No-Fault Peer Review Charges: The Price of Selectivity Need Not Be Access Denied or Delayed

Stevan Harnad
Canada Research Chair in Cognitive Sciences
Université du Québec à Montréal
&
School of Electronics and Computer Science
University of Southampton

http://openaccess.eprints.org

Abstract: Plans by universities and research funders to pay the costs of Open Access Publishing ("Gold OA") are premature. Funds are short; 80% of journals (including virtually all the top journals) are still subscription-based, tying up the potential funds to pay for Gold OA; the asking price for Gold OA is still high; and there is concern that paying to publish may inflate acceptance rates and lower quality standards. What is needed now is for universities and funders to mandate OA self-archiving (of authors' final peer-reviewed drafts, immediately upon acceptance for publication) ("Green OA"). That will provide immediate OA; and if and when universal Green OA should go on to make subscriptions unsustainable (because users are satisfied with just the Green OA versions) that will in turn induce journals to cut costs (print edition, online edition, accessprovision, archiving), downsize to just providing the service of peer review, and convert to the Gold OA cost-recovery model; meanwhile, the subscription cancellations will have released the funds to pay these residual service costs. The natural way to charge for the service of peer review then will be on a "no-fault basis," with the author's institution or funder paying for each round of refereeing, regardless of outcome (acceptance, revision/re-refereeing, or rejection). This will minimize cost while protecting against inflated acceptance rates and decline in quality standards.

"Green" and "Gold" Open Access. The goal of the Open Access (OA) movement is to to maximize research uptake, usage and impact by making research journal articles accessible to all their potential users instead of just to those users whose institutions can afford subscriptions. The two ways to provide OA are either (1) for authors to make the peer-reviewed final drafts of their articles accessible free for all online by self-archiving them in their Institution's OA Repository ("Green OA") upon acceptance for publication or (2) for journals to make their published articles accessible free for all online ("Gold OA"), financed either by print subscriptions or

by charging article-publishing fees to authors' institutions instead of charging journal-subscription fees to users' institutions (Harnad et al 2004).

But if journals' total costs per published article today were charged to the institution of each article's author in the form of Gold OA publishing fees, the fees would be far too high (UC Berkeley 2010). Co-bundled into the current price per article are (a) the costs of producing, distributing and archiving the print and online edition, as well as (b) the costs of all the rounds of refereeing for both accepted and rejected articles.

The solution – for providing immediate OA today -- is for institutions and funders to mandate Green OA self-archiving by their authors (Harnad 2006, ROARMAP 2010). Then, once Green OA is universal, if and when there is no longer a sustainable subscription demand for the print and online editions (because users are satisfied with just the author's self-archived Green OA version), journals can make the price of Gold OA affordable by ceasing to produce, distribute or archive the print and online edition (since there is no longer a market for them), and instead levying a nofault refereeing charge for each round of peer review, irrespective of whether the outcome is acceptance or rejection. The peer review charge for an institution's annual refereed research output can be paid out of a fraction of the institution's annual windfall savings from its cancelled susbscriptions (Harnad 2001).

"Selective" Journals and "Archival" Journals. Mike Rossner, Executive Director of the Rockefeller University Press, is not only on the side on the side of the angels among publishers insofar as Open Access (OA) is concerned, but he has often been the solo voice in the choir, dissenting publicly when publisher associations have gone too far in their attempts to resist Open Access.

(The most memorable case was when <u>PRISM</u> hired a notorious publicist to try to discredit Open Access mandates as government censorship that would destroy peer review (Giles 2007). Rossner (2007) was the first among publishers to publicly disavow the effort. One of the latest instances of publisher resistance is Adler & Frank (2010.)

In a recent Editorial, Rossner (2010) revisits Ira Mellman's (2004) idea that perhaps journals (and peer review criteria) could be subdivided as "selective" (for articles that are both valid and highly important) vs. "archival" (for articles that are valid but less important). If the far more numerous "archival" journals -- much less selective, with much lower publishing fees -- all converted to the Gold OA cost-recovery model, perhaps the fewer highly selective ones could then continue covering costs via library subscriptions.

(The total estimated online publishing cost per article for the *Journal of Cell Biology*, which is highly selective, is currently c. \$10,000 per article (*Science* and *Nature* have estimated even higher costs, perhaps 3 times as much). That cost would be prohibitively high for authors' institutions or funders to pay as a "Gold" OA publishing fee.)

Rossner updates Mellman's idea, suggesting that subscriptions could sustain the highly selective journals too, even if universal "Green" OA self-archiving mandates from funders and institutions required that their contents be made OA -- as long as the first six months or so after publication were non-OA, so that the journals could sustain their subscriptions.

I would like to point out a simple alternative to Mellman's two-tier system that would apply the journal "selectivity" factor in a much more natural way, and without denying or delaying OA. But first it is important to bear in mind that (although the numbers are growing) the worldwide research community is still very far from having either universal Green OA mandates (ROARMAP 2010) or Gold OA publishing of all the less-selective journals (DOAJ 2010). The approach I will describe consists of two phases: First, a transition to universal Green OA self-archiving (through institutional and funder mandates), and then, if and when institutional subscriptions become unsustainable, a conversion to Gold OA publishing, with the peer review fees paid out of the subscription savings (Harnad 2007).

The Cost of Peer Review. The reason the highly selective journals have such high costs per published article is that they have to factor in the cost of refereeing the many rejected articles (which are the basis of their high selectivity) into the cost of every accepted article. Yet in reality each round of peer review costs just as much for accepted articles as for rejected articles (except the summarily rejected ones, which are declined without formal review). If the journal fee were not a publication fee but a refereeing fee -- payable irrespective of outcome (and no fee or only a nominal one in case of summary rejection without refereeing) -- the costs per accepted article would be much lower, especially for the highly selective journals. (Indeed, there is no reason why it should cost more to referee submissions for both validity and importance than it does to referee them for validity alone: the referee need merely estimate the importance as a percentage.)

Such a peer review charge (a reasonable one, of the order of perhaps \$200 or less per round of review) would not only be affordable, but it might even help further lower the overall expenses of the highly selective journals by discouraging unrealistic submissions that merely take up the time of the referees of journals that are reserved for papers which are both valid and important when in fact the submission belongs in a less selective journal, one that publishes valid papers, but less important ones. Authors will still (rightly) try to get their papers published in the highest level journal whose refereeing standards they can meet, but they will lose time (as they already do now) by first submitting it to an unrealistically high-standard journal -- before it is rejected and they proceed to submit it to a more realistic journal. Having to pay will discourage frivolous submission, for which the only ones penalized today are the journals themselves, their referees, and ultimately the subscribers to that journal, who must pay the cost of the excess refereeing of rejected articles.

Benefits of No-Fault Refereeing. Yet paying for refereeing will not represent a pure loss for the author of a rejected submission either: The paper may not be accepted, but the author will get the referee reports and editorial recommendations either way, and if the author is conscientious, these will be helpful in revising for subsequent resubmission to a less-selective journal. No-fault refereeing will also reduce processing time and costs for the less-selective journal, because the submission will already have been refereed and revised; the prior referee reports could even be "certified" by the original journal and included along with the submission to the second journal, together with the author's covering letter itemizing how the referee recommendations have been accommodated in the revision.

Much the same thing already happens today, when there are successive rounds of revision and re-refereeing within the same journal; and journals often ask authors to disclose the prior submission history of their papers, along with the referee reports, if the author is willing. If it were rounds of refereeing rather than acceptance and publication that the author was paying for, it would be even more in the author's interest to speed the refereeing and acceptance in the lower-tier journal by providing and accommodating the higher-tier referee reports. While preserving journal independence -- as well as referee anonymity vis-à-vis authors -- journals could nevertheless pool referee resources and history in a (possibly encrypted) database, shared across journals (much the way CROSSREF and COUNTER data are shared). That way journals could not only distribute the refereeing load more evenly across the world's finite pool of qualified referees in each field, but, where authorized by the author, they could share referee reports on submissions previously refereed by other journals.

A no-fault peer review charge would be a far more realistic basis for ensuring that there continues to be both a selectivity hierarchy among journals in the OA era, and a realistic publishing cost. It would also facilitate and accelerate the refereeing process.

(Some have recommended paying referees an honorarium for conscientious and timely refereeing [Thompson 2010], but it is probably unrealistic to imagine that there is anywhere near enough money to pay for the actual time the referee needs to steal from research to do conscientious refereeing: the only real reward for the referee will continue to be what it is now, namely, the intrinsic interest of the submitted paper plus the desire to contribute to fair evaluation of soundness and quality. With authors paying no-fault refereeing fees, less referee time will be wasted having the same paper reviewed multiple times at different levels -- with the same referee sometimes discovering, to his frustration, that not only has he already refereed the paper, but his prior referee recommendations were ignored! The no-fault system, while preserving journal independence, would encourage the author to treat the journal hierarchy as a unity, to submit at a realistic quality-level, and to revise to accommodate higher-tier referee reports before resubmitting to a lower-tier journal.)

With a selectivity hierarchy among journals, each ensuring quality at its own level of the hierarchy, and all charging no-fault refereeing fees, highly selective journals will no longer have to worry about ensuring that there is a 6-month delay before articles are made OA in order to ensure that they can cover their high refereeing costs through subscriptions: They will not need to. After all, surely the price to pay for identifying the most important research should not be that that is the research to which universal access is delayed the longest!

Universal Green OA Needed Before Conversion to Gold OA Refereeing Fees. But let us remember that we are nowhere near universal OA even for that less selective majority of articles that are not of the highest importance. And institutional journal subscriptions are still fully sustainable today, and paying publishers for the full costs of publication, at all levels in the journal selectivity hierarchy (and for both their online and print editions). So what is needed now is that funder and institutional mandates to provide Green OA should first become universal (Harnad 2001, 2008). That will provide immediate Green OA to authors' refereed final drafts. Then the market itself can decide how long subscription demand for the print and/or online edition remains sustainable. If and when subscriptions ever do become unsustainable -- because users are satisfied with the self-archived Green OA versions in the authors' institutional repositories, and hence institutions cancel their journal subscriptions -- journals can then convert to the Gold OA cost recovery model, charging for peer review only, instead of for the costs of the print edition and the online edition (for which the locus classicus will then have become the selfarchived version in the worldwide network of OA Institutional Repositories). The journal selectivity hierarchy will remain intact. And -- unlike now, when the money is still tied up in subscriptions -- institutions will have more than enough to pay for their authors' refereeing fees out of the annual windfall savings from their subscription cancelations (Harnad 2007, 2009).

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