

PEER Summary - May 2012

PEER Executive Partners: Points of Agreement

The PEER Executive Project Partners would like to indicate that they agree on the following points:

1. Building a large-scale infrastructure is organizationally and technically challenging

When the PEER Project started, there was no European infrastructure available that was robust or scalable or efficient. Hence, with considerable effort this infrastructure was built, linking publishers and repositories to the PEER Depot as central clearing house.

2. Building a clearing-house with automated workflows is helpful

What made the PEER infrastructure a success is the ability to construct a largely automated workflow for the ingestion and distribution of articles.

3. Author self-archiving is unlikely to generate a critical mass of Green OA content.

The author deposit rate in the PEER Project was exceptionally low. This unwillingness to deposit, even when the author explicitly is invited by the publisher, suggests that author self-archiving will not generate a critical mass of Green OA content.

4. Stage II archiving requires manual oversight and intervention

The author's final peer reviewed manuscript (the so-called Stage II manuscript) remains difficult to handle for publishers, repositories, authors and readers, requiring manual oversight and intervention.

5. Scholars prefer the Version of Record

The behavioural research as well as usage log analysis indicates that scholars prefer accessing the version of record.

6. Usage scenarios for Green Open Access are more complex than generally acknowledged

While usage at repositories may be described as a percentage of usage at publishers' platforms, and, conversely, repositories have a function for users in developing countries, usage patterns on the Internet are more complex, with the PEER repositories driving usage to publisher platforms.

7. The acceptance and utility of open access publishing has increased rapidly

Open access publishing is increasingly important for publishers, repositories and the research community. Any discussion of future Green OA scenarios must take account of this development.

8. A successful collaboration for experimental results

In the Green OA debate, the PEER Project partners started from conflicting positions, and were dependent on the support of publishers and repositories, but were nevertheless able to deliver the experimental infrastructure and observatory research to a mutually satisfying conclusion.

9. Mutual understanding and trust

Working together to deliver the project - Building the infrastructure together, getting the deposit process to work and commissioning the research encouraged - particularly also in challenging or difficult moments, engendered professional respect on all sides.

Key findings from the commissioned research:

Behavioural research – some key conclusions

- Researchers who associated Open Access with 'self-archiving' were in the minority.
- Open Access is more likely to be associated with 'self-archiving' (Green Road) by researchers in the Physical sciences & mathematics and the Social sciences, humanities & arts, than those in the Life sciences and the Medical sciences who are more likely to associate Open Access with Open Access Journals (Gold Road).
- There is anecdotal evidence that some researchers consider making journal articles accessible via Open Access to be beyond their remit.
- Authors tend to be favourable to Open Access and receptive to the benefits of self-archiving in terms of greater readership and wider dissemination of their research, with the caveat that self-archiving does not compromise the pivotal role of the published journal article.
- Readers have concerns about the authority of article content and the extent to which it can be cited when the version they have accessed is not the published final version. These concerns are more prevalent where the purpose of reading is to produce a published journal article, and are perceived as less of an issue for other types of reading purpose.
- Academic researchers have a conservative set of attitudes, perceptions and behaviours towards the scholarly communication system do not desire fundamental changes in the way research is currently disseminated and published.
- Open Access Repositories are perceived by researchers as complementary to, rather than replacing, current forums for disseminating and publishing research.

Economics Research – some key findings

Article publication costs

- Peer review has real costs and there are no economies of scale. (Average cost \$250 per manuscript for salary and fees only, excludes overheads - infrastructure, systems etc. and is heavily affected by rejection rates)
- Excluding peer review, average production cost ranges from \$170 to over \$400 per article (again excluding all overheads)
- Annual publisher platform maintenance costs ranges from \$170k to \$400k (excludes set up & development costs typically costing hundreds of thousands of dollars)
- Repositories may have large sunk costs that are not accounted for
- Publishers (subscription and Open Access) and repositories affected by '*sustainability and competition for resources and reputation*'.

Usage Research - preliminary findings.

Note from the research team: PEER is fully operational but it has yet to settle into a natural rhythm of ingest so is probably atypical of many longer established green repositories. Usage researchers urge any commentators not to extrapolate usage conclusions as a model of Green Open access scenario but simply what happened in PEER.

Usage at PEER repositories seems around 7.8% as a ratio of publisher use (with considerable variation between publishers in the range 4.3% to 11.5%).

During the period measured (March 2010- Feb 2012) Publisher full text downloads are growing faster than PEER repository full text downloads

A Randomised Controlled Trial indicates that making preprints visible in PEER repositories is associated with more traffic to the publisher sites at the aggregate level, but this varies by publisher and subject. Overall, PEER is associated with a significant, if relatively modest, increase in publisher downloads, in the confidence range 7.5% to 15.5%.

The likely mechanism is that PEER offers high quality metadata, allows a wider range of search engine robots to index its content than the typical publisher, and thus helps to raise the digital visibility of scholarly content. There are variations as we zoom in on the detail and the jury is still out in medicine, the social sciences and humanities, and for smaller publishers, for reasons we do not understand yet.

Repository use came largely from developing countries.

Publisher downloads are growing at a faster rate than PEER repository downloads and unless there is a step change, PEER's share of the market is likely to decline gradually over time.

What this research tells us is that the scholarly web is a complex environment, one in which digital visibility is king. Researchers make little use of the search facilities on repository or publisher sites, relying heavily instead on third-party gateways and general search engines.