Open Science – a blueprint for the university in the 21st century?

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Content

- Open Science – a view from LERU
- Future of Scholarly Publishing
- Research Data Management and Open Data
- Promotions/Rewards & Next-Generation Metrics
- Citizen Science
- Next Steps

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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
<table>
<thead>
<tr>
<th>PILLAR OF OPEN SCIENCE</th>
<th>LERU LEAD WRITER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>Paul Ayris; Alain Smolders</td>
</tr>
<tr>
<td>Leadership</td>
<td>RESE; CARE</td>
</tr>
<tr>
<td>Scholarly Publishing</td>
<td>INFO; ENTE</td>
</tr>
<tr>
<td>FAIR Data; EOSC; Legal Issues</td>
<td>Professor Mireille van Eechoud; INFO; ENTE</td>
</tr>
<tr>
<td>Education &amp; Skills</td>
<td>CARE &amp; DOCT</td>
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<tr>
<td>Rewards &amp; Incentives</td>
<td>CARE &amp; DOCT</td>
</tr>
<tr>
<td>Next-Generation Metrics</td>
<td>RESE; CARE</td>
</tr>
<tr>
<td>Research Integrity</td>
<td>INTE, based on new LERU paper</td>
</tr>
<tr>
<td>Citizen Science</td>
<td>RESE; aligned with LERU paper</td>
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<tr>
<td>Conclusions</td>
<td>Paul Ayris</td>
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</tbody>
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### Writing stage

<table>
<thead>
<tr>
<th>Writing stage</th>
<th>Due</th>
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</thead>
<tbody>
<tr>
<td>Draft Report to be discussed in Leuven by Working Group</td>
<td>30 March 2020</td>
</tr>
<tr>
<td>Presentation at LERU Rectors Assembly, Copenhagen</td>
<td>15-16 May 2020</td>
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</tbody>
</table>

### Approach taken in writing the chapters

- Not simply a eulogy for Open Science; rather a critical examination of what and will not work
- Highlights both benefits and challenges
- Identifies possible routes to follow for each pillar
- Puts spotlight on questions still to be addressed
- Names areas which challenge current university practice
- LERU has produced an Open Science Roadmap for universities
- 41 Recommendations
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The role of the Funder

- For research, research funders have set the agenda
- Plan S from Science Europe is the latest attempt to deliver a meaningful transition to immediate Open Access
- A kick to Open Access that was badly needed
Plan S

- How does Plan S work for UCL?
Plan S

- Issues for universities
- Positives
  - Timeframes
  - The role of Green OA

- Challenges
  - Cost – LERU universities do not want to pay more than now
  - Define a transformative agreement
  - A European solution only?
  - Less than 5% of global research covered...
Plan S - a global solution?

- AmeliCA

Open Access strategies, such as Plan S, should be discussed globally. We are still waiting to know how cOAlition S is planning to support and engage with other OA business models. We would like to see Plan S not as a narrow program to replace the pay to read model with a pay to publish model, but as a more comprehensive solution to achieve OA

- For link, see here
As read costs diminish, those with low volume research outputs will wish to see costs reduce.

Target for transitional agreements where subscription and publishing costs are balanced.

Those with higher volumes of research outputs will see costs increase. Funds formerly used to pay to read will not necessarily transfer.

Opportunity for reduced costs

Likelihood for increased costs

More likely to be able to publish full OA

Credit to Chris Banks for this diagram

More likely to need to self-archive
## Benefits of an OA University Press

<table>
<thead>
<tr>
<th>Benefits</th>
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<tbody>
<tr>
<td>Taking publishing back into the university system - the university supports the entire research life cycle</td>
</tr>
<tr>
<td>Challenge the prevailing scholarly publishing model - issue of low dissemination</td>
</tr>
<tr>
<td>Support for OA to AHSS outputs, which receive less funding than STEM</td>
</tr>
<tr>
<td>Social impact: research available to the public and policy makers</td>
</tr>
<tr>
<td>Global impact: outputs reach regions in which research is unavailable or unaffordable</td>
</tr>
<tr>
<td>Motivation for academics: they want their research to be widely read</td>
</tr>
<tr>
<td>Added reputational value of a university press, through global dissemination, publicity, reviews</td>
</tr>
<tr>
<td>Consistent with Open Science agenda</td>
</tr>
<tr>
<td>Opportunities for integration of research and learning</td>
</tr>
</tbody>
</table>
Statistics

Explore download statistics for UCL Press books. For more information on how we collect and record our data, click here.

Total Access
2,299,065

Countries and Territories Reached
232

Published Titles
117

Top 10 Countries
1. United States - 549,359 - 23.20%
2. India - 295,453 - 12.91%
3. United Kingdom - 248,744 - 10.73%
4. India, Bangladesh, and Pakistan - 250,000 - 10.75%
5. India - 74,890 - 3.25%
6. China - 62,126 - 2.74%
7. Germany - 51,598 - 2.28%
8. Argentina - 45,760 - 1.98%
9. Philippines - 39,503 - 1.73%
10. Nigeria - 34,663 - 1.52%

Countries Reached
236

Use & Impact

2 million+
UCL Press offers publishing services

- Dublin City University is the first university to buy publishing services from UCL
- All outputs to be branded as Dublin City University Press
- All enquiries welcomed
- [https://www.uclpress.co.uk/](https://www.uclpress.co.uk/)
Megajournal platform, UCL Open, launched 31 January 2019

- UCL Open: Environment - [https://ucl-about.scienceopen.com/](https://ucl-about.scienceopen.com/)
- Inter-disciplinary and cross-disciplinary content
- Fast turn-around times being planned
Our Aims for a UCL Press Megajournal

- Rapid publication
- Innovative open peer review
- Interdisciplinary collaboration
- Reduced administration
- Inclusive publishing
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RDM Services at UCL

• Open data is a crucial aspect of open science
• Without the data underpinning research papers it can be very difficult to validate or reproduce research
• Data may be re-used or combined with other data in future projects
• But a culture change to data sharing is required in many disciplines

Thanks to Dr J.A. Wilson, UCL Research IT, for sharing his slides
UCL is developing a suite of services to support Open Science and good research data management across the research life-cycle.

- Research Data Services (RDS) offers:
  - Research Data Storage Service (for use during projects)
  - Research Data Repository (for long-term preservation and publication)

- Research Data Management team (in Library) offers:
  - Data management planning
  - Advice and guidance
  - Metadata review for the Repository
RDR - Research Data Repository

- ‘Figshare’ interfaces for deposit, discovery, visualization & access
- Long-term storage and curation for significant data
- Data publication, with licence and DOI (Digital Object Identifier) assignment
- Pricing: free initially (within reason)
- Launch scheduled for May 2019
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, back-up, system integrations, future developments
  - Library’s Research Data Support Service provide advice and guidance for all 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
- 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
  - Research Applications
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Next-Generation Metrics

- UCL Bibliometrics Policy signed off on 27 Feb. 2020
- 3 years in the development
- Aligned with DORA and Leiden Manifesto
- Discourages the use of Journal Impact Factors as a surrogate for Quality
- Identifies that H-Index discriminates against Early Career Researchers who have taken a family break
Next-Generation Metrics

- Policy identifies 11 principles on the successful use of metrics, with copious guidance
- Numerical metrics are simply an *adjunct* to the academic assessment of a research output through reading it
- China has (Feb. 2020) announced that this is to be its official policy for research evaluation/reward going forward
## Next-Generation metrics being implemented in UCL HR procedures

<table>
<thead>
<tr>
<th>No.</th>
<th>HR process / policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Researcher induction</td>
</tr>
<tr>
<td>2</td>
<td>Academic Promotions Policy</td>
</tr>
<tr>
<td>3</td>
<td>Academic appointments to UCL</td>
</tr>
<tr>
<td>4</td>
<td>Alignment of HR reporting on appointments with requirements of Wellcome Trust</td>
</tr>
<tr>
<td>5</td>
<td>Appraisals</td>
</tr>
<tr>
<td>6</td>
<td>Review of HR policies</td>
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Citizen Science

- New agenda for UCL Library Services
- Included as Communication, Outreach and Open Science Action no. 6
  - Library Services has identified key priorities for Citizen Science activity and embeds these in a pan-UCL Programme Citizen Science projects/activities identified, with delivery to begin in 2019-20

Deputy Librarian, University of Southern Denmark, on work placement Summer 2020 to work up Strategy for UCL
Transcribe Bentham

Crowdsourced transcription of archival materials
23,011 manuscript pages have been crowdsourced and transcribed (Mar20)

A further 1,128 manuscripts are currently in progress

Benthamometer traces progress on each box

https://www.ucl.ac.uk/bentham-project/transcribe-bentham
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UCL Open Science Office (planned)

Open Science Pillar
- Scholarly Publishing
- EOSC
- FAIR Data
- Education & Skills
- Research Integrity
- Rewards
- Altmetrics
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Activities planned in all areas for 2019-20
Conclusion

- Open Science is a blueprint for the university of the 21st century
- Benefits are obvious
- Challenges are not easy to address
- Not a given that Open Science will be the default way to proceed
- Universities have to make a choice

UCL Student Centre, opened 18/2/19

- Over to you to decide...