamfu, Tsh

学術雑誌

**wellcome trust**

**Data sharing**

We aim to ensure that the data generated by the research we support is managed and shared in a way that maximises the benefit to the public.

We work actively with the research community and other relevant stakeholders to shape and apply good practice with regard to the management of research data.

In addition to implementing our policy, which applies across the full breadth of the research we support, we are taking forward targeted activities in partnership with others to promote data sharing in specific research fields.

**Policy and position statements**

- Consultation responses

**Spotlight issues**

- Counterfeit medicines
- Intellectual property
- Mitochondrial disease
- Health impacts of climate change
- Influenza
- Personal information

**Data sharing**

- Data management and sharing
- Public health and epidemiology
- Guidance for researchers
- Large-scale genetics research
- Open access
- Humanised research
- Human Fertilisation and Embology Act
- 117th Annual Meeting

**Data management and sharing policy**

Our policy on the management and sharing of data that arises from the research we fund.

**Public health and epidemiology**

We are exploring mechanisms for developing codes of conduct for data sharing among epidemiological and public health researchers.

**Expert Advisory Group on Data Access**

Provides strategic advice on the emerging scientific, legal and ethical issues

**Large-scale genetics research**

We have a long track record of ensuring access to genetic datasets and are working to address associated ethical issues.

**Guidance for researchers**

Resources to assist researchers in developing data management and sharing plans, including information on data repositories.

助成団体

**UNIVERSITY OF OXFORD**

**Policy on the Management of Research Data and Records**

- The University of Oxford seeks to promote the highest standards in the management of research data and records: as fundamental to both high quality research and academic integrity.
- The University recognises that accurate and retrievable research data are an essential component of any research project and necessary to verify and defend, where required, the process and outcomes of research. Research data are valuable to researchers for the duration of their research, and may well have long term value for research, teaching and for wider exploitation for the public good, by individuals, government, business and other organisations, as a project develops and after research results have been published.
- The University acknowledges its obligations under research funders' data-related policy statements and codes of practice to ensure that sound systems are in place to promote best practice, including through clear policy, guidance, supervision, training and support.
- Researchers', department/faculties, divisions, central administrative units and service providers and, where appropriate, research sponsors and external collaborators, need to work in partnership to implement good practice and meet relevant legislative, researcher funder and regulatory requirements.
- Research data and records should be:
  - Accurate, complete, authentic and reliable;
  - Identifiable, retrievable, and available when needed;
  - Secure and safe;
  - Kept in a manner that is compliant with legal obligations and, where applicable, the requirements of funding bodies and project-specific protocols approved under the University Policy on the Ethical Conduct of Research Involving Human Participants and Personal Data;
  - Able to be made available to others in line with appropriate ethical, data sharing and open access principles.
- Research data and records should be retained for as long as they are of continuing value to the researcher and the wider research community, and as long as specified by research funder, patent law, legislative and other regulatory requirements. The minimum retention period for research data and records is three (3) years after publication or public release of the work of the research. In many instances, researchers will resolve to retain research data and records for a longer period than the minimum requirement.

大学

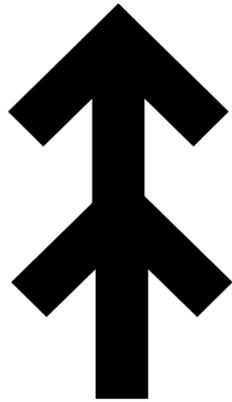


50カ国+の助成機関の連携組織



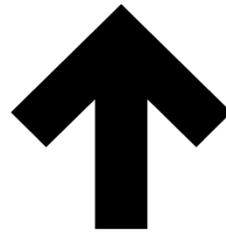
NSFや欧州連合の研究データ同盟

# 研究データ公開 = 引用が増加



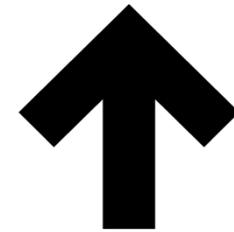
**69%**

**DNAデータ<sup>1)</sup>**



**35%**

**古海洋学データ<sup>2)</sup>**



**31%**

**天文学データ<sup>3)</sup>**

GenBank

EMBL



PANGAEA®

Data Publisher for Earth & Environmental Science

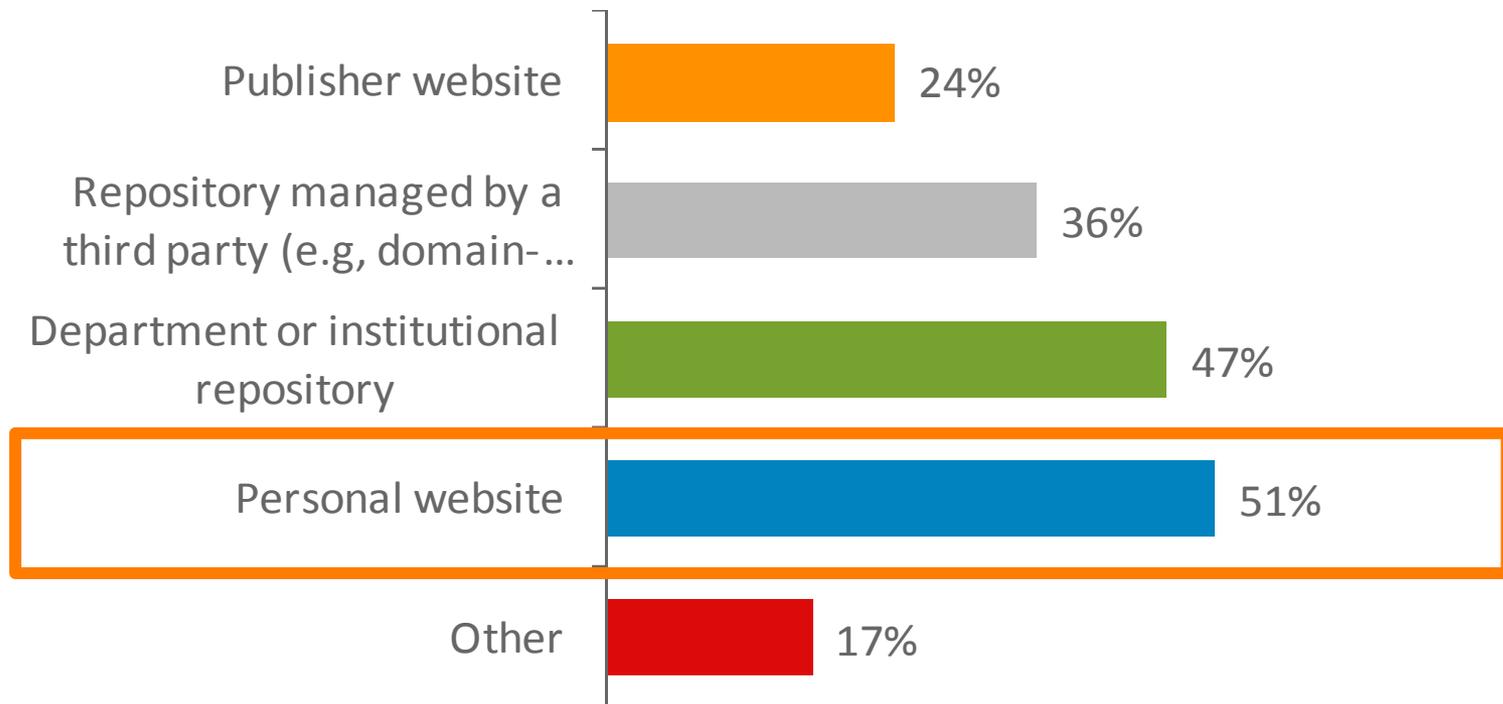


**NASA's HEASARC**

# 研究データの保存先



## DEPOSITION OF DATA BY RESEARCHERS



THOMSON REUTERS

Robinson, Nigel. Discovery, Access, and Citation of Published Research Data. 2013.

## 再起動する大学図書館

Nature 495, 430-432 (2013年3月28日号) | doi:10.1038/495430a

科学論文出版界がデータのオープンアクセス化に向かって動いている今、世界中の大学図書館と研究者が、その流れに遅れまいと方法を模索している。

Richard Monastersky



2013年3月28日 495(7442)



ジョンズ・ホプキンス大学は、図書館と研究者がデータを扱う方法を変えようとしている。「ビジュアルイゼーション・ウォール」のデモンストレーションを行う Sayeed Choudhury。

Credit: WILL KIRK/JHU HOMEWOOD PHOTOGRAPHY

Sayeed Choudhuryが差し伸ばした右腕を振ると、通り過ぎる数人の学生が何事かと振り返る。パリッとりの利いたドレスシャツにスラックスという服装の技術者は、スローモーションでダンスの練習をしているように見える。けれども本当は、天文データを操っているところなのだ。

Choudhuryがいる場所は、3200万ドルの費用を投じて建設され、去年オープンしたばかりのジョンズ・ホプキンス大学（米国メリーランド州ボルチモア）図書館の中である。彼は、12台のディスプレイを連結した縦2 m、横4 mの「ビジュアルイゼーション・ウォール（視覚化の壁）」に向かって立ち、そこに映し出されたハッブル宇宙望遠鏡の40種類の画像の中から、環状星雲の写真を腕で差し示して選択する。そして、まるで誰かを歓迎するかのように両手を広げると、環状星雲を縁取るオレンジ色に輝くガスが、フレームいっぱいに広がった。



# 大学図書館による研究データ管理支援

■ サービス

■ 職員

■ 費用

■ 問題点





# 英国の大学図書館における 研究データ管理支援

# インタビュー調査

## エディンバラ大学

国立大学（1583年設立）

人文・社会学部，理工学部，  
医学・獣医学部

 (本部)



## グラスゴー大学

国立大学（1451年設立）

人文学部，生命科学学部，  
理工学部，医学・獣医学部



 Collaboration to Clarify  
the Costs of Curation



# インタビュー

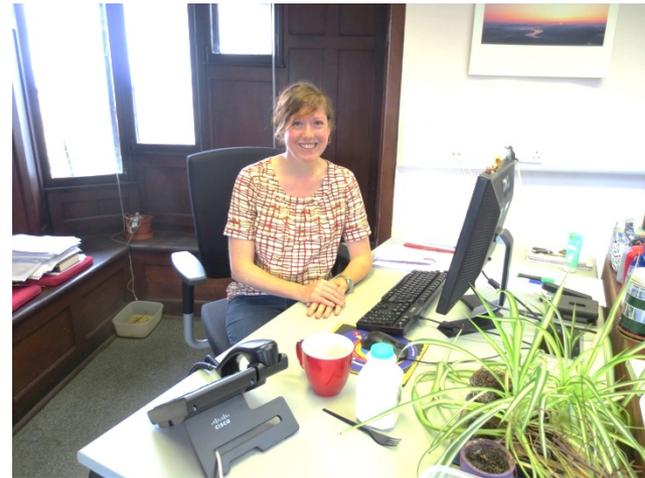
## エディンバラ大学

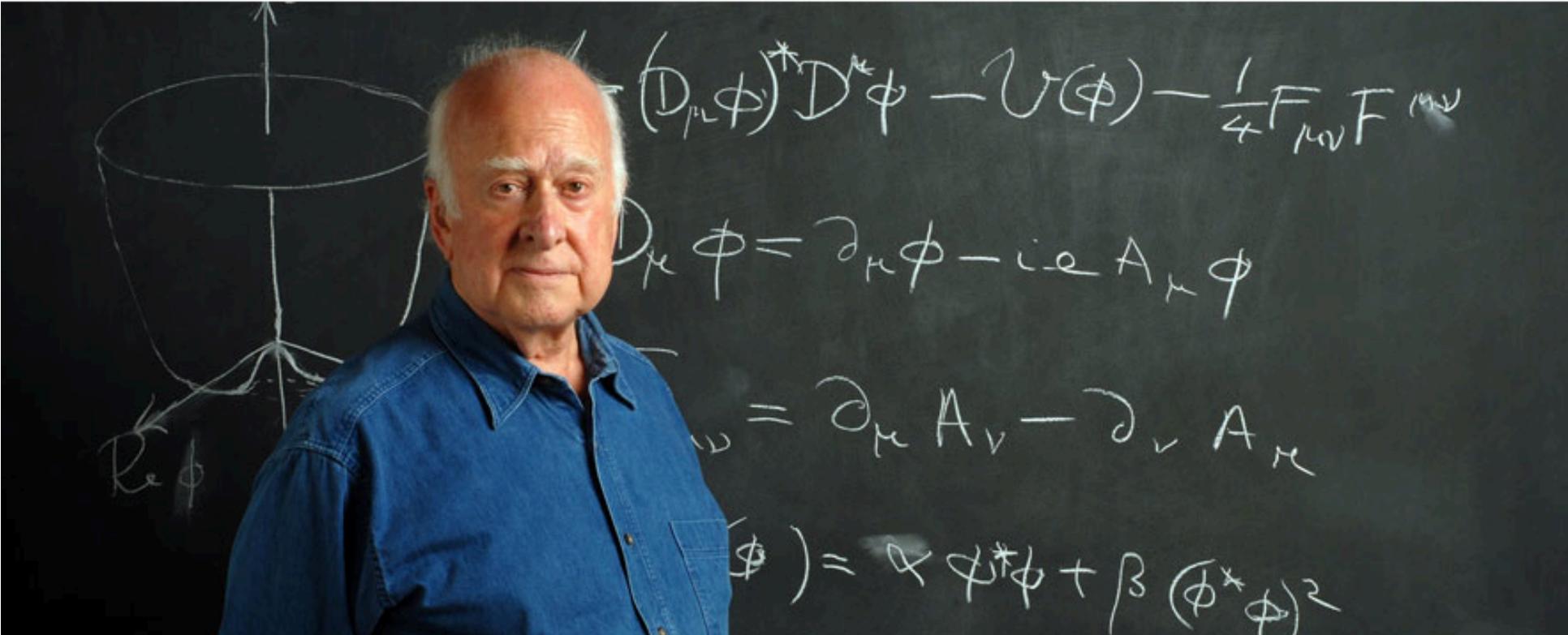
Stuart Lewis氏  
Head of Digital Library



## グラスゴー大学

Joy Davidson氏  
DCC, 4C Project





**Nobel celebrations for Higgs**

- > Peter Higgs wins a Nobel Prize in Physics
- > The Higgs legacy
- > Live press conference webcast: 11am, Friday 11 October

# EDINAとデータライブラリ

The screenshot shows the website for the EDINA and Data Library at the University of Edinburgh. At the top left is the university's crest and the text 'THE UNIVERSITY of EDINBURGH'. To the right is a search bar with a 'Search' button and a link to 'Schools & departments'. Below this is a banner image of a library with the text 'Information Services' and 'EDINA and Data Library'. A red navigation bar contains the text 'EDINA and Data Library' and a 'Contact' link. Below the banner is a breadcrumb trail: 'University home > Schools & departments > Information Services > About > Organisation > EDINA and Data Library'. On the left side, there is a vertical menu with links for 'Who we are', 'What we do', 'Data Library projects', and 'News'. The main content area features a blue-tinted image of a computer monitor displaying data. To the right of the image is a text box titled 'EDINA and Data Library Division' which describes the division's role in providing online services and resources for UK Higher and Further Education. Below the main content are four boxes: 'Related links' with a feedback link; 'About EDINA and Data Library Division' with links to 'Who we are', 'What we do', and 'Data Library projects'; 'Quick Links' with links to 'Data Library service' and 'EDINA home page'; and 'Special Focus - MANTRA online course' with a link to 'Research Data Management Training (MANTRA)'. The bottom left of the page shows the date '2013/10/25' and the bottom right shows the page number '17'.

THE UNIVERSITY of EDINBURGH

Schools & departments

Search

Information Services

EDINA and Data Library

Contact

EDINA and Data Library

University home > Schools & departments > Information Services > About > Organisation > EDINA and Data Library

Who we are

What we do

Data Library projects

News

Related links

Your feedback about this page

About EDINA and Data Library Division

- > Who we are
- > What we do
- > Data Library projects

Quick Links

- > Data Library service
- > EDINA home page

News about EDINA and Data Library

- > News from EDINA
- > News from the Data Library

Special Focus - MANTRA online course

- > [Research Data Management Training \(MANTRA\)](#)

2013/10/25

17

# Management



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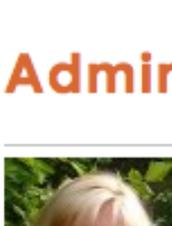
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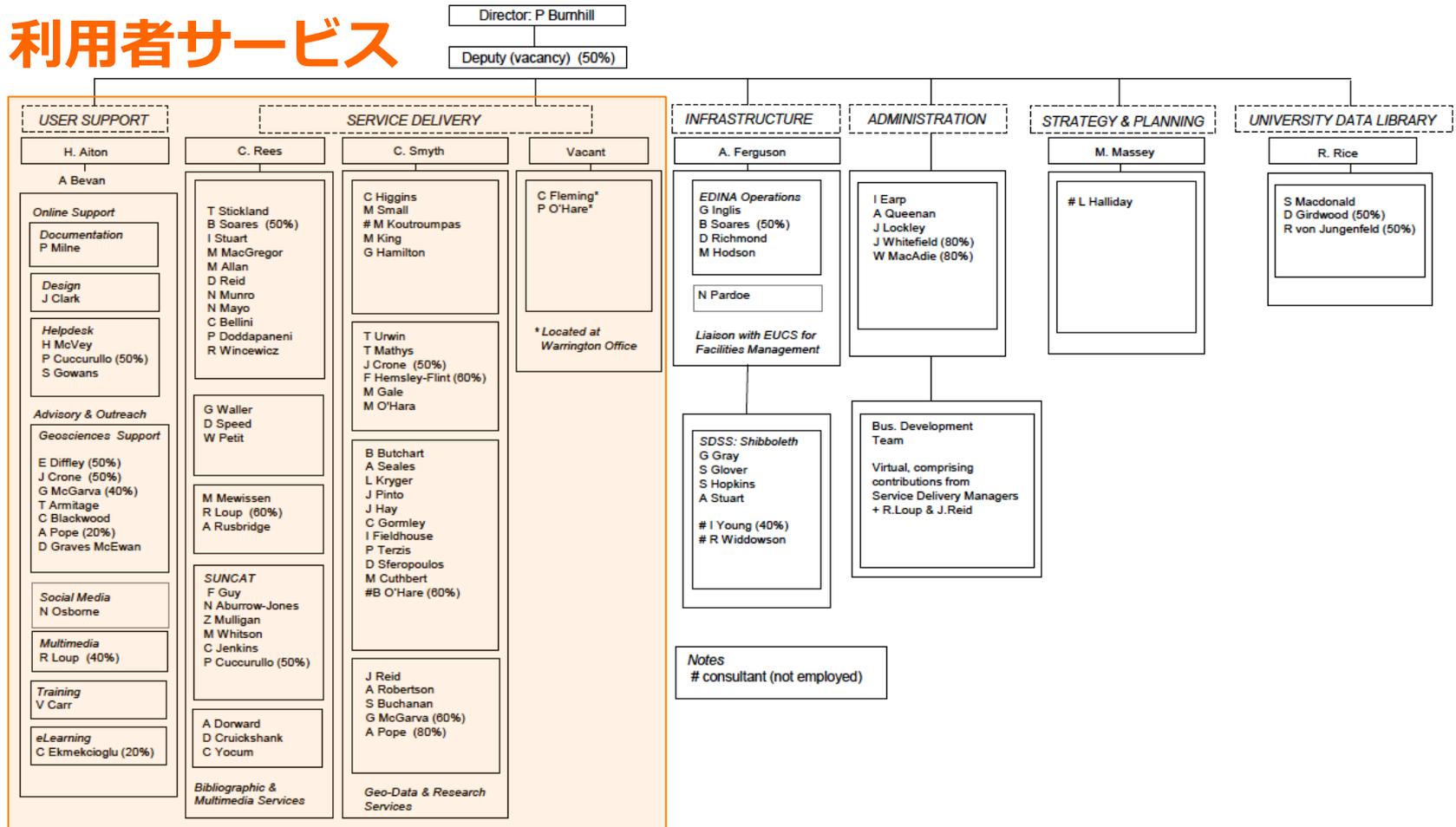
**Paul**  
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# EDINAとデータライブラリの職員

IS Division of EDINA & DATA LIBRARY (EDL)

Mar 2013

## 利用者サービス



# 研究データ管理ガイダンス

1. 研究データを管理する理由
2. データ管理計画
3. データの記録
4. データの保存とバックアップ
5. データセキュリティと保護
6. データ共有の利点
7. データの共有方法
8. データ管理支援

## Research data management guidance

### Overview

Guidance and support for managing, sharing and preserving research data.



**Why manage research data?**  
Benefits of managing your data.

> [Why manage research data?](#)



**Data management planning**  
Ensuring all aspects of data management are fully perceived at the start of a project.

> [Data management planning](#)



**Documenting data**  
Guidance for describing your data for future use.

> [Documenting data](#)



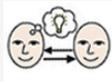
**Data storage and backup**  
Storing and backing up research data to prevent data loss.

> [Data storage and backup](#)



**Data security, protection & confidentiality**  
Keeping data safe and controlling access to sensitive data.

> [Data security, protection & confidentiality](#)



**Benefits of sharing data**  
Reasons to share or not to share data.

> [Benefits of sharing data](#)



**How to share your data**  
Making data accessible by depositing them in an archive or repository.

> [How to share your data](#)



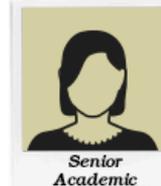
**Support for data management**  
Major university services supporting research data management and sharing.

> [Support for data management](#)

# 研究データ管理トレーニング



MANTRA is an online course designed for researchers or others planning to manage digital data as part of the research process.



HOME

ABOUT

ACKNOWLEDGEMENTS

DIY TRAINING KIT FOR LIBRARIANS

FEEDBACK

## LEARNING UNITS



Research data explained



File formats & transformation



Data protection, rights & access



Data management plans



Documentation & metadata



Sharing, preservation & licensing



Organising data



Storage & security



Software practicals



## Study

- Undergraduate degree programmes
- Postgraduate taught degrees
- International students
- Scholarships and fees

## Research

- Postgraduate research opportunities
- Research units A-Z
- Research in focus
- Business and innovation

## Quick links

- Colleges
- Research Institutes
- Schools
- Maps and travel
- University Library
- Information for current University of Glasgow students



Interact with the University

## iTunes U

- The University of Glasgow on iTunes U

## At The Hunterian

- What's on

## Campus Vision

- A unique opportunity to re-shape the campus

## Jobs at Glasgow

- Current vacancies

Postgraduate Open Day

First Singaporean graduations

January intake



## January intake

Applications are now open for postgraduate taught students to begin their studies in January

## Latest news

Scientists discover how the atmosphere of Mars turned to stone

Scientists may have discovered how Mars lost its early carbon dioxide-rich atmosphere to become the cold and arid planet we know today.

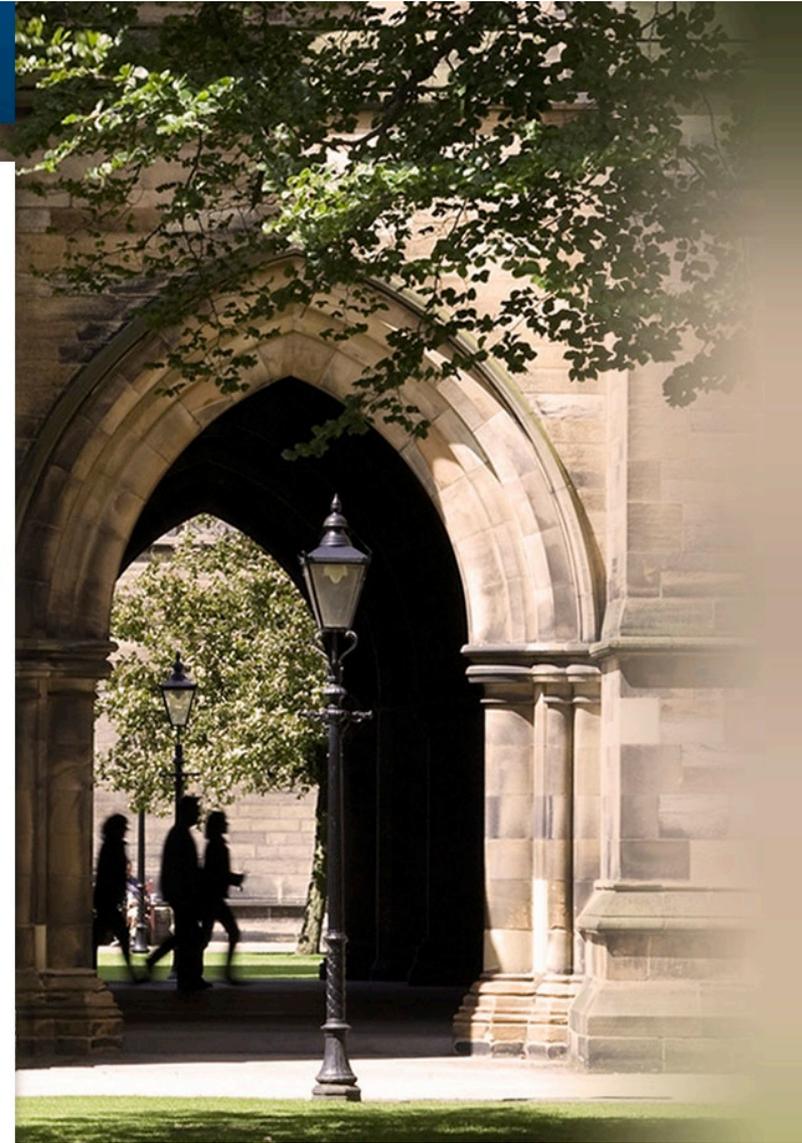
## Latest events

Open Day

Saturday, October 26

University of Glasgow

An opportunity for prospective undergraduates and their families to visit the University and find out about



# 研究者のためのデータ管理支援

The screenshot displays the University of Glasgow website's page for data management support for researchers. The page features a navigation menu with links for 'Subjects A-Z', 'Staff A-Z', and 'Academic units A-Z'. A search bar is present with the placeholder text 'Enter your keywords here' and a 'Search' button. The breadcrumb trail reads 'Home > Services A-Z > Data management support for researchers'. The main heading is 'Data management support for researchers'. A left sidebar contains a list of menu items: 'Creating your data', 'Organising your data', 'Accessing your data', 'Looking after your data', 'Training', 'Who can help?', and 'Suggest a change'. Below the sidebar is a photograph of a person in a library. The main content area has a sub-heading 'Data management support for researchers' followed by a paragraph: 'Research data takes many forms, ranging from measurements, numbers and images to documents and publications. These webpages will help you plan, create, organise and look after your data.' Below this are four content boxes, each with a title, an image, and a question: 1. 'Creating your data' with an image of a woman and the question 'Do you know what formats to use or how to manage IPR and ethics? Who can help you explain this in your data plan?'; 2. 'Organising your data' with an image of a magnifying glass and the question 'Can you name your files, structure your folders and control versions in a way that makes data easy to find and use?'; 3. 'Accessing your data' with an image of a man and the question 'Can you and your collaborators access all of the files you need? How does the storage you choose affect options for remote access?'; 4. 'Looking after your data' with an image of a building and the question 'How can you store and back-up your data securely? Can the repository help you select and care for your data in the long-term?'.

University of Glasgow

Subjects A-Z | Staff A-Z | Academic units A-Z

Enter your keywords here Search

Home > Services A-Z > Data management support for researchers

## Data management support for researchers

Creating your data  
Organising your data  
Accessing your data  
Looking after your data  
Training  
Who can help?  
Suggest a change

### Data management support for researchers

Research data takes many forms, ranging from measurements, numbers and images to documents and publications. These webpages will help you plan, create, organise and look after your data.

#### Creating your data

Do you know what formats to use or how to manage IPR and ethics? Who can help you explain this in your data plan?

#### Organising your data

Can you name your files, structure your folders and control versions in a way that makes data easy to find and use?

#### Accessing your data

Can you and your collaborators access all of the files you need? How does the storage you choose affect options for remote access?

#### Looking after your data

How can you store and back-up your data securely? Can the repository help you select and care for your data in the long-term?

# 関連部署・機関との連携

The screenshot shows a website page with a dark header containing the text "Data management support for researchers". On the left is a vertical sidebar menu with the following items: "Research Data Management at the University of Glasgow", "Creating your data", "Organising your data", "Accessing your data", "Looking after your data", "Training", and "Who can help?". The main content area has the heading "Help and support" and the text "Looking for help with research data management? There is a lot of assistance available on campus for:". Below this text are five blue underlined links: "Bidding for funding", "Research ethics", "IT support", "Library", and "Data protection and Freedom of Information office".

助成獲得, 研究倫理, ITサポート, 図書館, データ保護と情報公開オフィス

# インタビュー概括

## エディンバラ大学

大規模なスタッフ組織

1.6PBのサーバを購入

※巨大データは外部リポジトリへ

## グラスゴー大学

少人数だが学内・外部機関と連携

外部リポジトリも積極的に活用

※データは10年後に見直し (EPSRC)

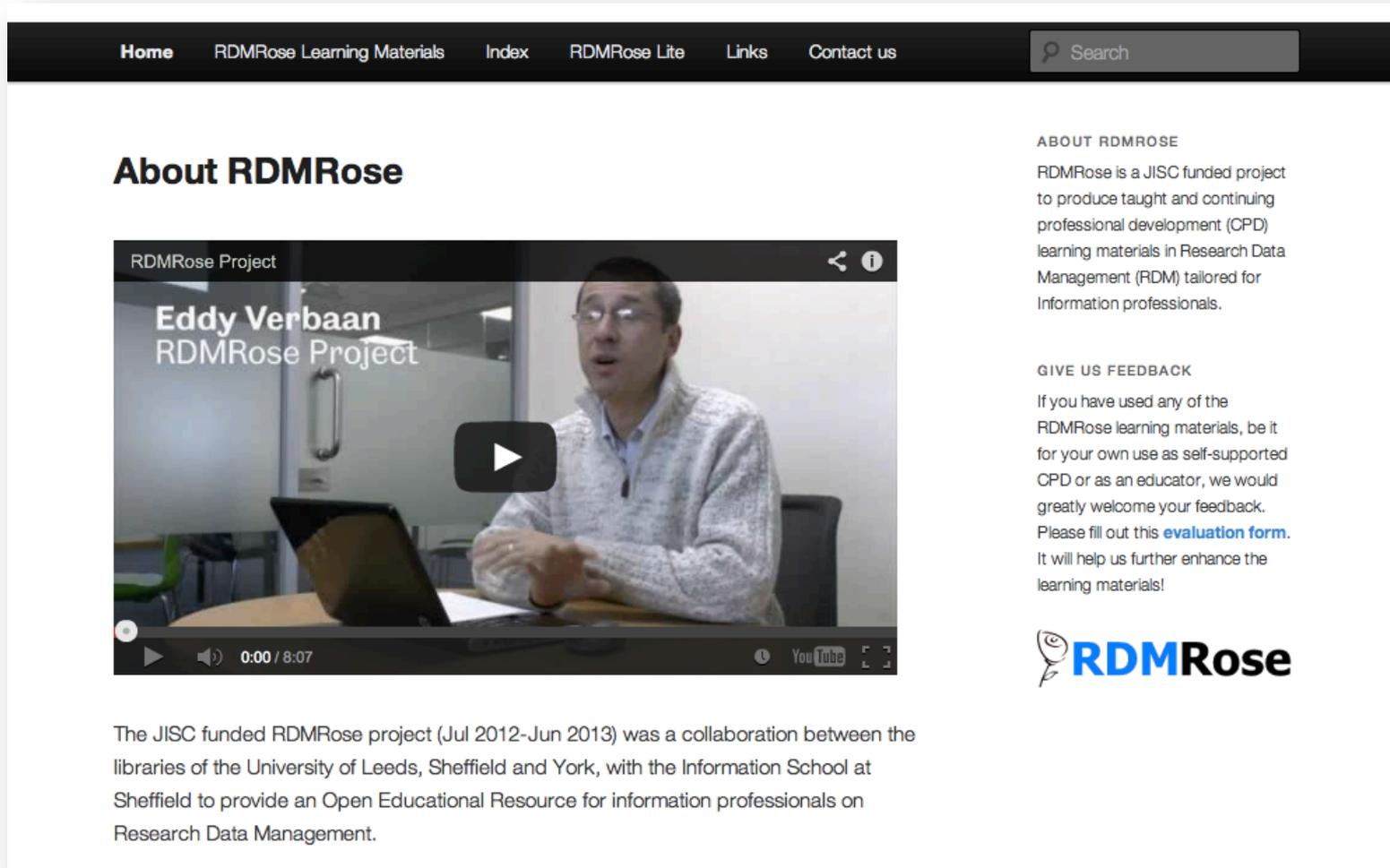
推進要因：**助成機関**からの要請

費用：年によって図書館の予算や外部資金の割合はさまざま

職員：**オンラインコース**やDCCのトレーニングセッションを活用

ライブラリースクール：新しい分野のため、まだ不十分

# 研究データ管理をオンラインで学ぶ



**Home** RDMRose Learning Materials Index RDMRose Lite Links Contact us Search

## About RDMRose

RDMRose Project

**Eddy Verbaan**  
RDMRose Project

ABOUT RDMROSE

RDMRose is a JISC funded project to produce taught and continuing professional development (CPD) learning materials in Research Data Management (RDM) tailored for Information professionals.

GIVE US FEEDBACK

If you have used any of the RDMRose learning materials, be it for your own use as self-supported CPD or as an educator, we would greatly welcome your feedback. Please fill out this [evaluation form](#). It will help us further enhance the learning materials!

 **RDMRose**

The JISC funded RDMRose project (Jul 2012-Jun 2013) was a collaboration between the libraries of the University of Leeds, Sheffield and York, with the Information School at Sheffield to provide an Open Educational Resource for information professionals on Research Data Management.

# DCC: Digital Curation Center

Contact us



- Home
- Digital curation
- About us
- News
- Events
- Resources
- Training
- Projects
- Community



Latest news | **Next events**

- **IDCC14 - Registration and Programme**  
21 October, 2013 | in [DCC News](#)
- **RDM job at Strathclyde University**  
21 October, 2013 | in [Press Releases](#)
- **IDCC14 - Submission date extended**  
16 October, 2013 | in [DCC News](#)

# インタビュー

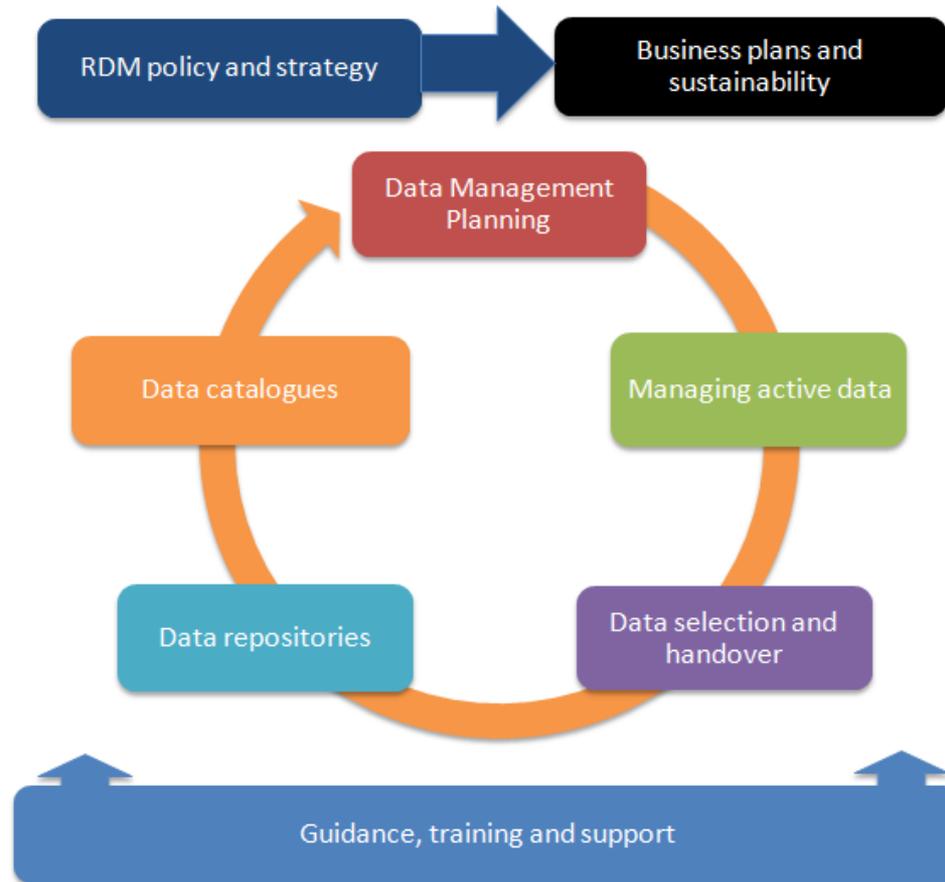
Kevin Ashley氏 (Director)

Jonathan Rans氏

Angus Whyte博士



# 研究データ管理サービス構築ガイド



<http://www.dcc.ac.uk/resources/developing-rdm-services>

# 大学のポリシーや計画策定の支援

n.b. the research funder links in the table take you to further details of each funder's policy

● Full Coverage    ◐ Partial Coverage    ○ No Coverage

Research Funders	Policy Coverage		Policy Stipulations					Support Provided			
	Published outputs	Data	Time limits	Data plan	Access/sharing	Long-term curation	Monitoring	Guidance	Repository	Data centre	Costs
AHRC	●	●	●	●	●	◐	○	●	○	◐	◐
BBSRC	●	●	●	●	●	●	●	●	●	◐	●
CRUK	●	●	●	●	●	●	●	◐	●	○	○
EPSRC	●	●	●	◐	●	●	●	◐	○	○	●
ESRC	●	●	●	●	●	●	●	●	●	●	◐
MRC	●	●	●	●	●	●	○	◐	●	○	◐
NERC	●	●	●	●	●	●	●	●	●	●	◐
STFC	●	●	●	●	●	●	●	◐	●	◐	◐
Wellcome Trust	●	●	●	●	●	●	●	●	●	◐	●

Overview of funders' data policies (助成機関のデータポリシー概要)  
<http://www.dcc.ac.uk/resources/policy-and-legal/overview-funders-data-policies>

# DCCの実施したトレーニング

- Digital Curation webinar for the Library and Information Association of South Africa (LIASA), April 30 2013, DCC news item with link to slides
- University of the West of England, April 26 2013 (UWE website)
- University of Manchester, Overview of data management planning for research administrators, March 14 2013
- University of Aberystwyth, March 12 2013
- University of Bangor, March 11 2013
- University of Lincoln, February 28 2013
- University of Glasgow, February 27 2013, Introduction to RDM for Information Management and Preservation (IMP) students
- University of Glasgow, February 26, 2013, RDM Landscape overview for academic staff and PhD students
- University of Manchester, February 25, 2013
- University of Glasgow, ArtsLab, February 21 2013
- University of Edinburgh, January 31 2013 Research Data Management Introduction, Data Management Planning, Research Data Management Policy Implementation: Plans & Services, Exercises

Digital Curation 101: How to Manage Research Data  
<http://www.dcc.ac.uk/training/dc-101>

# 分野別メタデータ標準の例

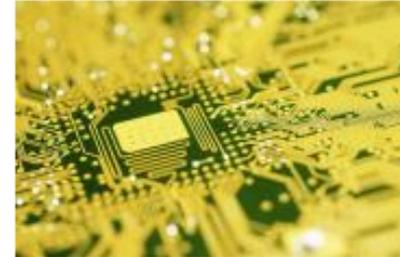
Search by Discipline



Biology



Earth Science



General Research Data



Physical Science



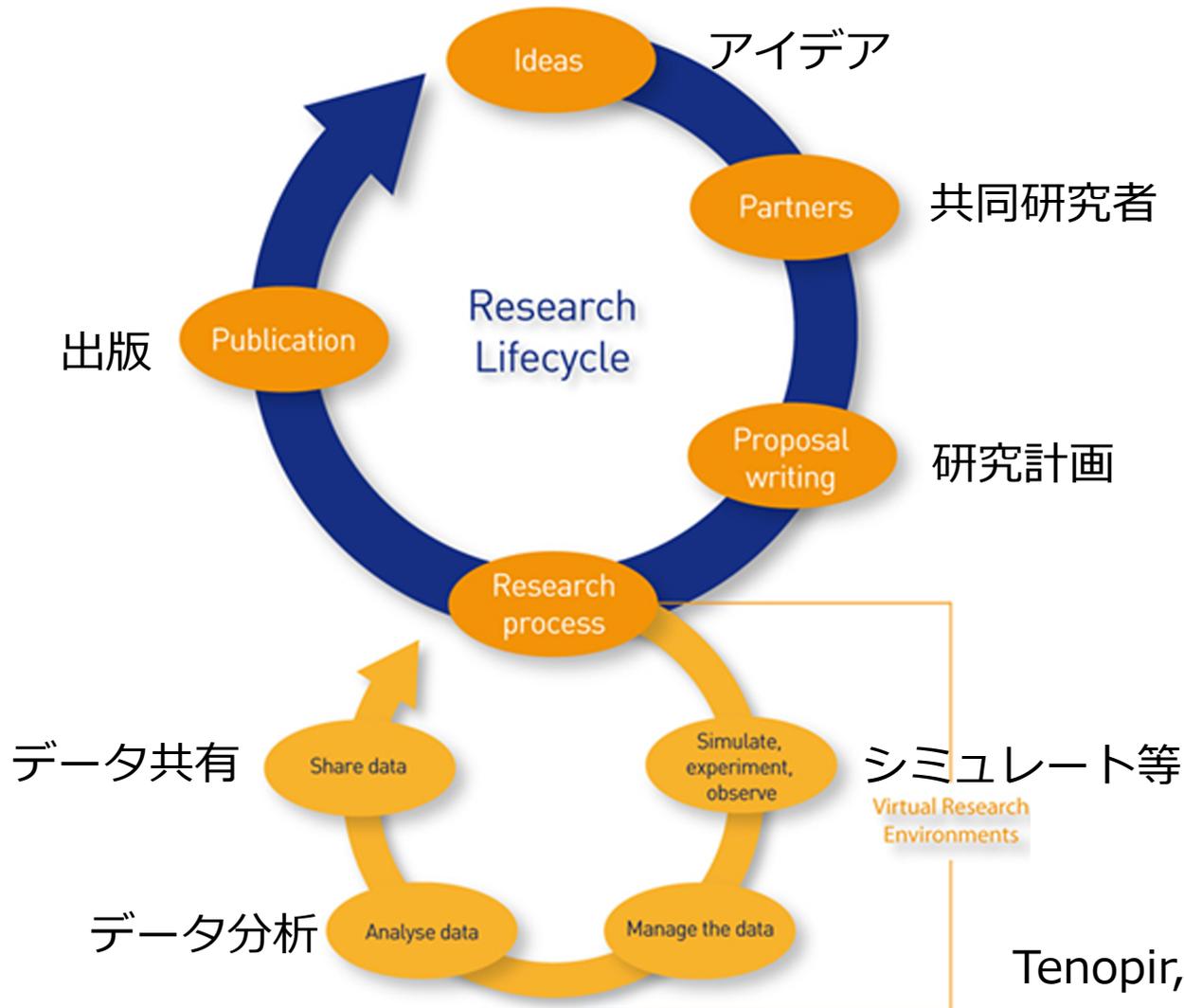
Social Science & Humanities

<http://www.dcc.ac.uk/resources/metadata-standards>



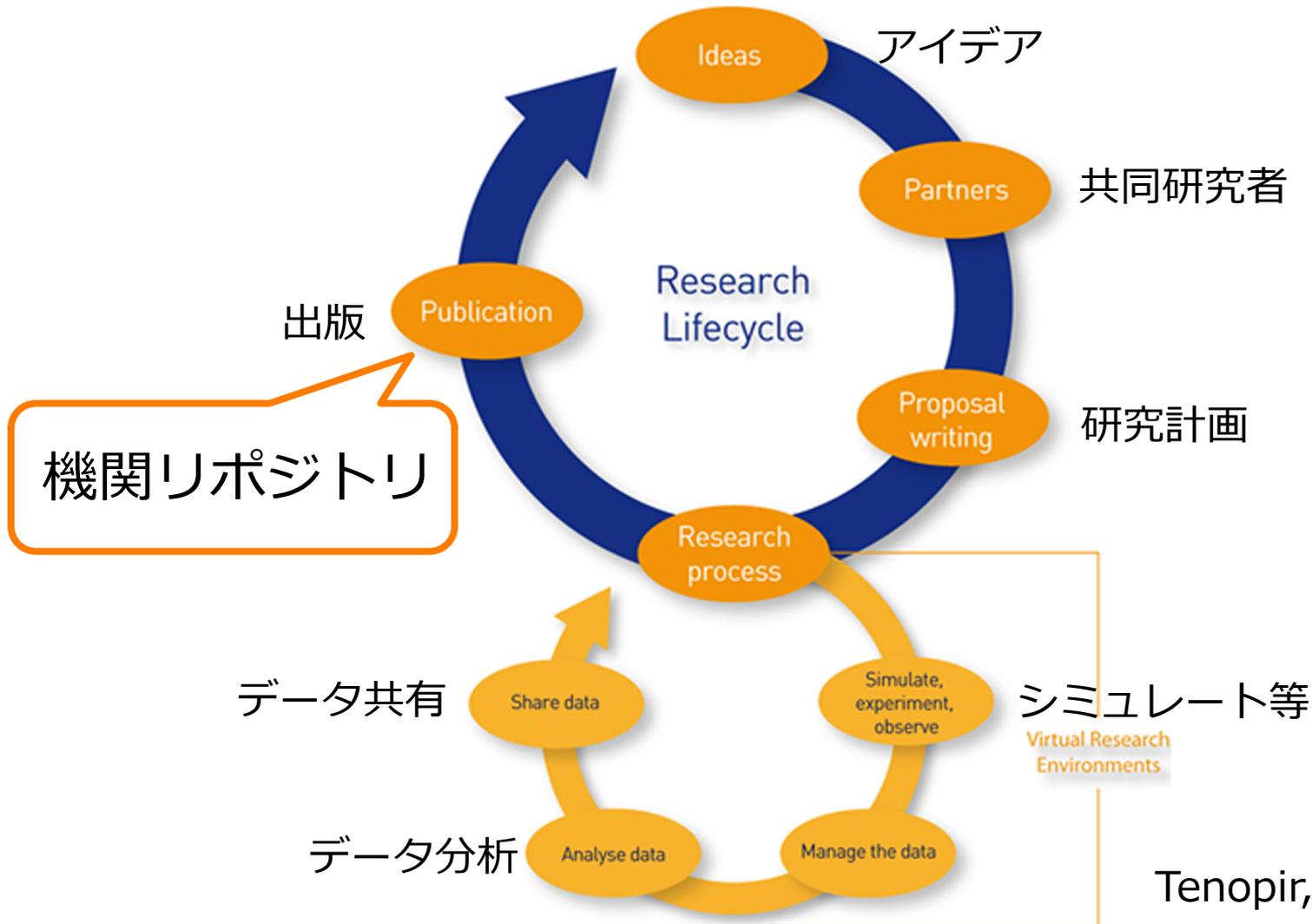
日本の研究データ管理支援に  
むけて

# 研究のライフサイクル



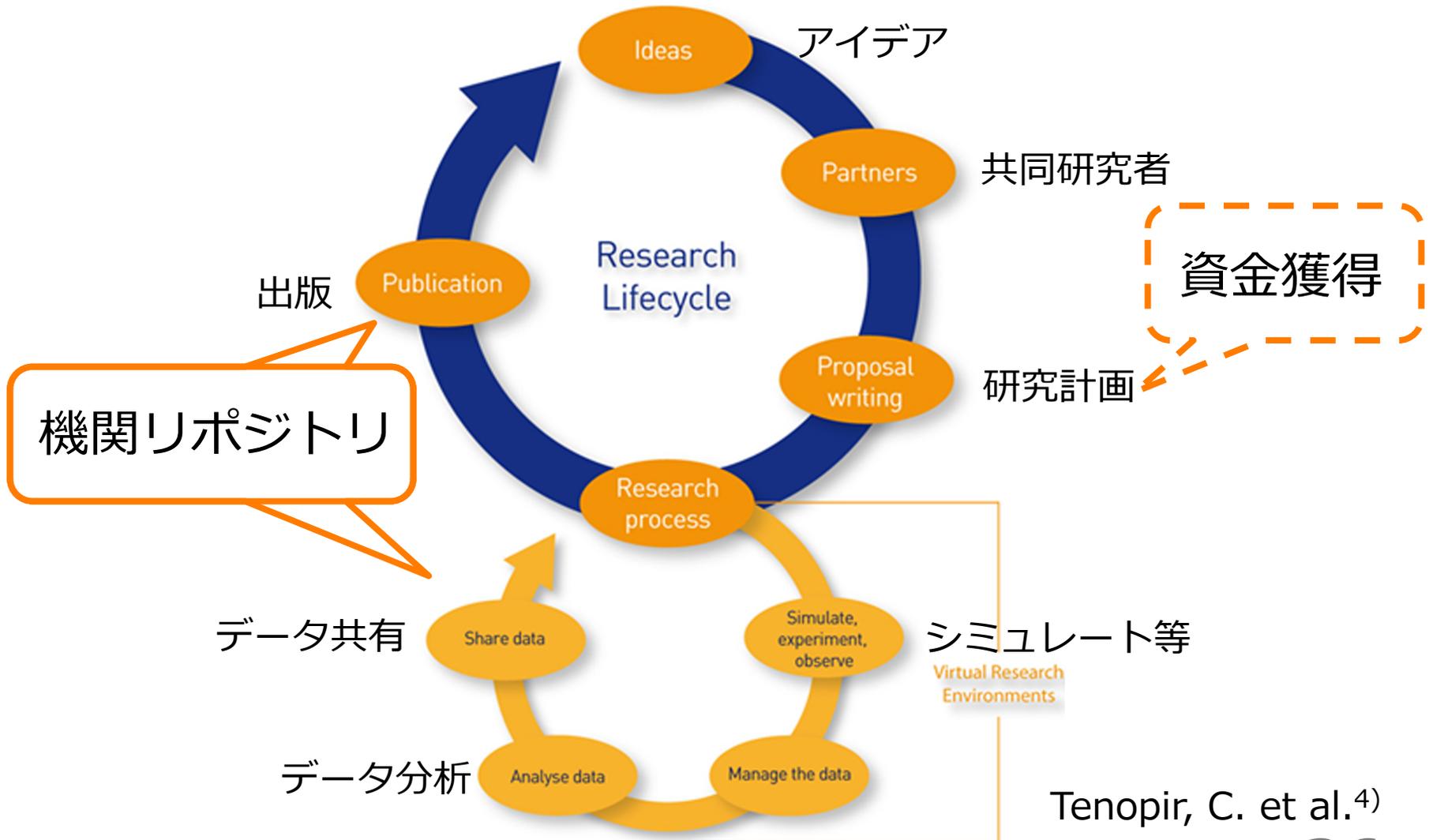
Tenopir, C. et al.<sup>4)</sup>

# 研究のライフサイクル



Tenopir, C. et al.<sup>4)</sup>

# 研究のライフサイクル



Tenopir, C. et al.<sup>4)</sup>

# Thanks, figshare!



figshare

Joint Information Systems Committee (JISC), Start of the research and data lifecycle

## I saved 3 hours!

0 views 0 shares 0 citations coming soon

Published on 29 Jun 2011 - 00:11 (GMT)  
Filesize is 1.52 MB

This data is part of a published article:  
[Data Sharing by Scientists: Practices and Perceptions](#)

PLOS ONE [Browse more](#)

**Categories**

- Computer Science
- Biological Sciences
- Science Policy

**Authors**

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Lei Wu  
Eleanor Read  
Maribeth Manoff  
Mike Frame

Enlarge Download

# 研究データ活用のための整備

## ■ 研究データ

- ✓ **0.7** ZB (2009) → **35** ZB (2020)<sup>5)</sup>  
※1ZB=10<sup>12</sup>GB

## ■ 統合検索システム

- ✓ メタデータの標準化
- ✓ DOI
- ✓ 名寄せ
- ✓ **論文へのリンク**

# まとめ：大学図書館による支援

- 海外のトレーニングプログラムの活用
- ポリシーと計画の策定
  - ✓ 図書館が支援すべき部分を明らかに
- データリポジトリの構築 and/or 紹介
  - ✓ 標準化されたメタデータの活用
  - ✓ DOIの付与
  - ✓ 論文へのリンク

# まとめ：大学図書館による支援

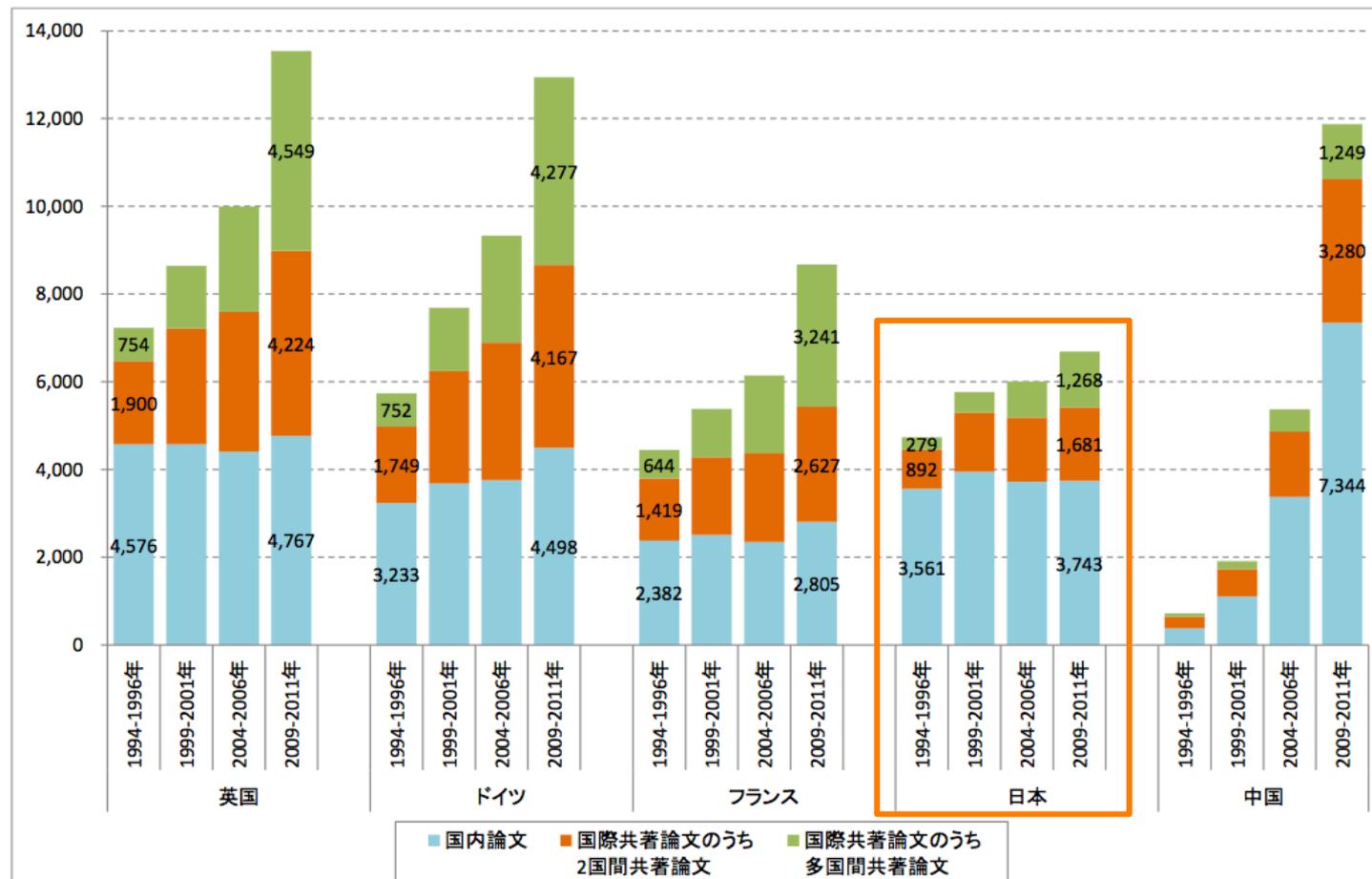
- 海外のトレーニングプログラムの活用
- ポリシーと計画の策定
  - ✓ 図書館が支援すべき部分を明らかに
- データリポジトリの構築 and/or 紹介
  - ✓ 標準化されたメタデータの活用
  - ✓ DOIの付与
  - ✓ **論文へのリンク**    **論文は最強のメタデータ**

# References

- 1) Piwowar, H. A; Day, R. S; Fridsma, D. B. Sharing Detailed Research Data Is Associated with Increased Citation Rate. PLOS ONE. 2007. Vol. 2, No. 3, e308.
- 2) Sears, J. Data sharing effect on article citation rate in paleoceanography. American Geophysical Union, Fall meeting 2011.
- 3) Henneken E. A; Accomazzi, A. Linking to data: effect on citation rates in astronomy. 2011. <http://arxiv.org/abs/1111.3618>.
- 4) Joint Information Systems Committee (JISC), Stages of the research and data lifecycle. Figure\_1.tif. Carol Tenopir, Suzie Allard, Kimberly Douglass, Arsev Umur Aydinoglu, Lei Wu, Eleanor Read, Maribeth Manoff, Mike Frame. PLOS ONE. 10.1371/journal.pone.0021101.g001.
- 5) Unlocking the Value of Research Data: A Report from the Thomson Reuters Industry Forum July 2013. 2013, p.3 .

# 論文数と国際共著論文数

図表 15 Top10%補正論文数における国内論文数と  
国際共著論文数(2国間共著論文数、多国間共著論文数)の時系列変化



# 研究時間と業績評価が課題

概要図表 14 (2012 年度深掘質問)大学の基礎研究力を強化するために優先的に実施すべき取り組み(1位の割合)

