The changing role for European research libraries

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- Open Access to publications
- Research Data Management
  - Hague Declaration
- Science 2.0 (Open Science)
  - Bibliometrics
  - The Library as Publisher
- Conclusions
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Plaster Relief by John Flaxman, Flaxman Gallery, UCL
National OA Policy?

- Wellcome Trust and associated charities (COAF)
  - [http://www.wellcome.ac.uk/About-us/Policy/Spotlight-issues/Open-access/Charity-open-access-fund/](http://www.wellcome.ac.uk/About-us/Policy/Spotlight-issues/Open-access/Charity-open-access-fund/)
- Will provide single block grants to 36 universities to pay for Gold OA APCs resulting from research they fund
OA policy favours Gold OA as way forward
Mirrors Finch Report in this respect
RCUK will pay block grants to universities for set proportions of their funded research outputs to be available as OA outputs
Applies to journal articles and conference proceedings, not monographs;
CC-BY licence to be attached to outputs
Independent Review of the RCUK policy now published
Funding for OA in the UK: Funding sources

- **UK Funders**
  - Wellcome Trust/COAF
  - Research Council UK (RCUK)

- **International Funders**
  - European Research Council

- **Universities** on the whole will not fund Gold OA compliance themselves
## RCUK compliance Findings
### Years 1 and 2 (12/14, 14/15)

<table>
<thead>
<tr>
<th>Theme</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total reported publications in UK with RCUK funding</td>
<td>20580</td>
</tr>
<tr>
<td>Total no. of Gold publications</td>
<td>9297</td>
</tr>
<tr>
<td>Total no. of Green publications</td>
<td>3355</td>
</tr>
<tr>
<td>Total reported ‘non-compliant’ publications</td>
<td>5121</td>
</tr>
<tr>
<td>No. of Gold publications arising from spend</td>
<td>6504</td>
</tr>
<tr>
<td>Median average institutional APC</td>
<td>£1614</td>
</tr>
<tr>
<td>Maximum average institutional APC</td>
<td>£2392</td>
</tr>
<tr>
<td>Minimum average institutional APC</td>
<td>£1233</td>
</tr>
</tbody>
</table>

Data from the RCUK Review Report
# UCL’s compliance with the Wellcome Trust mandate

<table>
<thead>
<tr>
<th>Year</th>
<th>Wellcome-acknowledged UCL papers in PubMed</th>
<th>Number of those papers in PMC</th>
<th>Percentage compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>484</td>
<td>305</td>
<td>63%</td>
</tr>
<tr>
<td>2010</td>
<td>528</td>
<td>361</td>
<td>68%</td>
</tr>
<tr>
<td>2011</td>
<td>562</td>
<td>423</td>
<td>75%</td>
</tr>
<tr>
<td>2012</td>
<td>656</td>
<td>492</td>
<td>75%</td>
</tr>
<tr>
<td>2013</td>
<td>752</td>
<td>574</td>
<td>76%</td>
</tr>
<tr>
<td>2014 to 31/7/14</td>
<td>725</td>
<td>528</td>
<td>73%</td>
</tr>
</tbody>
</table>
## UCL compliance with RCUK requirements

<table>
<thead>
<tr>
<th>Year</th>
<th>Year</th>
<th>% of RCUK papers to be deposited</th>
<th>OA target for deposit of full text</th>
<th>Achieved</th>
<th>% achieved against target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2012/14</td>
<td>45%</td>
<td>693 papers</td>
<td>797 papers</td>
<td>115%</td>
</tr>
<tr>
<td>2</td>
<td>2014/15</td>
<td>53%</td>
<td>815 papers</td>
<td>963 papers</td>
<td>118%</td>
</tr>
<tr>
<td>5</td>
<td>2017/18</td>
<td>75%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Funding for OA in the UK: Costs of Implementation for RCUK

- Research Consulting undertook a study of the costs of OA implementation

- **APCs**
  - Article Processing Charges
  - £11 million per annum

- **Administration**
  - Infrastructure, Advocacy, Management
  - £9.2 million
Funding for OA in the UK: Costs of Implementation for HEFCE REF mandate

Costs of Implementation
- £4 million - £5 million
- Administration - £9.2 million

Costs of Gold OA administration
- £81 per article
- 1 extra FTE needed for every 500 APCs

Costs of Green OA
- £33 per article
- 1 extra FTE needed for every 1500 repository deposits
Double Dipping

- Countries which favour Gold OA have to pay APCs for Gold OA and journal subscriptions costs
  - Sometimes called Double Dipping
  - Better called Total Cost of Ownership (TCO)
- JISC Collections has produced Principles on TCO
- Publishers should not charge the same institutions twice, through the payment of subscriptions and APCs
- Solution is to implement offsets, either against the subscription price or against the cost of APCs
Total Cost of Ownership

- UK agreement with Springer

Springer Science+Business Media and Jisc have agreed on a new arrangement which takes into account UK scientists’ need to comply with multiple funders’ open access policies and to have access to the vast library of scientific articles published by Springer, while containing the combined costs of article processing charges and subscriptions.

Advocacy

- LERU (League of European Research Universities)
- Vice-Chancellors issued a statement on 18 March 2015
  - Condemning Double Dipping
  - Encouraging Publishers and all stakeholders to produce solutions
  - Calling on all European countries to work on this challenge
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LERU Roadmap for Research Data

- Overseen by Research Data Working Group

Pablo Achard (University of Geneva)
Paul Ayris (UCL, University College London)
Serge Fdida (UPMC, Paris)
Stefan Gradmann (University of Leuven)
Wolfram Horstmann (University of Oxford)
Ignasi Labastida (University of Barcelona)
Liz Lyon (University of Bath)
Katrien Maes (LERU)
Susan Reilly (LIBER)
Anja Smit (University of Utrecht)
LERU Roadmap for Research Data

1. Policy and Leadership
2. Advocacy
3. Selection and Collection, Curation, Description, Citation, Legal Issues
4. Research Data Infrastructure
5. Costs
6. Roles, Responsibilities and Skills
7. Recommendations to different stakeholder groups
Key Messages

- Each LERU university needs a Research Data Management Strategy
- Researchers should have Research Data Management Plans
- LERU universities need to bring stakeholders together
- Benefits of ‘open data’ for sharing and re-use should be advocated and explored

A Box of Useful Knowledge
(Brougham Papers, UCL Library Services)
LEARN – LEadere Activating Research Networks

- Purpose is to develop the LERU Roadmap for Research Data to build a global co-ordinated global e-infrastructure

- Outputs
  - Model Research Data Management policy
  - Toolkit to support implementation
  - Executive Briefing in five core languages so as to ensure wide outreach

Horizon 2020
Call: H2020-INFRASUPP-2014-2
Topic: INFRASUPP-7-2014
Type of action: CSA
Proposal number: 654139
Proposal acronym: LEARN
The Hague Declaration on KNOWLEDGE DISCOVERY in the Digital Age

Vision

New technologies are revolutionising the way humans can learn about the world and about themselves. These technologies are not only a means of dealing with Big Data\(^1\), they are also a key to knowledge discovery in the digital age; and their power is predicated on the increasing availability of data itself. Factors such as increasing computing power, the growth of the web, and governmental commitment to open access\(^2\) to publicly-funded research are serving to increase the availability of facts, data and ideas.

See http://thehaguedeclaration.com/
The Hague Declaration aims to foster agreement on access to facts, data and ideas for knowledge dissemination. By removing barriers to accessing and analysing these data, we can find answers to great challenges such as depleting natural resources and globalisation.

"This declaration will be a key pillar in the foundation of Open Science, in strong and innovative economies and in a healthy society."

-Susan Reilly, LIBER Europe

115 Organisations signed

174 People signed

Add your signature
What is text and data mining?

“Text and data mining (TDM) is the process of deriving information from machine-read material. It works by copying large quantities of material, extracting the data, and recombining it to identify patterns.” – UK Government

There are four stages to the TDM process. First, potentially relevant documents are identified. These documents are then turned into a machine-readable format so that structured data can be extracted. The useful information is extracted (Stage 3) and then mined (Stage 4) to discover new knowledge, test hypotheses, and identify new relationships.

Image credit: JISC / Value and Benefits of Text Mining (2012)
Principles of The Hague Declaration

- Intellectual Property was not designed to regulate facts and ideas
- People should have the freedom to pursue intellectual curiosity
- Licences and contracts should not limit the freedom to use data and ideas
- Ethics in Text and Data Mining should continue to evolve as technology changes
- Innovation and commercial research should not be restricted by intellectual property law
The EU Commission’s draft *Digital Single Market Strategy* sees data as the ‘oil’ of the new European economy.

**Benefits of Content Mining**

The potential benefits of content mining are vast and include:

- Addressing grand challenges such as climate change and global epidemics
- Improving population health, wealth and development
- Creating new jobs and employment
- Exponentially increasing the speed and progress of science through new insights and greater efficiency of research
- Increasing transparency of governments and their actions
- Fostering innovation and collaboration and boosting the impact of open science
- Creating tools for education and research
- Providing new and richer cultural insights
- Speeding economic and social development in all parts of the globe
Path to EU Copyright reform to support TDM

**Libraries**
- LIBER has led to the way to campaign for Copyright Exceptions in EU Copyright and Database Directives

**Rightsholders/Publishers**
- Want no change to current regimes
- Legislators fear loss of remuneration for rightsholders

**Meetings, Meetings, Meetings**
- With Commission officials
- With Members of the European Parliament

**Digital Single Market Strategy (May 2015)**
- Promises greater legal certainty for Text and Data Mining via pan-EU harmonised Exceptions
- Commission publishing Copyright reform proposals in September
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Open Science – the Motivation

- **Validation** of the results of the EU’s public consultation on *Science 2.0: Science in Transition* now published
- Science 2.0 now renamed ‘Open Science’
- **Trends in Open Science**
  - Significant increase in scientific production
  - New ways of doing Science (data-intensive science)
  - Increased number of actors and addressees of science

King’s Cross Station, London
Barriers to Open Science – for individual researchers

- Academic issues and concerns around Career progression seen as the biggest barriers
% Agreement for Policy actions (abbrev.)

<table>
<thead>
<tr>
<th>Question/Issue</th>
<th>Need to Intervene</th>
<th>Need to Intervene</th>
<th>Req’d Action</th>
<th>Req’d Action</th>
<th>EU Action</th>
<th>EU Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foster Open Science – raise awareness</td>
<td>52%</td>
<td>4%</td>
<td>48%</td>
<td>4%</td>
<td>19%</td>
<td>4%</td>
</tr>
<tr>
<td>Traditional Metrics do not capture Open Science</td>
<td>22%</td>
<td>7%</td>
<td>22%</td>
<td>7%</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>Develop research infrastructures</td>
<td>56%</td>
<td>4%</td>
<td>11%</td>
<td>4%</td>
<td>48%</td>
<td>4%</td>
</tr>
<tr>
<td>OA to publications and data</td>
<td>63%</td>
<td>11%</td>
<td>33%</td>
<td>26%</td>
<td>26%</td>
<td>11%</td>
</tr>
</tbody>
</table>

- The most significant total in the Validation exercise
- Not much interest in any intervention
Metrics and Altmetrics

- **San Francisco Declaration on Research Assessment (DORA)**
  - LERU (League of European Universities) has signed
  - Not many universities have signed (yet…)
  - DORA rejects Journal impact factor as a mark of quality

- Altmetrics seen as a generalization of article level metrics,
  - alternative to the widely used journal impact factor and personal citation indices like the $h$-index
  - Too early for alternative approaches to win widespread support
Leiden Manifesto for research metrics

- **Leiden Manifesto** posits 10 principles to guide research evaluation
- Many encompass bibliometric indicators
- Being scrutinised in Europe as basis for Good Practice
- In UCL, Library chairs University Bibliometrics Working Group
Leiden Manifesto for research metrics

<table>
<thead>
<tr>
<th>Category</th>
<th>Principle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative Assessment</td>
<td>• Quantitative evaluation should support qualitative, expert assessment</td>
</tr>
<tr>
<td>Research Mission</td>
<td>• Measure performance against the research missions of the institution, group or researcher</td>
</tr>
<tr>
<td>Local Excellence</td>
<td>• Protect excellence in locally relevant research</td>
</tr>
<tr>
<td>Collection &amp; Analysis</td>
<td>• Keep data collection and analytical processes open, transparent and simple</td>
</tr>
<tr>
<td>Verification</td>
<td>• Allow those evaluated to verify data and analysis</td>
</tr>
</tbody>
</table>
## Leiden Manifesto for research metrics

### Possible Indicators
- Account for variation by field in publication and citation practices

### Qualitative Judgements
- Base assessment of individual researchers on a qualitative judgement of their portfolio

### Realism
- Avoid misplaced concreteness and false precision

### Impact of Indicators
- Recognize the systemic effects of assessment and indicators

### Keep Up To Date
- Scrutinize indicators regularly and update them
UCL Publishing model

- Journal publishing platform
  - OJS (Open Journal Systems) overlaying UCL Discovery as storage layer
  - Peer-reviewed journals
  - Run by academic Editorial Committees
- Research Monograph list being launched in 2014-15
  - 10 titles in year 1
  - Using Open Monograph Press
- Textbook infrastructure
  - Being constructed with JISC project monies

- Open Access is an opportunity, not a threat

UCL Publishing model

- Open Access business model
- Sales via Print on Demand/enhanced e-models
- Books will be peer reviewed before publication
- Innovative technical solutions for Monographs and Textbooks
- Open up publishing to new communities
- Global impact for the University as an outcome

A Box of Useful Knowledge
(Brougham Papers, UCL Library Services)
UCL Press’s First Publications

- UCL Press being launched on 4 June 2015
- 10 monographs in Year 1 (2015)
  - 60+ monographs currently offered
- Textbooks
  - JISC project funding 2 exemplar OA textbooks with new digital interface
- Academic Journals
- Hosted journals for Student productions
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Conclusions

- Common in Europe for libraries to run OA policy and practice for Universities
- Research Data Management is a major challenge for Universities
  - Research libraries have a major role to play
- Open Science sets new agendas for libraries
  - Bibliometrics
  - Publishing
If you have been...

Thanks for listening

Happy to hear any Questions

UCL, Wilkins Building, 1826