

Can open-access repositories and peer-reviewed journals co-exist?

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Assumptions and questions

- Common assumptions:
 - OA repositories and peer-reviewed journals are necessarily in competition
 - In the long-term, they will be unable to co-exist
- Questions:
 - Are they necessarily in competition?
 - Is there any empirical evidence of competition or co-existence?
 - What are the implications for the short, medium and long term?
 - What possible future publishing/dissemination models are there?



Empirical evidence

- arXiv repository
 - Coverage: Physics, Mathematics, Computer Science and Quantitative Biology
 - Set up in 1991
 - Holds 415,000+ items
 - Includes pre and post prints
- Impact on physics journals
 - Usage
 - Subscriptions



Usage: “productive co-existence”

Henneken, Edwin A. et al (2007) ‘E-prints and journal articles in astronomy: a productive co-existence’. *Learned Publishing* 20 (1), 16-22. E-print at: <http://arxiv.org/abs/cs/0609126>

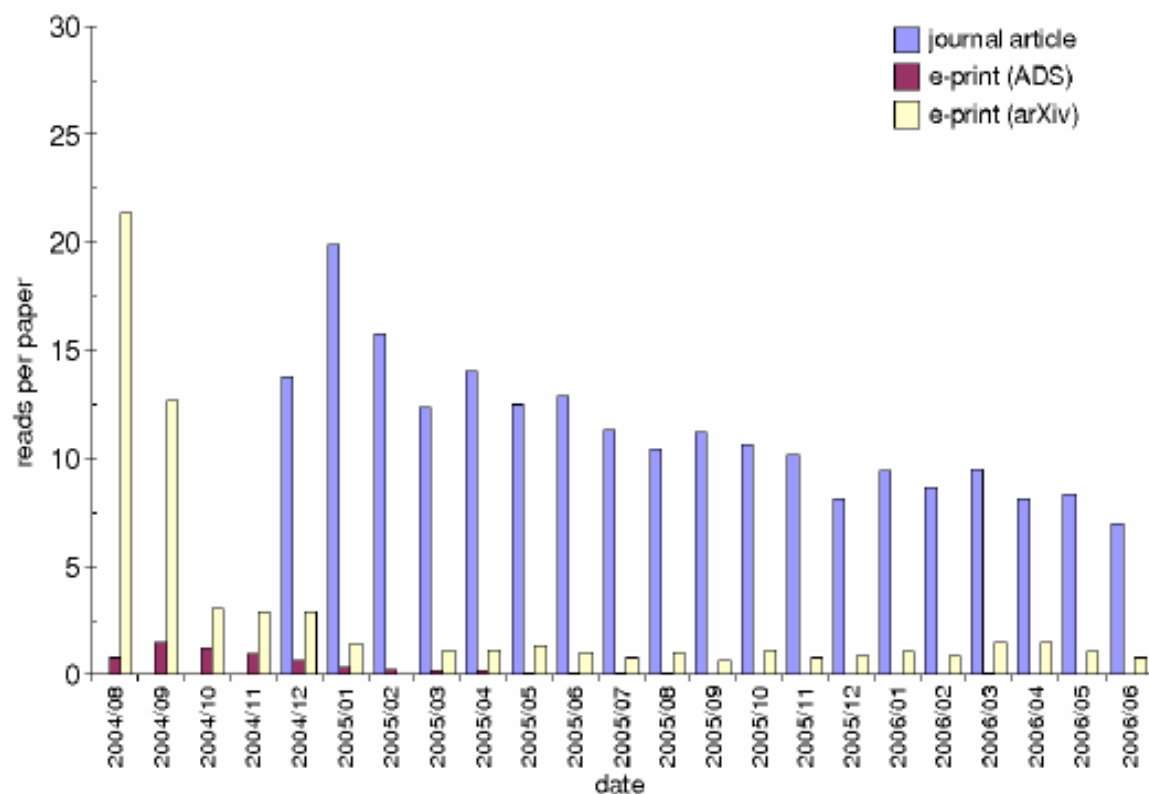


Figure 2. C_4 articles from December 2004, published 4 months after the arXiv e-print. Reads per paper from August 2004 through June 2006.

Usage (2)

“... the typical users prefer to read the journal article when this becomes available.”

“This is good news for the publishers. E-prints have not undermined journal use in the astrophysics community and thus do not pose a threat to the journal readership.”

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Subscriptions

“...we asked the American Physical Society (APS) and the Institute of Physics Publishing Ltd (IPP) what their experiences have been over the 14 years that arXiv has been in existence. We asked how many subscriptions have been lost as a result of arXiv. Both societies said they could not identify any losses of subscriptions for this reason. Subscription movements for the journals they publish in the areas covered by arXiv are no different from those of their journals in other areas of physics over the period.”

Swan, Alma (2005) *Open access self-archiving: an introduction*. Truro: Key Perspectives Ltd. Available at: <http://eprints.ecs.soton.ac.uk/11006/01/jiscsum.pdf>



“Mutualism”

“...Moreover, both societies say that they do not view arXiv as a threat to their business (rather the opposite, in fact) ...there is always the possibility that there is something of a ‘special case’ about this example. Quite what might make is such a special case has never been adequately argued, but it is a finite possibility. Nevertheless, the evidence there is to hand points to the likelihood that the peaceful – and perhaps mutually beneficial – co-existence of traditional journals and open access archives is entirely possible; in biological terms, mutualism, rather than parasitism or symbiosis, might best describe the relationship.”

Swan, Alma (2005) *Open access self-archiving: an introduction*. Truro: Key Perspectives Ltd. Available at: <http://eprints.ecs.soton.ac.uk/11006/01/jiscsum.pdf>



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Special case(s)?

- Successful e-print repositories in subject communities with pre-print traditions
 - Unique?
 - Early adopters?
- Pre-print traditions: why?
- Physics example:
 - APS involvement in arXiv
 - Using the e-print repository in journal production
 - Physics community and OA journals



Attitudes about the future

- Attitudes of librarians
 - OA repositories not currently a substitute for journals
 - 53% (81% in the next 5 years) said content in repositories important (or very important) factor in determining cancellations

Ware, Mark (2006) *ALPSP survey of librarians on factors in journal cancellation*. Worthing: ALPSP.



Attitudes about the future (2)

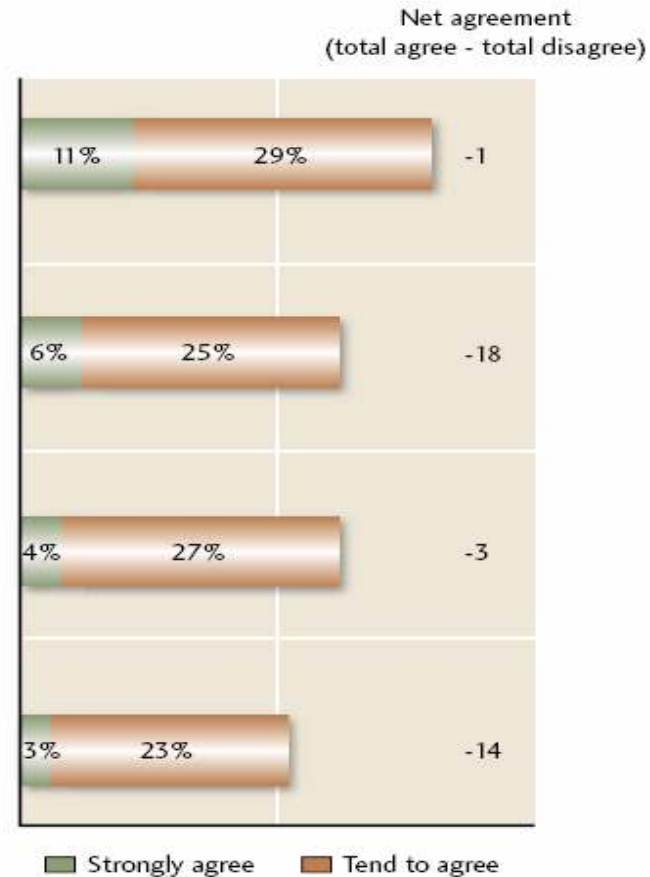
Q: How much do you agree or disagree with this statement?
(Base: 424)

Librarians who continue to subscribe to journals when almost the same content is available for free on repositories are wasting money

Open Access archiving of articles on repositories will have no impact on the viability of Journals

Open Access archiving of articles will impact negatively on low quality journals only

Open Access archiving on repositories will force journals to charge authors to publish their papers



Beckett, Chris and Inger, Simon (2007) *Self-archiving and journal subscriptions: co-existence or competition?* Publishing Research Consortium.

Questions revisited

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Scholarly communication: functions

Classic scholarly communication functions:

- Registration
- Certification
- Dissemination
- Archiving



Future scenarios

- Journals primary means of scholarly communication, repositories not significant
- Journals and repositories: complementary – no change to business models
- Journals and repositories: co-existence – new business models
- Repositories displace journals as primary means of scholarly communication



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Registration, certification, dissemination, archiving: J
- Journals and repositories: complementary – no change to business models
Registration: J & R; certification: J; dissemination: J & R; archiving: J (& R)
- Journals and repositories: co-existence – new business models
Registration: J & R; certification: J; dissemination: J & R; archiving: J & R
- Repositories displace journals as primary means of scholarly communication
Registration, certification, dissemination, archiving: R
- Likelihood?



Possible changes

- Journal publishing business models changing
- Hybrid journals becoming more important – transition model?
- Repositories and version identification – new standards?
- Repositories and quality control / indicators – changing relationship?
- ‘Overlay journal’ as a new paradigm
- Repositories and added-value features
- Long-term preservation function of repositories



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