

# Cites & Insights

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## Intersections

# Economics and Access 2017

Way back in the winter of 2016, the longest issue of *Cites & Insights* volume 16 was a 45.5-page essay [INTERSECTIONS: ECONOMICS AND ACCESS](#). (That's roughly equivalent to 91 pages in the new format.) A little less than a year before that (April 2015) was a 38-page issue-length essay, [INTERSECTIONS: THE ECONOMICS OF OPEN ACCESS](#).

Now here we are—and it's time to catch up with a variety of thoughts on economics and access. Most items cited come from 2016 and 2015. As usual, the groupings are somewhat arbitrary and items within a group are usually chronological. The set of tagged articles began with 143. That's far too many for a reasonably compact issue. The absence of an item may represent either my ignorance or my winnowing of less interesting or less meaningful pieces (or those that I feel shed more heat than light, and uninteresting heat at that) I find that I'm also dropping most items that repeat the usual errors about gold OA and offer little new insight.

## A Few Quick Facts

First, for those of you who haven't yet read [GOAJ2: Gold Open Access Journals 2011-2016](#) or the [shorter version in C&I](#), just a few quick notes on the *actual* economics of serious OA in 2016—at least on the fee side:

- Half a million gold OA articles may have cost \$420 million in APCs, or about \$803 per article. But...
- More than 220,000 articles appeared in journals that don't charge APCs.
- A dozen publishers with around 200,000 articles account for \$349 million (\$1,709 each), while several *thousand* with more than 318,000 articles account for \$71 million (\$222 each).
- Only 14 journals have APCs of \$4,000 or more and only 457 charge at least \$2,000.

I could go on...or you could read the full report. The price is right.

## Viability

*The Business of Open Access: Collaborating on a Way Forward*

Suzanne Kettley wrote this, which appeared [on November 26, 2015](#) at *CSPC: Canadian Science Policy Centre*. Kettley is executive Director at Canadian Science Publishing.

Starting off with a plausible summary of OA's benefits, Kettley then makes the most common error in discussing gold OA:

While open access is an important movement and ideology, it is not another way of saying “free” and it does not remove the need for money to be exchanged. One common open access business model, often referred to as “gold open access” shifts the passage of money from the end of the cycle to the beginning, so instead of paying to access published research (via subscription models or on a paper-by-paper basis), the publication of the research is paid for once the article has been accepted, usually via an article processing charge (APC) which is often covered by the authors themselves. With a subscription model, only those who have paid for subscriptions get access, whereas with an open access model, everyone gets access.

That second sentence is simply *wrong*, no matter how often variants of it are repeated. But, of course, that's the whole point: Kettley's arguing—correctly—that publishing costs money and, *incorrectly*, that this means charging APCs.

Then comes an interesting discussion that seems to suggest OA inherently costs *more* than subscription publishing:

Publishers are the first to acknowledge that APCs are not without their faults. For one thing, APC revenues are not predictable, being dependent on the number of published articles. This makes it difficult to ensure that fixed costs are covered by APCs, especially of a new journal. Transactional costs are higher for APCs than subscriptions and having an “article” charge (which is easier to administer than a “page” charge) may lead publishers to limit the number of published pages.

It's interesting to see page count mentioned in an era when nearly all new journals are digital-only.

The rest of the piece mostly asks questions. My question turned out to be: “How active is Canadian Science Publishing as an OA publisher?” Given that this article appeared in November 2015, it appeared reasonable to assume that the publisher would turn up on *DOAJ* as of June 2017. It does not. Neither do either of the two journals listed at the publisher's website. One of the two shows 52 articles since early 2016 (when it appar-

ently began). The other...McAfee Site Adviser considers the site potentially malicious, so I didn't investigate further. I'm not sure quite what this all says about viability or about this particular publisher. For the record, I should note that I also didn't find the publisher in my study of gray OA.

### *Cliff Lynch on the Transition Challenges for Gold Open Access*

Marcus Banks posted this [on January 6, 2016](#) at *Marcus' World*. He refers to an interview with Lynch by J.G. Bankier and focuses on “Lynch’s observations about the challenges of the transition to a fully gold open access model, in which academic libraries would pay author publishing charges (APCs) in lieu of subscription fees.” There’s a link to the interview in video form, but since the link now yields a 404, I’ll just deal with Banks’ observations—although, frankly, *I do not believe* that Lynch ever said that gold APC implies APCs or that APCs are normally paid by academic libraries. (That Lynch finds gold OA more viable than green OA is less surprising, and of course I tend to agree.)

Actually, I’m fairly certain Lynch didn’t imply that gold OA *means* APCs given the first sentence in this paragraph:

Presuming a gold model, the current principal means of payment is via APCs. Lynch correctly observes that fully gold OA could cost research-intensive institutions more than the current subscription systems. He is also correct that “marquee names” such as *Science* and *Nature* would be able to charge above-market-price APCs, in the same way as housing costs more in highly-sought neighborhoods.

“Current principal means of payment” is tricky, but then so is “could” in the next sentence: that could be true if (and only if) funding agencies allow and encourage APCs across the board to rise to the elevated levels desired by a few publishers and journals.

This isn’t really what Banks is after, though. He’s taking issue with three “implicit assumptions” he sees behind Lynch’s comments. The three, each of which receives a paragraph of refutation: That open access is about saving money for libraries; That the subscription journal system includes only monetary costs; That established modes of scholarly discourse are still all that is needed in the digital age.

Banks seems to think that the first erroneous assumption (and it is or should be erroneous, for the reasons Banks gives) “has been the predominant public posture of academic librarians.” I don’t believe that’s true—or at least I’d like to think it isn’t. Substantial cost savings *should* be one good effect of a shift to OA, but that’s not the primary goal.

The second is interesting and outside my expertise; I have no reason to doubt Banks’ analysis. Ditto the third.

The kicker here, to be sure, is that librarians need to do a good enough job of staying in touch with their communities so that scholars don’t think of them as just article vendors. Any time the question “What becomes of

libraries/librarians when everything's OA?" arises, something has gone wrong. (For some librarians, pooh-poohing faculty attachment to actual physical book collections may not be a wonderful step toward maintaining community strength, but I'm old: by now, academic librarians may have gotten past this.)

OK, so maybe this essay is more about *library* viability than it is about OA viability. So it goes.

### *Creating an Infrastructure for Open Access*

Barbara Fister posted this [on February 6, 2016](#) in the Library Babel Fish blog at *Inside Higher Ed*. It's nominally about the [Open Access Network](#), a proposed system to support humanities and social science research through multi-institutional funding—the creation and ongoing support of a common centrally-managed fund.

Their plan is breathtakingly audacious. It's also thoughtful and respectful of the interests and concerns of all stakeholders. Essentially, the plan is a way to say “we can make all humanities and social sciences research open if we want to. But every institution of higher learning will have to chip in.”

Fister considers the viability of the current scholarly publishing system and the special problems of chronically underfunded HSS—and that all this isn't just a “library problem”:

Scientists in many disciplines can build the cost of open access publishing into grants, and increasingly funders require that research results be open to all and are willing to pay for it. But—surprise!—there isn't a lot of cash available to fund the publication of humanities and social sciences research. The “author pays” (more accurately, the “author wrangles the money from someone else to pay”) model of financing publication isn't going to work. Nor can we rely entirely on ad hoc volunteer efforts or even well-planned and thoughtfully financed projects of limited scope. We need a sustainable system for scholarship writ large. The one we developed for a print era when public funding of higher education was generous is over. Luckily, we have new ways of sharing knowledge. We just have to make the shift, somehow.

Librarians have known the old system was unsustainable for years and have thrown themselves into library-supported publishing. Many institutions have repositories where faculty can post their work. Many provide labor and software support for publishing open access journals and books. However, all this work hasn't replaced the broken system. It has created more avenues for publishing, but it's a parallel universe, not a fix. Besides, this isn't a library problem for libraries to solve. It's a higher education problem. We need all hands on deck to fix it.

There's more here, and it's worth reading directly. It's hard to argue with one key sentence in the final paragraph: "It's not realistic to assume that business as usual will go on." Is OAN a workable solution?

You may also want to look at [the white paper behind OAN](#).

*Academic journal markets, their limitations, and the consequences for a transition to open access: a thought piece*

This essay appeared [February 11, 2016](#) on the Jisc Reports subsite. It's relatively short, UK-focused, and "intended to stimulate discussion about the features of academic journal markets that might promote or inhibit cost-effective progress toward the UK government's aim of open access."

The second paragraph may be key:

It is prompted by a shared concern among professionals in universities, that the current transition to OA is both too slow and too expensive, and furthermore that the transition on its current path risks replicating unsatisfactory aspects of the subscription journal market.

The "too expensive" part of that may relate directly to the Finch Report and subsequent ways of promoting OA in the UK.

There's a good comparison of the "new open access market" and "legacy subscription/hybrid market" and it's good to see that "hybrid" is included as part of the legacy approach.

The hybrid journal market is "highly dysfunctional, with very low uptake for most hybrid journals and a relatively uniform price in most cases without regard to factors such as discipline or impact", as would be expected given the market features above.

The paper is rich enough and well-written enough that you may be better off reading it (and following links in the endnotes) yourself. One conclusion is that "hybrid" models "are simply adding a new cost to UK higher education and a new UK revenue stream to publishers."

Some pithy comments on big deals also appear, including this:

However, as smaller journal publishers (including learned societies) and, especially, research monographs have been squeezed out of the library budget by what are effectively fixed big deal costs, there are obvious longer term dangers not only for the range of impact but also for academic freedom.

Similarly, there is less library support for undergraduates, researchers and academics more generally, with likely knock-on effects with respect to student satisfaction and achievement.

The piece ends with a set of six possible options to improve the situation; they all seem reasonable.

## *Small scholar-led scholarly journals: Can they survive and thrive in an open access future?*

Heather Morrison published this article [on February 17, 2016](#) at *Learned Publishing*—and it's OA (in a hybrid journal, one with relatively modest institutional prices). Here's the abstract:

This article presents early results of a research project designed to further our understanding of how to ensure that small scholar-led journals can survive and thrive in a global open access knowledge commons. This phase of the research focuses on generation of ideas through interviews and focus groups with 15 participants involved in producing small scholar-led journals that either are or would like to become open access. Although a couple of journals reported that they could survive in an open access future based on existing resources, most were concerned about survival and none expressed confidence that they could thrive in an open-access future. These journals are far more diverse than one might imagine. Comparing the costs of article production from one journal with another might not make sense. A number of avenues for further research are discussed.

I'm not quite sure what to say about the article and the research. Obviously, no broad conclusions can be gained from a group of seven OA and eight subscription journals, two-thirds of them in Canada. Morris says as much in a Limitations section:

This research involves a small, non-random sample that draws heavily from Canadian scholarly journals. Results cannot be generalized. The need to protect the anonymity of participants and their journals limits my ability to identify issues and opportunities that may be more relevant in a particular geographic region or scholarly discipline. The focus of this study on small scholar-led journals omits a large segment of scholarly publishing, professional publishers, and professional/ society partnerships.

Even as anecdotal, I was hoping for more—e.g., something about costs with a little more to it than this (quoted in full):

Overall, hard dollar costs vary widely and likely to some extent with the funding available for the journal, that is, journals that rely entirely on volunteer labour and in-kind support have no direct spend. For journals that are still producing a print edition, this is a major cost item, even though in most cases print subscriptions have decreased. The hard dollar costs associated with journal hosting ranged from free for a few journals (provided for free through institutional or library support) to \$CAD1,250 per year for two issues to \$US3,000–\$US4,000 to over \$US12,000 per year (for the publisher with several journals). One journal outsources article production (layout) at a cost of \$400–\$600 per article. Other costs include layout editing and translation. One journal funds a professor's course release that used to be subsidized.

There's also no definition of "small": does that mean ten articles per year, 40, or 100? I'd call all three levels small journals, but there are real differences.

The article is interesting, and perhaps I'm being too critical. Irrelevant to this discussion, but I found this passage fascinating in a "why I'm unlikely to move to Québec" way:

Translation was important for many of the journals, particularly Canadian journals due to the bilingual requirements of federal funding agencies. Journals in Québec had particular linguist requirements due to local language law; anglicisms that are considered acceptable in other regions of *la francophonie* (including France) are contrary to Québec law. For example, in Paris, it is considered acceptable to use the term e-mail, but in Québec, the term is courriel.

There's some grumbling about libraries—specifically their unwillingness (or inability) to pay for OA journal publishing.

### Open Access

[This essay](#) on the Association of American Publishers website (not sure of the date; I tagged it on April 20, 2016 and it appears to carry a 2015 copyright—but as is commonly the case with websites, page info shows today's date) is really about viability for AAP members, and I suspect about maintaining current levels of profitability.

I give AAP credit for not making the most common publisher error/falsehood when discussing gold OA, that is, assuming that gold OA means APCs. One key word in this paragraph saves it:

In "*gold*" open access, the authors (or their institutions or research funders) usually pay an APC (article processing charge) to publish the article. This fee ranges from several hundred to several thousand dollars per article, depending on the journal.

It's true that most articles in current serious gold OA journals involve APCs, even though most journals don't charge them, so "usually" is correct—although "several hundred as a lower limit is *not* true, since in 2016 there were 609 DOAJ-listed APC-charging journals with APCs below \$200, and those journals published 42,679 articles. So call it "more correct than usual."

What becomes obvious is that *industry* viability is the focus, and the AAP doesn't seem to see a contradiction in its argument against limiting embargoes. There's a lot of discussion, including these paragraphs:

The most controversy around sustainability arises around green open access, where funders impose an embargo period limiting how long a journal publisher may offer an article via subscription before the article must be made available for free public access without offering additional funding to support the costs of publication. The length of these embargo periods have tended not to be based on any evidence of how journals are actually accessed and used over time, and they often may not be long

enough for publishers to recover their costs of producing, managing and curating digital articles. This is particularly true where one-size-fits-all approaches are imposed, such as in federal agencies that are leaning toward a standardized 12-month embargo period for green open access.

Because U.S. federal agencies fund a large portion of current research, and private sector research funding organizations generally follow suit, AAP is concerned that the federal agency policies, and current legislation under consideration in Congress, may become the de facto standard for green open access across the U.S. and around the world.

To help ensure a future where peer review and vetted editorial content are still maintained in published journal literature, open access policies need to consider the inherent costs of producing reliable content in order to support a sustainable system for making such content available for free.

Later we see a discussion of journal half-life that suggests that articles receive much of their use several years after publication

- Articles in the majority of journals receive more than half of their lifetime downloads three or more years after publication.
- Only 3% of journals across all fields have half-lives of 12 months or less.
- Health sciences articles have the shortest median half-life of the journals analyzed, but still more than 50% of health science journals have usage half-lives longer than 24 months.
- In fields with the longest usage half-lives, including mathematics and the humanities, more than 50% of the journals have usage half-lives longer than 48 months.

Basically, AAP is saying publishers should be free to impose embargoes long enough to ensure that most of the article's worth has already been captured. But put that another way: the AAP is arguing to *limit access to scholarship* until most such access is irrelevant. Great for publishers, not so great for access. "Eventually you'll be able to read about this without being part of a sufficiently wealthy institution" really isn't much of a change from the status quo, if "eventually" means "once it's no longer worthwhile."

### *A longitudinal study of independent scholar-published open access journals*

This peer-reviewed article by Bo-Christer Björk, Cenyu Shen and Mikael Laakso [appeared May 10, 2016](#) in *PeerJ*. Full disclosure 1: One of the data sources for the study is my 2002 study, "[Free electronic refereed journals: getting past the arc of enthusiasm](#)" (a different version of this appeared in [Cites & Insights 1:5](#), May 2001, with two pages of feedback in the [June 2001 issue](#)). Full disclosure 2: I find it workable to recommend some of the work of this team while sharply criticizing the "predatory publishing" study. Such is life.



It's an interesting review of 250 early OA journals and how they have (or haven't) survived. Most of these are small journals (median of 18 articles per year), a few of them (8%) have turned to APC but most have not, approximately half of the journals are still active—and the study seems to nail down my old term “arc of enthusiasm” as probably being five years, given that years six through nine are the most likely years for journals to fail.

There are five case studies along with the general study, and they're interesting—but one “case study,” by far the shortest, is bothersome:

#### Electronic journal of Geotechnical Engineering

This is an interesting case of an ‘indie’ journal turned predatory. Published by a now retired professor from an American university, the first issue in 1996 contained invited papers after which the journal was a typical struggling ‘indie’ journal with a slowly rising publication volume from 4 to 33 papers between 1997 and 2007. After that the volume has dramatically risen to 628 in 2014. Jeffrey Beall wrote a blog accusing the journal for having turned predatory in July 2015 (Beall, 2015). Currently the journal pages say “editorial fee is \$500 for the entire editorial and publishing work. Following the “supply and demand” rule of economics, this may be modified”. The journal website still has an amateurish 1990's feel and look (authors are instructed that they can also send the files on floppy disks!) and authors sign over the copyright to the journal.

What makes this journal “predatory”? Because Beall says so, apparently, and the authors here (as elsewhere) seem to see no reason to regard Beall's word as less than gospel. Since the journal isn't in DOAJ, I'd label it as automatically gray. (When the journal was checked as part of my gray OA study, I did *not* find any argumentation for its “predatory” nature and found no red flags at the journal site.)

Still, an interesting study well worth reading.

#### *How deep is the Article Processing Charges market?*

This item by Witold Kieñć appeared [on May 5, 2016](#) at *Open Science*, which is a De Gruyter Open site. It's based on a survey of 898 academic authors carried out by De Gruyter. The summary:

26.8% of academic authors predict that they will have money to cover publication fees in the year 2016. Researchers from the field of Arts, Humanities and Social Sciences seem to be more pessimistic than their STEM colleagues. Also an army of academic authors who are not paid for conducting research see even smaller possibilities of funding for their publication fees.

The table is, if anything, even a bit more negative: the figure for medical and life sciences is 29.1%, with STEM being the only area with nearly a third of researchers believing they can fund APCs.

[Another post](#)—same day, same author, same venue—discusses “who paid how much.” That one makes interesting reading, even though the sample—150 authors who’ve actually paid APCs within the past three years—is a bit small for strong conclusions. It does appear that authors from what Kieńć calls “peripheral countries” (countries with GDP of less than \$20,000) are equally likely to publish with APC-based journals—but they use journals with much lower charges. (This finding involves 41 authors, so it’s *really* anecdotal, but it also makes sense.)

### *Can Highly Selective Journals Survive on APCs?*

When you know the author and venue of this piece—David Crotty [on October 10, 2016](#) at *The Scholarly Kitchen*—you can pretty much assume the answer: No, barring unworkably high APCs.

The first two paragraphs set the tone:

As was widely expected, [eLife recently announced](#) a move away from their 100% funder-supported business model to one where authors will be required to pay an Article Processing Charge (APC). And yet, as seems to be the case for several other highly selective, fully-open access (OA) journals, the chosen APC is too low to actually cover the costs of publication. Why are many OA publishers unwilling to charge enough to break even? Does this set unrealistic expectations for what it costs to run a top journal? And are there instead other strategies that might work better?

*eLife* has, since its founding, been in a position of privilege as compared with other journals. With access to the deep pockets of its wealthy funders, the journal has been able to run with few constraints, providing free high-quality services for authors and readers at no cost while at the same time offering generous salaries for editors and staff and investing heavily in technology development. As the leader of a major non-profit scientific society quipped at a meeting just after the launch of *eLife*, “it must be nice to be rich.”

There are key terms here: *generous* salaries for editors and staff, *heavy* investment in technology development. Doubt that Crotty’s asserting that very high charges are appropriate? Read the rest of the piece.

I agree. *If* you accept that current salaries, staffing levels, profit and other expenditures are appropriate, and *if* you believe journals should be “highly selective,” and *if* vast amounts of work are done by highly-paid employees, *then* you could claim that such journals need very high APCs.

Indeed, you might even wonder how it’s possible that, even with the major added costs of print runs, fulfillment, and the overhead associated with subscriptions, a “mere” \$5,000 per article allows big publishers to have 30%-40% profit margins.

Consider this paragraph:

A leading humanities journal that I've worked with calculated that in order to maintain their current level of service to authors and relatively small margin, they'd need to charge \$18,000 per article. Note that this is a journal where the top-tier subscription price for the very largest of institutions is around \$300 per year, with most schools paying much less. Were they to move to a gold OA model, this would create a seemingly poor offering for universities, as the choice between paying for one author to publish one paper would be the equivalent to the cost of subscribing to the journal for the next 60 years.

I find this example astonishing, but of course I can't disprove it.

Crotty says journals should move to submission fees. If one accepts that OA has to be funded through author-side fees and that traditional models of editorial staffing, etc, are appropriate, he may have a point. Or maybe "top journal" and "highly selective" are both obsolescent terms, especially given the evidence that big-name journals publish the worst science.

### *Supporting OA2020: Changing the journal funding model to pre-payment doesn't increase publisher market power*

Jeffrey MacKie-Mason posted this [on October 23, 2016](#) at *madLibbing*. (MacKie-Mason is an economist and University Librarian at UC Berkeley.) It's a rejoinder of sorts to [an open letter](#) by UCLA's University Librarian, Ginny Steel, raising cautions about OA2020, a proposal to "flip" scholarly publishing to APC-based gold OA.

The last part of the first paragraph:

While I admire UCLA's commitment to advancing open access and affordability of scholarly publishing (which are two separate questions, though often entwined), I disagree with almost all of her arguments against pre-payment ("flipping"). They are based largely on unsubstantiated fears, fears that will remain unsubstantiated because they are a result of fundamental flaws in economic logic.

After rereading the entire piece, I find myself coming back to "economic logic" as the basis for most of these arguments. It's hard to argue with "economic logic," except to observe that it presumes a form of rational and justifiable behavior that isn't always (or mostly?) found in the real world. I also found myself muttering "mansplaining" as I was reading the piece, which may be wholly unfair.

I do *not* think it unfair to object to the ease with which MacKie-Mason's willing to sign over *all* of Berkeley's serials expenditures (and those of every other university, presumably) so that authors can pay whatever APCs they choose. I believe that the UC Berkeley library (noting that I have a strong personal and professional attachment to this library system) has been substantially damaged by increasing serials costs, taking over far too much of its budget at the expense of other uses. I wrote a book about it in 2013, *The Big Deal and the Damage Done*—a book that I believe makes a strong case

that academic libraries have already been damaged significantly. So I have problems with an approach that says “Sure, we’ll just take all that money you’ve gouged from us and sign it over so that you can get it via different means.” (While *The Big Deal and the Damage Done* is out of print, a followup study, [Beyond the Damage: Circulation, Coverage and Staffing](#) is still available—and a shorter version, [Big-Deal Serial Purchasing: Tracking the Damage](#), which appeared as the May/June 2014 *Library Technology Reports*, is now freely readable, as is generally true of LTR issues after a year.)

And I believe the “logic” that costs—via APCs rather than subscriptions—wouldn’t just keep rising inexorably and would likely fall exalts theory over demonstrable practice.

I’m not going to annotate this piece. I’ll quote one more paragraph:

I don’t know why so many librarians have an irrational fear that changing the flow of funds will lead to publishers being able to extract even more money from universities...but there is no economic basis for that fear. If switching to a pre-payment (APC) model would enable them to make even more money...why haven’t they gone ahead and done so already? Publishing pre-payment journals does not use up more economic resources (labor, server time, data storage, paper and ink), so there will be no greater production costs publishers need to recover. And pre-payment does not increase publisher market power (in fact, more likely decreases it) so pre-payment doesn’t lead to higher profit extraction either. If the publishing industry can thrive on the funds we currently fork over, then those funds, directed to APCs rather than subscription payments, will continue to suffice.

If you find that convincing, you’ll probably love the whole piece. I’m neither an economist nor a professional librarian, so perhaps I just don’t understand. You might also want to read “Economic thoughts about ‘gold’ open access” posted [April 23, 2016](#) on the same blog—and the comments that follow the post.

### *What we mean when we ask whether open access is sustainable*

Martin Paul Eve posted this [on November 24, 2016](#) on his eponymous blog. I don’t always agree with MPE, but this post is nicely done—so nicely done (and short enough) that I’m quoting the whole thing (it’s CC BY):

The most frequent question that is asked in scholarly communication circles about gold open access is whether a business model is sustainable and/or scalable.

Assuming, for the sake of argument, that we are talking about publishing the exact same quantity of material as we are under a subscription model, here’s what that means:

1. Does the model distribute costs in a way that makes it affordable to the actors who pay? For instance, APCs might be unsustainable

because they *concentrate* the burden on specific institutions rather than spreading it among many. If the model does not distribute costs, then it is not likely to be sustainable or scalable.

2. Does the model encourage free riders? In other words, is there a way in which, beyond doing things more cheaply, a gold open access model might take money *out* of circulation by encouraging people not to pay? If so, then there is a challenge for the remuneration of publisher labour (though excessive profit margins mitigate this “risk”) and it may not be sustainable for a publisher.
3. Does the model take money *away* from subscription expenditure/publishers (i.e. offsetting)? If not, then the model is not likely to be scalable since it is an additional cost for libraries to bear. Hybrid without offsetting does not fulfill this requirement.
4. Does the model alter the financial flows back to other incentivized entities, such as learned societies? Argue all you like that this is a bad way of funding societies (it is) but if a model disrupts the revenue of learned societies, they will see this as unsustainable.

To the point, and I don’t see the need to comment further.

### *Excluded*

In addition to items tagged but not included because they didn’t seem to add much, there’s one from a so-called “academy” that, early on, repeated the usual falsehood about gold OA *meaning* APCs and didn’t really say much—but I’m omitting it because, the second time I went to look at the page, it demanded an account to view its “exclusive content.” The content was erroneous in any case, so I declined—and have omitted other items from this “academy.”

## Costs

I have three subtags: costs, fees, and spending. Between them they include most of the remaining items. The distinctions may be fuzzy, but I’ll retain the three-way split if only to keep section size manageable.

### *The Marginal Costs of Article Publishing—Critiquing the Standard Analytics Study*

Cameron Neylon posted this [on December 28, 2015](#) at *Science in the Open*. It relates to “[On the Marginal Cost of Scholarly Communication](#),” which I discussed in the [previous installment of this series](#), in C&I 16.2.

In this post I will critique those claims and attempt to derive a cost that fully represents the base *marginal* cost of article publishing, while pointing out that such average estimates are probably not very useful.

The central point is that the paper shows not marginal costs but (a proportion of) the per particle technical platform costs. It is however the case that their central point, that modular, low cost and flexible platforms that create efficiencies of scale, offer the opportunity for radically cheaper scholarly publishing systems.

He notes some missing costs in the original calculation, specifically a reliable web platform and management of peer review (peer review itself is “free”), and notes the difficulty of using averages.

The biggest issue in the paper is the way that infrastructure costs are presented. Firstly it removes the costs of development of the system from the equation. It might well be the case that grant funded, or donated technologies will evolve where the costs don't need to be recouped from users. That doesn't mean those costs don't exist, just that someone else is footing the bill. But it's important to note that Standard Analytics intend to make an offering in this space and they will presumably be looking to recoup at least some of their investment. What they are doing looks interesting and I don't doubt they could substantially undercut incumbent providers, but it will be worth more than \$1 per article, precisely because they'll be offering additional services and probably customisations.

There's more here, and if you've read the earlier paper you should read this as well. I'll quote a bit more:

It's easy to add up the obvious costs of bits of a scholarly communication pipeline and observe that they come to less than what people generally charge. Academics often have a habit of simply deciding any bit that isn't obvious is unnecessary. This is often built on arrogance and ignorance. Equally publishers often have a habit of defending the status quo as the way it has to be without actually addressing whether a given component is necessary. We need a much better conversation about what all the pieces are, and how much value all of them add, from discovery layers and marketing, through typesetting, copy editing, and pagination, to the costs created by the continued insistence on using Word and LaTeX.

A lot of the costs are tied up with inefficiencies and misunderstandings that lead to an attitude of “if I want to do it properly I'll have to do it myself” on all sides of the academic/publisher/system provider divide. An enormous amount of work arounds, patch jobs and replication go on, and the work arounds generate further work arounds as they fail to engage with the needs of another group of stakeholders. As noted above we have no real understanding of how investments by academic editors in the form of time lead to savings on the publisher side, and vice versa. And a lot of those inefficiencies relate to technology, which [as I noted previously is difficult to replace piece by piece](#).

There are savings to be made, but to make them requires unpicking these three separate issues. What services and outcomes are needed

(and by what communities)? Which of those services and outcomes are currently being delivered inefficiently? And of those, where can new technology make a difference? And for all of these what are the social and political challenges in actually achieving change?

Neylon believes the base level costs of running a midsize OA journal (say 50 to 500 articles a year) is around \$450-\$550.

*Comments on “On the marginal cost of scholarly communication”*

Another commentary on the paper, this time by Thomas Arildsen [on January 2, 2016](#) at *Adventures in Signal Processing and Open Science*. It’s shorter and mostly raises questions about marginal cost assumptions, especially for startup publishers.

Also worth reading if you read the original article.

*Science (which needs communication) first, careers (which need selectivity) later*

Jan Velterop posted this [October 29, 2015](#) at *SciELO in Perspective*. He’s directly commenting on the claim by a *Nature* editor that gold OA becoming the norm could mean “the cost per article could be in excess of \$10,000 to publish in highly selective journals such as *Nature*, *Cell* or *Science*.”

I don’t know what exactly his reasoning was, but if it was what I think it was, the figure of \$10,000 is probably too low. Let me explain. Scientific journal publishers typically charge—authors in the case of gold open access; librarians in the case of subscriptions—only for content that has been published. That means that the cost of their operations (however they calculate those) is fully carried by the published articles. However, the costs of their operations also include all costs associated with being selective, i.e. the work done to reject manuscripts for publication. It follows that journals that are more selective have to release a larger amount in revenues per article that they publish than journals that are less selective.

One doesn’t see this easily in subscription fees, as the revenues from subscriptions are of course dependent on the combination of subscription fees and numbers of subscribers, so a very selective journal that needs to make a high amount per published article, in order to cover its costs, may also have a large number of subscribers, and can do that—cover its costs, that is—with relatively low subscription fees. Article processing charges (APCs) on the other hand, must reflect the amounts needed to cover a publisher’s costs. So generally, one could expect to see higher APCs for more selective journals, and vice versa.

If only it were that simple. The reality is that the case seems to be made by publishers that APCs should be higher for selective journals than for less selective ones—Phil Campbell’s example above—but I’ve heard or

seen very little explicit reasoning in the opposite direction, namely that APCs should be lower for less selective journals.

The first question (to my mind) is why *managing* peer review is so incredibly expensive (since publishers don't pay for the actual peer review). For a system where all manuscripts are in electronic form and, we must assume, record-keeping is automated, how can it cost Big Bucks to send out a manuscript, receive the results and annotate the article record? Let's not get into another issue, which is that highly selective journals seem to publish more than their share of bad science...

But if this is a big-ticket per-article item, then Velterop's dead right: APCs for less selective journals should be much lower. But that doesn't seem to be the case, as he points out.

One solution could perhaps be to charge submission fees rather than—or in addition to—publication fees that could then be substantially lower. One could see submission as similar to entering an exam, for which you pay an exam fee, whether or not you pass. Like the test one has to pass in order to get a driver's license, for instance. That is unlikely to succeed, though, if not all publishers would simultaneously introduce such submission fees. But it is unlikely to happen for another, perhaps more fundamental, reason. Namely the hurdle that a submission fee would oblige a publisher to guarantee carrying out proper peer review and truly justifying any rejection. That is something they probably cannot do, or are most uncomfortable doing.

That last sentence is intriguing. In practice, that's why any plausible submission fee would have two tiers: a *really* low fee for the “desk check” level, followed by a higher fee for actual peer review and justified rejections. (Do journals justify rejections?) There are such OA journals, but not many of them, and of course that adds transactional costs for the two levels.

But we have to ask ourselves the question why selectivity of journals is really necessary beyond filtering out ‘crackpottery’ or fake articles, especially since the space constraints present in the print era are not relevant any longer in the internet world in which any serious journal is published electronically. The usual answer is: “Quality!” And peer review is almost universally seen as the way to assess ‘quality’. That is interesting, as peer review has many characteristics, none of which can credibly be described as a reliable quality indicator. Some of its characteristics are most discouraging: slow, inefficient, unreliable, highly variable, ineffective, arbitrary, undermining scientific skepticism, confirmation-biased, putting careerism before science, expensive, to name a few.

There's more here, worth reading, suggesting “peer review by endorsement” with the peer review arranged by the author(s)—and one journal is apparently using this methodology.



This method of publishing with ‘peer review by endorsement’ ensures that articles have had some scrutiny before being published. If they could subsequently be critiqued and be subjected to ‘post-publication review’ as well, we will have arrived at the situation that the communication of scientific results has been secured, and that in a subsequent and separate process the article’s ‘value’ in terms of significance, quality, and all that, can be assessed, potentially over a period as long as years. True quality will emerge; the chance of false positives—prematurely calling a paper significant—will have been diminished. And careers can then be built on true achievements rather than on spurious impact factor scores.

### *How much should a scholarly article cost the taxpayer?*

That’s the \$5,000 question asked and answered by Björn Brembs in this [January 7, 2016](#) item on his eponymous blog—and here’s his fast answer:

*tl;dr: It is a waste to spend more than the equivalent of US\$100 in tax funds on a scholarly article.*

Brembs notes SciELO’s \$70-\$200 per-article stated costs as one example, and \$100-\$500 costs at some recent publishers. So how does Brembs arrive at \$100 as a maximum? Discussing the “On…” paper already commented on:

They calculate two versions of how these costs may accrue. One method is to outsource these services to existing vendors. They calculate prices using different vendors that range between US\$69-318, hitting exactly the ballpark all the other publishers have been quoting for some time now. Given that public institutions are bound to choose the lowest bidder, anything above the equivalent of around US\$100 would probably be illegal. Let alone 5k.

Public institutions are expected to choose the lowest *fully-responsive* bidder, not necessarily the same thing. In any case, Brembs sees more in the paper, then jumps to an assertion he’s far too fond of in order to deal with fixed costs: “We” should take *all the money currently spent on subscriptions* and invest it in “an [infrastructure](#) that keeps scholarly content under scholarly control and allows institutions the same decisions as they have in other parts of their infrastructure: hire plumbers, or get a company to show up. Hire hosting space at a provider, or put servers into computing centers. Or any combination thereof.”

Which, of course, leaves libraries in no better shape than they are now, with far too much of their budgets already drained by serials vampires.

### *This renowned mathematician is bent on proving academic journals can cost nothing*

If you buy this headline on [this March 4, 2016](#) story on Vox by Julia Belluz, the answer to Brembs’ question should be “nothing.” The renowned mathematician is Timothy Gowers.

As you might guess, the headline doesn't quite match the story. The story offers a good overview of the serials crisis, the role of OA and the uses of archives. And, specifically, *Discrete Analysis*, which will largely be an overlay journal for ArXiv. Does that make it truly free? Maybe not—but it may be cheap enough to be absorbed by departmental budgets (just as thousands of OA journals already are).

Gowers is betting traditional journals don't add value, particularly when it comes to papers that are mostly math. "We don't need all the services journals provide—like formatting in a journal house style and copy-editing—because the pre-prints are good enough already, and there are lots of examples where copy-editing makes articles worse and introduces mistakes."...

"Our journal will be one of many potential low-cost models of academic publishing," he says. "I would like to see many more very low-cost journals being set up by academics in the control of academics rather than publishers."

Gowers sees a future for different models of "alternative, cheap system[s]"—but cheap and free aren't the same thing. The article includes two examples in addition to [Discrete Analysis](#). Unfortunately, one of them seems to have few if any articles that have actually *been* peer reviewed, and the other link goes to another Vox story: the title is too generic to search for. *Discrete Analysis* itself had 17 articles as of one year in (October 5, 2016). It isn't entirely free, but it's an interesting model.

*What would a Gold-OA world look like? Three issues briefly considered*  
Mike Taylor on April 1, 2016 at SVPoW—and in this case I do not believe that the post date is significant. He considers three aspects of a possible "flipped" scholarly communications system (that is, take *all* the subscription money and pay for APCs with it): incentives, costs and markets.

Come to think of it, the first "incentives" paragraph almost does suggest that April 1 is relevant:

A concern is sometimes expressed that when publishers are paid per paper published, they will have an incentive to want more papers to be published. Would this exacerbate the existing publish-or-perish culture where we are flooded by quantity of publications, sometimes at the expense of quality?

So salami-slicing could change to even *thinner* slices? Is that even possible? For that matter—as I've said previously—since publishers increase subscription/big deal prices partly based on increase paper volume, they have *exactly* the same incentive as APC-based publishers do.

In any case, as Taylor notes, the real incentive for ever-increasing paper volume isn't the publishers:

While scholars gain rewards like promotion and tenure by publishing many papers (for example because committees evaluate people based on their H-index), it is inevitable that those scholars will seek to publish many papers—and this would be true whether in a subscription-based or Gold OA-based system. Thus I think the problem of publishing quantity rather than quality is quite independent from the problem of how we pay for publications.

Have I mentioned that Google Scholar says my H-index is 19? Wikipedia says that's good enough for full professorship in physics, and around three times the average full professor in HSS. It's also nonsense, of course.

As for costs, Taylor uses Wellcome's figures for APCs and concludes that a full flip might cost \$6.6 billion/year: far too high but still a savings. This assumes that flipped APCs wouldn't climb rapidly

On markets, Taylor offers a good and useful comment:

This one is a question, and I think it's crucial for the prospects of a Gold-OA ecosystem: will we get [an efficient market](#) in APCs? If we do, then prices will be forced down until they are very close to costs—which publishers like Hindawi, Ubiquity Press and PeerJ have shown can be in the \$400-500 range, almost literally an order of magnitude less than the world presently pays for publication. But if no true market emerges, prices will not fall—indeed publishers may have the leverage to raise APCs at rates greater than inflation, as they have been doing for subscriptions.

If I'm less sanguine about the bold-faced advice in the following paragraph, it's only because I'm not sure libraries and consortia can make these decisions without strong faculty support:

That is why I believe that, however tempting “APC Big Deals” are to **individual libraries or consortia, they should be strenuously resisted.** As with subscription Big Deals, the short-term savings (while real) would be absolutely dwarfed by the long-term losses.

### *The High Price of Open Access*

Andrew Wilson posted this [on March 15, 2016](#) at *Notes from Two Scientific Psychologists*—and I find it a tad problematic, even though I'm inclined to agree that PLOS's APCs are high (and not convinced that paying San Francisco-level CEO and other salaries is best for the health of OA in general).

We've been chatting about open access journals, and how surprisingly expensive it is to publish in them. Obviously there are costs involved in publishing, but given it's all digital and a lot of the labour remains free, why is it so high?

A [Storify](#) follows, basically offering Andrew Kern's medium-sized blog critique of PLOS spending as 40 tweets. There's another [Storify](#) with Michael Eisen's partial responses.

Then there's this:

PLOS created open access, and proved it could be done and make money. This is a remarkable achievement done in a pretty small amount of time. They are strong advocates for open access and this advocacy requires time, people and money to advertise, attend conferences, lobby and more. All of this is important work and I really do appreciate it—open access simply must be the future of scientific publishing.

No, that's simply wrong: PLOS did not "create open access" and I'd like to think PLOS would make no such claim. At least 1,560 DOAJ-listed active journals were founded before 2003 (when PLOS began publishing). Has PLOS been an important player? Certainly. The creator? Certainly not.

Much of this post consists of PLOS tweets about what it spends money on, followed by some variant on "why am I paying for this with APCs?" By the Nth repetition, I wanted to shout out "Because, you twit, you *want to publish in a PLOS journal.*" But that's mean and I have no reason to believe Wilson is a twit.

A subtler response might be: There are 153 active DOAJ-listed journals in psychology. The vast majority—80%—do not charge APCs at all. Of those that do, only two charge more than \$2,000 and only five others charge more than \$1,000. So, y'know, there are venues with more modest APCs. But perhaps less prestige and less assurance of longevity?

### *WSJ Opinion Piece Mischaracterizes Scholarly Publishers*

This "newsroom" piece appeared [April 18, 2016](#) on the AAP website, and I would probably have skipped it as irrelevant but for this final paragraph:

Aslin claims changing business models will reduce costs: "If you do the math, this could be cheaper than the status quo." However, study after study has shown that, at best, costs would remain the same under new business models and, at worst, transitioning the system could cost more or be unsustainable. See: '[Area-wide transition to open access is possible](#)' (Max Planck Society) and '[Open access is the future of academic publishing, says Finch report](#)' (*The Guardian*).

That's technically true: there's one study and, after that, another study:"study after study." Have there been no credible models showing how an all-OA system could be more sustainable and less expensive?

In fact, Aslin's assertion is correct: *If you do the math*, all-OA *could* (and should!) be cheaper than the current system. Not, I suspect, with AAP members in full control.

### *Financing Open Access: Introducing Friends of Cultural Anthropology*

This isn't about costs so much as methodology: a creative way to fund *Cultural Anthropology*, the now-OA journal of the Society for Cultural Anthropology. It appeared in the [May 2016](#) *Cultural Anthropology*, signed by Anne Allison, Dominic Boyer and Charles Piot.

They say it costs about \$50K to publish the journal, which has published 20 to 33 articles per year in recent years. There's no APC.

Moving forward, rather than relying solely on SCA dues and support from the universities that host the journal's editorial office, FoCA will explore a range of new revenue streams to support the journal's operations. Some of our initial ideas include:

- Using crowdfunding platforms like Kickstarter to sponsor particular projects. For example, if *Cultural Anthropology* were to undertake a substantial redevelopment of its website to improve the journal's publishing infrastructure or if it were to develop new features (like Sound and Vision, slated to launch later this year), crowdfunding could be an excellent way to pay for onetime projects.
- Applying for foundation grants to support larger, multiyear initiatives that might involve collaboration with other journals.
- Bringing back a recurring subscription to the journal's print edition, which is currently available for purchase on an individual issue basis, at a price point somewhat above the cost of production (perhaps \$150 a year). This would allow print subscribers to support *Cultural Anthropology's* open-access transition, while receiving a beautiful material object in return.
- Establishing an endowment. The experts with whom FoCA has consulted have unanimously advised that an endowment is, by far, the best way to stabilize *Cultural Anthropology's* financial situation in the long term. To raise these funds, our idea is to look beyond anthropologists and other scholars who are already supporting the journal through section memberships and donations. We know there are many individuals out there who value their undergraduate or graduate training in anthropology, and who would like to support innovative efforts to make research in our discipline more widely available. We also know that open access speaks to the core values of many who care about freedom of information, not least in places like Silicon Valley.

There's also a proposal to partner with libraries, specifically as part of one multi-university shared journal platform. A work in progress.

### *Elsevier: now the world's largest open access publisher*

So says Heather Morrison in this [May 13, 2016](#) piece at *Sustaining the Knowledge Commons* (which links to a draft of an article)—and I'm afraid I don't buy it

Her reasoning?

Elsevier is now the world's largest open access publisher as measured by the number of fully open access journals published. Elsevier has 511

fully open access journals. De Gruyter is second with 435, Hindawi third with 405. These figures are based on data from the publishers' own websites. 315 of the 511 journals (63%) have an APC of 0 and indicate "fee not payable by author".

If the criterion is "named OA journals based on a publisher's own claims," then Elsevier is at best seventh, as at least six "publishers" have more than 511 "journals" (in questionable areas).

Looking at only active DOAJ-listed serials, I see two situations. If you care about journal count—noting that journal metadata is current as of January 1, 2017—Elsevier is fourth, behind Hindawi, Biomed Central and De Gruyter. I prefer article count. For 2016, Elsevier is fifth, behind BioMed Central. PLOS, Nature and MDPI. (Hindawi is sixth; De Gruyter is 12<sup>th</sup>.)

### *Why haven't we already canceled all subscriptions?*

Björn Brembs is entirely serious about that question, as the rest of this [May 20, 2016](#) essay at his eponymous blog shows. Here's the lead portion, to give you a sense of what Brembs believes and how he says it:

The question in the title is serious: of the ~US\$10 billion we collectively pay publishers annually world-wide to hide publicly funded research behind paywalls, we already [know](#) that only between 200-800 million go towards actual [costs](#). The rest goes towards profits (~3-4 billion) and paywalls/other inefficiencies (~5 billion). What do we get for overpaying such services by about 98%? We get a literature that essentially lacks every basic functionality we've come to expect from any digital object:

- Limited access
- Link-rot
- No scientific impact analysis
- Lousy peer-review
- No global search
- No functional hyperlinks
- Useless data visualization
- No submission standards
- (Almost) no statistics
- No content-mining
- No effective way to sort, filter and discover
- No semantic enrichment
- No networking feature
- etc.

Moreover, inasmuch as we use the literature (i.e., in terms of productivity and/or journal rank) to help us select the scientists for promotion and funding, we [select](#) the candidates publishing the [least reliable](#) science.

Taken together, we pay 10 billion for something we could have for 200 million in order to buy us a completely antiquated, dysfunctional literature that tricks us into selecting the wrong people. If that isn't enough to hit the emergency brakes, what is?

There's a lot more here. You may find his proposed solutions ingenuous or just plain unworkable, but maybe not. Since this time around he hasn't explicitly called for librarians to throw themselves under the bus, I'm going to suggest that you read the whole thing and think about it.

*I did my research. Yes, I think academic publishers are greedy. (With notes on publishers' rhetoric and creationism)*

This Mike Taylor post [on May 21, 2016](#) at SVPoW (oh, OK, *Sauropod Vertebra Picture of the Week*) is a fisking of a *Guardian* op-ed [Think academic publishers are greedy? Do your research](#). The op-ed is from the CEO of The Publishers Association, presumably the British version of AAP.

Oh *boy* do I get tired of constantly rebutting the same old bs. from publishers. And it really is the *same* bs. They're not even taking the trouble to invent new bs., just churning out the *same* nonsense each time—for example, equating their massive profits with investment in improvements.

Of course, what they actually *can* do with those massive profits is hire full-timers whose actual job is to churn out such propaganda. Whereas I have to rebut in my spare time—in between day-job and academic work. As though I didn't have real work to do.

That's the intro. The meat is in appropriate fisking form: a quoted excerpt followed by incisive commentary. It's lovely and worth reading in the original, but I'll quote two excerpt-and-comment segments:

Publishers offer value to research institutions by providing data-driven metrics and analytics that inform their research management activities. This investment allows for rigorous peer review

What? What? This *seems* to be saying that publishers' selling their own usage stats back to them somehow makes peer-review possible. But that *can't* be what it's saying, can it? Because that would not merely be wrong, it would be completely incoherent. It's like claiming that publishers' ability to format headings in Helvetica is what makes it possible for researchers to sequence DNA.

It also pays for the development of technology of that ensures articles are discoverable, shareable and able to be accessed in under-served regions.

One interpretation of this statement is that it's simply a lie. I will adopt the other, more charitable interpretation: that it's a typo for "Publishers pay for the development of technology that *prevents* articles from being shareable and able to be accessed".

Oh, and that technology that makes articles discoverable? It's called Google, and publishers had and have absolutely nothing to do with it. (Except, of course when they use the **robots.txt** standard to *prevent* search engines from indexing articles.)

Some useful comments.

### *7 key findings on article processing charges*

This [June 28, 2016 piece](#) by Katie Shamash at *Jisc scholarly communications* is informative and infuriating—infuriating not because it's badly done (it's very well done) but because it suggests to me that the UK approach to encouraging gold OA leads to very expensive outcomes.

Do remember that this is about the UK, but the findings are important for other nations considering a push for OA. Briefly, the seven findings (stripped of explanations and graphs) are:

1. APCs are an increasingly large part of institutions' spend: APC expenditure has nearly tripled since 2013.
2. The average APC charged by publishers is converging and shows a general upward trend.
3. The market for APCs is similar to that of subscriptions. With the exception of a few fully open access publishers such as Public Library of Science (PLOS), most APCs are paid to the same publishers who receive the most in subscriptions.
4. Offsetting deals are necessary to prevent institutions from being overburdened with the total cost of research from APCs and subscriptions.
5. The average APC for hybrid journals is consistently several hundred pounds higher than for fully open access journals. However, the average APC is increasing more rapidly overall for full OA.
6. Making APC data openly available is more important than ever.
7. There are still some administrative challenges to recording APCs.

Note #2: that "average APC" was up to \$2,230 (£1,745) by 2015. Of course, \$2,230 times 2.5 million is still one heck of a lot less than \$10 billion—but it's vastly more than a mostly nonprofit publishing system jointly funded by universities and governments, without APCs, *should* cost. (I'd suggest the SciELO \$70-\$150 average, but even the \$821 average cost per article for Pacific/English OA would be better than \$2,230.

"[Article processing charges \(APCs\) and subscriptions](#)" (same author. one day earlier) offers a more detailed look at the situation.



## *Substituting Article Processing Charges for Subscriptions: The Cure is Worse than the Disease*

David Shulenger published this five-page essay [on July 20, 2016](#) through ARL. In citing the work, Charles W. Bailey, Jr. (thanks, Charles!) quotes one paragraph:

The likely result of flipping the market to APCs is that the collective cost of scholarly communications would rise above the level that would prevail under the subscription-financed regime.

It's a pure economic power analysis and seems to assume no changes *other than* "flipping." Given the writer's assumptions, he may be right. In which case, as I would certainly argue, the solution is *not* to say "here's \$10 billion a year, plus an extra 9% each year, for authors to use to pay APCs that are as high as Elsevier et al choose to make them." Yes, that kind of flip would be flippin' disastrous.

I've seen two rebuttals to Shulenger's paper, one by [Jeffrey MacKie-Mason](#) and one by [Rick Anderson](#). If you read the one, do read the others—but, given Anderson's venue, approach the comments with care. I believe a "flip" is the wrong way to achieve full OA for several reasons—but then, I also don't believe we'll see full OA in my lifetime.

## *The Pay It Forward Project*

I'm *not* covering this project (carried out by UC Davis and California Digital Library, with [the final report](#) issued in June 2016) but if you wish to look at it (a study of the costs of a pure "flip") there's the link, and [here's a link](#) to an August 2016 David Crotty commentary that is typical of *The Scholarly Kitchen*. If you accept the basics (all gold OA must be paid through APCs, universities can't do anything to reform the current publishing model, etc., etc.) then it's hard to argue with the conclusions: you can't win, you can't get even, and you can't get out of the game.

Which means, to be sure, that you have to stop playing that game and come up with a different game.

If you read those two, also read "The Costs of Flipping our Dollars to Gold" [on August 24, 2016](#) at *The Scholarly Kitchen*; it offers an interview with two principals of the project and adds some interesting perspectives.

## *What it costs to publish*

Mark Patterson, executive director of *eLife*, offers "full details" of that journal's expenditures in this [August 11, 2016](#) report, focusing on 2015.

*eLife* has a broad mission to help accelerate discovery by encouraging and recognising responsible behaviours in science. We are a unique operation, not designed specifically to be a financial model for open-access publishing, but to catalyse change in science publishing by making significant investments in new approaches.

One of our goals, for example, has been to improve the quality and efficiency of peer review for research that shows the greatest promise, and we pay the active researchers who are involved in these efforts as *eLife*'s editors. We feel it is important to offer remuneration to the editors, to compensate at least in part for the hard work that these busy scientists provide to devise, optimise and run a new editorial process. As a result, *eLife* authors and referees benefit from a collegial process that provides clear, high-quality decisions and limited rounds of revision. We also hope that the lessons we learn will lead to the broader adoption of these practices.

This is just one example of an investment *eLife* makes to try and inspire change and fulfill our mission; another is our investment in technology innovation, discussed in more detail below. We believe it is helpful to provide information about these expenses as well as the more typical publishing costs at *eLife*, so that all of the parties who have a stake in research communication can have a more informed discussion about the costs and benefits that are associated with different approaches to publishing.

*eLife* is a fairly large journal, with 833 articles published in 2015 and a projected 1,000+ in 2016. (I show 1,204 actual.) That appears to require an editor-in-chief, three deputy editors, 39 senior editors and almost 300 reviewing editors, all paid for their time (that doesn't include staff who actually handle submissions). In 2015, the journal had 6,024 submissions; it's fairly selective.

I found some of those costs interesting but have no idea whether they're outrageous. Editors cost £998,000 in 2015—but other staff and outsourcing cost £238,000 and “article processing” another £739,000. In all, costs added up to £3,147 per article (call it \$4,000 in June 2017, but probably more than that in 2015).

While *eLife* was established to operate without some of the constraints typical publishers must manage, we hope that sharing information about the financial and other aspects of *eLife* will be valuable to publishers, funders, institutions, authors and others. As the practices of journal publishing and research communication change, we also hope to encourage greater openness and consideration of the costs and benefits of publishing in general, so that we can move towards a system that serves science as efficiently and as cost-effectively as possible.

Openness is good. Whether this example suggests that APC-based OA will cost a bloody fortune or that *eLife* is a luxury operation is not for me to decide. I'm not even sure I have an opinion.

There's a related piece (same author, same venue, [September 29, 2016](#)), “Setting a fee for publication,” that discusses the “marginal costs” and attempts to justify the \$2,500 fee *eLife* instituted. Notably, fee comparisons are with *some* other high-volume publishers, specifically the ones with relatively high APCs. No comments.

## Roads to Open Access: The Good, the Bad and the Ugly

Karim Ramdani published [this](#) in the October 2016 *ERCIM News*. The lede:

Promoting Open Access without specifying the road chosen to reach it makes no sense. The author-pays road (APC Gold Open Access) is without a doubt the worst option.

Seems a bit extreme? Read on...

The Scientific Board of the French CNRS Institute for Mathematics (INSMI) has recently made the following recommendations to French mathematicians for their publications:

- Do not choose the author-pays option for open access, especially for hybrid journals (a hybrid journal is a subscription-based journal, in which authors are given the option of paying publication fees (APC) to make their own article freely available);
- Do not include in funding requests such publication fees (known as APC, author processing charges).

These recommendations perfectly illustrate the rejection of the author-pays model by French mathematicians, and more widely, by European ones.

Why? The author says there are economic and ethical reasons—and here's the start of the "economics" argument:

First, scholarly publishing costs in an author-pays model are higher than in the reader-pays model (whose costs are already unacceptably high).

Note the "are," not "could be." Basically, the worst-case scenarios are treated here as the *only* possible outcomes. There's more here (and I agree with much of what's being said). The ethical side?

The author-pays model is unethical as well as costly. It introduces an unacceptable inequality in access to publishing between scientists (especially if APC expenses are not centralised at a national level). In such a system, only "rich" researchers will be able to publish in the "best" journals, often the most expensive ones (in the UK, the average APC by article was £1,575 in 2014 and £1,762 in 2015, with a maximum APC around £3,200). In return, this will increase their "visibility" and their ability to be funded. Besides introducing such discrimination, the author-pays model also carries ethical risks inherent in its philosophy: why would a journal refuse to publish a paper submitted for publication when its acceptance increases its profit? The answer is obvious, as shown by the emergence of several "predatory publishers" [L3] in recent years.

L3 links to The List—and the wording here ("why would...") pretty much assumes that all APC-based journals are predatory. (I believe that all journals are ppppredatory—potentially, possibly or probably predatory, at least if "predatory" is defined so loosely as to include everything on the old blacklists, but the broad wording here surprises me.)

So how *should* we proceed?

The above criticisms echo the recent joint statement on Open Access of UNESCO and COAR [L4], warning both governments and the research community against a large-scale shift from subscriptions to open access via APC. Refusing such a shift, that will reinforce a historical oligopolistic situation, does not mean that the current situation is satisfactory. Many actions need to be undertaken:

- Denounce the obscene profits of big commercial publishers and protest against their business practices.
- Cancel subscriptions when necessary.
- Develop and promote good roads to OA:
  - green Open Access (articles are placed in a repository and can be freely accessed by all) with its institutional repositories ,
  - fair Open Access with its sponsor-pays journals, like Discrete Analysis, Journal de l'École polytechnique or Epiga .
- Create new economic models for scholarly publishing, free of charge for the author and the reader, for instance: using institutional support (Episciences, SciELO), sale of premium services (e.g., OpenEdition), crowd-funding (e.g., OLH), or library subscriptions.
- Fight against the use and abuse of impact factors and bibliometrics and rethink the evaluation process.

Finally, perhaps the first battle we must fight is the one of words. For-profit publishers have appropriated the noble idea of open access to propose through APC Gold Open Access a model that preserves their commercial interests. We must denounce this openwashing that makes politicians think that all forms of open access are beneficial for scientists and taxpayers. Promoting open access without specifying the road chosen to reach it makes no sense. The author-pays road (APC Gold Open Access) is definitely the worst of them.

I agree that the best OA uses economic models other than direct APCs, but this is an odd set. Some SciELO journals *do* have (modest) APCs. “Library subscriptions” are...wait, how does that make access open and free to the reader? And “green OA” as a way of providing immediate access...well, that’s a different discussion.

I’m sympathetic to the essay, but unconvinced that denouncing *all* APC-based OA is in anybody’s best interest. Maybe that’s just me.

### *Challenges of the Latin American Open Access Publishing Model*

This post by Ivonne Lujano (DOAJ Ambassador, Latin America) appeared [January 17, 2017](#) on the *DOAJ Blog*.

A current search in the DOAJ database reveals that there are 916 journals from Latin America and the Caribbean that have been accepted after the implementation of stricter DOAJ criteria in March 2014. This represents approximately 16% of the journals that have gone through an evaluation process led by the DOAJ team. As it is stated in DOAJ policy, the criteria implemented emphasize the transparency of information presented by the journals to their users, which aims to improve quality and visibility of the scientific output published in peer reviewed journals.

I was surprised by that low number, but the key is that it only includes journals accepted under the new criteria. I found 1,971 Latin American journals (excluding APCLand) at the start of 2016 and, after the great delisting, 1,572 at the start of 2017. (There are only four Latin American journals in APCLand.)

Latin America has an extensive background in open access journals publishing and, consequently, journals assessment policies are well developed. Different criteria for reviewing the quality of journals have been developed in the region by mainly two types of agencies: 1) national systems of evaluation (in Argentina, Colombia, Mexico, etc.), with different levels of complexity and implementation according to the purposes of assessment, for instance, to allocate funds to the journals; and 2) regional systems of scientific information, i.e. [Latindex](#), [SciELO](#) and [Redalyc](#), which have similar indexing criteria (de Oliveira Amorim et al., 2015). Because of these evaluation systems there has been a significant growth of quality in Latin American journals according to international publishing standards in the last few years.

However, there are still some challenges to push forward the Latin American OA model, specially in two key aspects that are related to the level of openness: transparency on charges for authors and copyright & permission policies.

Here's the full discussion on APCs and lack thereof (for 2016, only 96 OAWorld journals [and presumably the four APCLand journals] charged APCs, leading to a \$50 overall cost per article):

One of the main characteristics of the predominant journals publishing model in Latin America is that articles are published without costs to authors. This non APC model is possible because of the public funds that journals receive from national or institutional budgets, resources to be managed by, mostly, scholarly publishers such as university presses. Different stakeholders in the region support the idea of staying as a non-commercial OA model despite some trends of charging different fees to authors and their institutions. Vessuri, Guédon & Cetto (2014) have raised awareness that in a context of competition, *commercial publishers are seeing the potential of Latin American journals as an opportunity to make a profit from offering publishing services, which eventually could shift the non-commercial*

*model*. According to DOAJ data, only 8% of journals included from Latin America have APCs, which range from \$4 up to \$1400 US. These journals are edited in Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico and Peru, and 62.6% of them are managed by associations and societies. Most journals edited by universities and research centres have no charges; however, there are some journals funded by public federal and state-level universities that charge minimal amounts to authors in order to cover some services, for instance, the cost of the DOI assigned for the article published. In any case, DOAJ strongly encourages editors to give transparent information on this topic because is still common to see journals with a lack of details on the charges levied. [Emphasis added.]

That italicized sentence (my emphasis, not in the original) is alarming, with commercial publishers aided by useful fools who label SciELO and Redalyc as somehow being backward.

The second section is about CC licenses and the resistance against CC BY: only 49.1% of the journals studied by Lujano use CC BY, with 45.8% insisting on NC.

The use of the most open license (CC-BY) is still controversial in Latin America because publishers mistrust the terms of this license, which represents a big challenge for open access advocacy.

Interesting and worth following.

### *How much does it cost to run a small scholarly publisher?*

Here's a post that directly addresses actual costs—by Martin Paul Eve on [February 13, 2017](#) at his eponymous blog.

I run a small academic publisher, the [Open Library of Humanities](#). Well, I say small but, at 18 journals, we are bigger than quite a few small university presses. But, by most accounts, we are small.

I want to write here about how much this costs, so that those starting new presses can think about it. The figures here are ballpark, not precise.

Let us make some assumptions:

- Running/coordinating/funding 18 journals requires work. That work is technical (platform) and social (editorial and business). In fact, it requires some full-time staff, I promise.
- Let us assume that these staff should be paid. This is not unreasonable.
- Let us assume that one member of staff is required to oversee editorial; an editorial manager. The role here is liaise with production teams, answer queries from editors, assign articles to editors, copyedit/proof on any central journals (OLHJ in our case), ensure that COPE procedures are followed. How many articles do you think someone in this role can handle, given that articles loop back at various points in the workflow?

- Let us assume that one member of staff is required to oversee the business side; a business manager. The role here is to market the platform to ensure revenue, to ensure compliance with charity laws, to invoice institutions, to manage renewals, to write grant bids when possible, to give outreach talks. This role is how the platform can generate money so it can pay staff, regardless of the business model.
- Let us assume that one member of staff is a technical manager, responsible for maintaining a technological platform. This includes implementing journal-specific fixes, general system administration, and much more.
- Let us assume, for the sake of simplicity, a flat salary of £50,000 for each of the above roles, including on-costs. For the sake of simplicity.

In actuality, we outsource our technical management (and an additional editorial manager) to Ubiquity Press at a decent rate paid for in per-article costs. For the sake of this post, I'm going to pretend we don't, so I can show what the costs look like.

As noted in edits, he's also assuming that the publisher is housed in university facilities—and he builds in 20% overhead for sustainability. That said, he arrives at these costs (in British Pounds) for an 18-journal operation:

| Item                              | Cost (£)          |
|-----------------------------------|-------------------|
| Editorial Manager                 | 50,000            |
| Business Manager                  | 50,000            |
| Technical Manager                 | 50,000            |
| Crossref Membership               | 200               |
| iThenticate Membership            | 45                |
| CLOCKSS Membership                | 200               |
| COPE Membership                   | 525               |
| COUNTER Membership                | 403               |
| Hosting                           | 360               |
| Surplus (20%)                     | 30,346.60         |
| <b>Total Fixed Costs per year</b> | <b>182,079.60</b> |

His per-article costs are stated as £1 per article for DOI, £0.5 for plagiarism check and £100 for XML + PDF production.

He goes on to see how this scales for different article volumes and, assuming consortial sponsorship rather than APCs, what it would mean per institution. You should read the piece itself for those figures. His conclusions:

1. There are costs. The main costs are not actually divided into “costs per article”, as the APC model assumes, but fixed salary costs. This is why the cost per article exhibits a non-linear scaling.
2. Even though we use Ubiquity Press to reduce some of those fixed overheads and to instead convert these into unit costs (while they bear the risk/fixed costs, hoping to recuperate these through volume of unit

sales), we still have fixed costs that we need to cover. This is probably worth considering when planning your costings. Ubiquity Press is a great way for new startups to get their fixed costs down. But, at a certain point, their unit costs will exceed the additional staff costs in house, and new startups may wish to consider this, since fixed costs also scale, even when using Ubiquity or another similar provider.

3. An APC model requires a certain volume of publication to cover fixed costs and entails *risk* for a publisher. The OLH consortial model entails similar risks if we cannot control publication volume, which is why we cap our journals to X number of articles per year. Below a certain article volume, though, the APC costs become less competitive than the larger publishers. That said, bear in mind that the above costs also include a 20% surplus for not-for-profits.

Interesting. Although the footer says you can comment on the post, I see no comments.

## Fees

The difference between cost and fees? In theory, it's pretty clear. In practice, it's another chunk of articles somehow related to the economics of open access.

### *Academics Want You to Read Their Work for Free*

I might skip over this Jane C. Hu piece published [January 26, 2016](#), since it's about "hybrid" OA—but it's also at *The Atlantic*, which gives it some reach outside the usual circles.

The headline's a bit misleading, since if that was generally true, we'd have universal OA. Now. But never mind...

Imagine you've spent the last few years writing a manuscript. You submit it to a publisher, and they make you an offer: They'll print it, but once it's published, they own your work. They'll sell it to people who want to read it, but you won't see any of the profits. Alternatively, if you pay the publisher to print your work, they'll release it to the public for free.

These are the options for academics publishing their research in mainstream journals—but that's begun to change over the past several years, as academics have started to push more strongly for better options. The latest effort is taking shape in the cognitive-science community, where a group of researchers are petitioning the publishing giant Elsevier to lower fees to publish open-access papers in *Cognition*, a well-regarded journal.

*Cognition's* fee to provide OA to an article (if/when Elsevier actually flags it as OA) is \$2,150. A bunch of folks, including at least ten members of the editorial board, Noam Chomsky, and more than a thousand others, think that's too high.



The next couple of paragraphs are interesting. Apparently, the petition founders don't plan to actually, y'know, *do* anything, like those radicals at *Lingua*:

“The *Cognition* community is bubbling with discussion both within the editorial circles and among contributors and readers, too,” Barner wrote in an email. “We see this as a healthy process that is best left undisturbed by further action on our part.”

Come to think of it, there's more that makes this piece citeworthy (and worth reading). Hu notes that Elsevier has said that the \$400 APC for *Glossa*, the newish OA journal founded by former *Lingua* editorial board folks, is “not sustainable.”

However, the company does have [several titles with \\$500 APCs](#), so I asked David Clark, Elsevier's senior vice president of publishing, how the company determines those prices. He explained that the price for each journal depends in part on “the appetite” from different fields; presumably, a more well-funded field will have more money available to pay APCs. [According to Elsevier's website](#), it also depends on factors like “competitive considerations” and “market conditions,” like how much other competing companies are charging.

So “not sustainable” means “not as much as we believe the market will bear”? There's also an interesting discussion with the new editor of *Lingua*, an Elsevier lifer who thinks it's really mean of *Glossa* folks to suggest that scholars pull *Lingua* submissions and send them to *Glossa*. He's all in favor of for-profit journals, and came out of retirement to help keep the Elsevier profit-wagon rolling.

There's a related followup by David Barner, Roger Levy and Jesse Snedeker on [December 4, 2016](#) at *meaningseeds*: “What ever happened to Open Access at *Cognition*?” I'll just quote the summary because it's a specific situation:

We review our recent effort to encourage the adoption of Open Access at *Cognition*, how the Editorial Board responded, and end with a proposal for shifting all journals to Open Access with a single, free, tweak to editorial policy. Readers interested only in the proposal should visit our [short blog piece on Instant Open Archiving](#), and this [FAQ](#).

Another followup by Alex Holcombe appeared [December 9, 2016](#) on Holcombe's blog: “An open access fail.” He discusses the responses of the journal's editors to the earlier mass appeal. Well worth reading, and difficult for me to excerpt or comment on.

### *Who paid for my open access articles?*

I'm not sure how I missed this [January 20, 2015](#) piece by Zen Faulkes at *NeuroDojo*, but it's an interesting, worthwhile discussion—because Faulkes, who considers herself a scientific “have not” in terms of funding,

has published many of her articles open access, despite lacking standalone research grants. How?

It's a mix.

The **most common** situation was that the journal did **not** levy an article processing charge. In other words, these papers were free to me. (In fairness, one was a limited time “free to publish” offer; they normally do charge a fee.)...

While I personally did not have grant support, our institution has had undergraduate training grants (notably HHMI). Those external grants picked up the tabs for a couple of papers with undergraduate co-authors...

Lately, I've been fortunate to have my chair agree to support article processing charges of ~~a couple of~~ some papers from departmental funds...

I paid the costs of ~~a couple of~~ few papers out of my own pocket...

I paid the costs for one using indirect costs recovered from an external grant I was awarded....

Finally, I don't know how the article processing fee my most recent paper was paid. My co-authors looked after it....

Each ellipsis here represents one or more article citations.

Looking at this list, I'm willing to bet that some researchers will say, “But Zen, even if you didn't have traditional research grants to pick up the tab, you've still had a lot of support to pay for open access.” True. It's hard to say if the number of open access papers would have been much different if, say, my department declined to pay for papers. I might have tried other journals, might have dipped into my pocket again, might have tried to find other pots of money.

From this perspective, the issue that might stop some researchers ([re-tirees and amateurs](#), say) from publishing open access would **not** be “lack of grants,” but being disconnected from larger institutions. Being part of an institution brings a lot of infrastructure, and diverse resources that go way beyond who has external grants.

All of that said, several of my articles in “traditional” subscription-based journals **also** had page charges (one journal [asked me for \\$320 for its 2.75 year publication process](#)). It's interesting to me that people don't very often bring up those page charges as barriers to publication.

That last sentence resonates like crazy: people decrying APCs rarely mention page charges in subscription journals.

### *Comparison of BioMed Central APCs from 2010-2016*

One especially valuable service from Heather Morrison and the rest of the “Sustaining the Knowledge Commons” group is longitudinal tracking of article processing charges, as in this [April 13, 2016](#) report by Sara Wheatley.

The report looks at APCs in U.S. dollars for 165 BMC journals in 2010, 2013, 2014, 2015 and 2016. Comparing 2010 with 2016:

All but one title has increased its APCs since 2010. *Molecular Autism* was the only title that decreased. Its APCs were \$2200 in 2010 and are now \$2145, with a decrease of -3%. 18% was the mode of the percentage of increase since 2010, with 55/165 titles increasing their APCs by 18%, all of these APCs were \$1825 and are now \$2145. The highest percentage of change (77%) was for the journal, *Orphanet Journal of Rare Diseases*, which was charging \$1365 in 2010 and is now charging \$2410 in 2016. The average price in 2010 was about \$1750 while the average price in 2016 is \$2197.

Other sections show changes since 2013, 2014 and 2015—and 2015 is interesting because quite a few journals *lowered* fees that year. Comparisons of journal APC increase percentages with U.S. inflation follow—and BMC's charges have risen about twice as fast as the Consumer Price Index.

*Open APC: an information item*

[Here's the Open APC site](#), and here's part of the "About" page:

The [Open APC initiative](#) releases datasets on fees paid for open access journal articles by universities and research institutions under an open database license. Open APC, which is also supported by the [DINI Working Group Electronic Publishing](#), is located at [Bielefeld University Library](#). Since October 2015 Open APC is part of the [INTACT](#) project.

Main place for Open APC to collect and maintain its data is [GitHub](#), where the core data file is kept and redacted in CSV format. This site and its open [backend](#) were established to improve accessibility and re-use of the data, which means that there are 3 ways to access the Open APC dataset, differing in their tradeoff between flexibility and ease of handling:

The three, briefly, are directly from GitHub as a raw CSV file; from the OLAP Server; and from treemaps on the Open APC site.

At this writing, the site includes 91 institutions in Europe (including the UK) and three in North America: Harvard, Virginia Polytechnic, and the University of Calgary.

*How open is Open Access?*

Perhaps I should ignore [this June 9, 2016 piece](#) by Sarah Kember at *The Bookseller*, but it's almost a classic in its false assertions and other oddities. I don't see any copyright-waiver statement and Kember, director of a newly-launched university press, is hardline on that as well:

Openness is not all about processing charges, of course. It also means the removal of copyright restrictions (all rights reserved) but copyright restrictions mean different things for big commercial publishers, on the one hand, who have done all too well on them and for small independent

or institutional ones, on the other—they may need them simply to survive. In our research project for CREATE, the centre for copyright reform, Professor Janis Jefferies and I have been asking not only how publishers will survive, but how writers will eat in a publishing environment dominated by Open Access and in a culture increasingly oriented to free online content.

If the OA movement called for all books and magazines to use CC-BY, I might agree with this—and if any writers eat thanks to royalties earned from scholarly journal articles, I’m gobsmacked.

The key OA paragraph is here:

A pay-to-say model of publishing [such as gold Open Access, where authors pay article processing charges] is not only exploitative but also dangerous, because it makes the ability to say contingent on the ability to pay. At this point we have to ask who is able to pay and who is not. What is the additional or hidden price, in terms of academic freedom?

There follows a discussion of access vs. accessibility (articles being “readable to non-academics”) that seems to be saying OA doesn’t really provide access. Another discussion is so confounding that I can’t make sense of it, but this one seems clear enough:

So I don’t think the “author pays” model of publishing, a simplistic substitution of the “reader pays” model, has any place in the academy because it relies on a degree of financial support that governments may extend to science, technology, engineering and maths (STEM) subjects, but not to arts, humanities and social sciences. If we go for it, or to the extent that we have already gone for it, we may be shooting ourselves in the foot.

So governments (and universities) can and presumably *should* pay for subscriptions in all fields, but won’t pay for OA outside of STEM?

Read the original. Maybe I’m too critical? I do note that I added a message shortly after this appeared noting that 70% of gold OA journals—including 59% of those in the UK—don’t charge APCs. There has been no response to date.

### *Consortial funding and downward price pressure for open access*

Martin Paul Eve posted this [on June 16, 2016](#) at his eponymous blog.

Different groups of open-access advocates want different things to be achieved by OA. The “OA movement” is not a homogenous group. Some members of the group believe that all publishing labour is unnecessary or could/should be volunteerist. Others want to allow people to read green open access accepted versions, but are happy to leave it at that. Some want a wholesale flip to gold open access and accept that it might cost more. Still a further group wants to challenge the dominance of a small group of big for-profit publishers. Finally, a further group hopes that open access will pose a solution to library purchasing

costs by making the entire process cheaper. It seems unlikely, with this diverse set of goals, that everyone will be satisfied in the long run, even if OA is becoming broadly accepted as the future.

Those first two sentences are refreshing—and I find it hard to argue with any of it. I know that publishing costs money, and I accept that “free” publishing—supported by a university department or library without explicit funding—may not scale very well. Consortial funding does appear to be one way out, and perhaps the OLH model is one good approach (even as I’ve been somewhat skeptical in the past).

The reason that OLH is a publisher and takes on journals is, though, because my thinking has led me to desire the following principles in an open access world:

1. Gold open access is preferable but without article processing charges.
2. The necessary labour of publishing should be remunerated.
3. Publishing of research should be done on a not-for-profit basis.
4. Not-for-profit organizations should build a sustainability surplus for operational safety.
5. However, most importantly, the price of publishing should be proportionate to the cost of the activities, not to existing profit margins (which are sometimes 30% or more).

In other words, I believe that gold OA funded by consortial models can and should be cheaper than either the article processing charge rates levied by traditional publishers or their subscription models (but that it also cannot be free). We want to save library budgets in order to facilitate a transition to OA.

There’s additional commentary. Worth reading and thinking about.

### *Cutting Through the Mysteries of Journal and Article Pricing*

This piece by Rebecca Kennison appeared [on June 24, 2016](#) in John Willinsky’s column at *Slaw*, and it’s remarkable—because it explains why Elsevier’s hybrid journals can’t involve double-dipping but also can only *increase* overall costs.

Following Willinsky’s brief introduction, Kennison writes as a response to an Elsevier representative. In part:

I’ve also reread [the argument](#) you at Elsevier make for why you do not double-dip. If I understand your pricing process correctly, no matter how many authors in any given journal pay an APC, that amount rarely has any bearing on the overall pricing of the journal because the OA content pricing and the subscription pricing models are completely disconnected in your calculations. I don’t think I had fully understood that before.

Elsevier's APC price points are based on "journal impact factor; the journal's editorial and technical processes; competitive considerations; market conditions; other revenue streams associated with the journal." In other words, APCs are priced to reflect what the market will bear, which may or may not have anything to do with actual cost, since the "journal's editorial and technical processes" are only one factor in the overall pricing. Subscription pricing is also not based primarily on cost, but rather on "article volume; journal impact factor; journal usage; editorial processes; competitive considerations; and other revenue streams such as commercial contributions from advertising, reprints and supplements." APC prices can be raised (or lowered) independently of subscriptions. Subscription prices can be raised (or lowered) independently of APCs. Because Elsevier's pricing is not based solely or perhaps even primarily on editorial and production costs, any argument that they are double-dipping becomes moot. Double-dipping can only occur when first-copy costs [i.e., the fixed costs of producing the first unit of a publication] are being paid for by both an APC and a subscription and the publisher is not offsetting or reducing subscription costs accordingly. If subscription pricing is not based on costs (first copy or otherwise), then there is nothing to offset by APCs.

There it is: *by definition* (Elsevier's definition), there can't be double-dipping because what the market will bear hasn't clearly changed.

There's more discussion and an example of how some OA advocates think "hybrid" journals should work, with this close:

To rework my example above, it doesn't matter to Elsevier how many articles in Journal A are paid for by APCs as far as subscription pricing is concerned. Although a quarter of the articles in the journal are being paid for via APCs and in each case the \$2500 APC goes to cover the article for which it has been paid, the journal subscription can nevertheless remain at \$1000 because even while the "subscription article volume" may have dropped by 25% the journal itself still has a high impact factor, strong journal usage (including usage from those OA articles), stringent editorial processes, and a robust reputation as the top journal in its field. The amount of OA content thus makes not a lick of difference in the pricing of the subscription—and if the journal is part of the Big Deal, it makes even less of a difference. As long as subscription revenues can be maintained, there is not likely to be any resulting decreases to those subscription at a large scale, no matter how much OA content may also be produced at the same time.

So what's the takeaway? For me it's what I've argued pretty vehemently for some time: If you're going to pay an APC, then publish in a "pure" OA journal, not in a hybrid journal. If for whatever reason (journal reputation foremost of all) you choose to publish in a subscription journal with a hybrid model, don't pay the APC. Instead, fight to keep your

rights and then post the article anywhere you like. But the dream of flipping subscription journals to OA one APC at a time is probably just that—a dream—at least when it comes to Elsevier journals.

In full agreement with that last paragraph. Oh, and here's the kicker, if you're thinking "Surely she's misrepresenting the situation":

[N. B.: The Elsevier representative thanked Rebecca for this contribution to the listserv, adding, "You've got the complete de-coupling of the two models in our hybrid titles spot on."]

### *Article processing charges for open access publication—the situation for research intensive universities in the USA and Canada*

This peer-reviewed article by David Solomon and Bo-Christer Björk appeared [July 21, 2016](#) in *PeerJ*. Here's the abstract:

**Background.** Open access (OA) publishing via article processing charges (APCs) is growing as an alternative to subscription publishing. The Pay It Forward (PIF) Project is exploring the feasibility of transitioning from paying subscriptions to funding APCs for faculty at research intensive universities. Estimating of the cost of APCs for the journals authors at research intensive universities tend to publish is essential for the PIF project and similar initiatives. This paper presents our research into this question.

**Methods.** We identified APC prices for publications by authors at the 4 research intensive United States (US) and Canadian universities involved in the study. We also obtained APC payment records from several Western European universities and funding agencies. Both data sets were merged with Web of Science (WoS) metadata. We calculated the average APCs for articles and proceedings in 13 discipline categories published by researchers at research intensive universities. We also identified 41 journals published by traditionally subscription publishers which have recently converted to APC funded OA and recorded the APCs they charge.

**Results.** We identified 7,629 payment records from the 4 European APC payment databases and 14,356 OA articles authored by PIF partner university faculty for which we had listed APC prices. APCs for full OA journals published by PIF authors averaged 1,775 USD; full OA journal APCs paid by Western European funders averaged 1,865 USD; hybrid APCs paid by Western European funders averaged 2,887 USD. The APC for converted journals published by major subscription publishers averaged 1,825 USD. APC funded OA is concentrated in the life and basic sciences. APCs funded articles in the social sciences and humanities are often multidisciplinary and published in journals such as PLOS ONE that largely publish in the life sciences.

**Conclusions.** Full OA journal APCs average a little under 2,000 USD while hybrid articles average about 3,000 USD for publications by researchers at research intensive universities. There is a lack of information on discipline differences in APCs due to the concentration of APC funded publications in a few fields and the multidisciplinary nature of research.

I could poke at this—e.g., assuming that people at research-intensive journals won't publish in “lesser” publications with lower APCs is, to some extent, Outcome By Definition. But never mind...the salient point may not be the questionable figures themselves but the finding that hybrid journals charge disproportionately high APC (especially given that some of them pretty clearly don't plan to reduce subscription prices).

### *A study of institutional spending on open access publication fees in Germany*

This peer-reviewed article by Najko Jahn and Marco Tullney appeared [August 9, 2016](#) at *PeerJ*. It's based on actual spending (I believe) as opposed to charges in “the right kind” of journals.

Publication fees as a revenue source for open access publishing hold a prominent place on the agendas of researchers, policy makers, and academic publishers. This study contributes to the evolving empirical basis for funding these charges and examines how much German universities and research organisations spent on open access publication fees. Using self-reported cost data from the Open APC initiative, the analysis focused on the amount that was being spent on publication fees, and compared these expenditure with data from related Austrian (FWF) and UK (Wellcome Trust, Jisc) initiatives, in terms of both size and the proportion of articles being published in fully and hybrid open access journals. We also investigated how thoroughly self-reported articles were indexed in Crossref, a DOI minting agency for scholarly literature, and analysed how the institutional spending was distributed across publishers and journal titles. According to self-reported data from 30 German universities and research organisations between 2005 and 2015, expenditures on open access publication fees increased over the years in Germany and amounted to € 9,627,537 for 7,417 open access journal articles. The average payment was € 1,298, and the median was € 1,231. A total of 94% of the total article volume included in the study was supported in accordance with the price cap of € 2,000, a limit imposed by the Deutsche Forschungsgemeinschaft (DFG) as part of its funding activities for open access funding at German universities. Expenditures varied considerably at the institutional level. There were also differences in how much the institutions spent per journal and publisher. These differences reflect, at least in part, the varying pricing schemes in place including discounted publication fees. With an indexing coverage of 99%, Crossref thoroughly



indexed the open access journals articles included in the study. A comparison with the related openly available cost data from Austria and the UK revealed that German universities and research organisations primarily funded articles in fully open access journals. By contrast, articles in hybrid journal accounted for the largest share of spending according to the Austrian and UK data. Fees paid for hybrid journals were on average more expensive than those paid for fully open access journals.

I suppose a “good for them!” salute to German universities and organizations would reveal bias on my part. Note that the average figure reported here is equal to about \$1,450 in today’s dollars.

No additional comments.

### *Predatory versus low cost?*

While there may (probably will) be another essay that discusses “predatory” journals at some point, this [September 2, 2016](#) post by David Wojick at *David Wojick’s writings and stuff* offers a refreshingly different perspective, even if you accept the absurd “420,000 articles in predatory journals!” claims. The synopsis:

Low cost journals listed as predatory have taken off and are publishing a huge number of papers. The concept of “predatory journal” may incorrectly include a lot of legitimate low cost journals, masking a major change in scientific communication.

I could argue with “huge number,” but I won’t—even 100,000 is a big number! (Journals on the former blacklists actually accounted for around 300,000 articles in 2016, so “huge” is good enough.)

Here’s the core of Wojick’s argument—which says that most of these journals aren’t “predatory” or publishing “bad science” or even abandoning peer review:

The key datum is the average APC of less than \$200. Here is what I think is happening. The developing countries, especially China and India, are pouring a lot into research, hence generating a lot of articles. (Last I knew China was overtaking the US as the leading generator of scientific articles.) In pace with this we are seeing the rapid growth of the low budget APC journal, to serve the low budget researcher market. This makes economic sense and there is nothing predatory about it.

On the contrary, many OA advocates see the end state as one of very low APCs. Well here it is, in part anyway. The thing is that a \$150 APC journal cannot look like a \$1500 journal, which is very fancy. Back when Beall’s list first gained prominence I studied it closely. My conclusion was that it was picking up low budget journals per se, the predatory ones being just a small fraction. My favorite example is a journal that seems to have been classified as predatory just because the mailing address was an apartment, not an office (in Montreal).

These numbers suggest that I was right. If so then what we are seeing is actually part of the globalization of science, which I consider a good thing. Poor researchers publishing in low cost journals.

Admittedly, Wojick goes further than I'm prepared to go:

As for peer review, it may be too expensive for this low cost business model. For that matter I have never been impressed by peer review. It is not a necessary condition for a scholarly literature. Perhaps it is a luxury.

Or perhaps there are more efficient ways to handle the free labor of peer review?

It's important to include a caveat here, which applies to me as well as to Wojick:

To be clear, I am not claiming that there are no fraudulent journals. In fact I am sure there are. I just do not think that fraudulent journals can publish such a huge amount. My conjecture is that low cost journals have been wrongly classified as fraudulent.

People wishing to push fake facts are better off with social media and cable news in any case. While I'm 100% certain that some physics journals contain crackpottery (I use physics because it's especially favored by writers who *know* that Einstein is wrong and the like), I'd guess that at least 90% of what's in these journals is what I'd call small science: useful and legitimate but too narrow for most journals.

*OA APCs in 2016: average \$840 USD, price skew at low end of range*  
Another *Sustaining the Knowledge Commons* report, posted by Heather Morrison on [February 22, 2017](#).

Here is another early result from the 2016 OA APC project. Of the 3,282 journals for which we have APC data, the average is \$840 USD, and the media \$600, illustrating a skew towards the low end of the price range. That is to say, half of the APCs are below \$600. Excluding journals with an APC of \$0 (journals that clearly use the APC model but are currently free to publish in), the average is \$877 USD. This year's average of \$840 is \$124 or 13% less than the average of [\\$964 USD the team found in 2014](#). This finding should be interpreted with caution as pricing for specific journals may have increased substantially, with the global total offset by large numbers of journals that are small, new, or from the developing world with relatively lower APCs. The 3,282 journals are all journals for which we were able to confirm pricing and specify a particular APC. Journals using article page processing charges (APPC) are considered as a separate model and not included in this analysis.

A chart and table show the number of journals in \$500 bands. I can't draw immediate comparisons to my own study, for several reasons—and I look mostly at cost per article rather than average APC per journal. That said,

for the 2,835 journals for which I had clear APCs for 2016 and that were in the “ab” categories (they weren’t defective), the average APC is \$975, which is higher than Morrison’s figure but not sharply so. (Adding in 99 journals with APCs that I exclude for one reason or another, the average of those is \$546, so the overall average is \$961.

### *Librarian Evaluation of Non-APC OA Models in the Age of Open Access*

Martin Paul Eve [on April 1, 2017](#) at his eponymous blog—and this time I’m 100% certain the date is coincidental. This is a thoughtful brief piece on what its title says.

One of the things we have to contend with at the Open Library of Humanities is the fact that libraries will evaluate our performance and decide whether or not to renew their subscriptions/memberships. This makes sense and is only to be expected.

A few thoughts struck me about this, though. One of the core questions that some librarians have been asking is: how many articles from our researchers are appearing in these journals?

This question makes sense in an age of open-access article processing charges (APCs). After all, if you paid a big-deal to a publisher to cover all APCs for your university, then you’d want to know that your researchers were using the service.

Eve notes that OLH doesn’t work that way: it’s more of a subscription than it is APCs.

Our membership, remember, for the 909 articles (including back-content) that we published in the first year, was less than the cost of a single APC at other commercial publishers (for some smaller institutions, it was less than a quarter of a single APC at other places). If we are evaluated on an APC basis by every institution, though, this model will not work. Our model is designed to be a *redistribution mechanism* that undoes the cost concentration of article processing charges. This distribution is not equal between all participating institutions.

On the other hand, in the age of the subscription, *usage* was the measure by which librarians would decide where to cut, rather than *publishing output*; fair enough. Our usage figures [are pretty good](#) and the cost per reader per institution is an average of \$0.008. So we’re pretty efficient there. This strikes me as a far better way to appraise our particular model (although I would say that as we do well by it). That’s not to say that there aren’t challenges, though. For example, it’s very difficult for us to provide any meaningful per-institution access, since we do not have any login required (we’re 100% OA). We could do this by IP, but it will miss lots.

I do appreciate the final parenthetical clause: *any* login/registration requirement weakens OA.

There's more here, worth reading.

### *How Much Do Top Publishers Charge for Open Access?*

We'll close this section with this interesting (but slightly difficult) "guest article" by Beata Socha [on April 20, 2017](#) at *Open Science*. Let's get the difficult parts—at least some of them—out of the way first:

- *Open Science* is part of De Gruyter Open, and De Gruyter is one of the top OA publishers.
- Beata Socha is a product manager at De Gruyter Open.
- The overall graph, perhaps the most striking item in the discussion, uses average APC *per journal* (from publisher websites) rather than the weighted average cost per article that I use. The average excludes zero-APC journals, which affects some publishers more than others.

That said, it's an interesting discussion, with one overall bar chart covering nine publishers and more extended discussions and charts (pie and bar) for four large publishers. There are nine comments, all worth noting.

Here, for comparison purposes, are my *crude* figures for average APC per article for the publishers with the most articles in 2016 (crude because I don't normalize publisher field contents). I've included publishers with more than 3,000 articles, sorted by descending number of articles:

| <b>Publisher</b>                 | <b>Average</b> |
|----------------------------------|----------------|
| BioMed Central                   | \$2,122        |
| Public Library of Science (PLoS) | \$1,597        |
| Nature Publishing Group          | \$2,295        |
| MDPI AG                          | \$1,289        |
| Elsevier                         | \$849          |
| Hindawi Publishing Corporation   | \$1,494        |
| Frontiers Media S.A.             | \$2,311        |
| Springer                         | \$729          |
| Medknow Publications             | \$143          |
| EDP Sciences                     | \$25           |
| Copernicus Publications          | \$286          |
| De Gruyter Open                  | \$113          |
| Wiley                            | \$2,230        |
| Institute of Physics (IoP)       | \$0            |
| Oxford University Press          | \$2,085        |
| Dove Medical Press               | \$2,156        |
| BMJ Publishing Group             | \$1,739        |
| IOP Publishing                   | \$506          |
| Wolters Kluwer                   | \$1,750        |

It's a *very* different list. I suspect both are accurate, but based on different assumptions: the article ignores no-APC journals and arrives at an average APC per journal, while I include everything *where the DOAJ record has that precise string as a publisher name* and give an average APC per article.

## Spending

Once again, everything here could probably be in one of the two preceding sections. Ideally, these items deal with somewhat different issues.

### *On pastrami and the business of PLOS*

That intriguing title is on a [March 20, 2016](#) Michael Eisen post at *it is NOT junk*. He links to a Storify of Andy Kern tweets questioning PLOS expenditures and another of Eisen's responses, then attempts to deal with Kern's basic critique: "PLOS pays its executives too much, and has an obscene amount of money in the bank." [I mentioned the Storifys in an earlier item.]

It's a long discussion, one I'm not sure I can do justice to. Since Eisen doesn't seem to find things wholly satisfactory and agrees that PLOS APCs are too high, it's hard to know just what to say other than "read this and the comments and draw your own conclusions." I'm not at all convinced that PLOS and its success are or were "absolutely critical to the success of the open access movement," but that's another discussion. I will quote the last two paragraphs (noting that the salaries are indeed high, and "well, PLOS is in San Francisco" is a tricky justification):

Now I want to end on the issue that seemed to upset people the most—which is the salaries of PLOS's executives. I am immensely proud of the executive team at PLOS—they are talented and dedicated. They make competitive salaries—and we'd have trouble hiring and retaining them if they didn't. The board has been doing what we felt we had to do to build a successful company in the marketplace we live in—after all, we were founded to fix science publishing, not capitalism. But as an individual I can't help but feel that's a copout. The truth is the general criticism is right. A system where executives make so much more money than the staff they supervise isn't just unfair, it's ultimately corrosive. It's something we all have to work to change, and I wish I'd done more to help make PLOS a model of this.

Finally, I want to acknowledge a tension evident in a lot of the discussion around this issue. Some of the criticism of PLOS—especially about margins and cash flow—have been just generally unfair. But others—about salaries and transparency—reflect something important. I think people understand that in these ways PLOS is just being a typical company. But we weren't founded to just be a typical company—we were founded to be different and, yes, better, and people have higher expectations of us than they do a typical company. I want it to be that way. But PLOS was

also not founded to fail—that would have been terrible for the push for openness in science publishing. I am immensely proud of PLOS’s success as a publisher, agent for change, and a business—and of all the people inside and outside of the organization who helped achieve it. Throughout PLOS’s history there were times we had to choose between abstract ideals and the reality of making PLOS a successful business, and I think, overall, we’ve done a good, but far from perfect, job of balancing this tension. And moving forward I personally pledge to do a better job of figuring out how to be successful while fully living up to those ideals.

In this case, ignore the social media/online media rule and *do* read the comments, which bring out some useful points and clarifications.

*What is the ethical compensation for nonprofit executives? (Should you boycott PLOS?)*

As you might guess, [this March 22, 2016 post](#) by Lenny Teytelman at *The Spectroscope* is directly related to the post above. Teytelman includes one of Kern’s more extreme sequences in his tweetstorm:

PLOS’s financials reveal that they are merely trying to maximize their personal and corporate profit, like any company. They are padding the wallets of their executives and taking our grant money and putting in in the stock market. They are merely another Nature or Science that aims to maximize profits while cloaking itself in the white robes of OA.

That wasn’t the only negative reaction, and a number of folks said PLOS was paying too much for its top people. So Teytelman asked:

*Simple question to Andrew Kern and all upset with PLOS salaries—if YOU were on the board of PLOS, how would YOU set exec salaries? (No doubt there’s been [corrosive excessive growth of CEO salaries for decades now](#). But for a given organization that you want to see succeed, given market executive salaries, what would YOU do?*

[Here’s a link](#) to some of the responses. He summarizes some of the concrete answers:

- Maximum of 5x of the minimum salary at PLOS
- Below the max of a professor at a public university
- No more than double top-paid professor
- Andy Kern, [“5x grad student pay tops, if I ran the organization”](#)
- No more than \$200,000/year

And focuses on Kern’s response, which he equates to around \$150,000.

So if Andy ran PLOS, he would pay the executives at most \$150K, and that means Andy would simply run PLOS into the ground because he would lose all the talented executives. And since Andy is an advocate

for open access, I don't understand why he would want to destroy PLOS. Sure, he says that executives who would leave are simply "[not into the mission](#)," so good riddance.

Then he compares PLOS salaries to those at ACS and AAAS (PLOS is lower) and wonders how low PLOS could go without losing its talent. He also notes that nonprofits still need reserves. The close (not including a "PS" about the need to make publishing cheaper:

So my plea to everyone who is outraged by PLOS finances and threatening to boycott publishing there—please think about the above as though you are running PLOS and **want open access to succeed**. Remember that when it comes to publishing, many societies are making \$5K-\$6K per published paper, from combination of subscriptions and publishing charges. These societies have often 30%-50% margins on the publishing, compared to the 20% at PLOS. And at the end, the papers are locked behind subscription paywalls.

A spirited set of comments, although one comment seems to be repeated (with modifications) several times.

### *Economic thoughts about "gold" open access*

Jeffrey MacKie-Mason on April 23, 2016 at *madLibbing*, and I believe this is another case where MacKie-Mason functions more as an economist than as University Librarian at UC Berkeley. In some ways, this is a prequel to MM's earlier remarks. Here's a summary:

Many decision makers and influencers — particularly in the research library community in the US — are expressing opposition to gold OA for reasons that I think are unsupported by either facts or simple economic principles.

1. **Will gold OA further strengthen the monopoly scholarly publishing firms?** No. In fact, it is likely the most realistic path towards reducing or eliminating their market power.
2. **Will there be a change in the current market model?** Yes. By engaging authors in the *economic* decision about where to publish, we will create article-level (submission) price competition between journals and publishers.
3. **Will research-production-intensive institutions be made worse off?** No. The costs of scholarly communications (primarily subscriptions) are generally paid (mostly indirectly) by research funders today. Those total payments for scholarly communications will be less in a predominantly gold OA world. The research funders can and will redirect funds to where the costs are paid, raising reimbursements to those institutions whose costs go up (because they are paying for a disproportionate share of APCs) and reducing them to those whose costs go

down (because they are saving more through the elimination of subscription payments than they are paying in APCs).

4. **Will gold OA hurt under-resourced institutions (such as those in the “global south”)?** No. First, because they generally publish less per employee than better-resourced institutions, at first blush we should if anything expect them to *benefit*: they'll save more in eliminated subscription costs than they will pay in APCs. At worst, since research funders routinely adjust research direct and indirect payments as costs change, under-resourced institutions might not get to keep the savings, but they won't be made worse off. (And any current subsidies to reduce their subscription costs can simply be re-directed to be APC subsidies.)
5. **Will flipping to gold OA take too long and cost too much?** Given our experience to date with green OA, and the fundamental problems with getting to effective, universal green OA sufficient to bring subscription prices to competitive levels, flipping to gold OA probably can happen much sooner. And though the transition may be somewhat costly, those costs will be moderated increasingly by negotiated offsets. And some transitional investment is justified by the great social benefits that will follow from open access *and* competitive rather than monopolistic prices for scholarly communications.

The essay (adapted from a speech) expands on each of those, and I'd suggest you read it in the original. Perhaps I'm too skeptical; perhaps I'm too inclined to distrust the logic of economics. Nineteen comments, including MM's responses; very much worth reading.

### *Elsevier defends its value after Open Access disputes*

This puff piece by Benedicte Page appeared [April 28, 2016](#) at *The Bookseller*. I say “puff piece” advisedly: after a brief intro, it's entirely comments from a trio of Elsevier employees, including the combative Tom Reller and the “OA-friendly” Alicia Wise.

You gotta love this segment:

The editors and board of linguistics journal *Lingua* departed in November over Elsevier's reluctance to make it OA—its APCs stood at \$1,800 (about £1,200)—and the academics have since started up *Glossa*, an OA journal published by Ubiquity Press, as an alternative. But Elsevier disputes that it is holding back on OA. Reller says the *Lingua* issue was misrepresented and that the editors were able to start the new journal on an OA basis purely because of a subsidy grant from the Dutch government. “It was a humanities field, there's no money in that field [to go OA], but they ended up getting a grant and [that enabled them] to put it on a lower cost platform,” he says. “But those articles are not going to be as enriched,



as searchable on that platform [as they were with Elsevier]. They are getting what they pay for.”

He adds: “I can’t tell you how many times an editorial board goes to its publisher and says, ‘OA, let’s do it.’ Then they actually do an economic modelling around whether they would be able to afford it . . . most editorial boards are interested in the success of their own journal, too. It just happens that with *Lingua*, it was run by an OA advocate and they weren’t interested in the economic success of the journal, they were just interested in making an ideological statement.”

Wise (left) says that Elsevier wishes the departing editors luck. “We were open minded to making *Lingua* OA, but in a way that was sustainable. We review every single journal every year on a case-by-case basis,” she adds.

Consider especially the last sentence in each of the first two paragraphs; they’re why I used the term “combative.”

A handful of comments including two very clear and forceful ones regarding the *Lingua*/*Glossa* affair.

Mike Taylor also calls it a puff piece. I swear that I had not read his comment when I wrote that. The key paragraph from Taylor’s comment:

Next time we see a pro-Elsevier puff-piece like this, I’d like to see them explain why being “sustainable” for them costs an order of magnitude more than it does for newer born-digital publishers like Ubiquity Press, Hindawi and PeerJ. And yes, I do mean literally an order of magnitude: income of about \$5000 US per published paper for Elsevier and its contemporaries, income around \$500 per paper for the new open-access publishers.

### *For (not against) a better publishing model*

This piece by Philip N Cohen appeared [May 1, 2016](#) at *Family Inequality*. He links to [a post](#) by an American Sociological Association director and takes issue with that post. The ASA post is about Sci-Hub, and I’m deliberately not dealing with Sci-Hub (noting that I don’t condone illegality). But there’s stuff here that is in areas I deal with, and specifically one argument I’ve been making for years.

Let’s look at that first.

The Edwards post goes way beyond the untrue claim that there is no other way to support a peer review system, and argues that ASA needs all that paywall money to pay for all the other stuff it does. That is, not only do we need to sell papers to pay for our journal operations (and Sage profits), we also need paywalls because:

ASA is a nonprofit, so whatever revenue we receive from our journals, beyond what it costs us to do the editorial and publications

work, goes directly into providing professional and educational services to our members and other scholars in our discipline (whether they are members *or not*). ... The revenue allows ASA to provide sociologists in the field competitive research grants, pre-doctoral scholarships, specialized career development, and new digital teaching resources among many other services. It is what allows us to work effectively with other social science associations to sustain and, hopefully, grow the flow of federal research dollars to the social sciences through NSF, NIH, and many others and to defend against elimination and cuts to federal support (e.g., statistical systems and ongoing surveys) so scholars can conduct research and then publish outstanding scholarship.

In other words, as David Mamet's character Mickey Bergman once put it, "Everybody needs money. That's why they call it money."

This means that finding the best model for getting sociological research to the most people with the least barriers is not as important as all the other stuff ASA does — even if the research is publicly funded. I don't agree.

I've argued from the opposite direction: that it is both wrong and in the long run untenable for any association (other than a library association) to expect that its activities should be funded by libraries through subscriptions. (Note that most of ALA's and its division's peer-reviewed journals are now gold OA, so maybe the parenthetical clause isn't needed.)

The ASA post—by Karen Gray Edwards, director of publications and membership—is off in a number of respects. There's this:

For the vast number of nonprofit scholarly societies involved in this theft, the reality is starkly different and threatens the well-being of ASA and our sister associations as well as the peer assessment of scholarship in sociology and other academic disciplines.

Um. Peer review itself is threatened by Sci-Hub? And this:

We provide open access to our scholarly magazine, [Contexts](#), for 30 days after publication

The director of publishing should *at least* know enough about OA to know that a brief period of free reading is *not* open access by any plausible definition.

Cohen isn't arguing that Sci-Hub is a solution. (He is unhappy about an ASA director speaking as ASA itself; that's a different issue that most professional societies probably grapple with now and then, and *way* outside my fields of interest.) He also isn't arguing in favor of APC-based gold OA. He's looking at a variant of the OLH model:

There are better ways. Contrary to popular misconceptions, we do not need to go to a system where individual researchers pay to publish their work, widening status inequalities among researchers. The basic design

of the system to come is we cut out the for-profit publishers, and ask the universities and federal agencies that currently pay for research twice — once for the researchers, and once again for their published output — to agree to pay less in exchange for all of it to be open access. Instead, they pay into a central organization that administers publication funds to scholarly associations, which produce open-access research output. For a detailed proposal, read this white paper from KIN Consultants, “[A Scalable and Sustainable Approach to Open Access Publishing and Archiving for Humanities and Social Sciences](#).”

*Publicly available data on international journal subscription costs*  
Stuart Lawson posted this [on June 9, 2016](#) at his eponymous blog. It’s what it says it is: a list of links for such data. No further comment, just the note that this seems like a valuable resource.

*Journal Subscription and Open Access Expenditures: Opening the Vault*  
Jeroen Sondervan published this on [March 31, 2017](#) at *Open Access in Media Studies*—and, despite the title, it appears to be another set of country-specific subscription spending akin to those in Lawson’s list.

And that’s it for this section.

## Trends

I’d love to create a single narrative arc here, but that seems implausible.

### *PLOS ONE Shrinks by 11 Percent*

The post is by Phil Davis [on January 6, 2016](#) at *The Scholarly Kitchen*, and the facts seem clear enough:

For the second year in a row, the number of research papers published in *PLOS ONE* fell, from a peak of 31,509 in 2013 to 28,107 in 2015 — a decline of 3,402 papers or 11%.

For some reason, my numbers—taken directly from the journal’s website—are slightly different. Maybe there’s a nuance to counting that I’m missing. When Davis did a [followup article](#) on 2016 numbers, he arrives at a *much* lower figure than I did: 22,054. I can’t explain the difference; we must be counting different things.

In either case, there’s no question: while it’s still the world’s largest journal, it’s not as large as it used to be. (Of course, if I sort my 2016 spreadsheet by 2016 article count in descending order, I see one plausible reason why: what’s now the *second* largest OA journal, Nature Publishing Group’s *Scientific Reports*, has gone from 2,553 articles in 2013 and 4,021 in 2014 to 10,939 in 2015 and 21,056 in 2016. The APCs are similar, and the *Nature* name probably carries a lot of clout.)

Davis offers a range of possible reasons for the decline: falling Impact factor, tighter publication guidelines, competition); others have offered other reasons.

The fall in *PLOS ONE* production has broader implications for its publisher. Surpluses generated from article processing charges help support the publication of PLOS' more selective journals, like *PLOS Medicine*, whose 75 research articles in 2015 were accompanied by 19 Essays, 15 Policy Forums, 13 Editorials, 8 Perspectives, 5 Guidelines, 5 Health in Action, 2 Collection Reviews, and 2 Formal Comments. In contrast to research articles, a publisher normally commissions authors to write these papers. Without a cross-subsidy from *PLOS ONE*, *Medicine* would not be able to produce this kind of material nor keep its author processing fees below operating costs.

Later:

As PLOS' primary source of revenue declines, it does not seem to be in a hurry to replace it with other sources beyond price hikes. PLOS hasn't started a new journal since 2007, and its last innovative attempt at very fast self-publishing ([PLOS Currents](#), 2009) is still very small and generates no revenue. Unless readers can point to developments that I've missed, it appears that the future success of PLOS is dependent upon a profitable mega-journal that may not be so mega in the coming years.

The comments are varied and interesting. I have no additional comments to offer.

### *Shifting of the megajournal market*

"Andrew" posted this [on February 5, 2016](#) at *Generalising*.

One of the most striking developments in the last ten years of scholarly publishing, outside of course open access, was the rise of the "mega-journal"—an online-only journal with a very broad remit, no arbitrary size limits, and a low threshold for inclusion.

For many years, the megajournal was more or less synonymous with *PLOS One*, which peaked in 2013-14 with around 32,000 papers per year, an unprecedented number. The journal [began to falter a little in early 2014](#), and showed a [substantial decline in 2015](#), dropping to a mere (!) 26,000 papers.

Andrew notes another commentator's point that shrinkage in *PLOS One* was more than made up for by *Science Reports* and the Royal Society of Chemistry's *RSC Advances*. Since *RSC Advances* didn't become OA until 2017, it's not reflected in my spreadsheet.

Basically, this post just recounts the situation and looks at figures for the first five weeks of 2016 (and, as Andrew says, the trend continued somewhat dramatically in 2016).

Whichever source we use, it seems clear that *PLOS One* is now no longer massively dominant. There's nothing wrong with that, of course—in many ways, having two or three competing but comparable large megajournals will be a much better situation than simply having one. And I won't try and speculate on the reasons (changing impact factor? APC cost? Turnaround time? Shifting fashions?)

At that point, or at least later in 2016, both Andrew and [Phil Davis](#) were ready to project that *Scientific Reports* would be the largest journal. Unless my numbers are seriously wrong, that hasn't happened—at least not yet.

### *Open journals that piggyback on arXiv gather momentum*

That's from Elizabeth Gibney [on January 4, 2016](#) at *Nature's* news page.

An astrophysicist has launched a low-cost community peer-review platform that circumvents traditional scientific publishing — and by making its software open-source, he is encouraging scientists in other fields to do the same.

The [Open Journal of Astrophysics](#) works in tandem with manuscripts posted on the pre-print server arXiv. Researchers submit their papers from arXiv directly to the journal, which evaluates them by conventional peer review. Accepted versions of the papers are then re-posted to arXiv and assigned a DOI, and the journal publishes links to them.

In other words, it's an overlay journal, one particularly interesting methodology for OA. As founder Peter Coles says, “the journal should operate at a fraction of the cost of traditional publishers.”

I love the discussion of the software and potential:

Development of the software that powers the journal's peer-review system was led by Arfon Smith, chief scientist at the popular code repository GitHub. Because the software is open-source and [available at GitHub](#), Coles hopes that researchers in other fields will adopt the same platform to create their own open journals. “Just cross out ‘astrophysics’ and write ‘condensed matter’ or anything else, and you've got your open journal,” he says.

The piece notes other overlay journals in computer science and mathematics. It discusses the model and how costs are being covered. Coles paid for the software; GitHub's hosting is free; eventually, a modest handling fee might be needed.

The journal does not have the resources to offer services provided by conventional journals, such as heavy editing of papers. Instead, poorly written articles will be rejected and the authors referred to a list of professional copy-editing services, Coles says.

And then there's the rub:

But astrophysicists will not necessarily jump to publish in Coles' journal. Ewine van Dishoeck, an astrophysicist at the Leiden Observatory in the Netherlands, says she, for one, is unlikely to submit her work there. "We have a small number of well established and high quality journals in astronomy that everyone respects," she says.

*"Let us get rid of the publishers—Let us do this ourselves" (part 1)*

Jan Erik Frantsovåg [on February 1, 2016](#) at the *Stockholm University Press Blog*. Frantsovåg is Open Access Adviser at the University Library of Tromsø and chair of the board of SPARC Europe—and the quoted phrase is not what he believes but what he wants to talk about,

In discussions, I often hear the cry «let us get rid of the publishers—let us do this ourselves». I understand why this is said—e.g. the extreme profit levels of some major publishers—still, I am sceptical.

It's obvious that we need to do something about how the market works, and who has ownership of and control over content. Giving away content and buying it back, ridding ourselves of potential readers and creating superprofits for the publishers in the process, is something we should stop doing.

But I think that getting rid of (commercial) publishers as such is a bad idea. The debate should be about what role(s) publishers should have, what business model(s) they should use, and who they should be.

He doesn't believe it's possible for libraries and universities to take over scholarly article publishing—and somehow believes that university-run journals would cost *more* than current high-end APCs:

I would rather spend USD 5000 per article with Elsevier or Springer for an OA article, than burning off much more money than that with a small, inefficient not-for-profit publisher—unless this is for a transitional period.

Publishing has economies of scale, this means any new publisher must be aiming to publish much more than any single institution's output in any given field. Numbers from [eLife](#)—a not-for-profit publisher—suggests that a quality journal will need to have high numbers of articles to get costs down to a level below what commercial publishers currently charge to make an article OA.

He claims that current no-APC journals involve hidden costs and "keeping the technical quality low." There's a discussion of "the professor as type-setter" that seems to convince him that "we spend more money this way" than by leaving it to Elsevier et al, but I don't see that the discussion merits the conclusion.

Brembs comments (in part):

I wonder how SciELO, Hindawi, ScienceOpen, F1000 Research etc. all manage to publish at less than 10% of the average subscription article? SciELO is doing so with ~1000 different journals and for more than 15 years already. If the data is anything to go by, their quality (measured as methodological reliability) is actually higher than that of more established journals (unless you have other data than we?): <http://journal.frontiersin.org/article/10.3389/fnhum.2013.00291/full> Hence, the data suggest we can save more than 90% of the money we are currently spending on subscriptions and combat the replication crisis by actually getting rid of publishers.

The response, in part, undermines the author's claim that it's best to leave it to the existing publishers:

I've read somewhere (don't ask for a reference!) that Hindawi's profit margin actually is higher than that of Elsevier. When you compare this to the fact that Hindawi's average APC is lower than Elsevier's profit per article, it is obvious that publishing can be accomplished at cost levels radically different from what could be inferred from today's subscription and APC levels at major publishers.

Converting to OA will make content a true public good, and will enable new entrants to the market, thus creating conditions for much lower costs. It might be that universities could help create such new entrants, but they should be aware you cannot do this on anything but a large scale.

So maybe you need to switch to more efficient publishers—except that the last sentence of the paragraph is an assertion, not a proved fact. Most SciELO journals are fairly small (SciELO is the platform, not the publisher), and there are hundreds, if not thousands, of gold OA publishers with relatively small portfolios.

### *The 'pay-to-publish' model should be abolished*

Raghavendra Gadagkar published this [on August 24, 2016](#) at *Notes and Records: The Royal Society Journal of the History of Science*. It's relatively short and carries a CC-BY license, so I'll quote the whole thing, adding my (unindented) comments as appropriate.

Scholarly journals have become increasingly expensive and unaffordable, whether for individuals or for libraries. This has been exacerbated by the enormous increase in the numbers of published articles and therefore in the per-capita consumption necessary for scholarly activity. The arrival of digital publishing and the Internet have magnified these numbers almost beyond imagination.

Funders of scholarly activity, be they government or private, have begun to complain that they have to pay twice—first to produce the research and then to read it, while profits go largely to commercial publishers. It therefore appears that the traditional 'publish-for-free

and pay-to-read' model will no longer work. It has appeared for some time that there is a simple alternative—flip the model and make it 'pay-to-publish and read-for free'. Buoyed by the politically attractive label 'open access', this model has spread very rapidly and taken on many forms.

I argue that the 'pay-to-publish and read-for-free' model (hereafter 'pay-to-publish' model) has far more serious problems. Including publication costs within research grants is being widely advocated and implemented but it seems to be not so widely recognized that funders still pay twice—first to produce the research and then to publish it, and profits still go largely to commercial publishers. Since funders pay twice in the old model and continue to pay twice in the new model, one might be tempted to think that at least the new model is not any worse than the old one. But it is much worse, for at least two reasons.

First, the pay-to-publish model makes the playing field even more uneven for scholars; those from less well-endowed institutions and poor countries will suffer even more because the quantum of grants required to do research and publish it is now greater than it was before. As I have argued in more detail elsewhere, poor countries and poor scholars will be doomed to remain knowledge consumers (since they can read-for-free) rather than become knowledge producers (since they have to pay-to-publish)—generating and perpetuating a form of knowledge hegemony incompatible with self-respect and equal participation.<sup>1</sup>

Second, and perhaps even more serious, the 'pay-to-publish' model is inherently unstable. In the language of evolutionary biology, it is 'susceptible to cheating'. Nothing prevents unscrupulous publishers from publishing trash as long as the authors pay for it. This is not a fanciful prophecy—it is a growing reality having already attained frightening proportions, enough to warrant the recognition of a new genre of 'predatory journals'. A recent study revealed that 420 000 articles were published in what have been termed 'fake' journals, at an average price of \$178 per article, in the year 2014 alone.<sup>2</sup> The profits of such journals are estimated to be of the order of \$75 million a year. These numbers may be mind-boggling but this is only the tip of the iceberg—runaway selection can easily swamp the genuine articles into oblivion.

Yabbut...another instance of the considerable harm done to OA by that "420,000-article" study. The number was never that large; even the authors didn't call them all "fake" journals, and the \$75 million a year figure would not be *profit* even if the erroneous underlying figures were correct. \$75 million is *potential gross revenue*: \$420,000 times \$178 equals \$74.76 million. To equate gross revenue with profits is simply and seriously wrong. As discussed in *Gray OA 2012-2016: Open Access Journals Beyond DOAJ* ([Cites & Insights 17:1](#)). A more reasonable figure—the number of



articles in 2014 in journals for which some *case* had been made for black-listing—is 29,947: not a trivial number but more than an order of magnitude smaller.

This also seems to assume that *all* articles in questionable journals are “trash” and that there’s so much desire to publish “trash,” *for a price, in journals with tiny readerships*, that it “can easily swamp the genuine articles into oblivion.” I believe the term “fanciful prophecy” does apply here.

Is there a solution? Yes, and I suggest a twofold solution. First, the required fraction of research funds (whatever be the size of the total pie, and whoever pays it) should be set aside for subsidizing the publication of a new model of ‘publish-for-free and read-for-free’ journals by scholarly societies, academies and other ‘not-for-profit’ organizations. Only the remaining fraction of the pie should be made available for doing research. It is important to emphasize that the money set aside for publication should not be given to individual researchers to buy their way into publication: it should be given only to the ‘not-for-profit’ organizations that will not charge authors. There are many ways of organizing the disbursement of funds meant for publishing and I do not wish to narrow the basket of possibilities, except to argue strongly for promoting many diverse and decentralized ‘not-for-profit’ publishing ventures.

There is nothing new about this model. In [GOAJ2: Gold Open Access Journals 2011-2016](#), we see that societies and universities accounted for 4,693 DOAJ-listed journals in 2016, publishing 172,241 articles that year. Of those, 4,125 journals do not charge readers; those journals published 124,683 articles. Those figures don’t include some 300 journals and 9,000 articles published by OA publishers on behalf of societies—again without APCs. I have nothing against providing funding to “many diverse and decentralized ‘not-for-profit’ publishing ventures,” but it’s not a new model.

Second, and equally importantly, the ‘pay-to-publish’ model should be dismantled altogether. We should gradually create social and moral stigma, and eventually legal strictures, against paid publications; having paid for publishing scholarly papers should automatically devalue their prestige and eventually disqualify them from consideration.

“Eventually legal strictures”? In the U.S., at least, that’s a non-starter, and—in my opinion—a genuinely bad idea.

These two steps I believe could rescue the scientific journal from its imminent end.

Speaking of fanciful prophecies, I think the last few words of that sentence qualify.

*Should public institutions not be choosing the lowest responsible bidder?* Björn Brembs poses that question in a [December 6, 2016](#) post at his eponymous blog—and you can guess what service he thinks should be bid-dable: scholarly publishing services.

As far as I know, most countries have [competitive] purchasing rules in place for essentially every service or purchase. However, it seems one area of services is exempt from this rule: scholarly publishing services, in particular journal article publishing (not sure about books). While every major plumbing operation, every ventilation improvement and every cleaning contract needs to be signed after a competitive bidding procedure, we negotiate subscription deals behind closed doors and the signed contracts are often hidden behind non-disclosure agreements. It seems to me that the second sentence in the quote above describes the consequences of these back-room dealings quite accurately. What evidence is there to support this view?

The second sentence from that quote: “Careless and inefficient standards and procedures for awarding these important community commitments have increased unnecessarily the tax burdens of the public.”

The problem, to be sure, is that universities support subscriptions rather than (in most cases) publishing, and Brembs thinks this is wrong.

As everyone knows, the justification for subscriptions purchases is that the subscribed content can only be obtained at this one publisher, so there cannot be any bidding. The subscription business is essentially one of monopolies, obviously. This argument is about as superficial as it is vacuous. Institutions currently spend huge sums acquiring large collections of journals only few of which are heavily used. From a single article perspective, these collections provide a massive oversupply: institutions pay for access to many more articles than their faculty actually read. If our institutions were instead to focus on serving their faculty’s publishing rather than reading needs, the money would arguably be spent much more effectively.

There’s more here. The finish:

Every single subscription to scholarly journals can be seen as an anti-competitive act that keeps a new business model that allows for competitive bidding from emerging. Shouldn’t there be some legal pushback against this perpetuation of tax-waste?

An interesting point, and at least preferable to other Brembs suggestions seeming to call for libraries (that is, librarians) to unilaterally ~~throw themselves under the train~~ cancel their journal subscriptions and shift the money to sponsoring OA publications.

## *Gates Foundation research can't be published in top journals*

Here, let me fix the title of this Richard Van Noorden piece on [January 13, 2017](#) at *nature news*: “Top foundation research can't be trapped in so-called “top” journals that won't allow true OA.”

I could discuss “top” at some length, bringing in analyses of the relative track records of the so-called top journals, but I've tried to stay out of that. The article itself, once you get past the title, is a good news report on the stiffened pro-OA policies of the Gates Foundation: unlike the Wellcome Foundation, *Gates means* OA when it says OA—“available after an embargo period” isn't OA.

Oh, not at all incidentally, Gates also requires CC BY, true unrestricted reuse.

The clash will affect only a few hundred research papers. The foundation typically sees around 2,000—2,500 papers published each year from its funding, says Wilder, of which 92% are published in journals that comply with its OA policy.

Still, the discussions could result in influential journals making special arrangements with the Gates Foundation to permit OA publishing. If that happens, it would be the first time that journals such as *Nature* and *Science* have allowed a group of scientists an open-access publishing route based on their funding source.

“I predict that the Gates Foundation won't compromise. The journals ought to compromise, and in due time, I predict that they will,” says Peter Suber, director of the Harvard Open Access Project and the Harvard Office for Scholarly Communication in Cambridge, Massachusetts.

Suber recalls that in 2008, many journals were unwilling to accommodate a US National Institutes of Health (NIH) policy, which, at the time, mandated that papers be made freely available no later than 12 months after publication. “Essentially, the NIH forced publishers to choose between accommodating the new policy and refusing to publish the large volume of high-quality research by NIH-funded authors,” he says. In the end, publishers accommodated the policy, Suber notes. He expects that the Gates policy will draw the same concessions from publishers.

Now, if NIH would shorten the allowed embargo to, say, zero months...

## In Closing

A funny thing happened when I got to the last group of items, tagged “oe-gen”—that is, general or miscellaneous. I found one after another that I didn't feel the need to cite or comment on, for a variety of reasons (old news, trollish authors, not really about economics...)

And wound up dropping the whole set. Which may be just as well: as it is, unless this gets trimmed a lot in the editing pass, it's way over the 36-

48 page “ideal” for the new single-column *Cites & Insights* (roughly 20 to 28 pages of the old format).

So this is it. Of the original 143 items, I believe I’ve used just about 60. That may be the right proportion.

Sweeping conclusions? The usual. Done wrong (i.e., making the UK tactics universal or trying a straight “flip” to existing publishers), universal gold OA will be an expensive boondoggle. Done right, expanded gold OA could save money and greatly expand access. “Done right” probably doesn’t have a single best model—and the likelihood of 100% OA during my lifetime continues to be extremely low. (OK, so my lifetime’s probably down to 25-30 years, but still...)

The next *Cites & Insights* probably won’t be all about open access. Probably. I won’t promise that it won’t enter in at all...

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## Masthead

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