

# The Open Research journey – from concept to implementation

Open in Practice 2019  
University of Reading  
4 April 2019

**SLIDES AVAILABLE:** <https://www.repository.cam.ac.uk/handle/1810/291115>

**Dr Danny Kingsley**  
Deputy Director, Scholarly Communication & Research Services  
Cambridge University Libraries  
**@dannykay68**



# A matter of language

---

- **‘Open source software’** dates back to 1970s
  - Software was not considered copyrightable before the 1974 US Commission on New Technological Uses of Copyrighted Works (CONTU) decided that "computer programs, to the extent that they embody an author's original creation, are proper subject matter of copyright"
  - In 1983, Richard Stallman launched the GNU Project to write a complete operating system free from constraints on use of its source code.
- **‘Open access’** - Budapest Open Access Initiative, 2002
- **‘Open science/research’**
  - Informal definition of open science *“Open science is the idea that scientific knowledge of all kinds should be openly shared as early as is practical in the discovery process.”* - Michael Nielsen – 2011
  - Transparency and Openness Promotion (TOP) Committee met in 2014
  - EPSRC ‘Open Data’ – requirement began 2011, was enforced in 2015



# Step back in time - 2013

---

- Open Access Project Board formed. First meeting on 24 January 2013. Terms of Reference:
  - To ensure the University is ready to comply with the new RCUK terms on Open Access to research publications that will take effect from 1 April 2013.
  - To make effective use of the time-limited BIS/RCUK allocation in support of the transition to Open Access. In addressing these terms of reference, the Project Board will:
    - Ensure a suitable policy framework is in place and remains relevant as circumstances develop.
    - Consider sustainable and equitable mechanisms to handle the annual block grants for Gold access charges.
    - Consider the roadmap for Open Access to research data in relation to publication Open Access.
  - Approve monitoring and reporting mechanisms to meet University and funders' requirements



<https://osc.cam.ac.uk/files/minutes-of-oa-project-board-24-jan-2013-gfr.pdf>

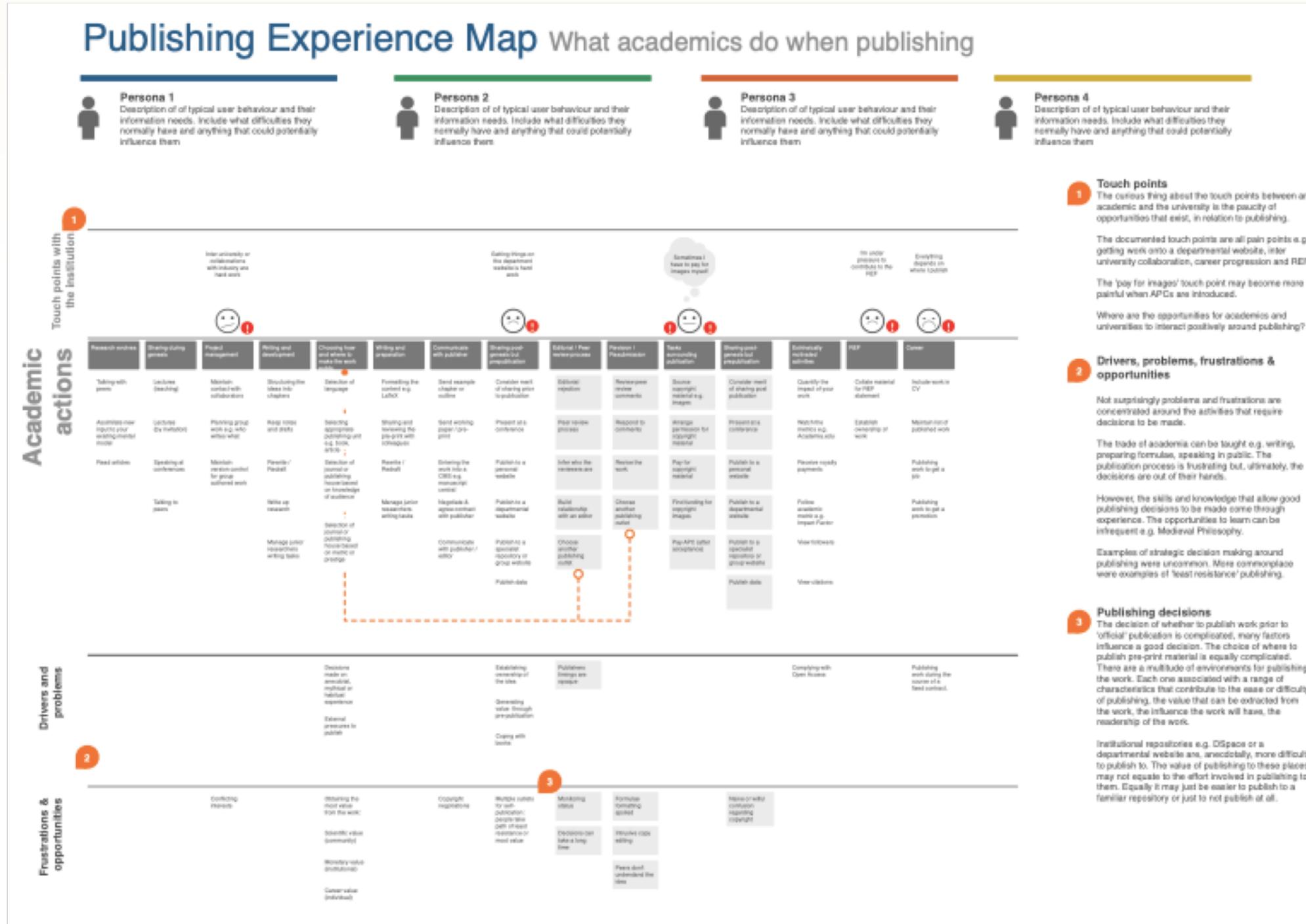
# Research - FutureLib

---

- In 2013 and 2014, the Library undertook a large project to try and understand what academics did and what services they needed.
- A 'shadowing' process where academics were closely followed for 48 hours. The team literally sat next to them – watched lectures, sat in supervisions and took notes.
- As the academic undertook tasks the team asked them how they felt about the activity and whether they felt it was worth their time and so on.
- The graphics map out their activities over the time each academic was followed. The image lists the activities they undertook, scaled on a 'happiness' metre, and colour coded depending of the work was Academic, Research or Administration related.
- <https://www.repository.cam.ac.uk/handle/1810/264986>

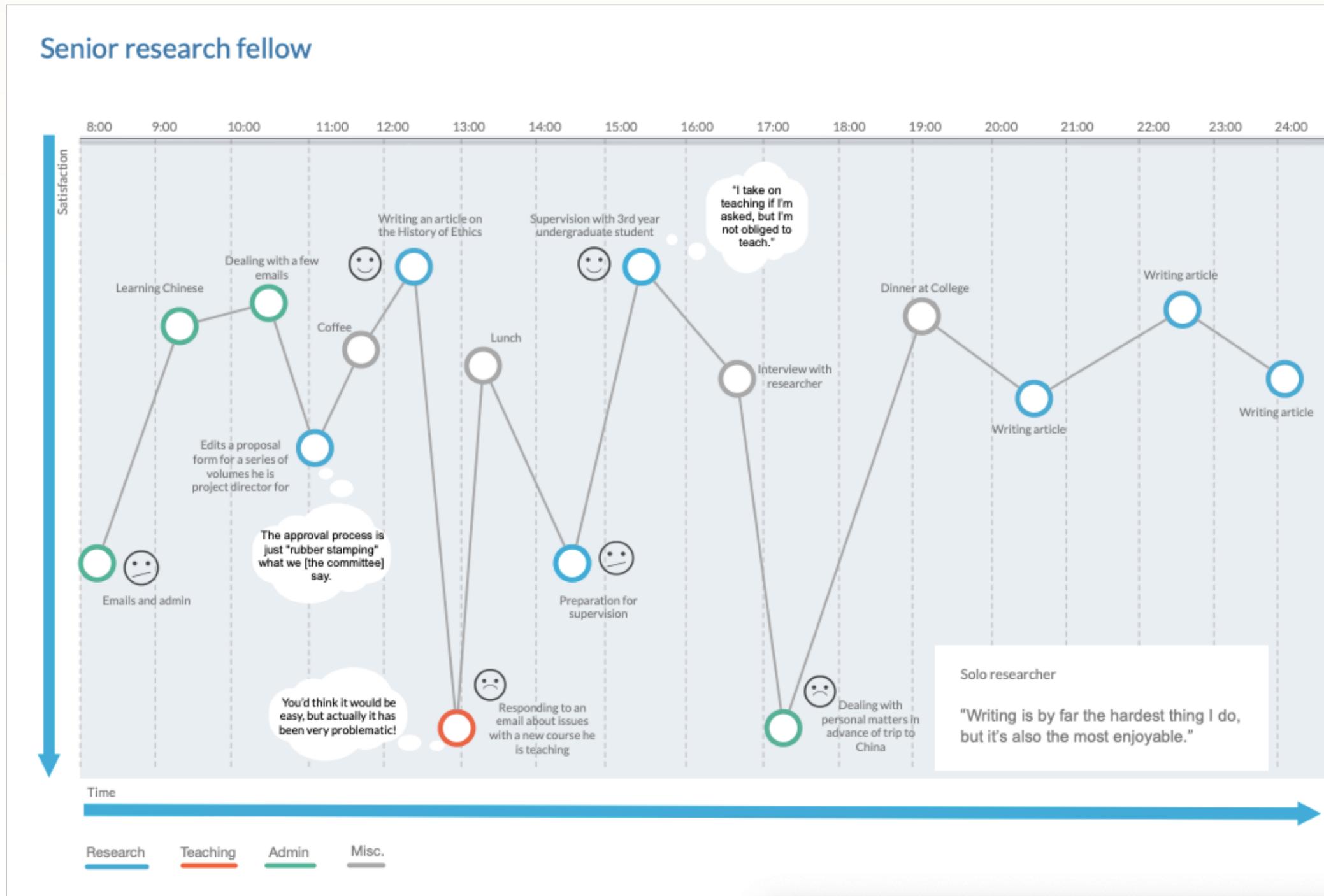


# Publishing experience map



<https://www.repository.cam.ac.uk/handle/1810/252889>

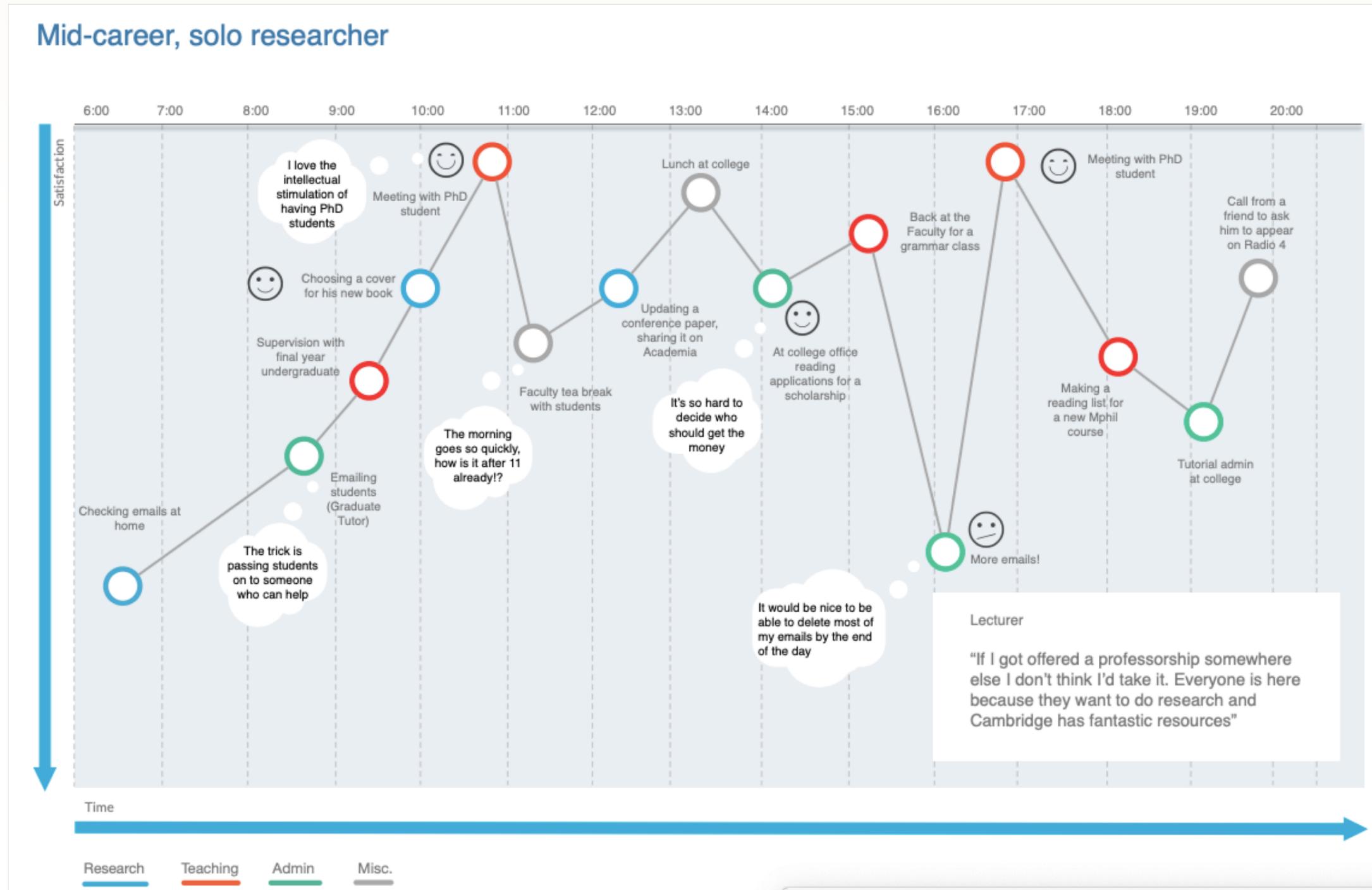
# Senior Research Fellow



<https://www.repository.cam.ac.uk/handle/1810/252888>



# Mid-career solo researcher



<https://www.repository.cam.ac.uk/handle/1810/252886>



# The result - Avocet

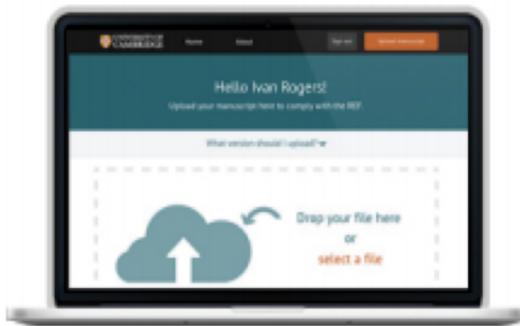
---



UNIVERSITY OF  
CAMBRIDGE

## Accepted for publication?

Upload your manuscript,  
to meet REF and funders' Open Access requirements

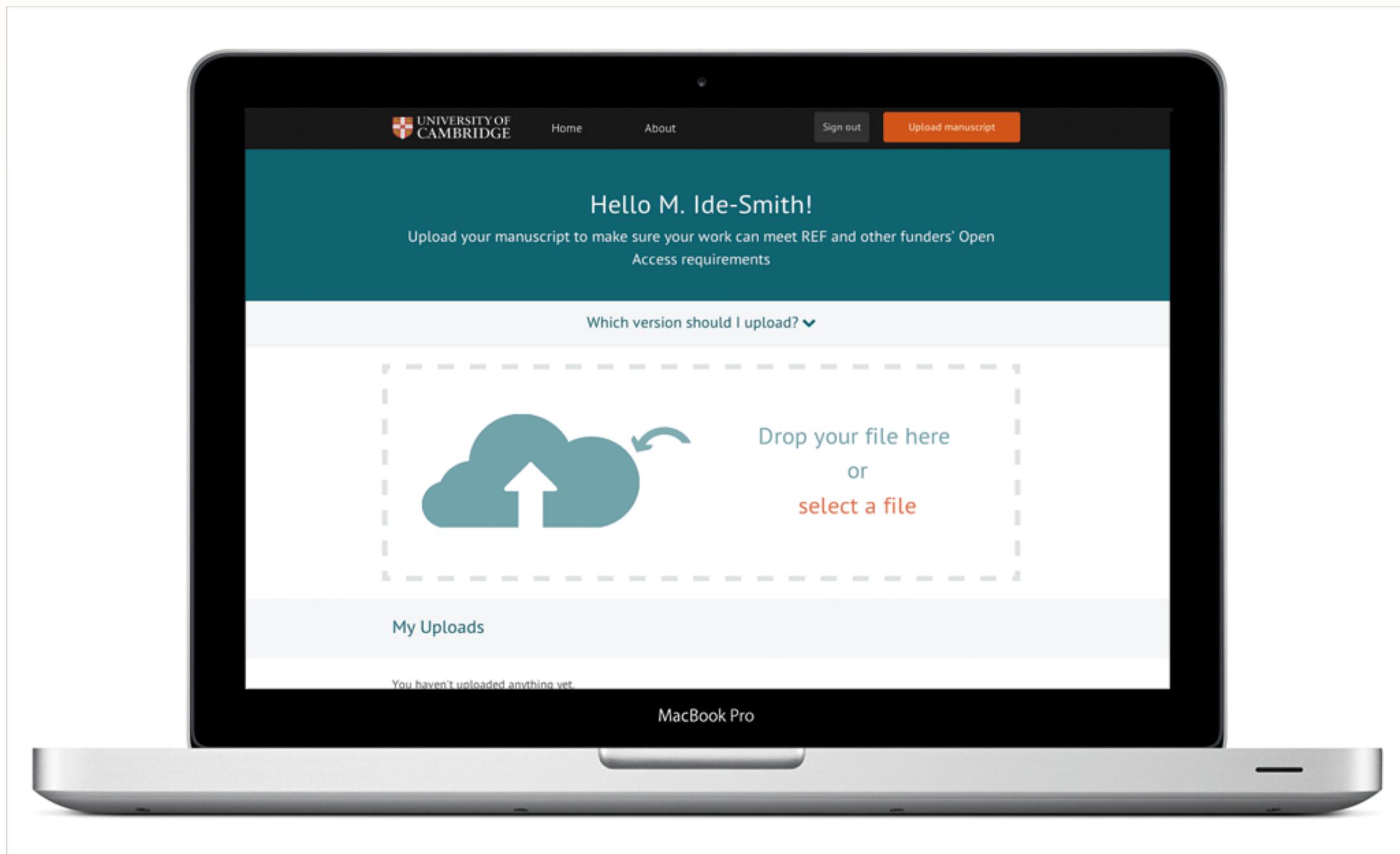


[www.openaccess.cam.ac.uk](http://www.openaccess.cam.ac.uk)



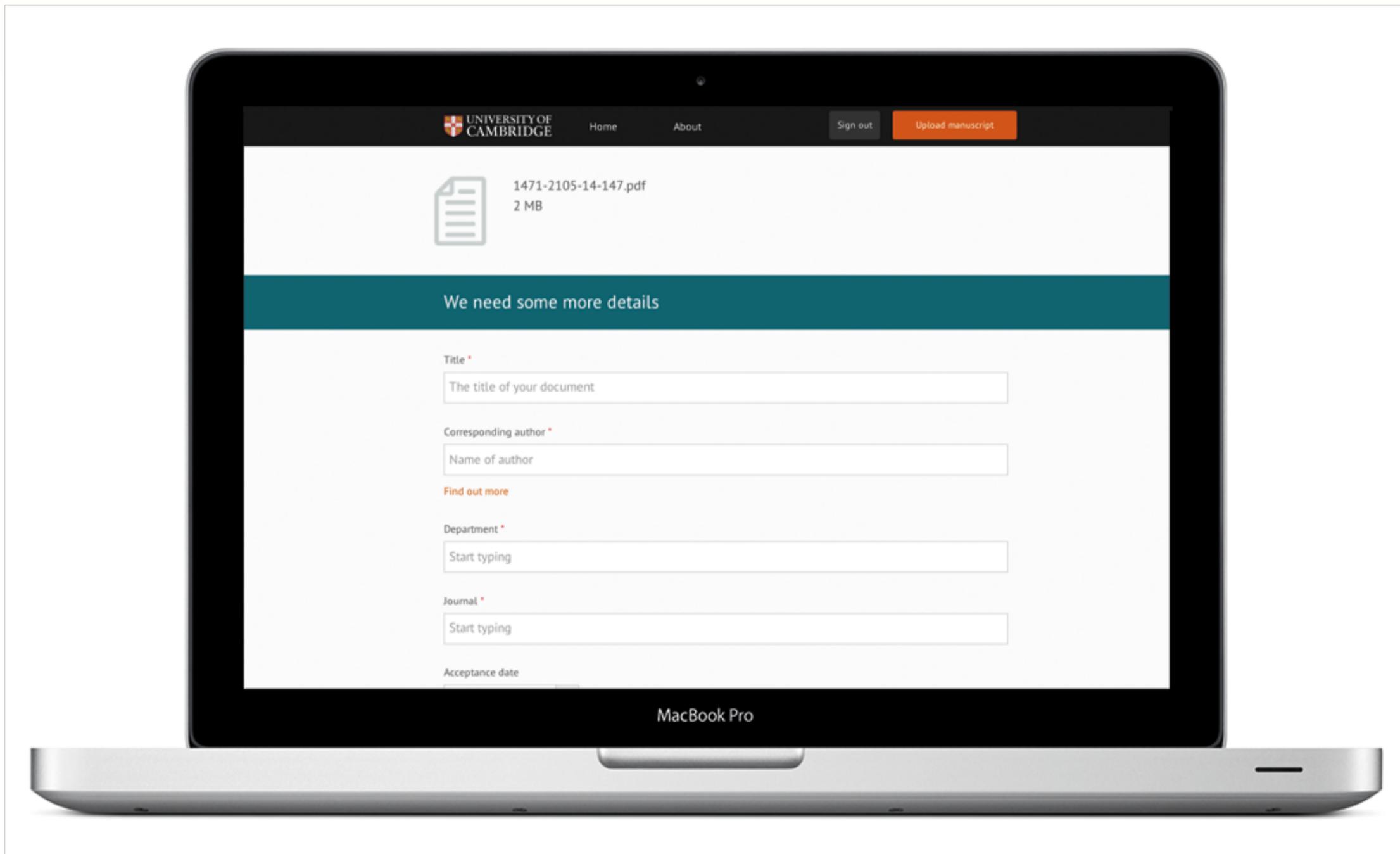
# Upload your accepted manuscript

---



# – and tell us a bit about it

---

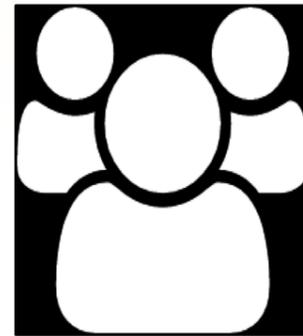


# What happens next?

---



1. Upload manuscript



2. We check funder policies, discuss options with researchers and pay APCs for eligible articles



3. We deposit manuscript

# Meanwhile....

---

- Proposal to the Research Policy Committee  
RPC Committee meeting of 1 May 2014 where  
the argument was made for the position of a  
head of Scholarly Communication
  - <https://osc.cam.ac.uk/open-access/open-access-policies/cambridge-open-access-policy-framework/open-access-project-board>

---

2015

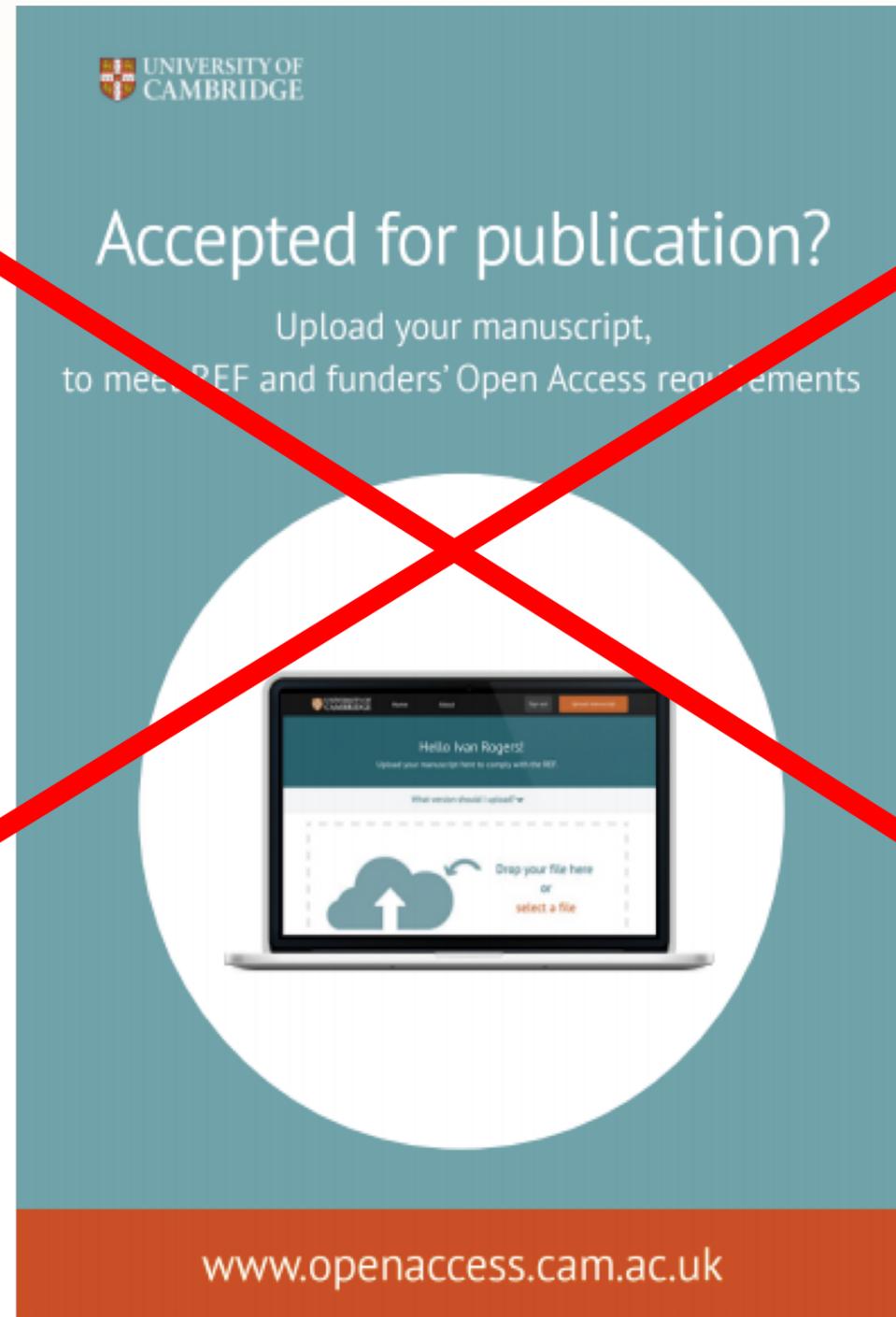


# 1 January 2015

---



# Oh dear



UNIVERSITY OF CAMBRIDGE

## Accepted for publication?

Upload your manuscript,  
to meet REF and funders' Open Access requirements

Hello Ivan Roger!

Upload your manuscript here to comply with the REF

What would you like to upload?

Drop your file here  
or  
select a file

[www.openaccess.cam.ac.uk](http://www.openaccess.cam.ac.uk)



# Workflow and focus issues

---

- The systems were entirely manual and not scalable
- Focus was on open access only and specifically compliance
- Research Data Management was an afterthought
- Old version of DSpace

---

2016



# Realised there was a bigger agenda

## Unlocking Research

University of Cambridge Office of Scholarly Communication

Home

**Blog archive**

Upload your manuscripts

### Blog archive

#### Welcome to the Unlocking Research blog

This blog is maintained by the **Office of Scholarly Communication** based in the University of Cambridge Library and the University Research Office. Blogs cover many topics as follows:

#### - Open Research

- **Hot topics – research integrity and open research** – 31 May 2018
- **Perspectives on the Open future** – 27 March 2018
- **Sustaining long-term access to open research resources – a university library perspective** – 11 September 2017
- **Sustaining open research resources – a funder perspective** – 26 July 2017
- **Open Research- Who should pay?** – 26 June 2017
- **Reflections on Open Research – a PI's perspective** – 22 June 2017
- **Open at scale: sharing images in the Open Research Pilot** – 8 May 2017
- **Open Research Project, first thoughts** – 8 March 2017
- **We are going OPEN – the Open Research experiment has begun!** – 8 February 2017
- **Walking the talk – reflections on working 'openly'** – 25 October 2016
- **Could Open Research benefit Cambridge University researchers?** – 3 August 2016
- **The case for Open Research: solutions?** – 2 August 2016
- **The case for Open Research: does peer review work?** – 19 July 2016
- **The case for Open Research: reproducibility, retractions & retrospective hypotheses** – 14 July 2016
- **The case for Open Research: the authorship problem** – 12 July 2016
- **The case for Open Research: the mis-measurement problem** – 11 July 2016
- **Software Licensing and Open Access** – 21 October 2015
- **Openness, integrity & supporting researchers** – 12 October 2015



<https://unlockingresearch-blog.lib.cam.ac.uk>

# Changing focus? Not at first

---

- Initial attempts to expand the OAPB focus to Open Research met with resistance.
- This was about moving from a compliance perspective to a proactive recognition there is an issue that needs addressing, and there are no answers - we needed to work it out.
- But first....

# Review of Office of Scholarly Communication

---

- Review called early 2016, report submitted late 2016
- Recommendation 1:
  - The General Board should commission a Working Party to clarify the University's needs and expectations in relation to Open Research. It should be constituted by key stakeholders and those who are active and informed on Open Research issues.
  - **Its work should include agreement on the University's public stance on Open Research.**
  - The Working Party should also consider and propose solutions for infrastructure needs relating to Open Research, including increased automation of Open Research processes.



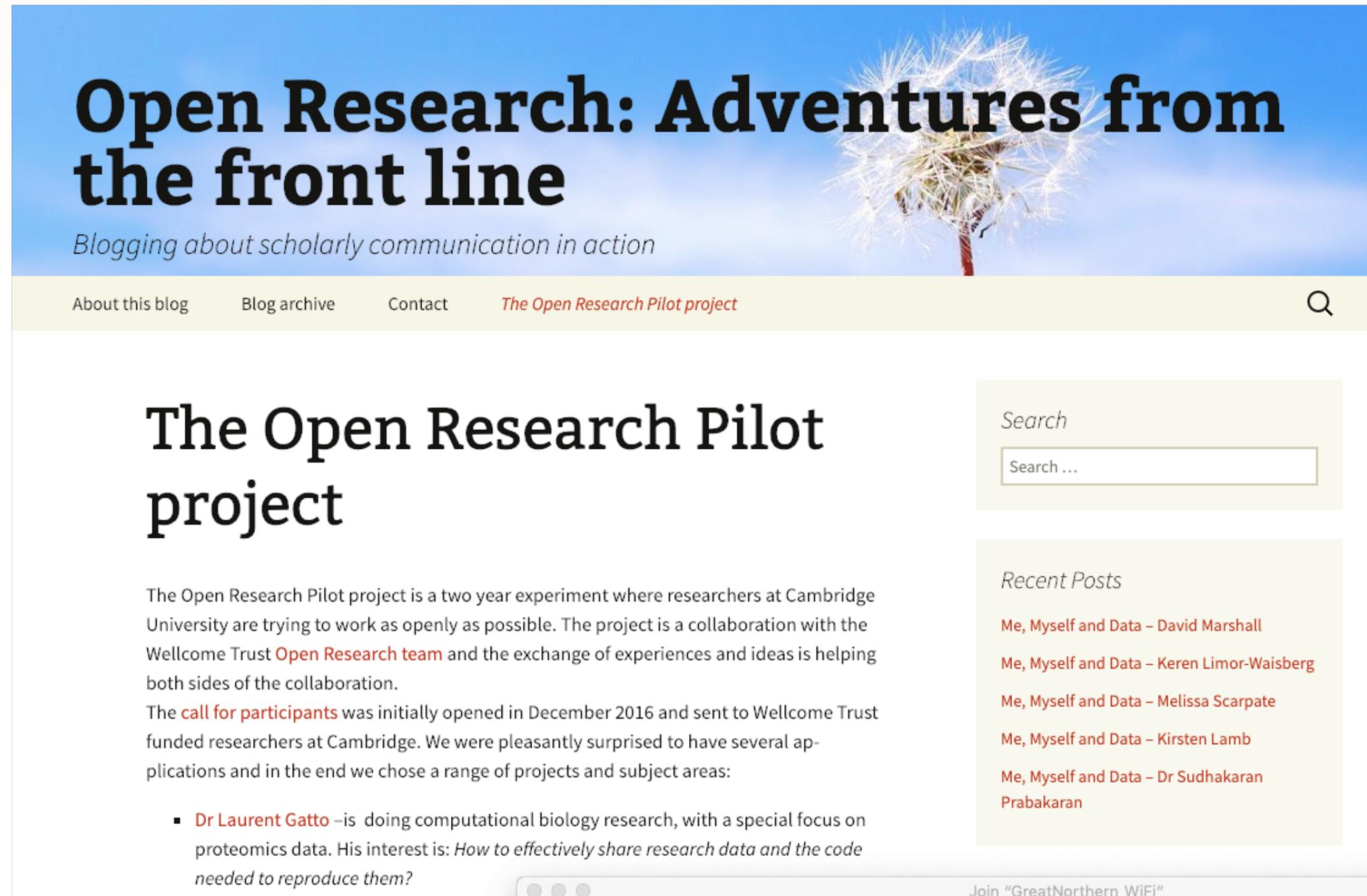
<https://osc.cam.ac.uk/open-research/joining-scholarly-communication-discussion/open-research-working-group/summary-2017>

---

2017



# Open Research Pilot Project began



The screenshot shows the homepage of the blog "Open Research: Adventures from the front line". The header features a blue background with a dandelion seed head. The main title is "Open Research: Adventures from the front line" in large, bold, black font. Below it is the subtitle "Blogging about scholarly communication in action" in a smaller, italicized font. The navigation bar includes links for "About this blog", "Blog archive", "Contact", and "The Open Research Pilot project" (highlighted in red). A search icon is on the right. The main content area has a large heading "The Open Research Pilot project". Below this is a paragraph describing the project as a two-year experiment at Cambridge University. A "call for participants" section follows, mentioning a December 2016 call and listing a participant: "Dr Laurent Gatto" who is doing computational biology research. To the right, there is a search box and a "Recent Posts" section listing five posts, all titled "Me, Myself and Data" by different authors. At the bottom right, there is a "Join 'GreatNorthern\_WiFi'" button.

## Open Research: Adventures from the front line

*Blogging about scholarly communication in action*

About this blog Blog archive Contact **The Open Research Pilot project** 

### The Open Research Pilot project

The Open Research Pilot project is a two year experiment where researchers at Cambridge University are trying to work as openly as possible. The project is a collaboration with the Wellcome Trust **Open Research team** and the exchange of experiences and ideas is helping both sides of the collaboration.

The **call for participants** was initially opened in December 2016 and sent to Wellcome Trust funded researchers at Cambridge. We were pleasantly surprised to have several applications and in the end we chose a range of projects and subject areas:

- **Dr Laurent Gatto** –is doing computational biology research, with a special focus on proteomics data. His interest is: *How to effectively share research data and the code needed to reproduce them?*

Search

Recent Posts

- Me, Myself and Data – David Marshall
- Me, Myself and Data – Keren Limor-Waisberg
- Me, Myself and Data – Melissa Scarpate
- Me, Myself and Data – Kirsten Lamb
- Me, Myself and Data – Dr Sudhakaran Prabakaran

Join "GreatNorthern\_WiFi"



[https://openadventures-blog.lib.cam.ac.uk/?page\\_id=12](https://openadventures-blog.lib.cam.ac.uk/?page_id=12)

# Meanwhile - Electronic Lab Notebooks

---

- January 2017, the OSC hosted an event on ELNs
  - 72 people registered, several from overseas.
  - ‘Paperless research’ solutions – Electronic Lab Notebooks  
<https://unlockingresearch-blog.lib.cam.ac.uk/?p=1280>
- OSC, through the Research Data Management Project Groups, ran a trial of three ELN products
  - Un-conclusive
  - Recommendations were written up by Al Downie  
<https://www.gurdon.cam.ac.uk/institute-life/computing/eInguidance>
- The lack of a funding source and lack of a definitive result has meant this project then went on ice – being restarted in 2019



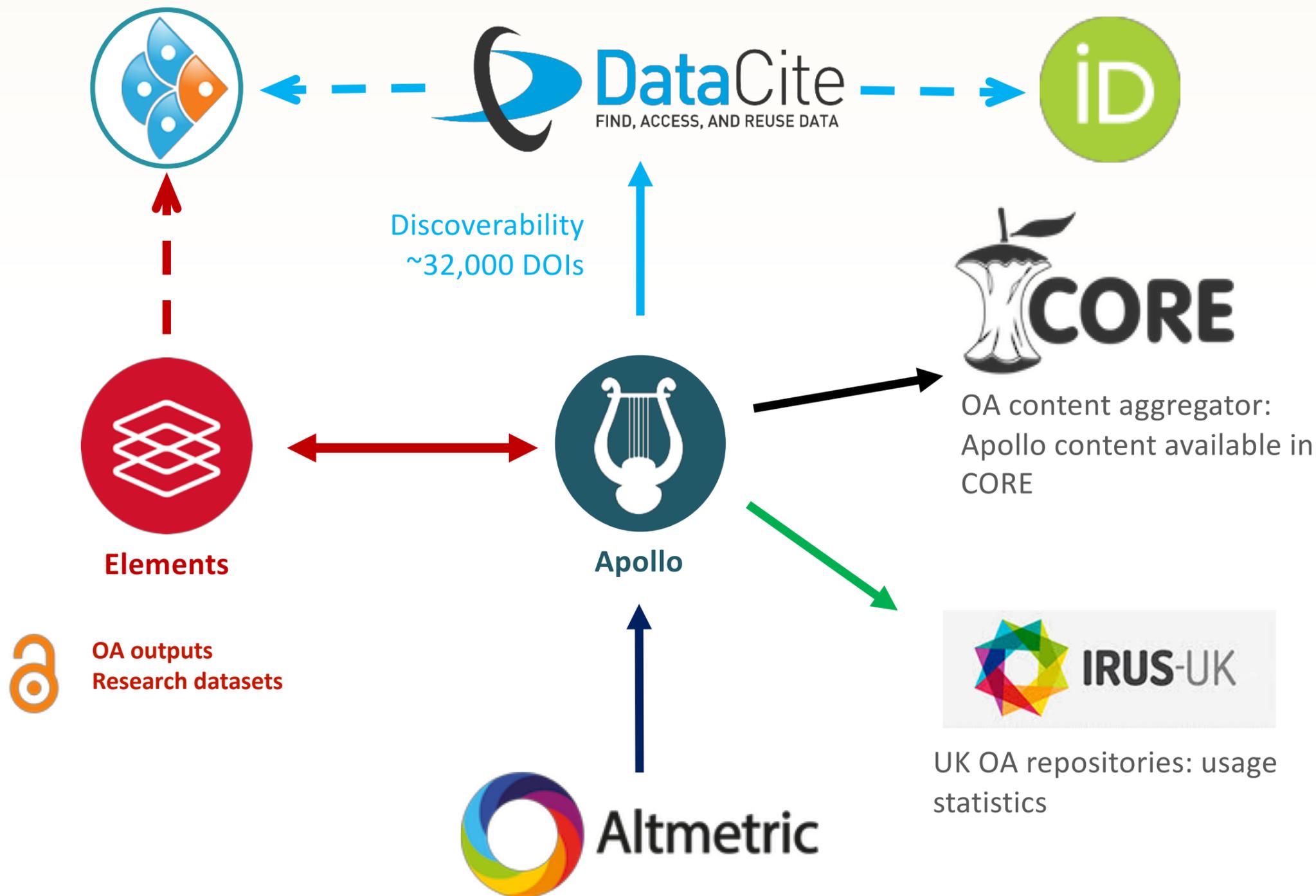
# Meanwhile - Overleaf

---

- Trial of Overleaf at Cambridge
  - Started on September 22<sup>nd</sup> 2016
  - Coordinated by the Department of Engineering.
  - Ended 17<sup>th</sup> December 2017
  - 2300 members registered on the University of Cambridge Overleaf account
  - Despite high engagement and continued queries, there was no way to find funding
  - <https://www.overleaf.com/blog/517-case-study-the-university-of-cambridge-significant-and-sustained-growth-in-the-use-of-overleaf#.WjfzFztpGU>



# Meanwhile - Linking systems



---

2018



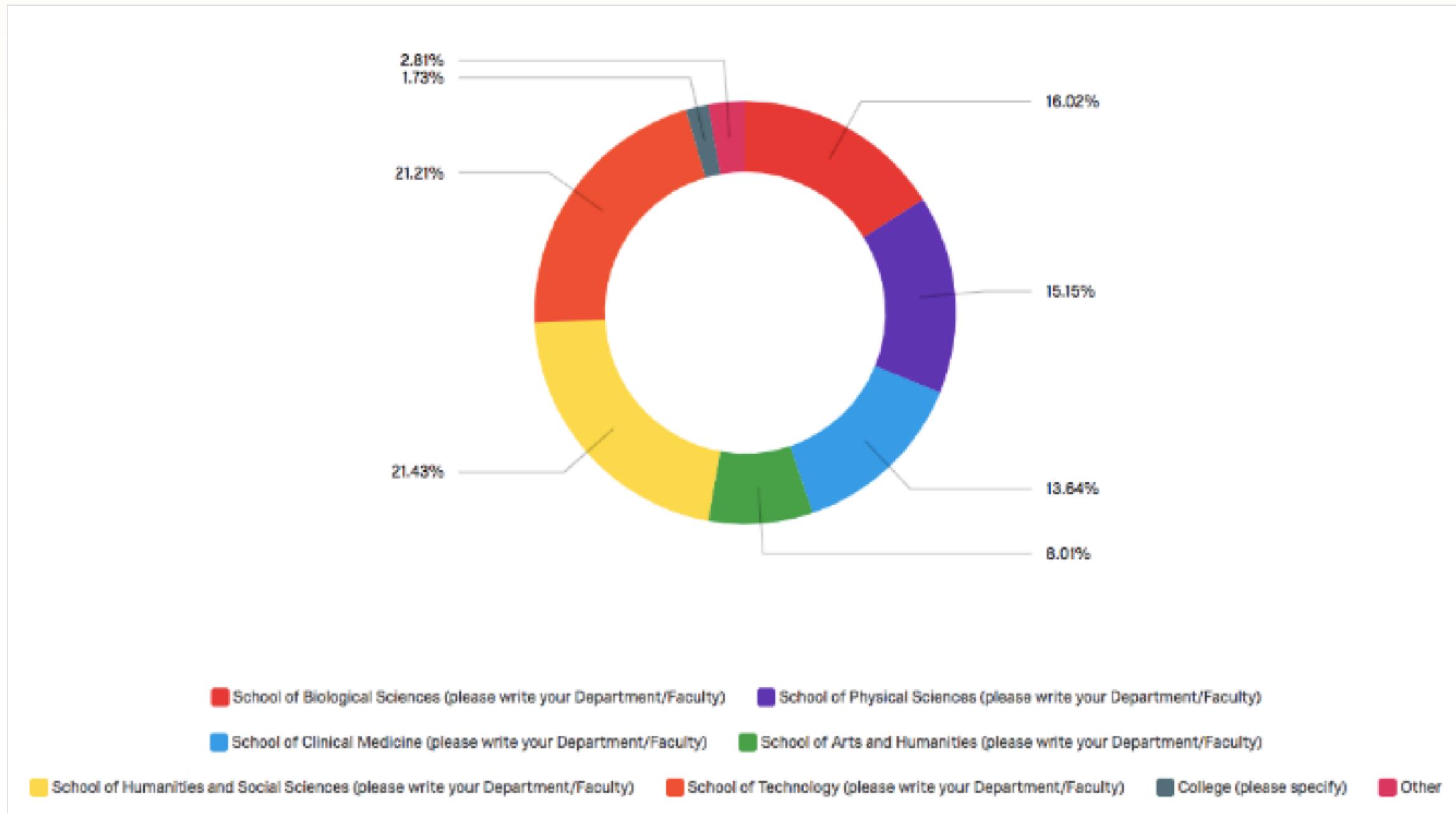
# Open Research Working Group

---

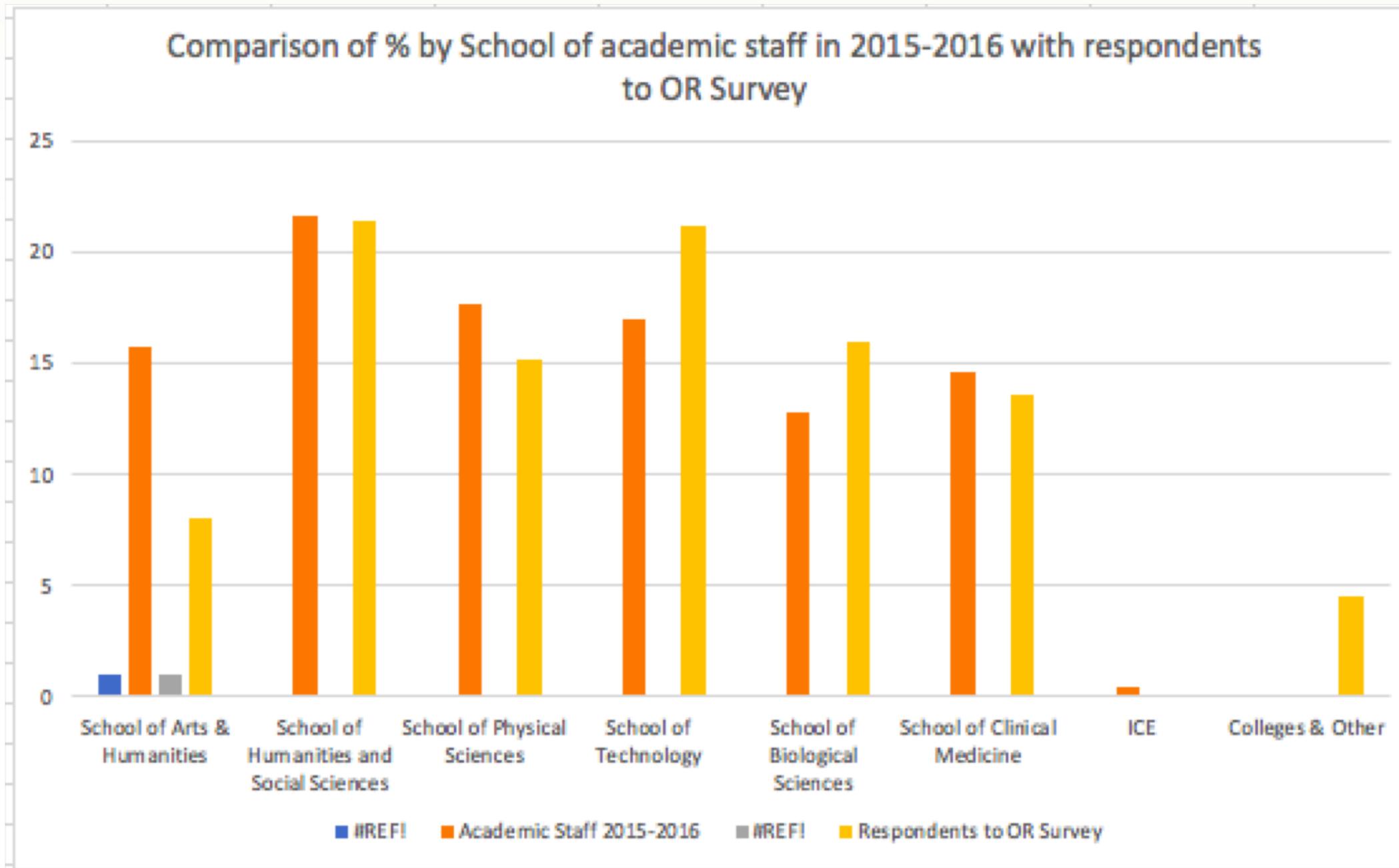
- Convened in early 2018 – during the ‘Beast from the East’ & the USS strikes
- Representatives from all Schools, CUP, PostDocs, Library and Research Office
- Conducted a survey, developed a draft position statement & wrote a report with recommendations
- Benefited from advice and discussion with Reading University



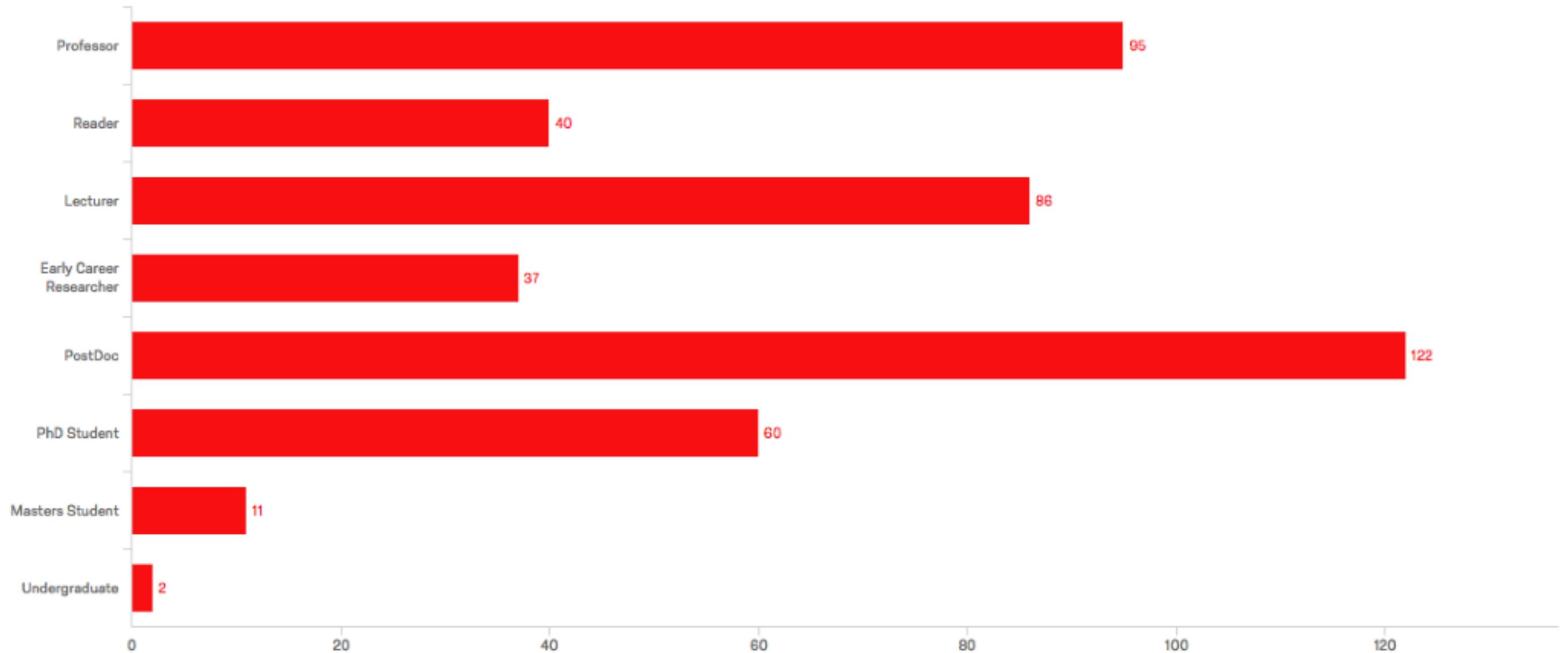
# Survey - Breakdown by school



# Representative



# Career level breakdown



# 496 responses to the survey

---

*"I think a lot of people idealistically agree with the goals of open research but don't do it because it's not rewarded and academia is very competitive. Why bother when it doesn't help and you need every bit of time you can get? Tools, training, etc is nice but doesn't change that. To make meaningful change you need to incentivize it by career progression: hiring and promoting. Essentially nothing else is taken seriously." Applied Maths PhD Student*



<https://osc.cam.ac.uk/open-research/joining-scholarly-communication-discussion/open-research-working-group/report-2018>

# 496 responses to the survey

---

*"I think a lot of people idealistically agree with the goals of open research but don't do it because it's not rewarded and academia is very competitive. Why bother when it doesn't help and you need every bit of time you can get? Tools, training, etc is nice but doesn't change that. To make meaningful change you need to incentivize it by career progression: hiring and promoting. Essentially nothing else is taken seriously." Applied Maths PhD Student*

*"The main gap I see has been and continues to be monetary - many folks want to publish OA but simply can't afford to, or don't see it as a reasonable use of research money that could be spent on research itself"  
Zoology PostDoc*



<https://osc.cam.ac.uk/open-research/joining-scholarly-communication-discussion/open-research-working-group/report-2018>

# 496 responses to the survey

---

*"I think a lot of people idealistically agree with the goals of open research but don't do it because it's not rewarded and academia is very competitive. Why bother when it doesn't help and you need every bit of time you can get? Tools, training, etc is nice but doesn't change that. To make meaningful change you need to incentivize it by career progression: hiring and promoting. Essentially nothing else is taken seriously." Applied Maths PhD Student*

*"Scientific code papers should routinely include links to any source code used in the paper to produce scientific results, even if the code itself is only a few lines."  
Biological Science ECR*

*"The main gap I see has been and continues to be monetary - many folks want to publish OA but simply can't afford to, or don't see it as a reasonable use of research money that could be spent on research itself"  
Zoology PostDoc*



<https://osc.cam.ac.uk/open-research/joining-scholarly-communication-discussion/open-research-working-group/report-2018>

# 496 responses to the survey

---

*"I think a lot of people idealistically agree with the goals of open research but don't do it because it's not rewarded and academia is very competitive. Why bother when it doesn't help and you need every bit of time you can get? Tools, training, etc is nice but doesn't change that. To make meaningful change you need to incentivize it by career progression: hiring and promoting. Essentially nothing else is taken seriously." Applied Maths PhD Student*

*"Scientific code papers should routinely include links to any source code used in the paper to produce scientific results, even if the code itself is only a few lines." Biological Science ECR*

*"The main gap I see has been and continues to be monetary - many folks want to publish OA but simply can't afford to, or don't see it as a reasonable use of research money that could be spent on research itself" Zoology PostDoc*

*"We want our research to benefit the common good. We believe that this is most likely if others are able to reproduce and build upon it without restriction." Engineering Lecturer*



<https://osc.cam.ac.uk/open-research/joining-scholarly-communication-discussion/open-research-working-group/report-2018>

# 496 responses to the survey

"I think a lot of people idealistically agree with the goals of open research but don't do it because it's not rewarded and academia is very competitive. Why bother when it doesn't help and you need every bit of time you can get? Tools, training, etc is nice but doesn't change that. To make meaningful change you need to incentivize it by career progression: hiring and promoting. Essentially nothing else is taken seriously." Applied Maths PhD Student

"Sci

...include links to  
...per to produce scientific  
...self is only a few lines."

ECR

"At the moment there appears to be very little guidance on Open Research" DPMMS PostDoc

"The main gap I see has been and continues to be monetary - many folks want to publish OA but simply can't afford to, or don't see it as a reasonable use of research money that could be spent on research itself" Zoology PostDoc

"...our research to benefit the common good. We believe that this is most likely if others are able to reproduce and build upon it without restriction." Engineering Lecturer



<https://osc.cam.ac.uk/open-research/joining-scholarly-communication-discussion/open-research-working-group/report-2018>

# Meanwhile - the OSC got on with it

---



Services

Training – library and research community



Outreach and Engagement



Public face

Repository - Apollo



# Infrastructure solutions

Orpheus Journals Publishers Conferences Sources More asaf@otl

## Advanced Materials (Journal) [\[edit journal\]](#) [\[add synonyms\]](#) [\[delete\]](#)

<b>Name status</b>	Preferred name
<b>ISSN</b>	0935-9648
<b>e-ISSN</b>	1521-4095
<b>Publisher</b>	Wiley
<b>Source</b>	SHERPA/RoMEO <a href="#">[view]</a>

**Embargoes for self-archiving in Apollo (in months)**

AM	12
VoR	unknown

**Open Access status** [\[add open access status\]](#)

**Hybrid Journal/Publisher** [\[edit\]](#) [\[delete\]](#)

<b>Source</b>	Wiley Author Compliance Tool <a href="#">[view]</a>
<b>Last checked</b>	Oct. 4, 2018

**Gold policy** [\[add gold policy\]](#)

**Wiley Author Compliance Tool** [\[edit\]](#) [\[delete\]](#)

<b>Min. APC</b>	USD 5000.00
<b>Max. APC</b>	USD 5000.00
<b>Gold licence options</b>	CC BY
<b>Default licence</b>	CC BY

## Fast-track Deposits

[Find out more](#)

Home Help Admin My processed items Apollo

Number of items processed today: **1**

### Publication summary

<b>Title</b>	Sulfide resorption during crustal ascent and degassing of oceanic plateau basalts.		
<b>Publisher DOI</b>	10.1038/s41467-018-08001-3	<b>Elements ID</b>	1039732
<b>Acceptance date</b>	2018-12-09	<b>Journal Title</b>	Nature communications

### Required information

Uploaded File(s)

File name	What's this version?	Delete?
Reekie et al.pdf	Accepted version	<a href="#">Delete</a>

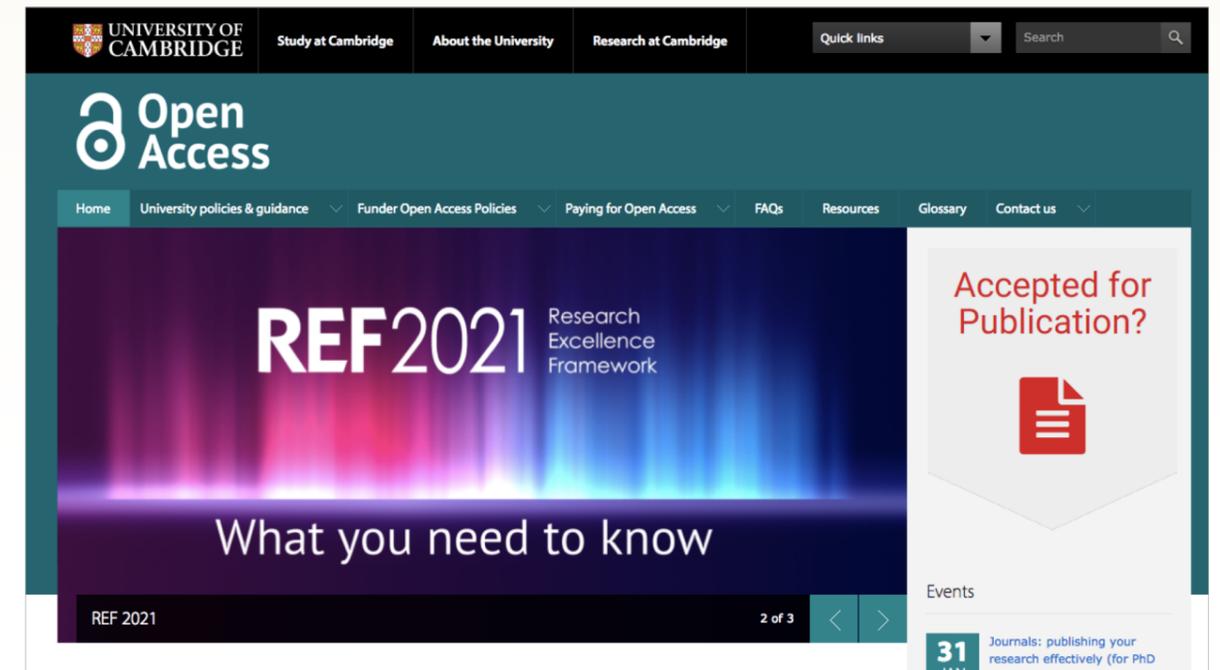
[Add file\(s\)](#)

**Describe this manuscript**

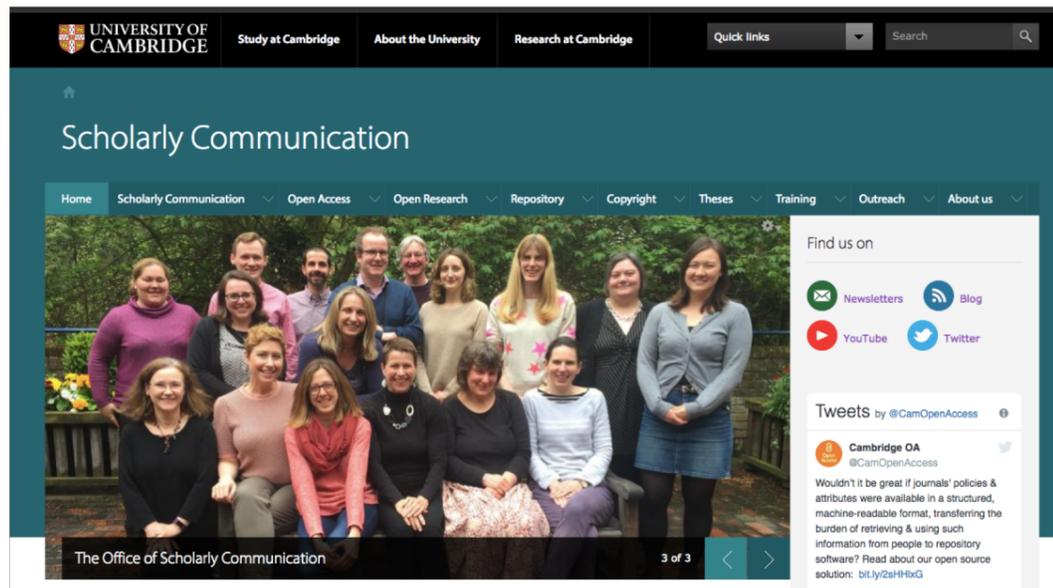
<a href="#">Accepted version</a>	Final author version, after formal acceptance but before copy-editing/typesetting
<a href="#">Published version</a>	Final published version, after copy-editing/typesetting
<a href="#">Submitted version</a>	Version before peer-review changes and formal acceptance



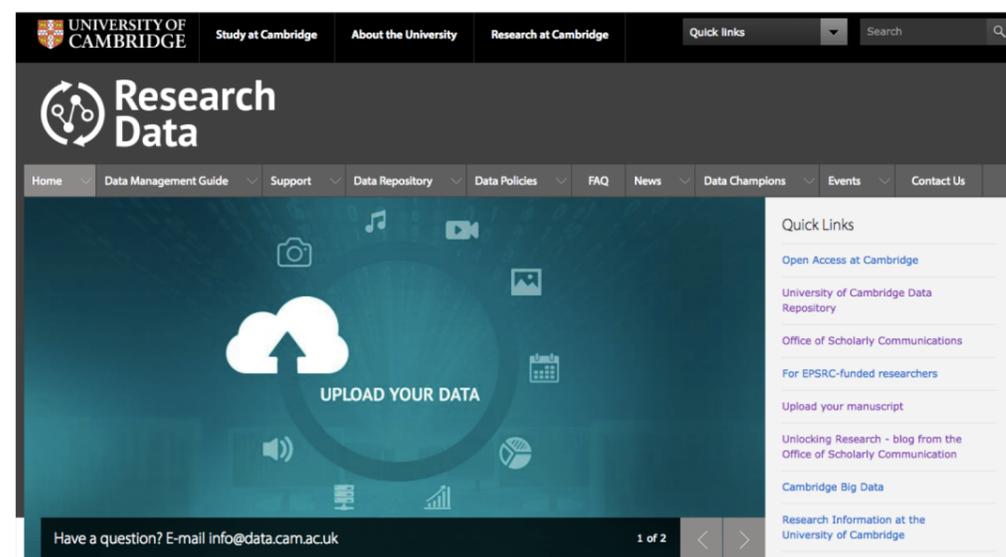
# Websites



<https://www.openaccess.cam.ac.uk/>



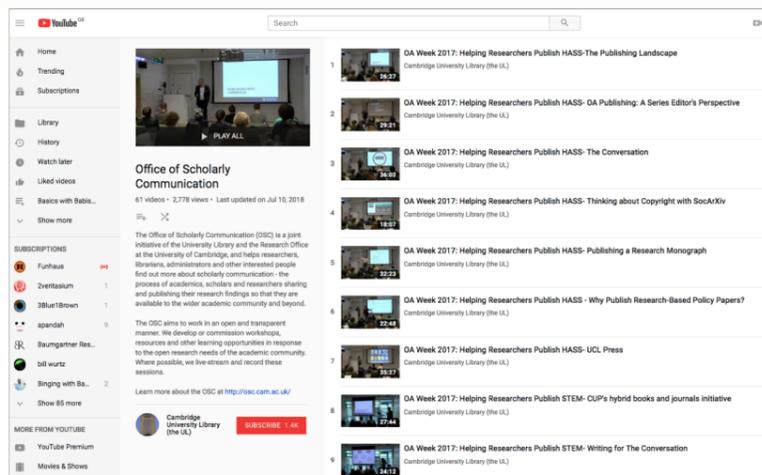
<https://osc.cam.ac.uk/>



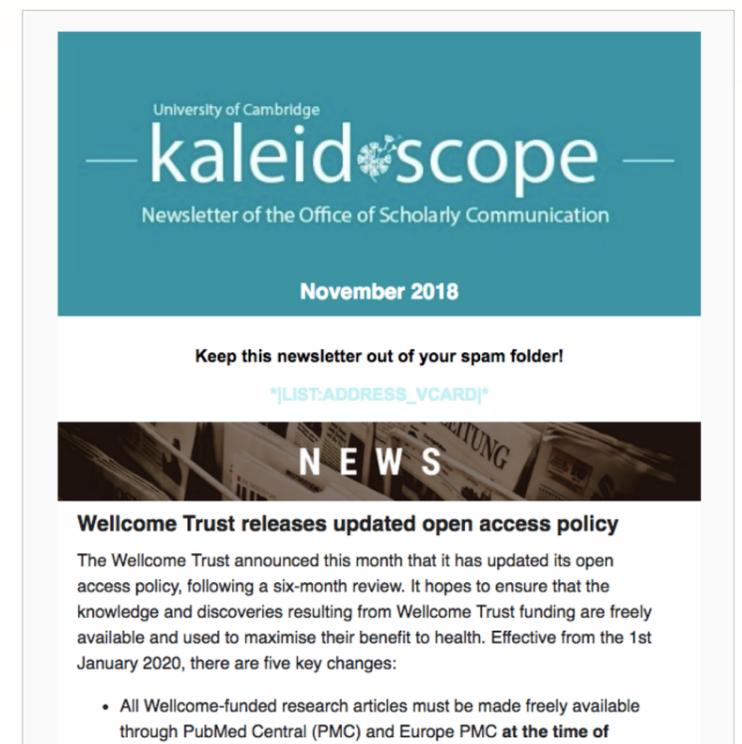
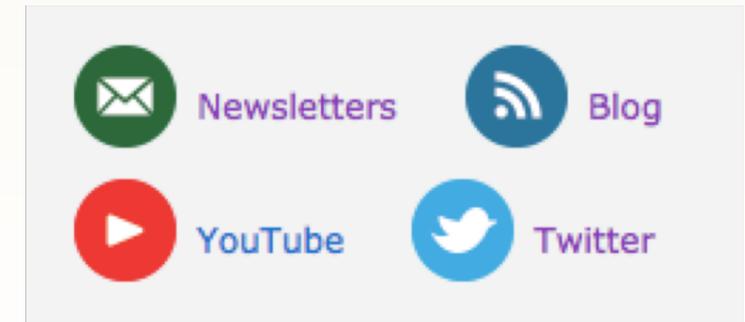
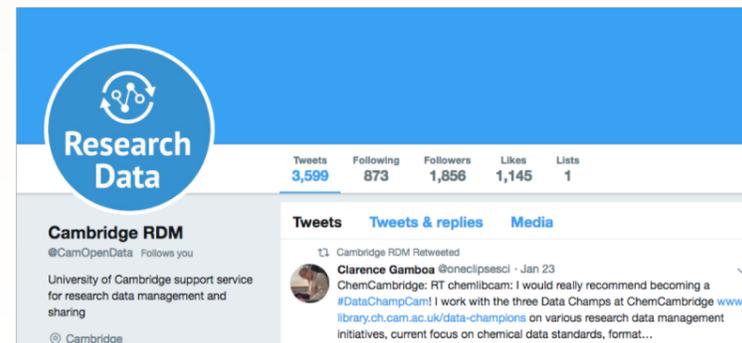
<https://www.data.cam.ac.uk/>



# Outreach



<https://www.youtube.com/playlist?list=PLG24w6ETyHS3fybDnB6LOOzOfATVhP3zp>



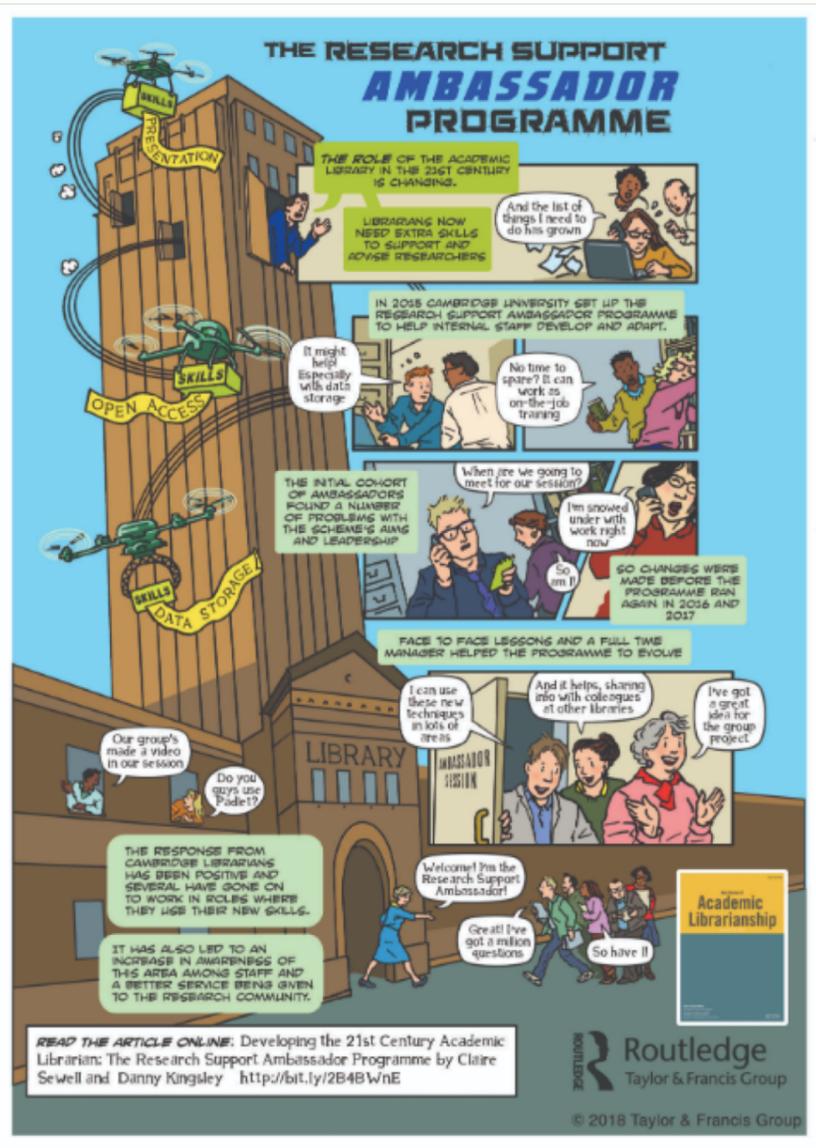
<https://www.repository.cam.ac.uk/handle/1810/266814>



<https://unlockingresearch-blog.lib.cam.ac.uk/>



# Programmes



<https://librarianresources.taylorandfrancis.com/developing-21st-century-library/>

## Open Access Week 2018

View Edit Revisions Nodequeue

Established by SPARC and partners in the student community in 2008, *International Open Access Week* happened worldwide between 22 and 28 October 2018 with the theme :

*Designing Equitable Foundations for Open Knowledge*

The Office of Scholarly Communication prepared a packed programme to mark this year's theme. On this page you can explore our:

- announcements
- blogs
- films in the series 'My thesis, open access and me'
- events

### OWeek 2018 Announcements

Monday: relaunching [www.openaccess.cam.ac.uk](http://www.openaccess.cam.ac.uk)

Announcing the relaunch of [www.openaccess.cam.ac.uk](http://www.openaccess.cam.ac.uk)

#OWeek18

OSC  
Office of Scholarly Communication

There was no better way to begin *International Open Access Week 2018* than by announcing the relaunch of our *Open Access* website!

<https://osc.cam.ac.uk/outreach/open-access-week-2018>



<https://www.data.cam.ac.uk/intro-data-champions>

All around the world, people want to access our research

- "Our daughter is being investigated for Beckwith Wiedemann Syndrome. We would like as much information as possible about this area."
- "My task is to convince policy makers in Sri Lanka to switch to circular economy. I am looking for all possible information to do this."
- "I'm a pediatric radiation oncologist and this paper is a 'practice changer' one"
- "I hope to learn more about the potential risks of my decision to donate a kidney."

**Request a Copy service**

Launched in June 2016, the 'Request a Copy' feature on Apollo, the University of Cambridge institutional repository, allows interested individuals to request a copy of a work which is under embargo (published or unpublished).

Image credit: Keith H via Flickr (CC BY-NC-ND 2.0)



Presentation to SLT 31 January 2019



# Theses

Increasing numbers of alumni theses

Terminology for different access levels to theses

View Edit Revisions Nodequeue

Icon	Access Category	Metadata & Abstract	Thesis	Requestable	Request managed by
	Open Access	Open - repository & catalogue	Open	N/A	N/A
	Embargoed Access	Open - repository & catalogue	Closed temporarily	Yes	Author
	Controlled Access	Open - repository & catalogue	Closed permanently in Apollo but available on request. Hardcopy open to visitors of CUL.	Yes <i>For private research purposes only</i>	OSC- Cambridge Library <i>Legally binding paperwork collected and maintained</i>
	Time Limited Restricted Access (including patents)	Closed temporarily	Closed temporarily	No	N/A
	Indefinitely Restricted Access (very rare)	Closed permanently	Closed permanently	No	N/A
	Historical	Open - catalogue only	Open to visitors of CUL	Yes	Digital Content Unit at Cambridge Library <i>Thesis scanned and legally binding paperwork collected and maintained</i>

<https://osc.cam.ac.uk/theses>

Watch PhD alumna, Dr Emily Dourish, talk about her experience of making her thesis Open Access in Apollo.

**SHARE IT. DON'T JUST SHELF IT!**

**30 YEARS LATER**

Alumni: make your University of Cambridge PhD thesis open access!  
[bit.ly/advicephdalumni](http://bit.ly/advicephdalumni)

Clare Trowell

UNIVERSITY OF CAMBRIDGE

Study at Cambridge About the University Research at Cambridge Quick links Search

Digital Thesis submission system

Home Theses List More Information Login Privacy policy

Thesis Deposit (Raven login)

Contribute your digital thesis

To submit your digital thesis, please complete all sections (fields marked with \* are compulsory). If you need assistance completing this form, please email the Office of Scholarly Communication at [theses@repository.cam.ac.uk](mailto:theses@repository.cam.ac.uk).

Important information: If none of the access options offered on this form meet your requirements and you believe your thesis should be fully restricted, please email [theses@repository.cam.ac.uk](mailto:theses@repository.cam.ac.uk) with details of the content of your thesis. Additionally, further information on what the different access options mean and a decision tree to help you decide what is appropriate for your circumstances is available in the OSC website.

1. Personal information 2. Thesis information 3. Access control 4. Third party copyright 5. File upload

Next >

Personal information

First names \*

<https://upload.repository.cam.ac.uk/deposit/theses/form>

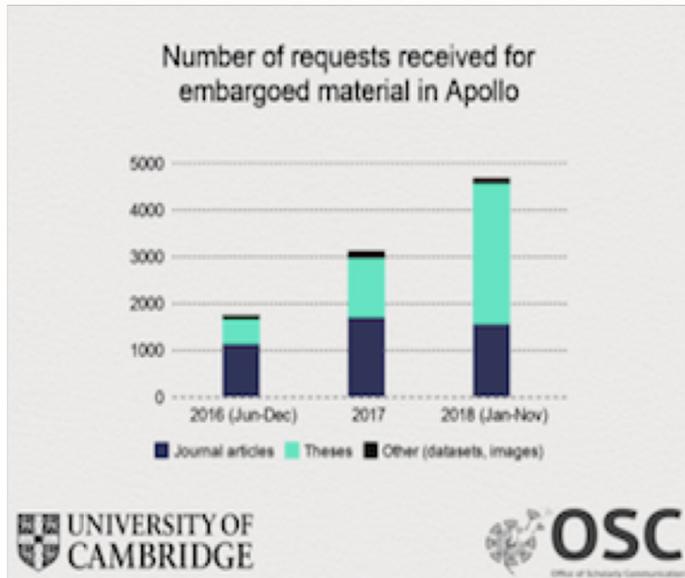
Managing policy requirements for deposit





# OSC in numbers 2018

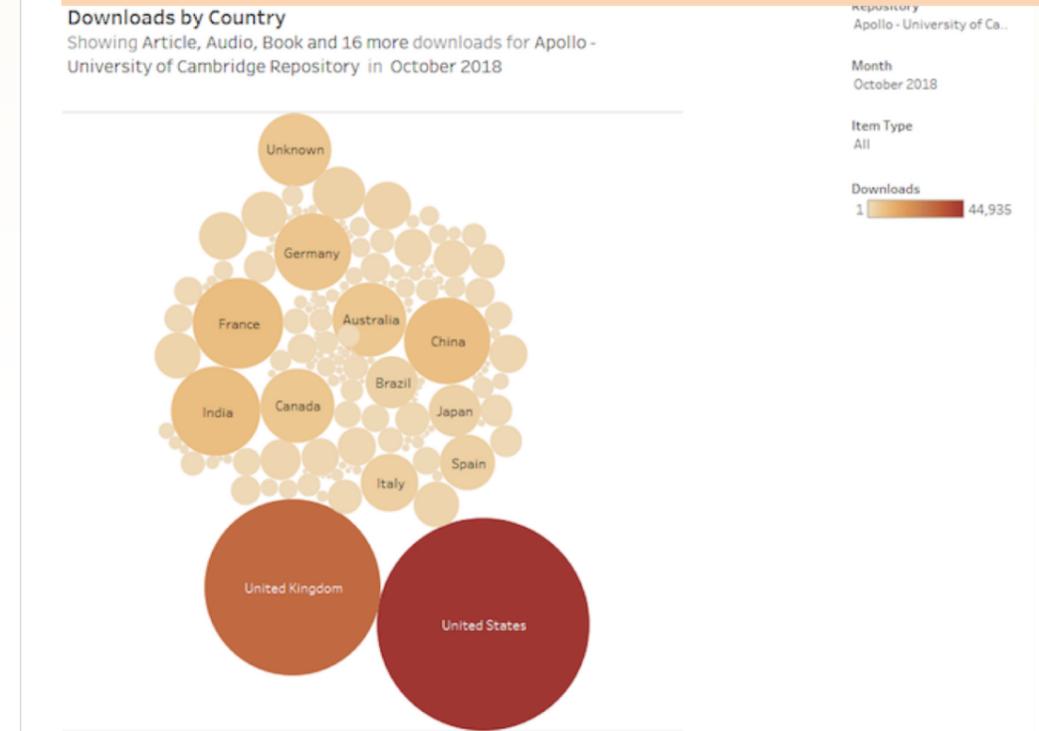
Request a Copy >4600 requests in 2018, 27 hrs p/wk



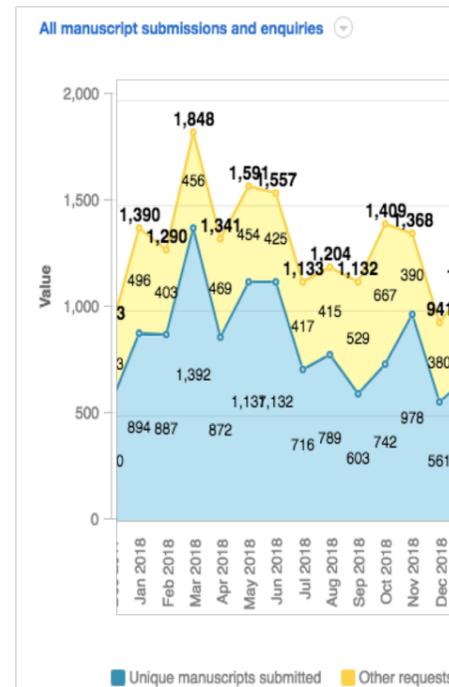
Apollo contains:  
**>1,500 research datasets**  
 >70% linked to RCUK funding  
 ~30% of all datasets in UK institutions

46 Data champions

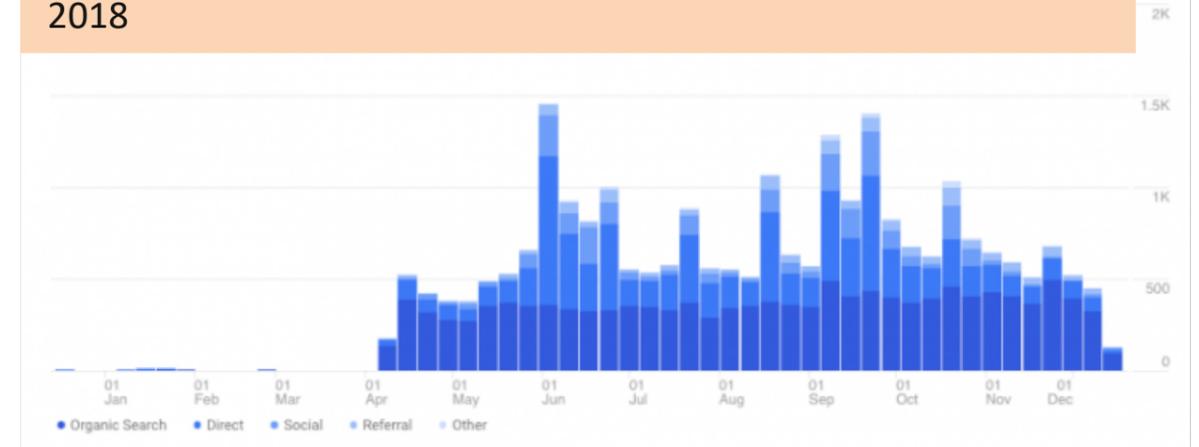
Apollo: over 2.2 million downloads in 2018



57 events run for researchers, librarians & wider Cambridge community  
 Over 800 attendees in 2018



Unlocking Research: 35 blogs in 2018, >25,000 visits Apr-Dec 2018



9703 manuscripts submitted  
 5,501 queries received by OA Helpdesk  
 65 hours p/wk



# What about Overleaf?

---

- Discovered there was no central fund or committee process for research systems - this is “managed at the School or Faculty/Department level”.
- In late 2018 University Information Service reworked its governance to a committee structure focusing on portfolios, one being Research.
- The High Performance Computing Committee was reformed as the Research Computing Sub-Committee, ToR agreed in December 2018
- Identified a possible source of funds

---

2019



# Where to from here?

---

- In 2019 we have come to an end
- But it is also the beginning of the next phase



# Announcement

---



**6,000 and counting: Cambridge Vice-Chancellor joins Stephen Hawking in making his PhD 'Open Access'**

Cambridge also becomes first UK university to publish position statement on Open Research

By Stuart Roberts



<https://www.cam.ac.uk/6000thThesis>  
<https://osc.cam.ac.uk/open-research/open-research-position-statement>



# Governance changes

---

- Open Access Project Board (OAPB) replaced with Open Research Steering Committee (ORSC) – 1<sup>st</sup> meeting April 2019
  - Chaired by PVC-R
  - Reporting to Research Policy Committee

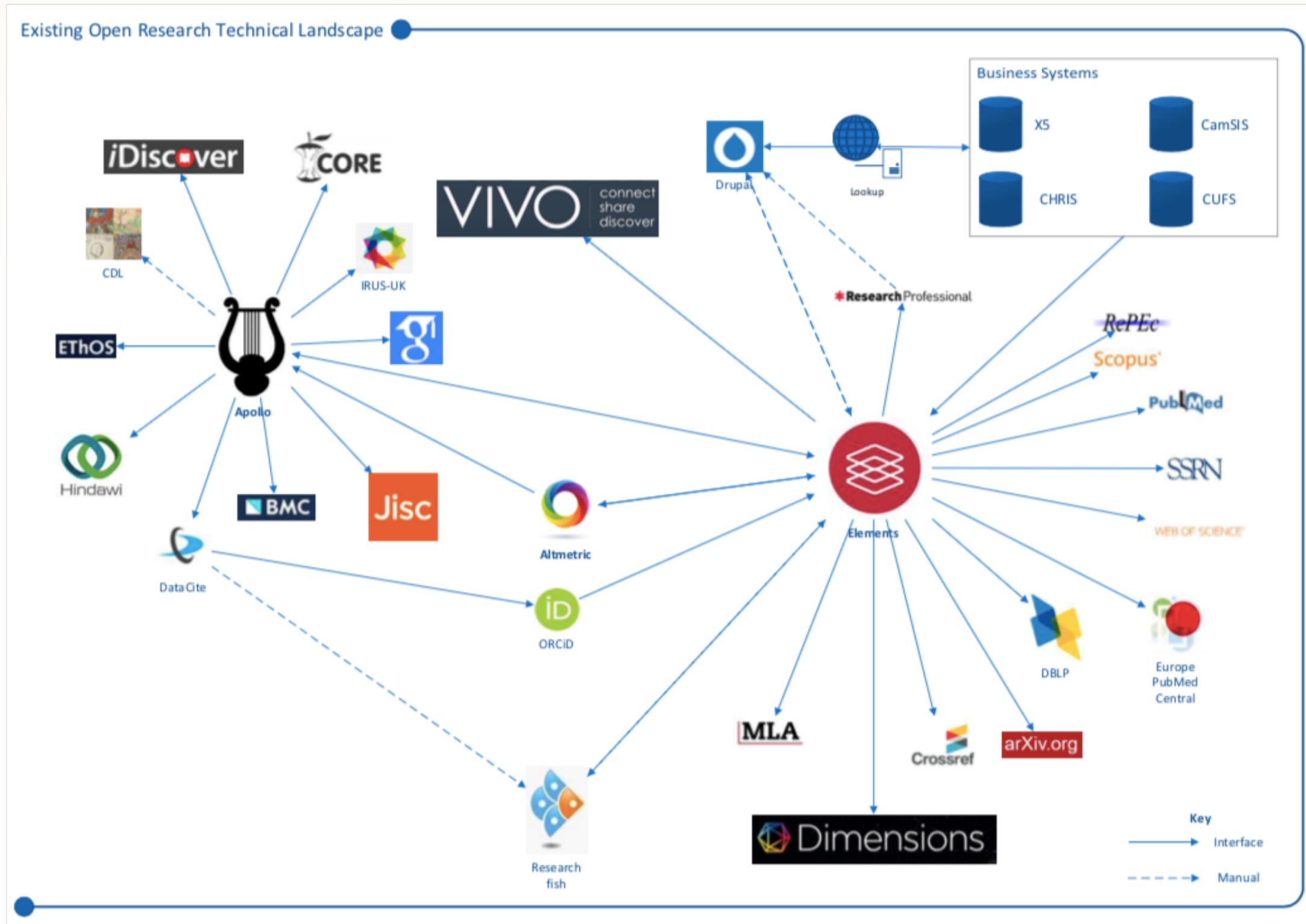
# Next steps - infrastructure

---

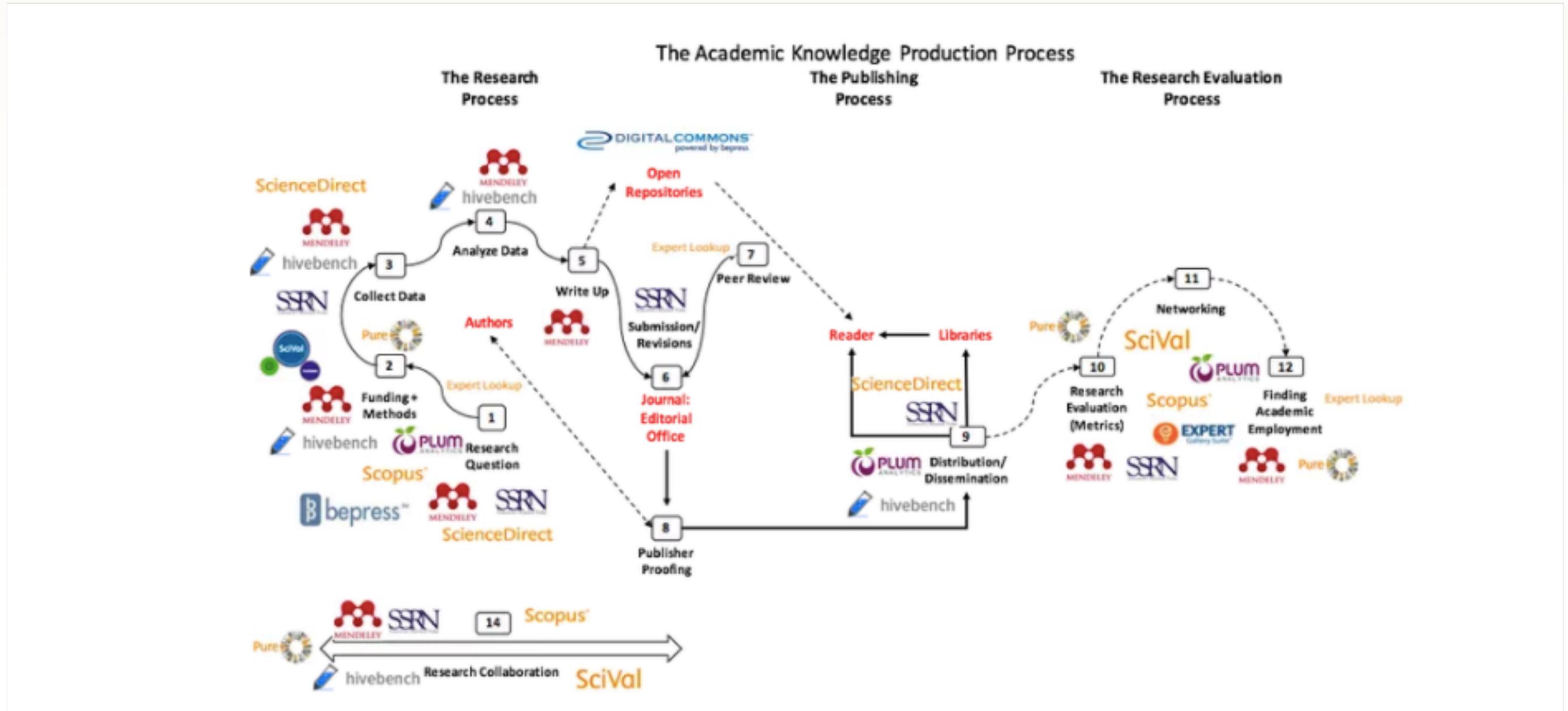
- Open Research Infrastructure Group (ORIG)
  - Preparing infrastructure landscape map at Cambridge. What are the gaps?
  - Conducting survey to identify needs
  - ELN Working Group being formed
  - Develop parameters about procurement across the institution:
    - Able to extract our business data at any time without penalty
    - Consider Open Source and sector wide solutions before purchase



# Technical landscape



# We want to avoid this:



Vertical integration resulting from Elsevier's acquisitions, from Alejandro Posada and George Chen, (2017) *Rent Seeking and Financialization strategies of the Academic Publishing Industry - Publishers are increasingly in control of scholarly infrastructure and why we should care- A Case Study of Elsevier*  
<http://knowledgegap.org/index.php/sub-projects/rent-seeking-and-financialization-of-the-academic-publishing-industry/preliminary-findings/>

# Next steps - training & reward

---

- Human Resources and Research Policy Committees working on implications and implementation of signing DORA
- Open Research Training Pilot with Education Faculty
  - Running a survey – confusion about terms
  - Requesting primarily face to face training
- Developing online training portal with CUP, focusing on Research Integrity in first instance



# Questions/Discussion

---

Thanks!

**Dr Danny Kingsley**

Deputy Director, Scholarly Communication &  
Research Services

University of Cambridge Libraries

**@dannykay68**

