Complementary article dissemination via journals and repositories: economic evidence from the PEER project

APE conference – Berlin 2011
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-PEER: Publishing and the Ecology of European Research, is a collaborative project involving publishers, repositories and the research community, investigating the effects of large-scale, systematic depositing of authors’ final peer-reviewed accepted manuscripts on journals and on the wider ecology of scientific research in Europe.

Supported by the EC eContentplus programme, PEER runs from 2008 to 2012.

PEER Observatory:
>30,000 manuscripts provided by publishers and processed by central ‘PEER Depot’
~12,000 eligible EU manuscripts after processing
~7,400 embargo expired and available via participating repositories

Three commissioned areas of research:
**Behavioural:** Authors and Users vis-à-vis Journals and Repositories (Dept Info Soc & LISU, Loughborough Uni)
**Usage:** Journals and Repositories (CIBER, UCL)
**Economics:** Deposit and Access at Journals and Repositories (ASK Bocconi)
PEER Executive: International Association of Scientific, Technical and Medical Publishers (STM), European Science Foundation, Göttingen State and University Library, Max Planck Society, INRIA and Technical Partners: SURF Foundation and University of Bielefeld

STM publishers: BMJ Publishing Group; Cambridge University Press; EDP Sciences; Elsevier; IOP Publishing; Nature Publishing Group; Oxford University Press; Portland Press; Sage Publications; Springer; Taylor & Francis Group; Wiley-Blackwell

PEER repositories: eSciDoc.PubMan.PEER, Max Planck Digital Library (MPDL), Max-Planck-Gesellschaft zur Förderung der Wissenschaften e.V. (MPG); HAL, CNRS & Institut National de Recherche en Informatique et en Automatique (INRIA); Göttingen State and University Library (UGOE); Kaunas University of Technology, Lithuania; University Library of Debrecen, Hungary; SSOAR (GESIS – Leibniz Institute for the Social Sciences); TARA - Trinity College Dublin (TCD), Ireland
<table>
<thead>
<tr>
<th>The arguments for OA</th>
<th>The ambiguity of reality</th>
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<tbody>
<tr>
<td><strong>a)</strong> Research outcomes is a public good → cost of its dissemination and preservation may or should be covered by public funding.</td>
<td>What is the most effective way to spend public money? Cost benefit analysis</td>
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<td><strong>b)</strong> OA allows faster circulation of ideas and has a higher research impact than content published in journals</td>
<td>There is high impact and low impact content. OA is one condition for research impact</td>
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<td><strong>c)</strong> OA content is cheaper to publish than content published by commercial publishers (Houghton et al. 2009 on Tenopir &amp; King 2000; Fisher 2008; Swan 2008)</td>
<td>Difficult to say, due to methodological and conceptual difficulties. Cost of publication has decreased, but changes have occurred in the way value is created and distributed among actors</td>
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**Repositories, toll access journals and open access journals as complementary actors in a platform driven competition**
The research question: value creation and distribution in platform driven competition
Methodology

- Case based analysis

- 11 publishers,
- 7 repositories
- 7 platforms

- End user perspective and identification of key activities driving value;

- Assessment of costs associated with macro activities; direct costing method to ensure comparability of results;

- Identification of conditions for platform sustainability

- Desk analysis + multiple collective, face to face and phone interviews

- Comparability of results for 8 publishers and 5 repositories
Findings

**Platform** set up costs: hard to quantify; huge discrepancies among cases analysed. Order of magnitude: million of USD

Platform maintenance costs: between 170K to 400 k per year

 Significant scale effects

Scalability and speed of growth is crucial

<table>
<thead>
<tr>
<th>Platform</th>
<th>N. of institutions</th>
<th>N. of journals</th>
<th>N. of articles</th>
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<tbody>
<tr>
<td>Dspace</td>
<td>915</td>
<td></td>
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<tr>
<td>Eprints</td>
<td>366</td>
<td></td>
<td></td>
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<tr>
<td>Fedora</td>
<td>172</td>
<td></td>
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<tr>
<td>Jstor</td>
<td>6,425</td>
<td>1,289</td>
<td>3,2 million</td>
</tr>
<tr>
<td>Sciverse</td>
<td></td>
<td>2,392</td>
<td>10 million</td>
</tr>
<tr>
<td>Wiley</td>
<td></td>
<td>1,500</td>
<td>4 million</td>
</tr>
<tr>
<td>Springerlink</td>
<td></td>
<td>2,000</td>
<td>4 million</td>
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</tbody>
</table>
- Ownership or management of quality certified content + ownership or management of high volumes of content;

- Services to publishers and editors: streamlining of peer review management; publishing services; platform related services (hosting; maintenance; usage reporting...)

If critical mass is reached, publishing costs can be significantly reduced
Value creation on the user side

- Careful assessment of needs of bigger communities of researchers (some disciplines are intrinsically bigger than others in terms of number of researchers and research production)

Channel management
- preemption on distribution channels (commercial publishers via industry consolidation; open proponents via mirroring content and metadata harvesting)
- cross distribution and marketing
- multidevice access (tablets / smartphones)

Information services
- extra content availability (multimedia; databases; clinical cases...)
- newsletters, RSS, alerts
- cross referencing
- list of publications from the same author/ on the same topics
- rankings: most downloaded, most cited...
Value creation on the user side

Community services
- Comments
- Reviews
- Ratings

If critical mass is reached, publishing costs can be significantly reduced

Content impact ... by design
Platform based competition: key actors

- A handful of publishers
- A handful of very prestigious universities
- A handful of donors

Next challenges:
- Organizational (within universities and research institutions)
- Strategic alliances
- Growth pace
THANK YOU

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