

## PNAS, Open Access & Levels of Interest

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There has been a great deal of speculation about the willingness of authors to pay fees to provide greater access to their articles. Contributors to the discussion on all sides of the Open Access (OA) debate (and there are certainly more than two schools of thought on the subject) have been able to find numbers to support their theses. But, it has proven exceedingly difficult to find a virtually unassailable test case from which all interested parties could concede that valid lessons might be drawn.

An opportunity presents itself with the Proceedings of the National Academy of Sciences of the United States of America (PNAS) <<http://pnas.org/>>, a respected, established scientific journal.

PNAS is a signatory of the DC Principles <<http://www.dcprinciples.org/>> and has chosen a 6 month window of exclusivity for subscribers. In addition, PNAS instituted a Walker/Prosser model of OA by the article <<http://www.arl.org/newsltr/227/openaccess.html>> in late 2004. Under this model, authors may pay an additional fee to provide immediate global access to their published article.

I decided to do a narrowly drawn experiment: established journal, no charitable grants or personal fortunes underwriting the publishing enterprise. No likelihood of the journal altering its editorial standards to enhance revenue. This seems like a very reasonable test case -- the most easily tested hypothesis being: Will authors, all other factors being equal, pay an extra sum to provide readers with earlier (in this case -- six months) access to their findings? Is reducing the amount of time that an article is only available through a subscription worth the additional expense to authors?

Using the PNAS Open Access articles section <<http://pubmedcentral.gov/tocrender.fcgi?iid=13407>> of PubMed Central <<http://pubmedcentral.gov/>>, I observe 268 articles for which the OA fee (\$750 or \$1000 <<http://www.pnas.org/misc/iforc.shtml#charges>>, reduced rate for authors at subscribing institutions) has been paid over the last 6 months, ~12% of the published articles. Of those, 24 articles have been the cover feature article, >90% of the cover articles in the period.

Obviously PNAS has identified a service for which a segment of their authors are willing to pay. The proportion of authors willing to pay increases significantly with the self-perceived significance of the work being published.

Does Open Access have any impact upon readership? By examining 50 Most Frequently-Read Articles in PNAS <<http://www.pnas.org/reports/mfr1.dtl>>, which is based only on the article views from the Highwire home of PNAS, it may be possible to draw some additional conclusions. [Article views during July 2005]

I examined the first twenty pieces from the top 50.

Open Access articles: 8  
Open Access articles, prepagination: 2 (including #1)  
Cover articles: 6 (4 Open Access)  
In this issue (Free): 3  
DC Principles free: 5 (1 Open Access)  
Remainder: 3

Some of the entries fit in more than one category. Four of the Open Access articles, out of a total of 8 for which an OA fee was paid, were featured on the cover of the journal. One of the Open Access articles would have been freely available in July 2005 under the PNAS commitment to the DC Principles, which they have chosen to implement as a 6 month embargo.

Three of the top 20 most-read articles in July 2005 required a current subscription and were not featured on the cover of a June or July issue. A preliminary conclusion might be made that ease of access enhances the likelihood of a large readership. The notoriety of cover articles is not to be underestimated in garnering readers. There is a caveat, though. Five of the six cover articles were in the top 8; the 6th was #18 and not Open Access.

Proceedings of the National Academy of Sciences of the United States of America (PNAS)

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