

Submitted for publication 4-12-2017

ABSTRACT:

In 2014, University of California- Davis University Library and the California Digital Library collaborated on an Andrew W. Mellon Foundation grant-funded project to explore costs associated with moving scholarly journal subscriptions in the U.S. market to an entirely Article Processing Charge (APCs) business model, known also as “Gold Open Access.” We contacted MacKenzie Smith, one of the principal investigators, in order to get her reflections on the process of gathering the data, and to discuss some implications of the findings. The interview suggests that the “Pay It Forward” model could be successful over time, following a necessarily complex transition period.

KEY WORDS: Gold Open Access, Pay it Forward, Article Processing Charges (APCs),

*Uncommon Conversations*

The University of California Pay-It-Forward Open Access Publishing Research Project: An Interview with MacKenzie Smith

Edited by Eleanor I. Cook

Eleanor I. Cook, J.Y. Joyner Library, East Carolina University, Greenville, NC [cooke@ecu.edu](mailto:cooke@ecu.edu)  
& MacKenzie Smith, University of California, Davis

In our inaugural Uncommon Conversations entry, Eleanor I. Cook, Assistant Director for Discovery & Technology Services at East Carolina University and editorial board member of *Serials Librarian*, interviews MacKenzie Smith, University Librarian at University of California, Davis, and co-Principal Investigator on the Mellon Foundation-funded “Pay It Forward” project. The project investigated the potential viability and sustainability of a fully open access model for scholarly journal publishing, from the perspective of large, North-American, research-intensive institutions.

**Eleanor Cook: “Pay it Forward” has obviously been a huge undertaking. Whose idea was it initially?**

**MacKenzie Smith:** In 2013, Ivy Anderson from the UC California Digital Library (CDL) did some preliminary research on what UC would have paid in fees – Article Processing Charges (APCs) – to publish its roughly 40,000 annual journal articles with Open Access. Her rough calculation had major implications for my collections budget at UC Davis. So, with the prospect of a global shift to APC-funded Open Access journals emerging from Europe, I needed to understand the financial sustainability of that shift. So I wrote the grant proposal with Laine Farley, then the Executive Director of CDL, Ivy Anderson, Director of Collection Development and Management at CDL, and Greg Tananbaum, a consultant in scholarly communication and expert in Open Access publishing. The four of us formed the core team that planned Pay-It-Forward and led the project over the next couple of years, with a great team of analysts and consultants.

**The overall results suggest that the largest institutions would have to increase funding substantially in order to maintain a sustainable OA system of scholarly publication. I imagine some people may be disheartened or disappointed by this finding. What do you think is the best response to this?**

The overall results show that, based on our *estimation* of APCs for current journals, if they all shift to gold Open Access, the more research-intensive universities will pay more than they currently pay for journal subscriptions. However, those institutions also have very large research grant income and many of their researchers are already paying publishing fees (submission fees, page fees, color charges, etc.) from their grants. So it is not true that library budgets would *necessarily* require more funding, since funds from author grants could quite possibly offset some costs. We also concluded that APCs should decrease in future, rather than increase, as authors start to make decisions about where to publish based on a personal cost/benefit analysis. Today, the cost of publishing is invisible to authors so they have no reason to care if it's expensive. A global OA publishing market that requires author-paid APCs would change that, with dramatic effect.

**Are there any findings from this research that surprised you?**

The author survey showed that authors are price sensitive, i.e., they consider cost in connection with publishing their articles. But most of all, authors care about the reputation and quality of the journals they publish in and its readership "fit." They don't oppose OA but it's not a priority compared to these other criteria. In other words, authors won't change where they publish based on whether the journal is OA or not. So an author will always publish in the "best" journal they can, but cost is a factor in their decision and if there are two or three comparable journals, they'll choose the least expensive.

Also, while it shouldn't have surprised us, it was incredibly hard to get good data. Libraries track their journal expenses very differently from one another, and getting accurate information about how many articles were published by authors within a given institution is very difficult, and there is no way to know exactly what APCs the publishers will charge for established journals they convert to OA. So our data is good but the process of collecting it was much harder and more expensive than it should have been.

**Do you have any ideas or recommendations about data collection that would help future researchers?**

Data about library journal licenses is locked up by mandatory non-disclosure agreements with publishers and encoded in technology systems that are each a bit different. Wouldn't it be great if we had an open, international database of library license costs for scholarly journals, perhaps anonymized? If paired with an open, international database of what every scholar has published, e.g. via platforms like ORCID or SHARE, we could do all kinds of useful research on publishing business models, journal valuations beyond IF or SNIP, among many other great projects. For a future project!

**How best do you think that commercial publishers can participate in this transition (considering the findings of your publisher survey)?**

We surveyed the 240 members of the Association of Learned and Professional Society Publishers (ALPSP) about how they're approaching open access to their journals. Most respondents didn't view open access as a challenge to the future health of their organizations. The responses, mainly from non-profit publishers, indicate that they're planning to increase the number of gold open access journals and hybrid articles they publish, and perceive a need to adjust their operations and workflows as well. While

the commercial publishers didn't participate as much in the survey, they're also working on transition strategies and plans – establishing APCs for their journals, experimenting with entirely-OA journals, and negotiating off-setting agreements with libraries to avoid 'double-dipping' when articles are fully OA but libraries license access to the same articles. Each publisher will find its own way, based on what journals it has in which disciplines, and how ready their authors are to move to open access business models.

### **How have you shared the results so far, and what have the discussions revealed?**

We released the report online last fall, and have published a couple of articles on aspects of it so far. We've also talked about it at various conferences for librarians, publishers, funders, and other stakeholders in the scholarly publishing world. And there is international interest in our findings, since North America is such a large part of the market. The reception has mainly been positive that we did this work – it's better to have solid information than not, even if the news is mixed. But it was a complex project with multiple dimensions, so there is also a lot of misunderstanding of and apprehension about what we found, particularly for the costs to larger institutions and how we might manage the transition to an entirely APC (or gold OA) funded journal system. We clearly have more work to do in developing that transition plan, or roadmap, and in designing pilots and experiments that test these new business models.

### **How do you see future conversations with stakeholders trending in this process?**

As I explained, our results are still percolating through the community, and many people are looking for simple answers, and offer comments like "this will cost too much" or "publishers will get to continue profiteering", without trying to understand the nuances... While the instinct to simplify is understandable, it is not tremendously helpful, since the set of problems actually have much complexity to them. A lot more discussion is needed across the community about how well this model could work for different constituencies. But I have to say that this is the direction publishers are heading in today, with the market share for gold OA journals growing every year. And scholarly publishing is a global enterprise, so North American institutions won't necessarily be in control of what happens. Even if APC-funded OA isn't the ideal solution to the 'serials crisis' or achieving full Open Access, we'd better be ready if it happens anyway.

### **Might other open publishing developments influence the cost factors for producing quality, peer-reviewed research articles?**

There are two costs involved: the cost to publish and the cost to acquire access. We found that publication cost factors don't vary by discipline or business model but rather by aspects of the publisher such as their publication tasks, fixed costs (e.g. rent), and profit expectations. There are commercial publishers whose journals are very inexpensive and Open Access publishers whose APCs are close to zero. So we didn't find anything that would drive *publication costs* down, but the *access costs* could vary enormously, just as they do today. It's still a question of what the market will bear and how much profit (or surplus) a given publisher can achieve.

So yes, if the world shifted entirely to non-profit scholarly publishers whose publication costs (or non-surplus - for non-profit publishers like societies) were minimal, then the system would be less expensive whether it was subscription or APC-funded. The question is whether and how we could ever accomplish that.

**Do you think that if tenure ceases to be the chief employment standard for faculty of U.S. universities in the future that this could impact the “publish or perish” cycle and thus change the economic model?**

Actually, it would take a lot more than doing away with tenure to dislodge the ‘publish or perish’ phenomenon, since a scholar’s publication record also influences his or her recruitment, hiring, promotion, grants and awards, and so on. Basically, publications are a convenient proxy for a scholar’s quality and impact and that is a serious problem, not just because it creates unfortunate market side effects, but because we know it perpetuates bias and exclusion as well as hindering emerging and interdisciplinary research.

Rather than the abandonment of tenure, as interesting as that might be for other reasons, what could change the economic model is changing *incentives* that affect all authors equally, such as having to pay APCs. Today, the incentives for scholars are to publish as many articles as possible in the ‘best’ journals. If authors pay fees to publish, that creates a new incentive for them to consider value for money, and publish only as much as necessary. And that should create downward pressure on costs, potentially saving universities a lot of money.

**Also related to the current political climate, do you see U.S. Federal initiatives currently in development being ended or radically changed, or is it too soon to tell?**

Too soon to tell but, in general, open access to research has been a bipartisan issue with strong proponents on both sides of the aisle. So I’d guess that we won’t see a big change in open access policies but quite possibly in what research gets funded and written about.

**This study clearly shows differences in attitude between STEM authors and those from the humanities and social sciences in regards to their support of the APC funding strategy. Perhaps the APC model is not the only way to go - perhaps more diverse publishing choices are to be the new normal. What do you see for the future?**

We expect there will be journal business models other than APC (or gold) funding. There are already interesting and useful experiments going on and publishing models being tried. For example, the SCOAP3 initiative in High Energy Physics, or the new Gates Foundation’s pilot with the AAAS to pay APCs directly from a Foundation-managed fund to the publisher via a new online platform. These are attempts to move away from our journal subscription model to article-fee based business models that don’t directly involve authors. And there are the so-called “platinum” OA journals that don’t charge an APC because they’re entirely funded some other way (philanthropy, institutional subsidy, etc.) And there are new pre-print archives that are subsidized by library memberships and free to authors and readers. As things evolve, we expect to see new entrants in the publishing business trying all kinds of business models and technological innovations. That will be true across all disciplines... Although typically later to the realization than those in the hard sciences, even humanists and social scientists are changing how they think about publications and the role of the article.

But all of this is going to take time. Under the status quo we have over 28,000 traditional journals publishing over 2.5M articles each year, and authors who are quite happy with the system we have. So achieving OA for any substantial part of these would mean a major transition and a major achievement.

**Further reading:**

“UC Davis and CDL complete Pay-It-Forward project,” 2016-08-11.

<http://libraries.universityofcalifornia.edu/content/uc-davis-and-cdl-complete-pay-it-forward-project>

(Accessed 9 April 2017)

“UC Pay-It-Forward Project,” [http://icis.ucdavis.edu/?page\\_id=286](http://icis.ucdavis.edu/?page_id=286) (Accessed 9 April 2017)

“Findings and Other News from the Pay-It-Forward Project,” [http://icis.ucdavis.edu/?page\\_id=713](http://icis.ucdavis.edu/?page_id=713)

(Accessed 9 April 2017)

Tenopir, C.; Dalton, E.; Fish, A.; Christian, L.; Jones, M.; Smith, M. What Motivates Authors of Scholarly Articles? The Importance of Journal Attributes and Potential Audience on Publication Choice.

*Publications* **2016**, 4(3), 22; doi:[10.3390/publications4030022](https://doi.org/10.3390/publications4030022)