Ecumenical open access and the Finch Report principles

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- The principles underlying the Finch report – access, usability, quality, cost and sustainability – are broadly to be commended.
- However, the report's specific recommendations are short-term prescriptions that may lead to a limited increase in the amount of OA at a very high cost.
- In particular, it equates open access journals and hybrid journals, offering support to both.
- But the hybrid model entrenches the dysfunctional subscription model to the exclusion of the competitive and sustainable open access model.
- A preferable approach is to require authors to provide open access, but to be ecumenical about how that is achieved – through self-archiving or open access or hybrid journals – while providing support only for true open access journals.

The Working Group on Expanding Access to Published Research Findings first convened in 2011 at the behest of David Willetts, the UK Minister for Universities and Science, to 'examine how most effectively to expand access to the quality-assured published outputs of research; and to propose a programme of action to that end.' The group consisted of representatives of various of the stakeholder communities related to scholarly publishing, and was chaired by Janet Finch. Their final report[1] makes concrete policy recommendations for UK research funders to implement, and has been the basis for the policies being set by the Research Councils UK (RCUK).

There is much to like in the Finch Report on open access. The primary recommendations have to do with directly providing for open access to scholarly articles funded by UK research agencies.[2] The report appropriately outlines four desiderata that need to be optimised to this end:[3]

Access: The report takes as given the importance and desirability of open access to the scholarly literature.

Usability: It highlights the importance of a broad range of use rights, not just the ability for researchers to read the articles, but all other kinds of reuse rights as well.

Quality: The scholarly publishing system must, in the eyes of the Finch committee, continue to provide the vetting and filtering for quality that is the hallmark of the peer review system.

Cost and sustainability: It recognises that there are costs in publishing the literature, that the funders of research should take on those costs for the research they fund, and that the mechanisms for doing so must be sustainable.

Based on these principles, the report adduces certain conclusions. The access principle militates for articles being provided openly, so that the pure subscription revenue model, where revenue is based solely on limiting access to those willing and able to pay, is deprecated. The quality principle is taken to argue for journals that themselves provide open access to their articles, rather than relying on authors or institutions to merely provide supplementary access through article repositories. The cost and sustainability principle leads to the idea that funders might pay directly for the costs involved in journals' processing of articles, these payments substituting for the deprecated subscription revenues. The usability principle entails that when articles are paid for in this way, they ought by rights to be usable as broadly as possible, for instance, through Creative Commons attribution licences.

Now for the bad. The concrete recommendations that the Finch Report outlines do not present a prescription for optimising these principles *in the long term*. Rather, they pursue short-term prescriptions that will likely provide merely incremental access gains at a very high cost. The primary problem in the Finch Report that leads to this unfortunate consequence is the conflation of two quite different market models as one: full open access and hybrid.

1. Three market structures

To understand why this is so, we must look to the underlying economics of article publishing, which governs the incentives of the participants in the market. There are three revenue models for journals that are at play in the Finch Report: subscription journals, open access journals and hybrid journals.

1.1. *The subscription journal market.* The current predominant market structure of the scholarly journal industry is based on reader-side payments, limiting access to those willing and able to pay subscription fees for the journals. This market structure is manifestly dysfunctional. The reader-side market has led to a well-attested decades-long spiral of hyperinflation of journal prices,[4] causing libraries to have to cancel subscriptions, causing publishers to further raise prices to retain revenues. This vicious cycle has two bad effects: the *costs* to research libraries (and the funding agencies that provide their underwriting through overhead fees) have grown substantially and unsustainably in real terms, while cancellations mean less *access* to the articles themselves. It is this access problem that the Finch Report strives to address, subject to the cost and sustainability problem as well.

The reasons for the market dysfunction are, by now, well understood. First, the good being sold – access to articles – is a monopolistic good, based on the monopoly right of copyright, and as such is subject to monopoly rents. Second, subscription journals are not (in the economists' parlance) substitutive goods; access to one journal does not decrease the value of access to another, and in fact may well increase the value (as journals cite each other), making them complementary goods. Complementary goods do not compete against each other like substitutive goods do. Third, journals are sold under conditions of moral hazard; the consumers (readers) are not the purchasers (libraries), and hence are insulated from the costs. As with all moral hazards, this leads to inelasticity of demand and overconsumption. Finally, consolidation of multiple journals under a few large publishers insulates these publishers from economic pressure from cancellations, since they can adjust prices on the remaining journals to compensate for lost revenue.

The subscription market structure thus violates both the *access* and *cost and sustainability* desiderata of the Finch Report. Clearly, any long-term strategy for broadening access to articles must move away from this market structure, rather than providing it further support.

In the shorter term, the access problems with the subscription market (though not the sustainability problems) can be greatly alleviated by providing supplementary access to the articles – so-called *Green open access* – by posting copies of article manuscripts in subject-based or institutional repositories. Funding agencies have managed to generate tremendous access gains to their funded research by mandating such supplementary access, beginning with the 'public access policy' of the US National Institutes of Health (NIH), which requires posting of author manuscripts in NIH's PubMed Central repository no later than 12 months after publication. Although there is no evidence that immediate Green open access has detrimental effect on publisher sustainability or even revenues,[5] embargoes such as those allowed for in the NIH policy (or the more widely used six-month embargoes found in essentially every other funder policy) further reduce any pressure on subscription revenue at the cost of delaying the access. But even if Green open access did have an effect on market demand for subscriptions, this would be no argument against mandating it, so long as there were a viable alternative market structure for those journals to use.[6]

1.2. *The open access journal market.* And indeed, there is an alternative market structure, one that is in fact highly preferable in that it does not have the same frailties as the reader-side subscription market structure, namely, an author-side market structure. In this system, the good being sold is not access for readers but publishing services for authors – the management of peer review (generating valuable feedback to the author); production services (such as copy-editing, typesetting, graphic design); and most importantly to academic authors, imprimatur of the journal. This market is seen most directly in *open access journals*[7] that charge a flat article processing charge (APC), paid by or on behalf of authors. The APC spreads the costs of operating the journal plus a reasonable profit over the articles it publishes.

This market structure doesn't have the same market dysfunction exhibited by the subscription market, both in theory and in practice. First, publisher services are not a monopolistic good; any publisher can provide them to authors. Second, from the point of view of an article author, journals are substitutive goods, not complementary goods, since submission to one journal does not increase the value of submitting to another journal. In fact, because an article can only be submitted to one journal, journals are *perfect* substitutes in the author-side market. Third, if authors pay APCs, there is no moral hazard, and if funders or employers pay on their behalf, moral hazard can be mitigated by introducing limits or co-payments.[8] Finally, bundling doesn't apply to the good sold in the open access journal market as it does in the subscription market.[9]

For these reasons, one would expect strong market competition and price control in the open access journal market in theory, and in practice, that is exactly what we see. Not only is there no evidence of hyperinflation, there are signs of strong price competition, with new models arising that can deliver publishing services at a fraction of the cost of subscription journals.

1.3. *The hybrid journal market.* A third market structure, the *hybrid journal*, plays a frequent role in discussions of open access and in the Finch Report in particular. Hybrid journals are subscription journals that also allow authors to pay an APC to make individual articles available open access. This model has been around for over a decade, and has been taken up by essentially all of the major subscription journal publishers. It has been touted as a transitional mechanism to allow journals to transition from the reader-side payments to writer-side payments. The theory goes that as more and more authors pay the APCs, the subscription fees will be reduced accordingly, so that eventually, once a sufficient fraction of the articles are covered by APCs, the subscription fees can be dropped altogether and the journal converted to full open access. Confusingly, both open access journals and hybrid journals are sometimes included under the term 'Gold open access', despite the fact that from an economic point of view they are quite distinct.

In particular, the hybrid model is not an appropriate transitional model to true open access. First, hybrid journals have not seen a major uptake in voluntary payment of hybrid APCs in practice. This is not surprising. There's very little in it for authors, since they typically have a far less expensive alternative method for achieving open access to their articles through Green open access. (In this way, the hybrid model disincentivises publishers from allowing Green open access, another perverse effect of the model.) There's very little in it for universities too, who are unlikely to underwrite these hybrid fees on behalf of authors. Although paying the hybrid fees is supposed to lead to a concomitant reduction in subscription fees, it is extremely difficult to guarantee that this is occurring, and in any case any such reduction is spread among all of the subscribers, so provides little direct benefit to the payer. Of course, payment of hybrid fees could be mandated by a funder. (Getting ahead of ourselves a bit, this is essentially what the Finch Report promotes.) But even if this practice were widespread and most articles had their hybrid fees paid, journals would still have no incentive to switch to the full open access APC-only model. Why would they voluntarily give up one of their two types of revenue? Finally, hybrid APCs are not subject to the competitive pressures of open access APCs and would be predicted therefore to be higher. This is exactly what we see in practice, with open access APCs shaking out in the $750–2,000 range and hybrid fees in the $3,000–4,000 range.

2. Comparing recommendations

Put together, these three facts – that the subscription market is inherently dysfunctional, that the open access market is preferable and sustainable, and that the hybrid model entrenches the former to the exclusion of the latter – it becomes clear what the ideal recommendations should be for funders to provide open access in the short term *while promoting a long-term transition to the preferable open access market structure*:

1. Require that funded research articles be made openly accessible, either through publication in an open access or hybrid journal or through Green open access supplementary to publication in a subscription journal.[10]

2. Support the open access journal market by providing underwriting of reasonable APCs, so long as they allow for full reuse rights.

3. Do not support entrenchment of the subscription model by underwriting hybrid APCs.

In terms of the four Finch Report desiderata, this approach provides essentially universal open *access* to UK-funded research (as the NIH policy has in the US for NIH-funded research); preserves *quality* by allowing authors to publish in subscription, open access, and hybrid journals alike; works towards broader *usability* by guaranteeing that APCs provide for full reuse rights; and provides *sustainability* by supporting a competitive market mechanism and avoiding the high costs and counterproductive nature of paying to entrench the current dysfunctional mechanism. By avoiding payment of hybrid APCs, it forces journals to choose between (i) charging on the reader side and retaining the ability to limit access and (ii) charging on the writer side and allowing full use and reuse rights. Journals would not be able to retain their subscription revenues and pick up additional APCs as well, at least at the public's expense.

Crucially, these recommendations recognise the difference between the two quite different market structures that are inappropriately lumped together under the rubric 'Gold open access'. Willingness to pay APCs for open access journals is consonant with the idea that publishers ought to be compensated for their work and recognises that open access journals cannot be compensated by virtue of their limiting access to those willing and able to pay, nor would we want to do so. Willingness to pay APCs for hybrid journals provides open access to that single article, but disincentivises publishers from moving journals from the subscription market to the open access market; it is myopic.

By contrast, the pertinent Finch Report recommendations are different.

1. Require that funded research articles be made openly accessible through publication in an open access or hybrid journal.

2. Pay for the costs of that open access through underwriting of APCs, whether at open-access journals or hybrid journals.

The change seems small. Instead of underwriting only open-access journals, it underwrites hybrid journals as well. And once both are underwritten, it is not necessary to allow for the admittedly less desirable Green open access option.[11]

Again, we evaluate the recommendations in terms of the four desiderata. By its silence on the matter (outside of mention of 'providing access to research data and to grey literature'), the report implies that Green open access is to be eschewed even in the short term. However, the requirement to publish in journals providing for payment for open access is likely to lead to broader *access*, at least for those articles for which funds are available to pay the APCs, and its concentration on publication in open access or hybrid journals recognises their ability to provide *quality* control that repositories alone do not. With regard to *usability*, the report is a bit equivocal in requiring broad licensing in return for APCs, but does say that 'support for open access publication should be accompanied by policies to minimise restrictions on the rights of use and re-use, especially for non-commercial purposes'.

The policy fails primarily, however, in the area of *cost and sustainability*. It provides no mechanism for controlling the dramatic cost increase in covering both subscription fees and high hybrid APCs. (By definition, open-access journals don't receive both kinds of fees, and their APCs are subject to market competition in a way that hybrid APCs are not, as discussed above.)

Similarly, in the short term, APCs will predominantly be paid to hybrid journals rather than open-access journals, as the hybrids constitute far more of the journal market. Journals will have no incentive to switch to the open-access model, and in fact, will be incentivised not to. Research libraries would still have to maintain their subscriptions in order to cover the substantial body of articles in hybrid journals that are not covered by APCs (because, for instance, they are not UK-funded). The total costs would be greatly increased, while still not solving the underlying market dysfunction.

In fact, the RCUK implementation plans for the Finch Report admit as much. It has become clear that there will be insufficient funds to cover all of the hybrid APCs, so that universities will be taken to be in compliance even if only a fraction of their articles are made available open access by the journals themselves, so long as the remaining fraction are available through Green open access. In fact, the RCUK implementation of the Finch Report proposal even allows for longer embargo periods in case the Green route is used because of insufficient APC funding.[12] The Finch recommendations thus embed their own negation: they envision having to use Green open access to implement a system that denies the utility of Green open access.

The alternative, requiring open access ecumenically – through open access journals, hybrid journals, or Green supplementary access – while being willing to underwrite fees for a market structure that work sustainably in the long term – true open access journals – is simultaneously effective in providing access as well as in providing an impetus to a future of the kind of accessible and sustainable journal publishing system that the Finch Report aspires to.

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His work on open access and scholarly communication policy, especially his development of Harvard's open access policies, led to his appointment as the first director of the university's Office for Scholarly Communication (osc.hul.harvard.edu), where he oversees initiatives to open, share and preserve scholarship.

Notes

1 For the Finch Report, published 18 June 2012, see Appendix 2 of this publication.

2 The report also provides a series of recommendations for increasing access within public libraries, strengthening the operations of institutional article repositories, gathering and analysing pertinent data, reviewing how learned societies might be better supported, adjusting tax policy for journal publishers and so forth. Many of these recommendations are reasonable and appropriate, but my main concern is the primary recommendations that relate to the market structure of journal publishing.

3 Finch Report, p. 17.

4 For instance, *Library Journal*'s annual Periodicals Price Survey reported a 6% average price increase for 2013 during a period in which inflation increased at 1.7%, continuing their tracking of a multiple decades-long trend of serials price increases at several times the rate of inflation. Stephen Bosch & Kittie Henderson, 'The winds of change: Periodicals price survey 2013', *Library Journal* (25 April 2013) lj.libraryjournal.com/2013/04/publishing/the-winds-of-change-periodicals-price-survey-2013

5 Elliot Maxwell, *The Future of Taxpayer-Funded Research: Who Will Control Access to the Results?* (Committee for Economic Development, 2012), www.emaxwell.net/linked/DCCReport_Final_Feb2012.pdf

6 See the discussion by Peter Suber arguing that we should 'weigh the demonstrable degree of harm to publishers against the demonstrable degree of benefit to research, researchers, research institutions, and taxpayers. . . . In short, we needn't let fear of harm serve as evidence of harm and we needn't assume without discussion that even evidence of harm to subscription publishers would justify compromising the public interest in public access to publicly-funded research.' Peter Suber, 'Tectonic movements toward OA in the UK and Europe', *SPARC Open Access Newsletter*, 165 (2 September 2012), http://nrs.harvard.edu/urn-3:HUL.InstRepos:9723075

7 The term 'open access journal' covers any journal that makes its scholarly article content freely and openly available online. However, we use the term here (as in the Finch Report) to refer to journals using a revenue model based on APCs. Although at present only a minority of OA journals charge any APCs, for the purpose of discussion of revenue models, the APC approach is the most plausible one for sustaining open access journals in the long run. Already, it is used nearly universally by the major open access journal providers.

8 Stuart M. Shieber, 'Equity for open-access journal publishing', *PLoS Biology*, 7:8 (2009), http://dx.doi.org/10.1371/journal.pbio.1000165

9 I have previously provided a fuller discussion of these issues of the difference between the subscription market and the open access market, especially in the context of scholarly society publishing programs. Stuart M. Shieber, 'Why open access is better for scholarly societies', *The Occasional Pamphlet* (29 January 2013), blogs.law.harvard.edu/pamphlet/2013/01/29/why-open-access-is-better-for-scholarly-societies

10 The treatment of hybrid journals we propose is appropriately subtle. Though authors are free to provide for the required open access by publishing in a hybrid journal (1), the funders would not underwrite the associated fee (3) as they would for a fully open access journal (2).

11 Although there are subscription journals that are not hybrid journals, the major publishers are uniformly moving in the direction of providing for hybrid fees, and smaller publishers are likely to follow suit over time. The Finch Report is silent on what to do about articles published in non-hybrid subscription journals. In the RCUK implementation documents, they allow Green open access just in that case.

12 RCUK policy on open access and supporting guidance. Report, 8 April 2013. www.rcuk.ac.uk/documents/documents/RCUKOpenAccessPolicy.pdf