

The UCL Research Data Repository (RDR)

Dr Paul Ayris

Pro-Vice-Provost UCL (University College London)

E-mail: p.ayris@ucl.ac.uk

Twitter: @ucylpay





- ☐ European contexts
- □ Research Data LEARN
- ☐ Drivers for RDR
- ☐ RDR
 - ☐ Establishing the repository
 - □ Architecture
 - Metadata
 - ☐ Criteria for selection and preservation
 - Stakeholders
 - ☐ Licensing
 - □ Costs
- Incentives
- □ Conclusion



Plaster Relief by John Flaxman, Flaxman Gallery, UCL



- ☐ European contexts
- □ Research Data LEARN
- ☐ Drivers for RDR
- RDR
 - ☐ Establishing the repository
 - ☐ Architecture
 - Metadata
 - ☐ Criteria for selection and preservation
 - Stakeholders
 - ☐ Licensing
 - Costs
- Incentives
- ☐ Conclusion



Plaster Relief by John Flaxman, Flaxman Gallery, UCL



European Commission: Open Science Policy Platform – 8 pillars of Open Science

Future of Scholarly Communication
EOSC (European Open Science Cloud)
FAIR Data
Skills
Research Integrity
Rewards
Altmetrics
Citizen Science



League of European Research Universities

23 leading universities pushing the frontiers of innovative

- ☐ LERU has produced an Open Science Roadmap for universities
- Launched on 12 June 2018 at https://www.leru.org/publications/ open-science-and-its-role-in-universities-a-roadmap-for-cultural-change
- □ 41 Recommendations





LERU Leadership Statement

☐ LERU wants to underline the importance of the culture shift which is needed for the implementation of Open Science in universities, in particular with regard to Open Access publications. Plan S poses significant challenges for universities, not least in terms of managing costs

□ Without a successful conclusion to the debate, a successful transition to Open Science will not be possible

https://www.leru.org/news/leaders hip-the-key-to-open-sciencesuccess





- European contexts
- ☐ Research Data LEARN
- ☐ Drivers for RDR
- **RDR**
 - ☐ Establishing the repository
 - □ Architecture
 - Metadata
 - ☐ Criteria for selection and preservation
 - Stakeholders
 - ☐ Licensing
 - ☐ Costs
- Incentives
- □ Conclusion



Plaster Relief by John Flaxman, Flaxman Gallery, UCL



LEARN Deliverables

- Model Research Data Management Policy
 - ☐ Fed by a study of RDM policies and input from Workshop attenders
- ☐ Toolkit to support implementation
 - ☐ Issues identified in Workshops and in literature
 - ☐ Surveys and self assessment tools
- ☐ Executive Briefing (in six languages)

http://learn-rdm.eu/en/about/



Wilkins Building, UCL, 1826





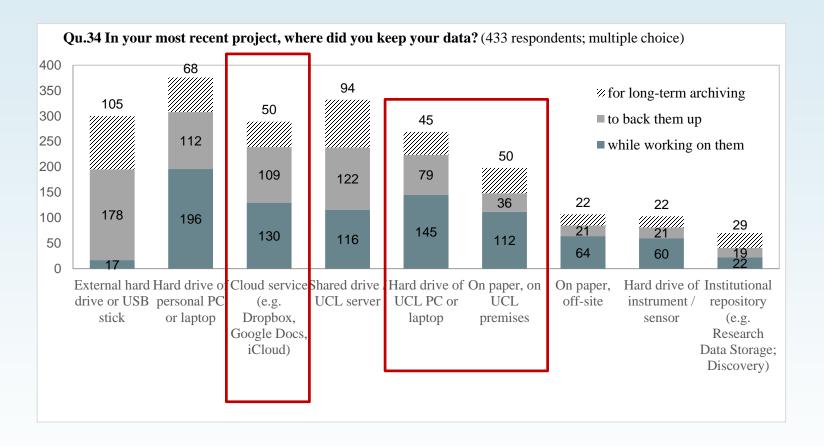
UCL survey by Research Data Advocacy

Officer



- ☐ 130 research departments, institutes, centres and units represented in survey
- ☐ Response rate 306 completed surveys out of 619
- ☐ Respondents
 - ☐ 18% early career researchers
 - ☐ 39% experienced researchers
 - □ 30% research students

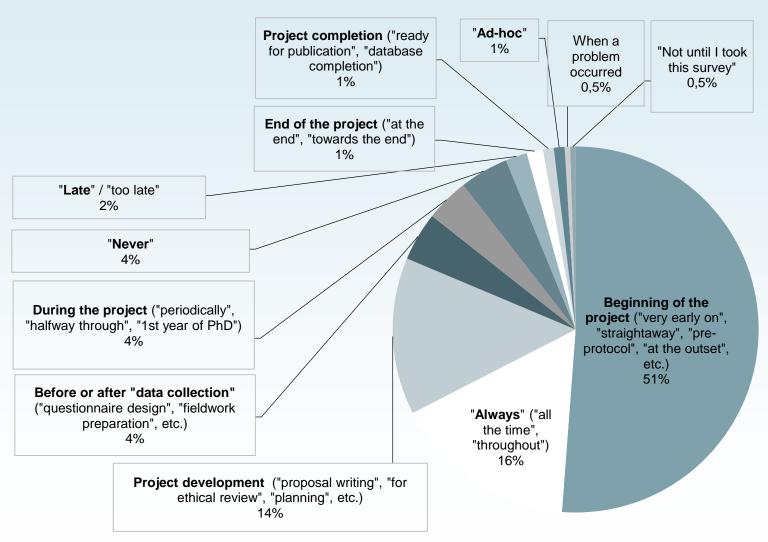




- ☐ 45% of respondents used a personal computer for storage
- ☐ Choices included Cloud services; others used paper...
- ☐ Central UCL facility used by only 5%



Qu.61 At what stage of the project did you think about data management? (217 respondents; free text)





- European contexts
- ☐ Research Data LEARN
- ☐ Drivers for RDR
- ☐ RDR
 - ☐ Establishing the repository
 - □ Architecture
 - Metadata
 - ☐ Criteria for selection and preservation
 - Stakeholders
 - □ Licensing
 - Costs
- ☐ Incentives
- ☐ Conclusion



Plaster Relief by John Flaxman, Flaxman Gallery, UCL



Drivers for RDR

- ☐ Research Data Storage capacity already in place
- ☐ Separate repository existed for High Performance Computing outputs
- □ Repository needed for archiving of nonsensitive/non-personal research data
- □ Research funders beginning to requirements for research data curation, but not mandates – yet...





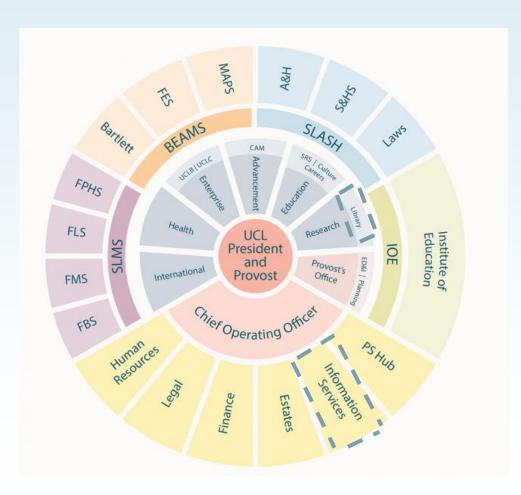
- ☐ European contexts
- Research Data LEARN
- ☐ Drivers for RDR
- ☐ RDR
 - ☐ Establishing the repository
 - □ Architecture
 - Metadata
 - ☐ Criteria for selection and preservation
 - Stakeholders
 - ☐ Licensing
 - □ Costs
- Incentives
- □ Conclusion



Plaster Relief by John Flaxman, Flaxman Gallery, UCL



RDR – a collaboration between ISD and Library



Key to departments

Professional Services

Human Resources Legal Services Finance and Business Affairs Information Services Division Estates

Professional Services Hub

Offices of the Vice-Provosts (OVP)

Advancement Enterprise | Innovation & Enterprise

Education and Student Affairs International | Global Engagement

Research

Departments within OVPs

Communications and Marketing Student and Registry Services

Careers Library Services

Departments within the Provost's Office

Equality Diversity and Inclusion Planning

School of Life and Medical Sciences

Faculty of Brain Sciences Faculty of Medical Sciences

Faculty of Life Sciences

Faculty of Population Health Sciences

School of the Built Environment, Engineering and Mathematical and Physical Sciences

The Bartlett Faculty of the Built Environment

Faculty of Engineering Sciences

Faculty of Mathematics and Physical Sciences

School of Laws, Arts and Humanities, and Social and Historical Sciences

Faculty of Arts and Humanities Faculty of Social and Historical Sciences

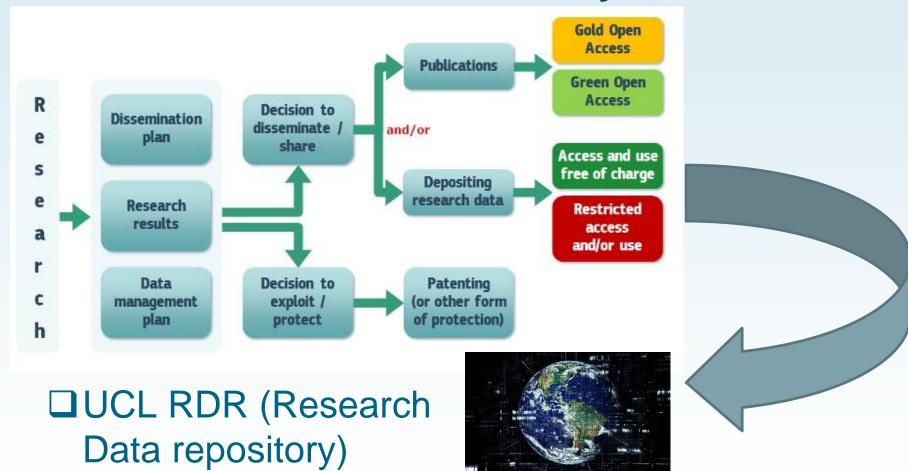
Faculty of Laws

UCL Institute of Education

Wholly owned subsidiary companies (within OVP) UCLB



Research Data – a new currency



Graphic from: H2020 Online Manual

http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/open-access-data-management/open-access_en.htm



Metadata

If you don't need to follow a <u>discipline-specific schema</u> , or <u>funder's recommendations</u> , then we advise you to use the <u>DataCite metadata schema</u>
As a general rule DataCite recommends that your metadata should at least specify:
an identifier (a DOI),
a creator (the name and affiliation of the main researchers involved in producing the dataset),
a title (the name or title by which the dataset is known),
a publisher (the name of the entity that holds the dataset),
a publication date (the year when the dataset was or will be made publicly available) and
the type of resource you are describing.
If you think that your data requires description with fields that are not covered in the DataCite schema, please contact the <u>Digital Curation</u>
Team for advice. Web link: here

17



Criteria for selection and preservation

Long-term preservation and 'archiving'

You should think about what will happen to the data after the end of your project, where it will be stored, for how long, and how to make it accessible in the long term. You will also, of course, need to decide what will be made available, from raw data to final outputs. All of this may be determined, wholly or in part, by your funder or research council.

Formats & obsolescence

◀ :

Options for long-term storage

 \mathbf{V}

You can store your data in the long term in the UCL environment, using:

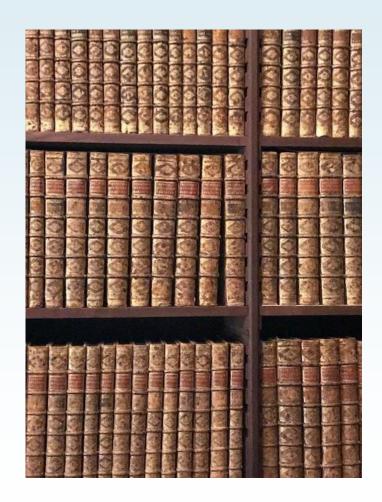
 UCL Research Data Repository: if you need to make publicly accessible your research datasets you can use this infrastructure. Guidance is available.

Email the Repository support team for help.

- UCL Records Office: when research has ended, hard copy (non-electronic) records
 which must be retained should be sent to the UCL Records Office. This is the only
 approved place of deposit for such UCL's administrative and research records.
- departmental servers.

Funders and publishers might also have their own repository or might direct you to deposit your research data in their chosen repository.

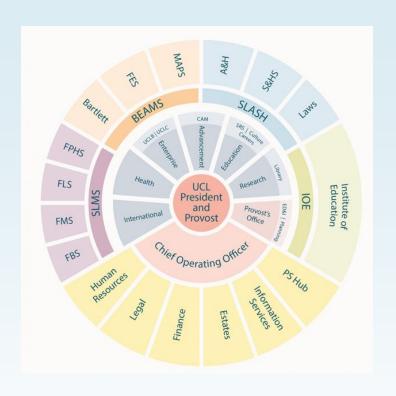
External repositories can be used to preserve your data, for example re3data.org is a searchable registry of international research data repositories.





Stakeholders

- □ UCL researchers
- □ UCL Information Services Division
- ☐ UCL Library Services
- □ Research Funders
- □ Research Evaluation Research Excellence Framework
- ☐ EOSC European Open Science Cloud
 - ☐ With LERU members







Licences

- ☐ Licensing your data sets out clearly the terms of use of your data, potentially avoiding future complications.
- ☐ UCL's Research Data Policy sets out UCL's expectations around the licensing of data created by UCL researchers:
- □ "Unless covered by third party contractual agreements, legislative obligations or provisions regarding ownership, UCL research data will be provided using a <u>Creative</u> <u>Commons CCO</u> waiver; supported by data citation guidelines similar to the existing publishing conventions. This will ensure re-used data are unambiguously identifiable and that appropriate credit and attribution is made."



Costs

- Never-ending costs??
- □ Capital costs for establishing RDR= £0.5m
 - ☐ Hardware and Project management
 - ☐ Current staff also supported project
- Ongoing costs
 - ☐ 2.0 FTE in Library
 - 2 more staff needed
 - □ 1.1 FTE in ISD to manage technical side of the RDR
 - More staff needed for technical support as service grows



Display at Blickling Hall, Norfolk, UK



- ☐ European contexts
- Research Data LEARN
- Drivers for RDR
- RDR
 - ☐ Establishing the repository
 - ☐ Architecture
 - Metadata
 - ☐ Criteria for selection and preservation
 - Stakeholders
 - □ Licensing
 - Costs

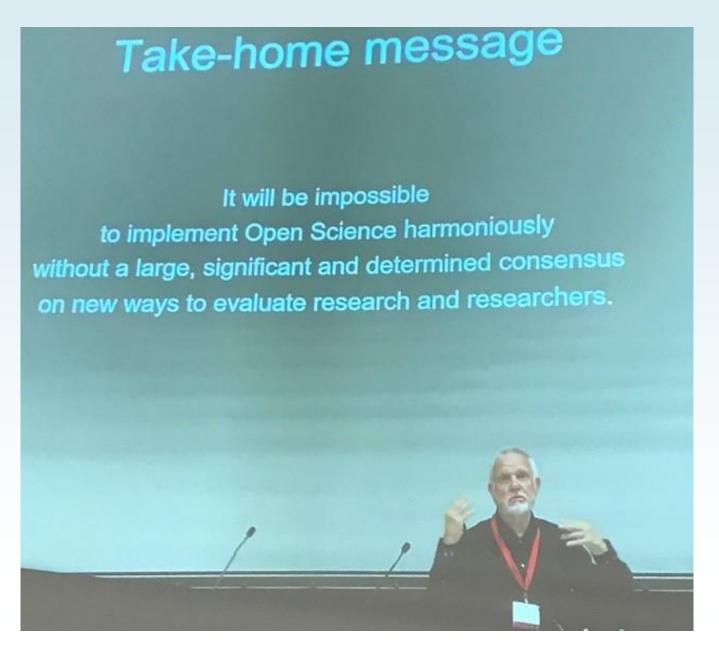






Plaster Relief by John Flaxman, Flaxman Gallery, UCL





Professor Bernard Rentier, Rector Emeritus, University of Liège

OAI11, Geneva, 19-21 June 2019



Evaluating research careers in an Open Science landscape

- □ European Commission report on evaluating research careers in the context of Open Science
 - https://ec.europa.eu/rese arch/openscience/pdf/os rewards_wgreport_final .pdf
- 23 criteria identified for a rounded evaluation
- ☐ Matrix **not** metrics

4. Research Impact Communication & 1. Research output dissemination IP (patents, licenses) Research activity Societal impact Publications Knowledge exchange Datasets Open source 5. Teaching and Funding 2. Research Process supervision Stakeholder Teaching engagement/citizen Mentoring science Supervision Collaboration & 6. Professional interdisciplinarité **Experience** Research integrity Risk management Continuing 3. Service & Leadership professional Leadership development Academic standing Project management Peer review Personal qualities Networking



Rewards

- ☐ Insert Open Science principles into career frameworks
- ☐ Develop institutional policies for rewarding Open Science
- Apply to appointment, promotion and appraisal procedures
 - □ UCL has included openness into its new academic promotions framework
 - https://www.ucl.ac.uk/human-resources/sites/human-resources/files/ucl-130418.pdf





- European contexts
- □ Research Data LEARN
- Drivers for RDR
- ☐ RDR
 - ☐ Establishing the repository
 - ☐ Architecture
 - Metadata
 - ☐ Criteria for selection and preservation
 - Stakeholders
 - □ Licensing
 - Costs
- Incentives
- □ Conclusion



Plaster Relief by John Flaxman, Flaxman Gallery, UCL



Conclusion

- □ Research Data the 'new currency' in research outputs
- □RDR fulfils ambitions expressed in UCL's Research Strategy
- ☐ Costs are always a challenge
- □RDR does embody UCL's leadership in Europe in the area of Open Science



UCL Student Centre, opened 18/2/19