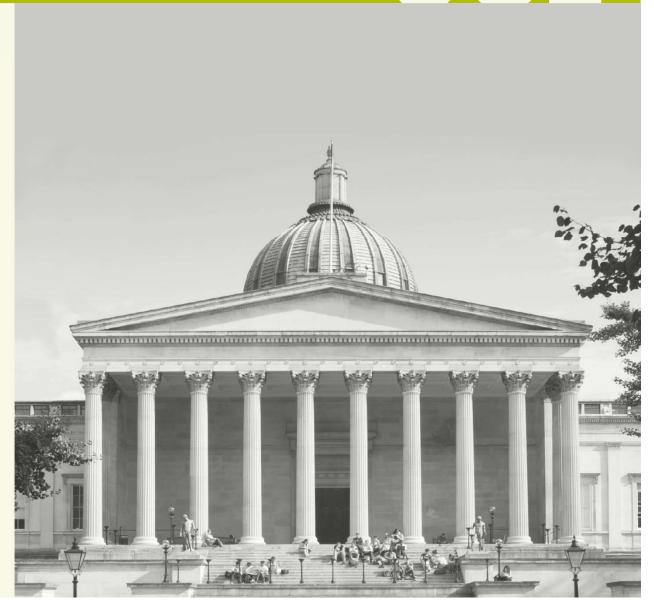
# **L**

Research Data
Repository Launch
Event

5<sup>th</sup> June 2019





## Agenda

- 1. Introduction: June Hedges, Head of Liaison and Support Services UCL Library Services 5 minutes
- 2. Open Science Presentation: Dr Paul Ayris, Pro Vice Provost Library Services 10 Minutes
- **3.** Data and Analysis in the Context of AI: Professor Geraint Rees, Dean of the UCL Faculty of Life Sciences 5 Minutes
- **4. Sharing and Reusing Qualitative Data:** Dr Rebecca O'Connell, Sociology of Food and Families 10 minutes
- **5. Introduction to Figshare:** Dr Daniel Hook, CEO of Digital Science, Figshare 10 Minutes
- **6. Q&A:** Dr James AJ Wilson, Head of Research Data Services 10 Minutes



June Hedges
Head of Liaison and
Support Services UCL
Library Services





# Open Science – a movement for the 21<sup>st</sup> century

#### Dr Paul Ayris

Pro-Vice-Provost (UCL Library Services)

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

Twitter: @ucylpay





# **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	



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

Future of Scholarly Communication	
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#### **UCL LIBRARY SERVICES**



#### 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 <a href="https://www.leru.org/publications/open-science-and-its-role-in-universities-a-roadmap-for-cultural-change">https://www.leru.org/publications/open-science-and-its-role-in-universities-a-roadmap-for-cultural-change</a>
- 41 Recommendations



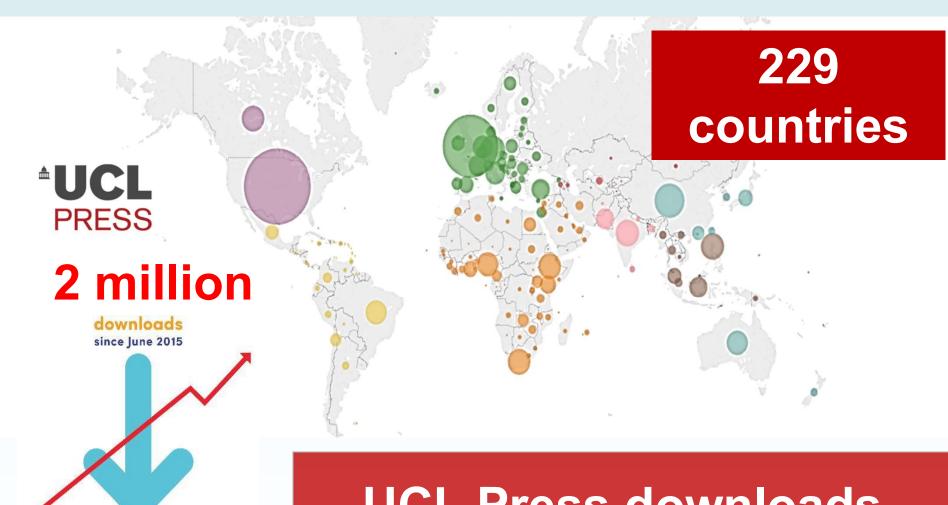
#### **UCL LIBRARY SERVICES**





- ☐ Plan S Implementation Plan with Rationale for changes
- ☐ Statement from LERU (League of European Research Universities) on the implications of the revised Implementation Plan
- ☐ Leadership statement from the Rectors on Open Science

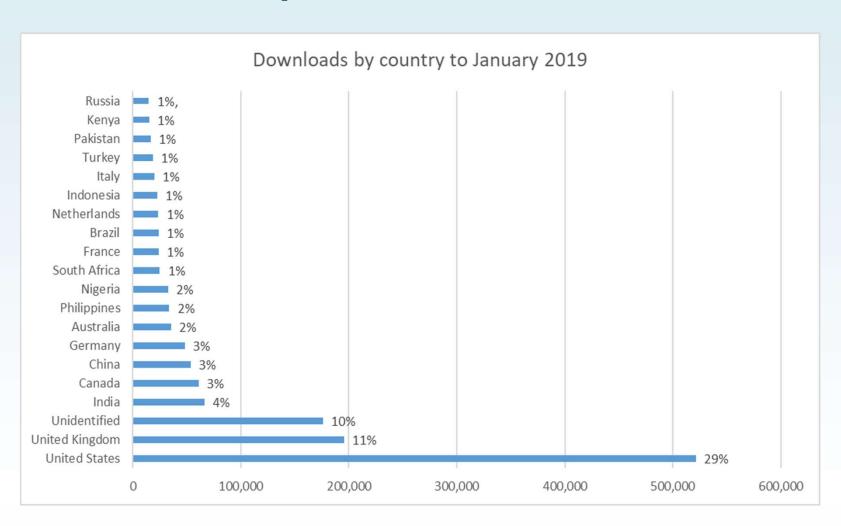




UCL Press downloads since June 2015



#### Downloads - top 20 countries since launch



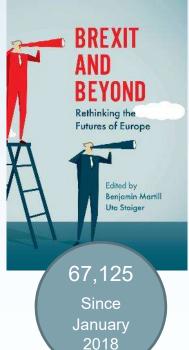


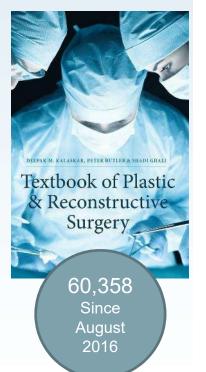
### Most-downloaded books (Apr19)





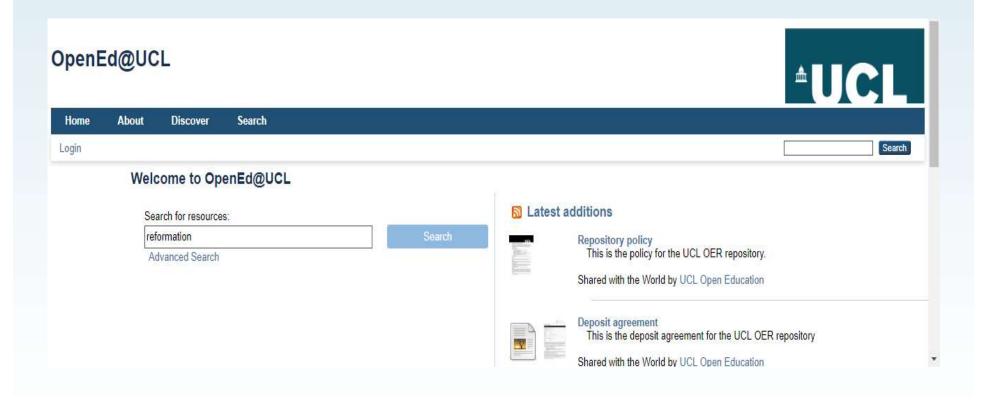








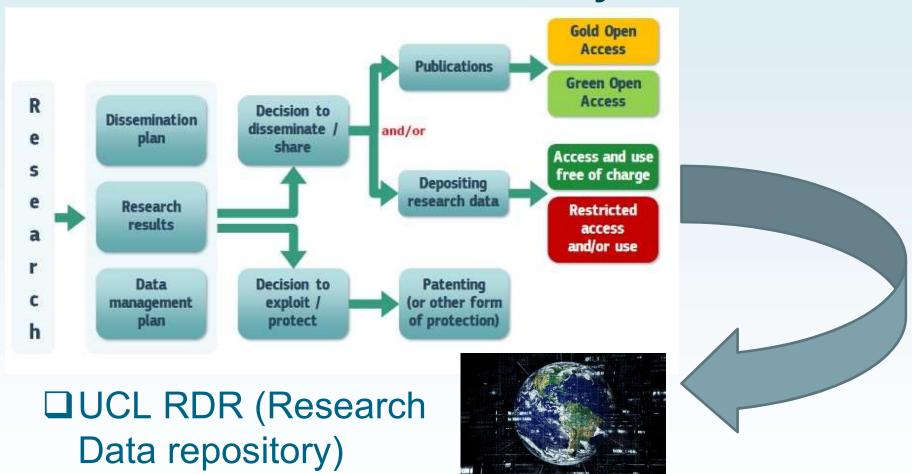
## OpenEd@UCL Pilot launched



https://open-education-repository.ucl.ac.uk



#### Research Data – a new currency

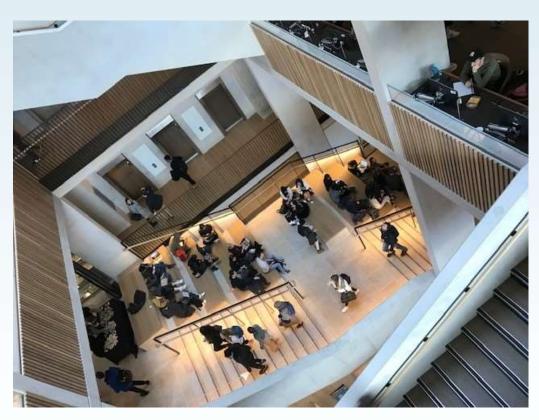


Graphic from: H2020 Online Manual



#### Conclusion

- ☐ Open Science is good for the researcher
- ☐ It is also good for Education
- □ Research data is the new 'currency' in Open Science
- □ Open Science is an opportunity, not a threat



UCL Student Centre, opened 18/2/19



## **Professor Geraint Rees**

Dean of the UCL Faculty of Life Sciences





# Reusing and Sharing Qualitative Data: a researcher's perspective

UCL Research Data Repository Launch Event 5-7pm, 5th June, W3.01 IOE, 20 Bedford Way

Rebecca O'Connell
Reader in the Sociology of Food and Families
Thomas Coram Research Unit
UCL Institute of Education
rebecca.oconnell@ucl.ac.uk





### **Outline**

- Background
- Reusing data
  - Novella (PI, Ann Phoenix, TCRU)
  - Possibilities of paradata
- Sharing data
  - Food, Families and Work
  - Families and Food in Hard Times



## Background

- Reusing data created from previous research projects for new purposes
- Opportunity to 'study the raw materials of past research projects to gain methodological and substantive insight' (Bishop & Kuula-Luumi, 2017:1)
- Contextualisation & ethical considerations (Heaton, 2004; Bishop, 2006; Irwin, 2013)



## Novella, PI: Professor Ann Phoenix

- Narratives of Varied Everyday Lives and Linked Approaches (novella.ac.uk)
- ESRC National Centre for Research Methods 'Node'
- Four subprojects & two cross-node collaborations
- 'Possibilities of paradata' (13.22 -14.47)
- https://www.youtube.com/watch?v=o\_ezMGvpm0A&feature=youtu.be



## Opportunities and challenges

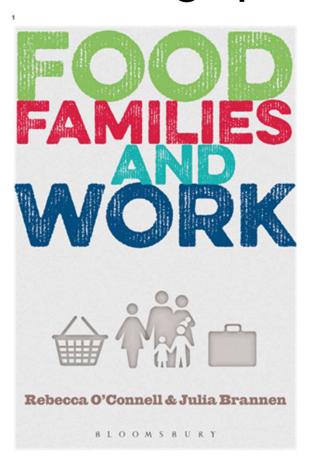
- Make use of rich data resources e.g. Poverty in UK; Mass Observation; Young Lives; Ambleside Oral History Archives
- Reduce respondent burden
- Enhance existing analyses/knowledge

#### But

- Limited to consent & questions asked i.e. 'gaps'
- Context may be unclear/ unfamiliar



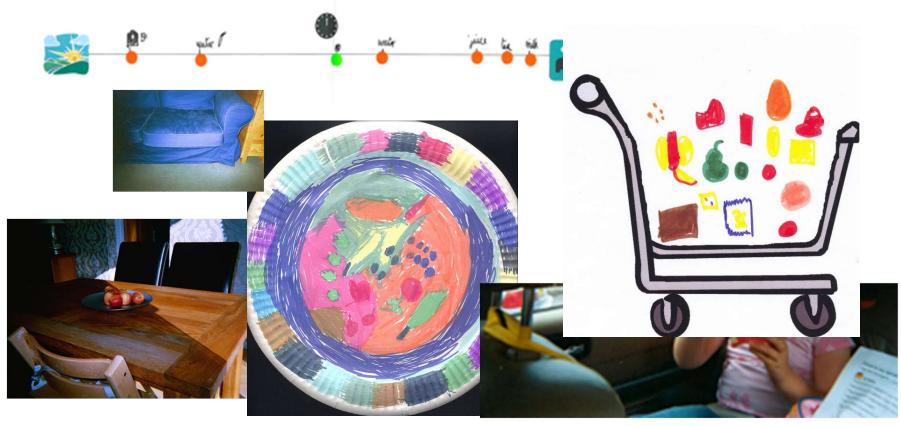
## Sharing qualitative data



- ESRC + FSA/DH
- Mixed methods longitudinal design (2009 2013)
- Secondary analysis: NDNS and other surveys – (W1) HSE, ALSPAC (W2) US, MCS
- Qualitative sample (N=47) of children (2-10 yrs) + employed parents drawn from NDNS
- 36 families followed up at W2 (2 year gap)
- Interviews with parents (usually mothers) and range of methods with children



## Visual methods and data



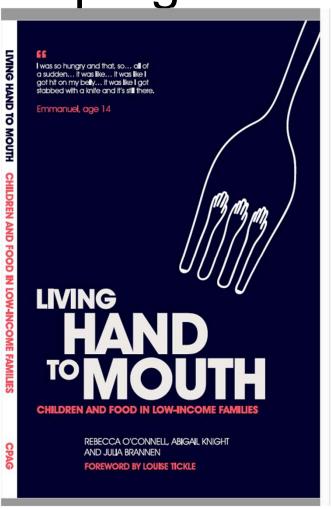


## Sharing qualitative data

- Informed consent to archive
- Anonymisation not straightforward
- Protocol/regular meetings queries
- Sample to archive
- Supporting documentation –infor & consent forms, research tools, methodology, findings, outputs...
- Embargo/ restrictions contentious?



In progress...



- Families and Food in Hard Times
- ERC funded
- UKDA
- Interview transcripts 45 parents
   + 51 children aged 11-15 years;
   photographs by children and researchers
- Laidlaw Scholarship (six weeks, summer, 2018)
- Capacity building 'Open Science'

#### Institute of Education





Orsdya Dobe, supervisor: Rebecca O'Connel
Thomas Coram Research Unit (TCRU),UCL Institute of Educatio
University College London, 27-28 Woburn Square
London WCH DAA

#### Introduction

The aim of this project was to identify the benefits of qualitative data reuse, prepare the qualitative data for archiving while identifying the possibilities of secondary analysis of the interview transcripts used for the 'Food and families in hard times' project.

#### **Background**

Secondary analysis of qualitative data It entails reusing data created from previous research projects for new purposes."
Benefits less expensive, further exploration of the data from a new per spective, allows verification of the original study, replication or restudy over time, comparative research to be carried out in a number of contexts, helps discovering new research designs, benefit of the context of the context of the context of the carried out in a number of contexts, helps



#### the distance the secondary researcher. Quen Science Fra



About the study:
The 'Families and food in hard times' applied a mixed method international case study design to the study of household food poverty including the experiences of children and young people.

#### Methods

- A sytematic review of the UK transcripts of sensitive semi structured interviews with poor and low income young people and their parents.
- Anonymisation of 50% of the UK sample that comprises 45 young people and their parents or carers considering the Open Science and awareness of ethical considerations regarding participant confidentiality.
- Preparation of the in-depth qualitative data and its supporting documentation for deposit in the UK Data Archive.
- Completion of field notes of the sensitive interviews from an 'outsider perspective'

#### Outputs

 Upskilling myself about the benefits of qualitative data reuse and the Open Science Framework movement in research



- Main findings of my fieldnotes
- Most children in underprivileged families of the sample see the future in education.
- Surprisingly low level of knowledge about the benefits and vouchers available.
- False assumptions about benefit-receiving households, in most cases they are actively searching for employment.
- Children in immigrant families often prefer British food to their domestic food, to which their mothers have a hard time getting used to.
- Eating out often represents a form of independence and not having this option because of financial restraints is damaging the children emotionally.

#### Impact & Capacity Building

In condusion we can see a great example of a possible qualitative data reuse of the anonymised transcripts. Future questions of a secondary analysis of the data: e.g. How do under privileged people communicate their problems to the outside world?

Positive Impact: consulted the UK DATA archive about the project and sent them a sample of the prepared data for which we received positive feedback.

Televines (Spille, L. Marchauter, A. (20) The Warring Statement Annuals, Spiglice, 7.5 (a. 6) (1770) (1780)

- First year UG student, Orsolya Dobe
- Approach data as an 'outsider': nationality and 'field'
- Outputs/Impacts: 'Upskilling myself about the benefits of qualitative data reuse and the Open Science Framework movement in research'
- Insights from a 'stranger's' perspective (Schtutz,1964)
- e.g. 'Surprisingly low level of knowledge about the benefits and vouchers available'



'The development of policies and infrastructure to support the reuse of qualitative data has gone hand-in-hand with the development of an ethos of data sharing; both are necessary if data are to be made available for sharing and valued as a resource for reuse' (Bishop and Kuula-Luumi, 2017:2)

# An Introduction to FIGSHARE at UCL

Daniel Hook CEO, Digital Science



- Why use the new research data service?
- How to use the new research data service?
- Case study

## What is Research Data?

Research Data is any output that is derived from research including but not limited to:

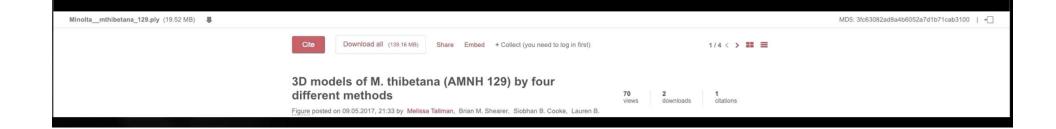
- Spreadsheet data
- Annotated/marked-up text
- Images
- Video
- Audio files
- 3D visualisations
- Map data (KML files)

Figshare can also store the code associated with data.

# What is Figshare?

Figshare is a place where users can make all of their research outputs available in a citable, shareable, and discoverable manner.





## Institutions we work with

The British Museum



Carnegie Mellon University



The Graduate School











UNIVERSITY OF LEICESTER







MONASH University



The University Of Sheffield.



University of Amsterdam

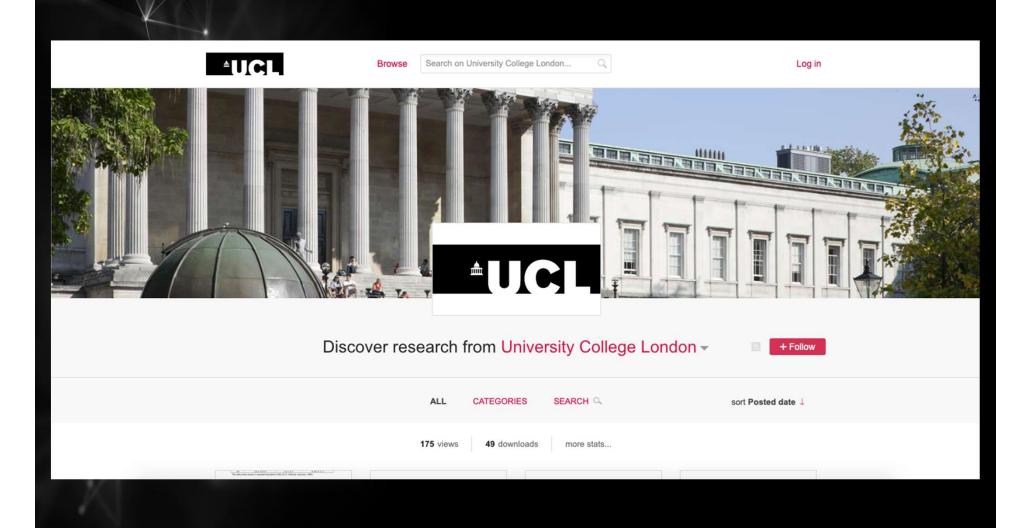


## <u>UC San Diego</u>



Loughborough University

## rdr.ucl.ac.uk



# Why store and share your research data on UCL Figshare?

# Get a citable DOI for your research

#### Online Labour Index: Measuring the Online Gig Economy for Policy and Research

Version 1114 A Dataset posted on 30.05.2019, 23:48 by otto kässi, Martin Hadley, Vili Lehdonvirta

he-labour-index/ for details.

inderlying the Online Labour Index. See

Version 1114 30.05.2019, 23:48

Version 1113 29.05.2019, 23:46

Version 1112 28.05.2019, 23:45

Version 1111 27.05.2019, 23:45

Version 1110 26.05.2019, 23:44

Version 1109 25.05.2019, 23:44

Version 1108 24.05.2019, 23:46

First online date

23.04.2019

Posted date

30.05.2019

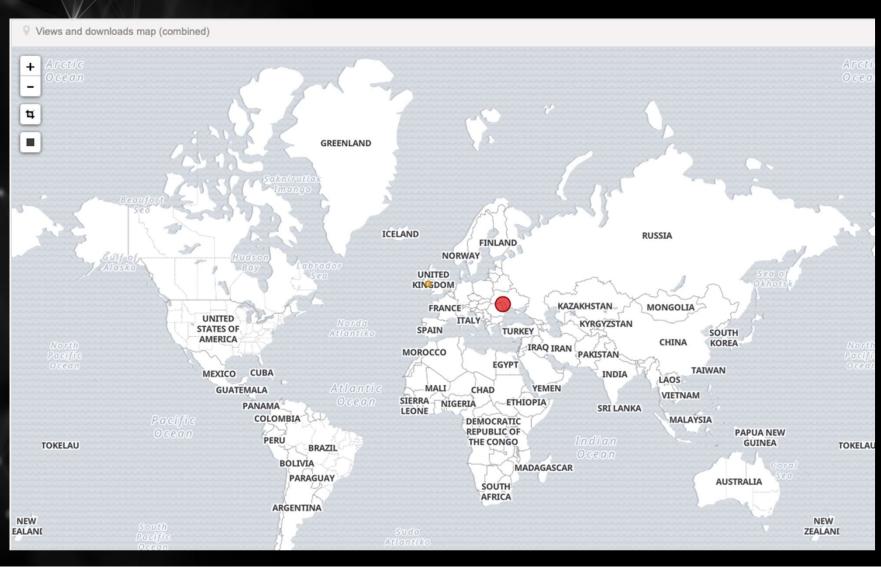
kässi, otto; Hadley, Martin; Lehdonvirta, Vili (2019): Online Labour Index: Measuring the Online Gig Economy for Policy and Research. figshare. Dataset. https://doi.org/10.6084/m9.figshare.3761562

# Safely store your research outputs in the cloud

Figshare is a cloud-based software accessible anywhere, on-campus or off-campus, just use your UCL single sign-on login to access.

UCL will be keeping a separate copy of all data and metadata.

# Demonstrate impact with citation counts, usage metrics, and Altmetrics



# Open data funder compliance

#### **FUNDING**

Cortical organization of object knowledge before and after brain surgery

National Institute of Neurological Disorders and Stroke

Cortical organization of action knowledge before and after brain surgery

National Institute of Neurological Disorders and Stroke

Core Grant for Vision Research

National Eye Institute

Schmitt Program on Integrative Brain Research (University of Rochester)

Research to Prevent Blindness

Neurovascular and Neuroplastic Contributions to Visual Recovery After Stroke

National Eye Institute

TIMELINE

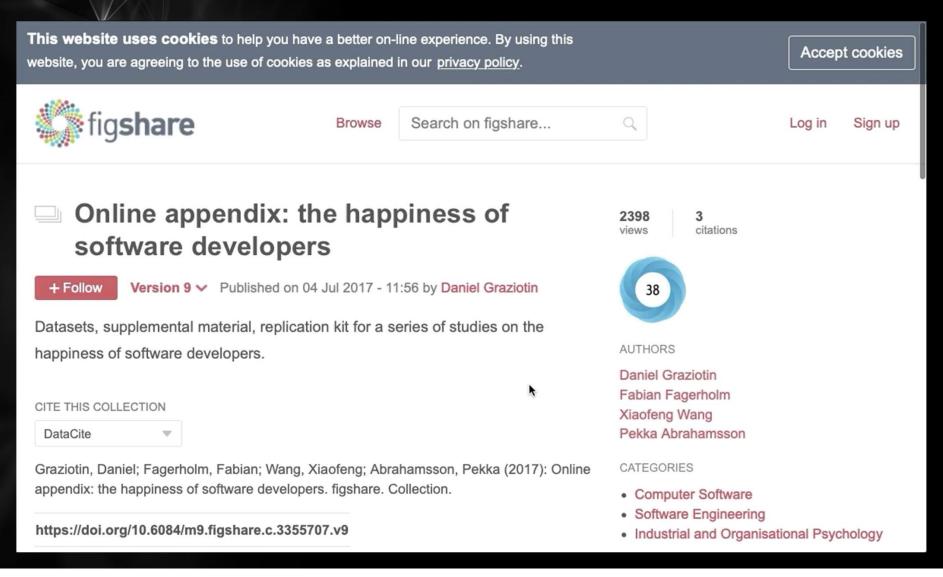
First online date Posted date Submission date

07.12.2018

Revision date

06.03.2019

# Collect your research outputs into a Collection with its own DOI



# Place an embargo on your data

#### File(s) under embargo

Reason: industry data protected by confidentiality terms in project collaboration agreement

- 3 - 8 - years days

until file(s) become available

Cite

Share

+ Collect (you need to log in first)

### Parameter identification data from 'Multi-temperature state-dependent equivalent circuit discharge model'

Dataset posted on 10.08.2016, 11:24 by Daniel Auger, Abbas Fotouhi, Stefano Longo

This fileset contains the experimental data used for parameter identification in the paper 'Multi-temperature state-dependent equivalent circuit discharge model for lithium-sulfur batteries' accepted by the *Journal of Power Sources* on July 23, 2016.

The data files can be opened with MATLAB R2016a.

**FUNDING** 

EP/L505286/1

HISTOR

First online date: 10.08.2016

Posted date: 10.08.2016

REFERENCES

http://dx.doi.org/10.1016/i.ipowsour.2016.07.090

464

downloads

0 citations



#### CATEGORIES

Engineering not elsewhere classified

KEYWORD(S)

lithium-sulfur batter

parameter estimation

system identification

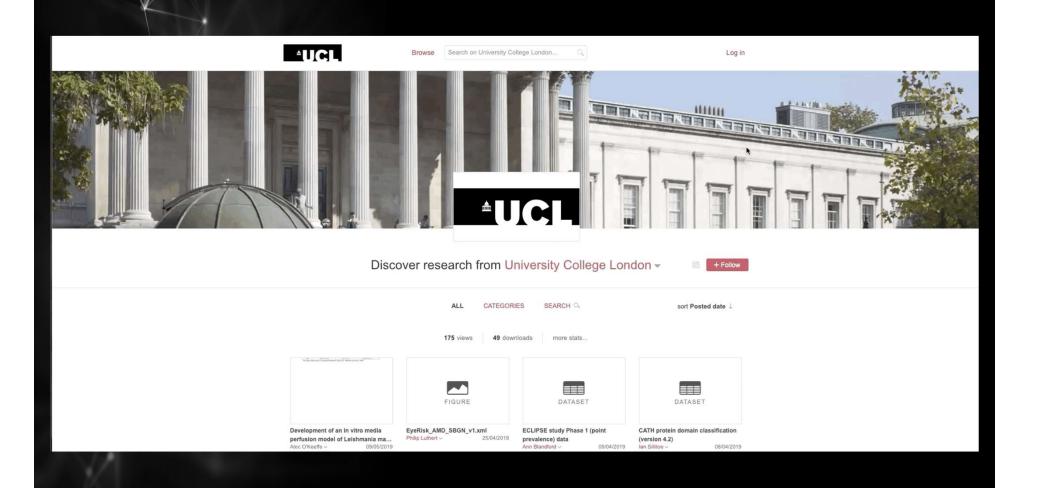
battery model

LICENC

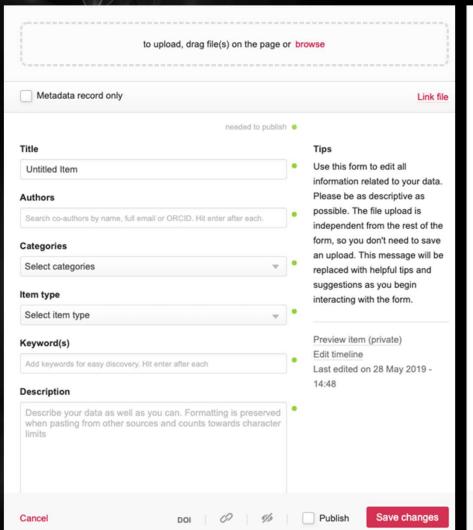


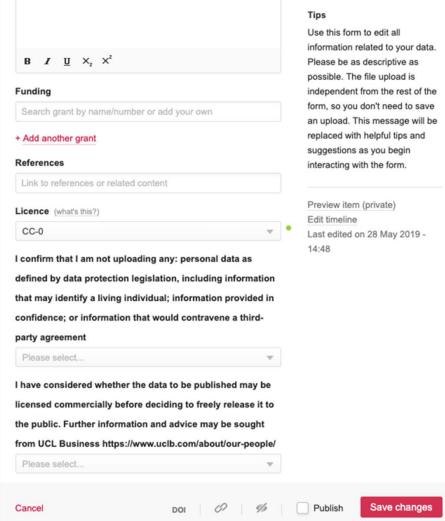
CC BY 4.0

# Use your UCL login to access

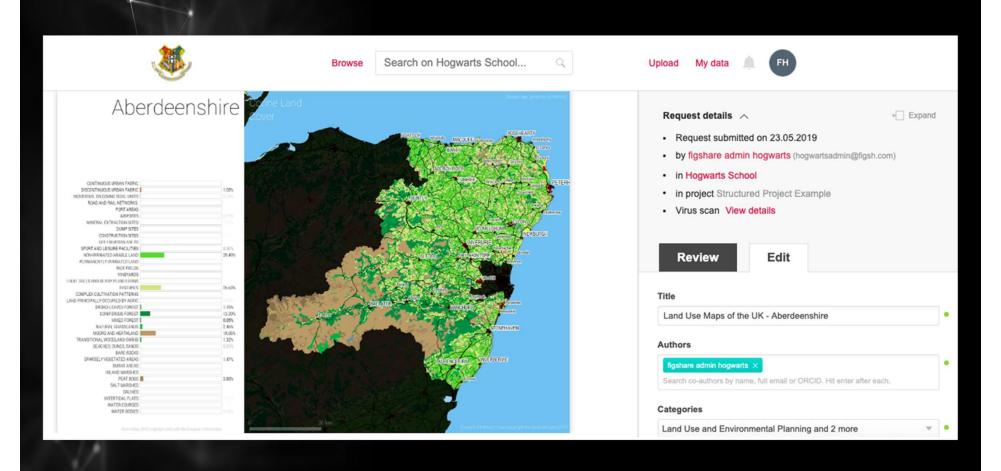


# Upload your data & fill in metadata form





# Have your data reviewed before it's published



## MRC LMCB

Medical Research Council Laboratory for Molecular Cell Biology

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Sophie Acton

Buzz Baum

Jonathan Chubb

**Daniel Cutler** 

Rob de Bruin

Paul Gissen



#### Ricardo Henriques

LMCB Group Leader, UCL Senior Lecturer, Experimental Optics Leader

r.henriques@ucl.ac.uk +44 (0)20 7679 7936

LMCB Room 4.13

UCL Profile | Europe PMC | PubMed | CV & awards
Twitter @HenriquesLab

#### Ricardo Henriques

Robin Ketteler

Alison Lloyd

Yanlan Mao

Mark Marsh

Jason Mercer

Sara Mole

Ewa Paluch

#### Quantitative Imaging and Nanobiophysics

#### Research Synopsis

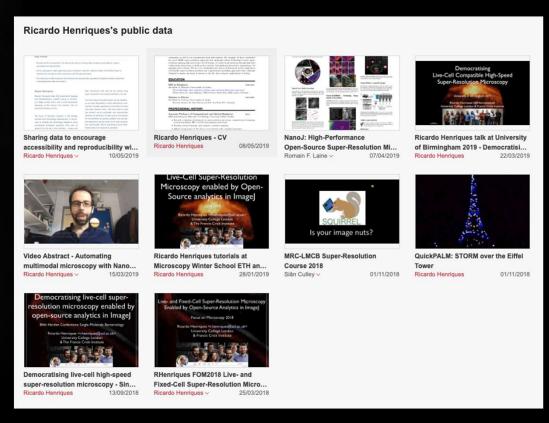
The Henriques lab was established in 2013 to undertake research combining cell biology, optical physics and biochemistry. The group focuses on biological problems that cannot be addressed with current imaging technology, and thus aims to develop analytical, optical and biochemical approaches to address these questions.

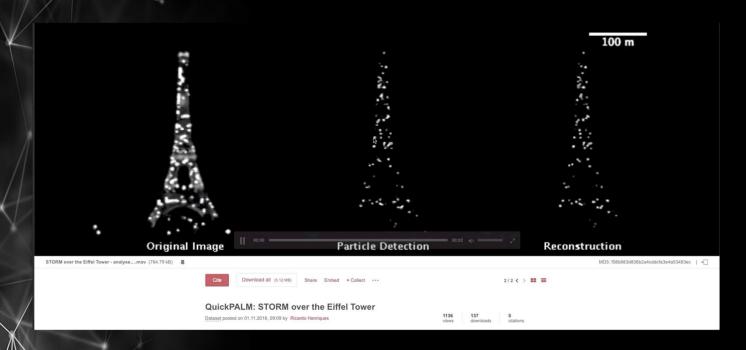
In cell biology we aim to understand how viruses enter cells by probing and remodelling

#### About the lab



"We have tried to make the research we do accessible and reproducible: software is open source, the designs for the hardware are openly available, and we publish preprints to get our work out as soon as possible."





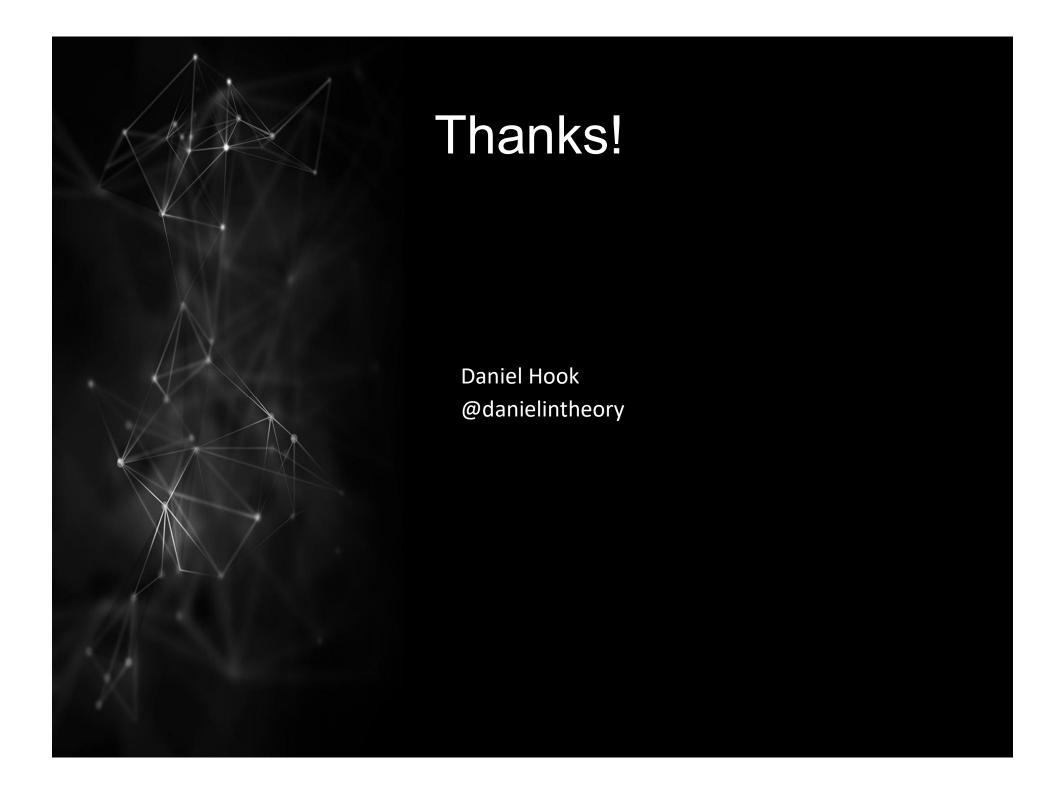
Prior to being uploaded to Figshare in 2018, the videos were available on YouTube. However, in terms of reproducibility, YouTube wasn't suitable for downloading the data and reusing it. Because he was using Figshare for his presentations, he decided to upload the videos to Figshare, as well, so others could download them and reuse them.

Read more about Ricardo's experience sharing his data in this case study, "Sharing data to encourage accessibility and reproducibility within academia and beyond: a case study of the Henriques Lab with Ricardo Henriques".

Henriques, Ricardo; Hardeman, Megan (2019): Sharing data to encourage accessibility and reproducibility within academia and beyond: a case study of the Henriques Lab with Ricardo Henriques. figshare. Online resource. https://doi.org/10.6084/m9.figshare.8107859.v1



"We have tried to make the research we do accessible and reproducible: software is open source, the designs for the hardware are openly available, and we publish preprints to get our work out as soon as possible."





# **Dr James AJ Wilson**

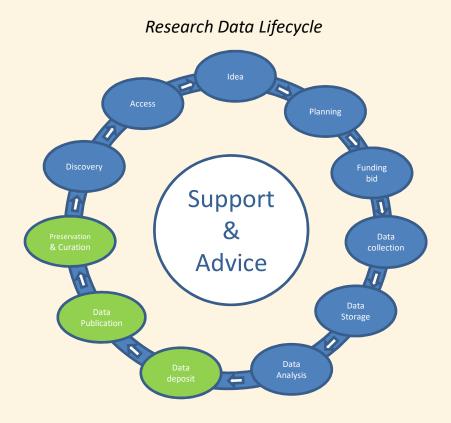
Head of Research Data Services



## **UCL Research Data Repository Service**



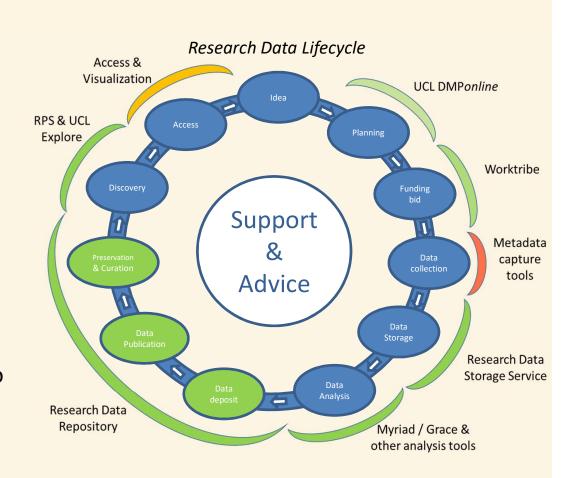
- Long-term commitment for UCL
- Service provided jointly by Research IT Services (ISD) and UCL Library
  - Research IT Services deal with technical issues, reporting, backup, system integrations, future developments
  - Library's Research Data Support
     Service provide advice and
     guidance for <u>all</u> aspects of data
     management across the research
     data lifecycle, including the
     Repository, and review metadata
     records before publication
- Records added to Figshare will be reflected in the Research Publication Service and in UCL Explore



### UCL Research Data Repository Future Plans



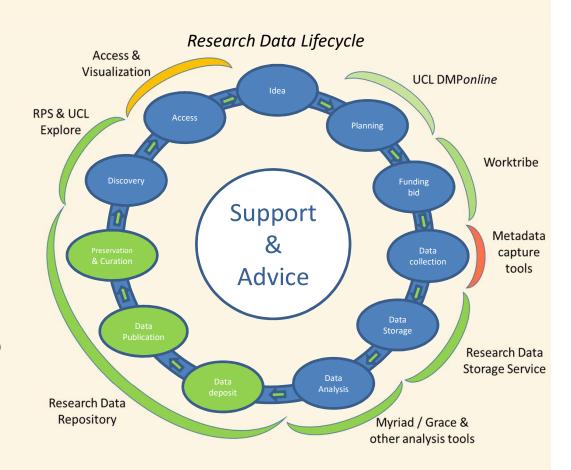
- Better support for sensitive data & restricted access
- Specialist metadata for different disciplines
- Preservation tools
- Migration of accounts from public Figshare to UCL Figshare (optional)
- Better technical integration between data management tools and services
- Ultimately, enriched documentation and an audit trail to facilitate reproducibility and re-use



## UCL Research Data Repository Future Plans



- Better support for sensitive data & restricted access
- Specialist metadata for different disciplines
- Preservation tools
- Migration of accounts from public Figshare to UCL Figshare (optional)
- Better technical integration between data management tools and services
- Ultimately, enriched documentation and an audit trail to facilitate reproducibility and re-use
  - Research Computing
  - Research Software Development
  - Research Data Storage Service



## UCL Research Data Repository Thanks!



#### BIG THANKS to:

- The Project Team (Craig Dunant, Alastair Smith, Amy Fernandes, Godswill Arum, Elvira Balogun, and all the other staff who have helped out at one time or another over the last three years)
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- The Project Board (Paul Ayris again, Peter Coveney, David Wright, Julianne Nyhan, Mike Atkins, Donna Swann, Rachel Cooper)
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- All the researchers and staff who have participated in the requirements gathering, solution evaluation, early adopter testing, or otherwise given their time to the project

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https://rdr.ucl.ac.uk/



Q&A