Open Science and Universities: managing the change

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Content

- Open Science – What is it?
- Cultural Change
- The 8 pillars of Open Science
- Conclusions

Plaster Relief by John Flaxman, Flaxman Gallery, UCL
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European Commission: Open Science Policy Platform – 8 pillars of Open Science

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LERU has produced an Open Science Roadmap for universities


41 Recommendations

New approaches to scholarly publishing to be investigated
Content

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Plaster Relief by John Flaxman,
Flaxman Gallery, UCL
Developed from Steve Denning, ‘How do you change an organizational culture?’ at
Cultural Change

Leadership, Vision and Strategy

Develop targeted measures

Implement via transparency, accountability and monitoring

Trust and confidence in a shared vision between all parties

4 Enablers
4 Recommendations

- Appoint a senior manager to lead Open Science approaches across all eight pillars of the Open Science debate identified by the European Commission.
- Develop a programme of cultural change, which is necessary to support the changes in principle and practice which Open Science brings.
- Establish advocacy programmes, which should identify the benefits of Open Science approaches, whilst being realistic about the challenges.
- Draw up a communication strategy, which enables the whole university body to become familiar with Open Science practices.
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Benefits of an OA University Press

- Taking publishing back into the university system - the university supports the entire research life cycle
- Challenge the prevailing scholarly publishing model - issue of low dissemination
- Support for OA to AHSS outputs, which receive less funding than STEM
- Social impact: research available to the public and policy makers
- Global impact: outputs reach regions in which research is unavailable or unaffordable
- Motivation for academics: they want their research to be widely read
- Added reputational value of a university press, through global dissemination, publicity, reviews
- Consistent with Open Science agenda
- Opportunities for integration of research and learning
1 million + downloads since June 2015

222 countries

UCL Press downloads since June 2015
Plan S
Science Europe

- After 1 January 2020 scientific publications on the results from research funded by public grants provided by national and European research councils and funding bodies, must be published in compliant Open Access Journals or on compliant Open Access Platforms
- Implementation Plans now being devised
### European Commission: Open Science Policy Platform – 8 pillars of Open Science

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EOSC Declaration

Data Culture & FAIR Data
- Open by default
- Skills development
- FAIR principles
- Data Management Plans
- Engagement with researchers

Services & Architecture
- EOSC is an infrastructure commons
- EOSC to use existing high spec. services
- HPC to be developed in tandem

Governance & Funding
- Strong Governance model, but flexible
- 3 levels of membership – institutional, operational, advisory

33 goals for engagement in RDM
European Open Science Cloud & FAIR data: Issues

- Each organisation should have an RDM policy, ideally modelled on LEARN
- Ensure you have access to correct infrastructure(s)
- Sign the EOSC Declaration
- Develop RDM practices aligned with LEARN

- Research Data should be FAIR – Findable, Accessible, Interoperable, Reusable
- Where access to research data is restricted, provide free access to the metadata, fulfilling FAIR principles

http://learn-rdm.eu
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5
Skills

- Introduce Open Science Skills into postgraduate training programmes
- Provide incentives to acquire and use Open Science skills
- UCL Doctoral School to make Open Science the norm in training early career researchers
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2. EOSC (European Open Science Cloud)
3. FAIR Data
4. Skills
5. Research Integrity
6. Rewards
7. Altmetrics
8. Citizen Science

Recommendations
Research Integrity

- Have a Research Integrity Code to embrace Open Science
- Or abide by the ALLEA code
  - E.g. by making research data as open as possible, as closed as necessary, aligned with FAIR research data
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Recommendations

6
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](https://www.ucl.ac.uk/human-resources/sites/human-resources/files/ucl-130418.pdf)
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Recommendations

4
Culture of Research Metrics in research organisations

- HEFCE Questionnaire
- 14 questions
- 96 responses
  - 68 organisations named themselves
- 72 responses were from HE providers

- Large response rate shows this is a topic many bodies are considering
- Cultural change is needed to deliver new forms of evaluation
- Institutions see a need for guidance
- There is a wish for UK institutions to be aligned with the principles of international statements
Q1 does your research organisation have a research metrics policy?

<table>
<thead>
<tr>
<th>Option</th>
<th>Count</th>
<th>Named Institutions</th>
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<tbody>
<tr>
<td>No</td>
<td>75</td>
<td>53</td>
</tr>
<tr>
<td>Yes - standalone</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Yes - part of a wider policy</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>No answer</td>
<td>1</td>
<td>1</td>
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Q2 Has your research organisation signed dora?

- Yes: 21
  - 17 Named institutions
- No: 75
  - 51 Named institutions
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Citizen Science

- Recognizes Citizen Science as an evolving set of research methods, as well as its societal and educational benefits
- Recommends creating a single institutional point of contact for citizen science
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A pan-European Roadmap for Open Science?

- Hereford ‘Mappa Mundi’
- Largest surviving medieval map
- A theological statement
- Drawn in Lincoln c. 1300
- But Africa is called Europe and vice versa…

England
Towards a pan-European Roadmap?

- Hereford ‘Mappa Mundi’
- Largest surviving medieval map
- A theological statement
- Drawn in Lincoln c. 1300
- But Africa is called Europe and vice versa…
So, thanks for listening…

- If you have been…
- Happy to answer questions