THE UNIVERSITY *of* EDINBURGH
Library & University Collections

Research Data Management: Edinburgh University Library's Approach

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Overview

- Introduction to the University and Library Teams

- European and UK Context

- Library Services to support Research Data Management

- Specific considerations for medical research data

The University of Edinburgh

- Founded in 1583: Sixth-oldest university in the English-speaking world and one of Scotland's ancient universities
- Largest university in Scotland with 13,800 staff and 35,500 students
- Research-led institution - member of the Russell Group, Coimbra Group, LERU and Universitas 21
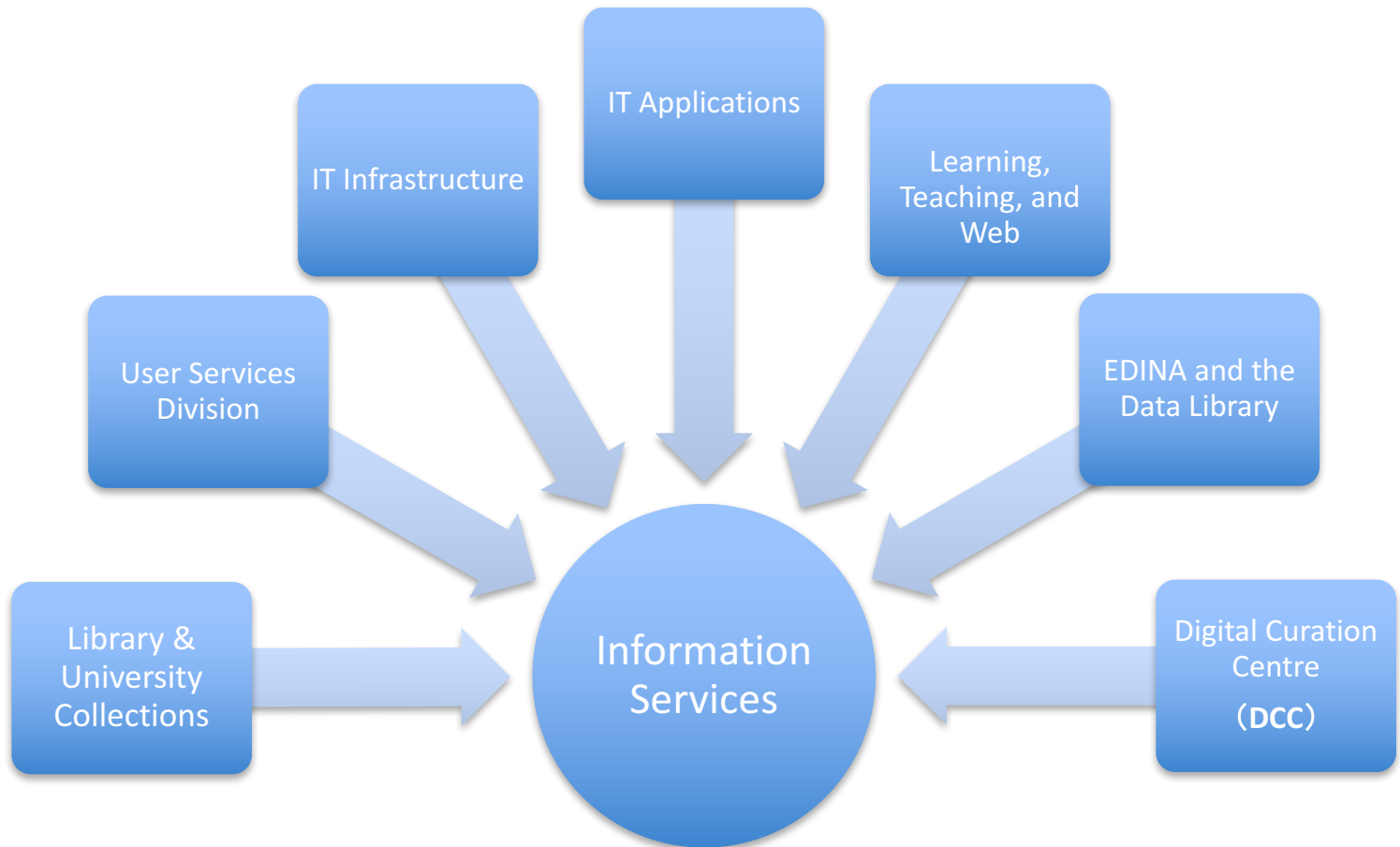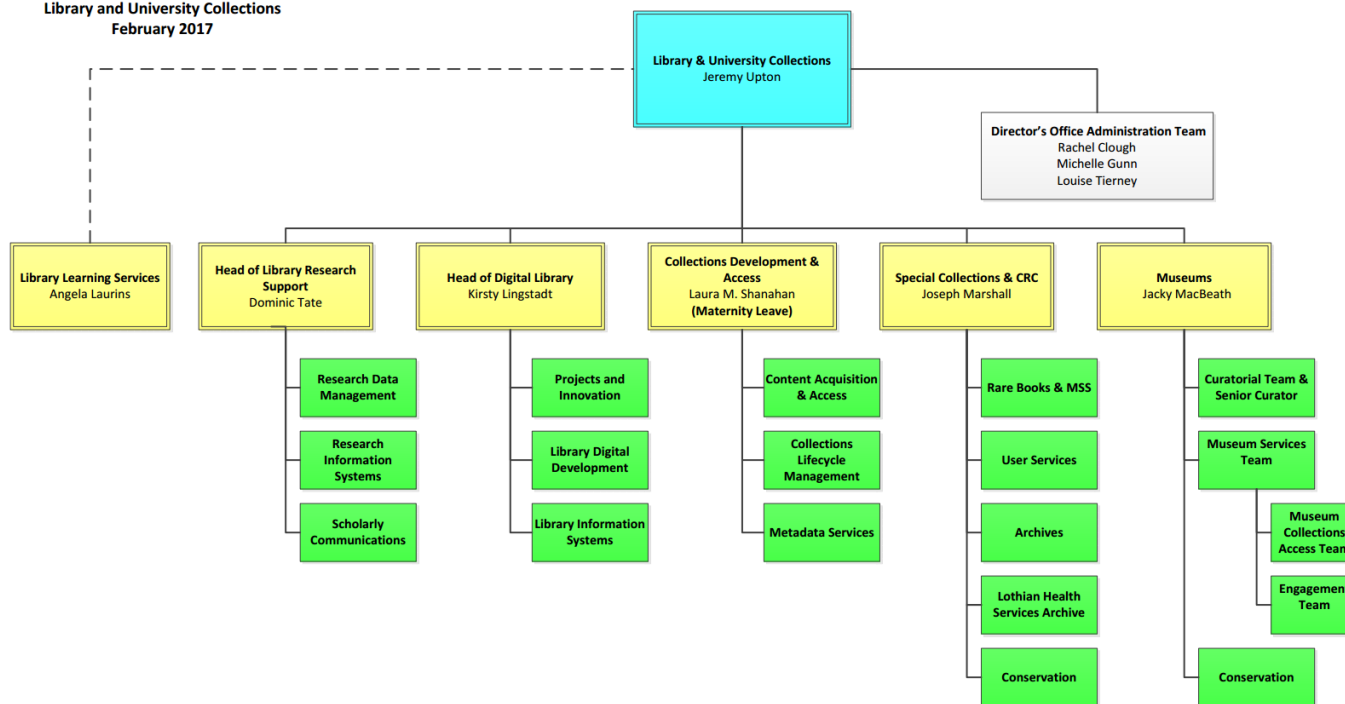- 21 Nobel laureates affiliated with the University
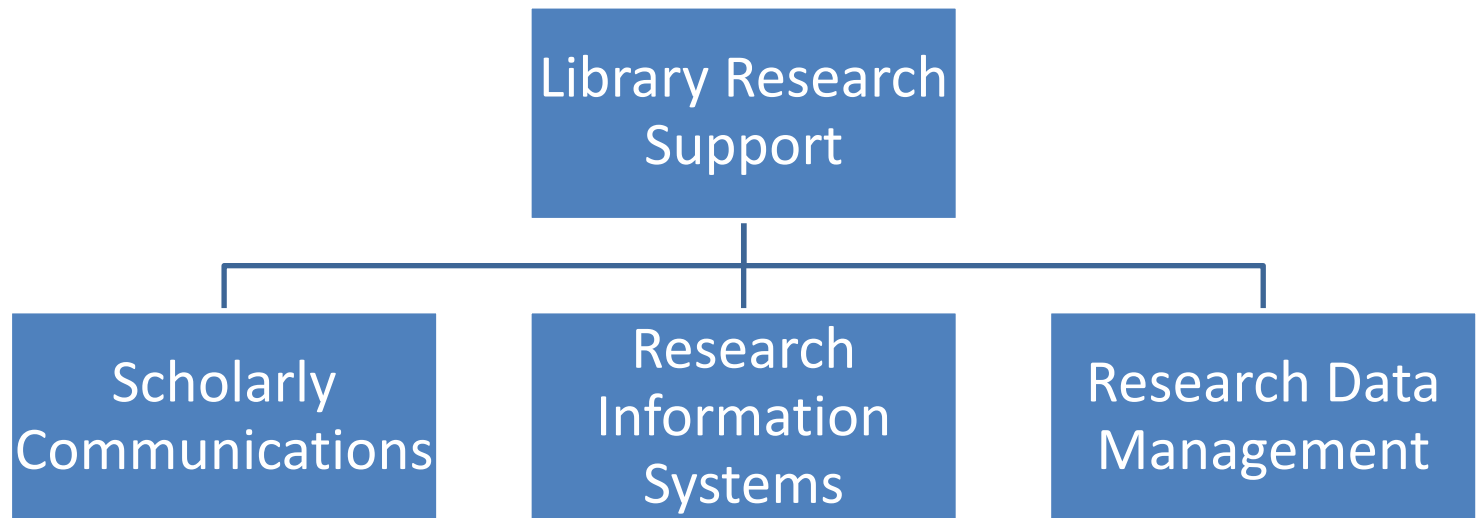
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Where is Edinburgh…?

Converged Library & IT

The University of Edinburgh

Library and University Collections
February 2017

Library & University Collections
Jeremy Upton

Director's Office Administration Team
Rachel Clough
Michelle Gunn
Louise Tierney

Library Learning Services
Angela Laurins

Head of Library Research Support
Dominic Tate

Head of Digital Library
Kirsty Lingstadt

Collections Development & Access
Laura M. Shanahan
(Maternity Leave)

Special Collections & CRC
Joseph Marshall

Museums
Jacky MacBeath

Research Data Management

Projects and Innovation

Content Acquisition & Access

Rare Books & MSS

Curatorial Team & Senior Curator

Research Information Systems

Library Digital Development

Collections Lifecycle Management

User Services

Museum Services Team

Scholarly Communications

Library Information Systems

Metadata Services

Archives

Museum Collections Access Team

Engagement Team

Lothian Health Services Archive

Conservation

Conservation

Library Research Support Teams

Scholarly Communications Team

- Provides support for staff and students regarding the research publication process and Open Access

- Provides advice on matters to do with copyright

- Manages funds to pay for Open Access article-processing charges (APCs)

Research Information Systems Team

- Manages the University's three research information systems (PURE, Worktribe, Research Professional)

- Provides support and training to use these systems

- Provides reports and management information to support decision-making and University strategy

Research Data Support Team

- Two members of Library staff work with another five staff based in EDINA

- Provide training and advice to staff and students on all matters relating to RDM

- Advise on improvements to University infrastructure to support the RDM agenda

- Support staff with data management planning

- Manage helpdesk and consultancy service.

The University of Edinburgh

European Context

RDM in Europe

"The production of data is expanding at an astonishing rate: experts now point to a 4300% increase in annual data generation by 2020. Despite this, research institutes and universities often have no standard policy for researchers on how to store their research data."

http://libereurope.eu/blog/2015/10/06/implementing-the-leru-research-data-roadmap-and-toolkit/

European Commission Report

October 2016 - European Commission Report:
 "Realising the European Open Science Cloud"

First report of the High Level Expert Group on the European Open Science Cloud

"They estimate that on average about 5% of total research expenditure should be spent on properly managing and 'stewarding' data in an integrated fashion."

http://ec.europa.eu/research/openscience/index.cfm?pg=open-science-cloud

FAIR Data Management in Horizon 2020

Research data should be **findable**, **accessible**, **interoperable** and **reusable (FAIR)**

Researchers can meet these requirements by developing a Data Management Plan (DMP)

There are many European projects to encourage researchers to get into the habit of writing Data Management Plans.

RDM in the United Kingdom

UK Research Data Concordat

1. Open access to research data is an enabler of high quality research, a facilitator of innovation and safeguards good research practice.

2. There are sound reasons why the openness of research data may need to be restricted but any restrictions must be justified and justifiable.

3. Open access to research data carries a significant cost, which should be respected by all parties.

4. The right of the creators of research data to reasonable first use is recognised.

5. Use of others' data should always conform to legal, ethical and regulatory frameworks including appropriate acknowledgement.

http://www.rcuk.ac.uk/documents/documents/concordatonopenresearchdata-pdf/

UK Research Data Concordat

6. Good data management is fundamental to all stages of the research process and should be established at the outset.

7. Data curation is vital to make data useful for others and for long-term preservation of data

8. Data supporting publications should be accessible by the publication date and should be in a citeable form.

9. Support for the development of appropriate data skills is recognised as a responsibility for all stakeholders.

10. Regular reviews of progress towards open research data should be undertaken.

http://www.rcuk.ac.uk/documents/documents/concordatonopenresearchdata-pdf/

RDM at the University of Edinburgh

How we classify our services

Data Management Support

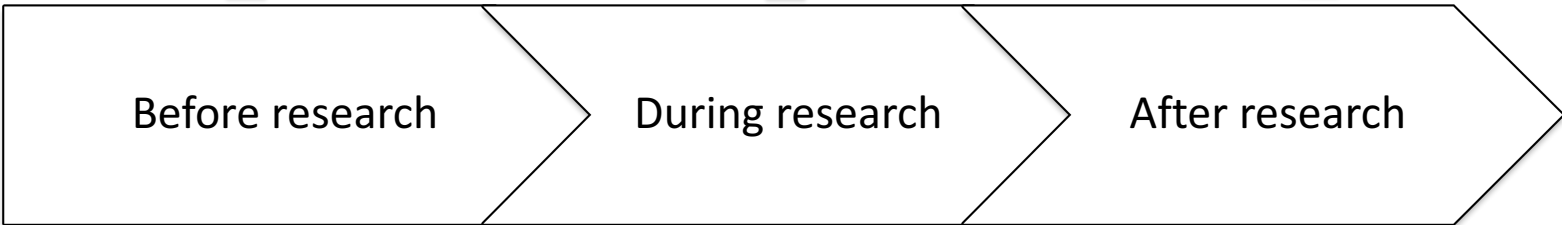Data Management Planning

Active Data Infrastructure

Data Stewardship

How we classify our services

Data Management Support

Data Management Planning

Active Data Infrastructure

Data Stewardship

Before research

During research

After research

Data Management Support

Data Management Planning

Active Data Infrastructure

Data Stewardship

Data Management Planning Systems

Data Management Planning

- DMPOnline
  - DMPOnline: Nationally developed tool by the Digital Curation Centre, funded by Jisc.

New data management plan

Create a new plan

Please select from the following drop-downs so we can determine what questions and guidance should be displayed in your plan.

If you aren't responding to specific requirements from a funder or an institution, select here to write a generic DMP based on the most common themes.

If applying for funding, select your research funder.

Otherwise leave blank.

Engineering and Physical Sciences Research Council ▾

Not applicable/not listed.

To see institutional questions and/or guidance, select your organisation.

You may leave blank or select a different organisation to your own.

University of Edinburgh ▾

Not applicable/not listed.

Tick to select any other sources of guidance you wish to see.

☐ DCC guidance
☐ Roslin Institute

Create plan

New data management plan

Sections	Questions
Data Collection	- What data will you collect or create? - How will the data be collected or created?
Documentation and Metadata	- What documentation and metadata will accompany the data?
Ethics and Legal Compliance	- How will you manage any ethical issues? - How will you manage copyright and Intellectual Property Rights (IPR) issues?
Storage and Backup	- How will the data be stored and backed up during the research? - How will you manage access and security?
Selection and Preservation	- Which data are of long-term value and should be retained, shared, and/or preserved? - What is the long-term preservation plan for the dataset?
Data Sharing	- How will you share the data? - Are any restrictions on data sharing required?
Responsibilities and Resources	- Who will be responsible for data management? - What resources will you require to deliver your plan?

Plans can be exported as PDF, in the format specified by the funder.

Active Data Infrastructure

- 0.5TB (500GB) for all researchers – staff and postgraduate researchers

- Extra storage can be purchased - £200 (CHF245) per TB per year (normally this would be charged to a grant for the duration of the research project).

- DataSync provides secure, "dropbox"-like functionality to support collaboration both within and outwith the University during the research project.

Active Data Infrastructure

NHS SCOTLAND
NHS RESEARCH SCOTLAND

Research in Scotland   Research Areas   Services   Industry   Get Involved   Education & Funding   Resources

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Research in Scotland

- Academic Collaboration
- Infrastructure ›
- Nodes ›
- Data ⌄
  - Our population
  - Safe Havens
  - Health Informatics

Data Safe Haven

Currently, Scotland has regional 'Safe Havens' located within Aberdeen, Dundee, Edinburgh and Glasgow, and a National 'Safe Haven' at NSS .

Working to agreed principles and standards these Safe Havens provide access to health data and services to enable research while protecting the confidentiality of the data. Data remains under the control of the NHS and complies with legislative and NHS policies.

- National Safe Haven - eDRIS
- Grampian - DaSH
- Tayside - HIC
- Lothian - HSRU
- Greater Glasgow and Clyde – NHS R&D

These Safe Havens operate independently to provide advice, support and a secure environment for access to a wide range of datasets (including national datasets through to specialised local datasets) but also as a federated network across Scotland working to common principles and standards and common processes optimising the safe and secure flow of data between the different Safe Havens.

Safe Havens in Scotland were established as part of a national need for delivering research excellence and the need for rapid access to high quality health data for research purposes. They were developed in line with the SHIP blueprint which outlined a programme for a Scotland-wide research platform for the collation, management, dissemination and analysis of anonymised Electronic Patient Records (EPRs).

The agreed principles and standards to which the Safe Havens are required to operate are based on the SHIP Blueprint, and set out in the Safe Haven Charter and the Safe Havens are currently undergoing accreditation as a means to demonstrate that robust controls and safeguards are in place. Use of a (accredited) Safe Haven addresses key areas of interest to Information Governance leads or Caldicott Guardians in reviewing applications for access to health data for research.

A Safe Haven, in terms of NHS data, is a secure environment supported by trained staff and agreed processes whereby health data can be processes and linked with other health data (and/or non-health related data) and made available in de-identified form for analysis to facilitate research. It is a safeguard for confidential information which is being used for research purposes. Any researchers applying for access to health data must adhere to the Safe Haven principles.

Research Data Safe Haven

- Currently under construction...expected launch in early 2018

- Provides secure environment for controlled access to highly sensitive datasets. Little risk of data loss or breach of data protection

- Meets ISO/IEC27001 standards for information security

- Allows the University to meet increasingly stringent funder requirements.

Active Data Infrastructure

Data Management Support

| Data Management Planning | Active Data Infrastructure | Data Stewardship |

Data Stewardship Systems

Three Data Stewardship Systems

- Data Asset Register
  - Data Asset Register (**describe**).

- DataShare
  - DataShare (**share**).

- Data Vault
  - Data Vault (**archive**).

Considerations for Medical Research Data

Medical Research Data - Openness

- We prefer data to be open wherever possible (ideally by default)

- Often not possible for medical data

- Anonymisation/Pseudonymisation critical

Medical Research Data - GDPR

- General Data Protection Regulations are to be adopted in the UK (despite Brexit)

- Communications around GDPR causes uncertainty, which is making the 'open' message more difficult.

- We see this as an *opportunity* to talk to researchers about data management skills

Finally - Seize the Opportunity!

- Librarians and Information Professionals play a key role in the RDM agenda (we like to think we OWN it)!

- Services, training and data stewardship are they key areas in which we can provide long-term support

- Be where the researchers are – offer training through research facility or funder programmes, not in the library.

Questions?

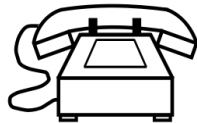Dominic Tate

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References – Q&A Session

- Mantra RDM Training http://mantra.edina.ac.uk/

- RDM MOOC https://www.coursera.org/learn/data-management

- UoE Research Data Service http://www.ed.ac.uk/information-services/research-support/research-data-service

- ARMA Association of Research Managers and Administrators https://arma.ac.uk/

- GRPR General Data Protection Regulations https://ico.org.uk/for-organisations/data-protection-reform/overview-of-the-gdpr/

- List of Metadata Standards for Datasets http://www.dcc.ac.uk/resources/metadata-standards/list

- Research Data Management Job Descriptions in the UK - can be found in adverts at http://www.jobs.ac.uk/ Search for "research data"。