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The Transition to Open Access

The State of the Market, Offsetting Deals, and a Demonstrated Model for Fair Open Access with the Open Library of Humanities

Martin Paul EVE[a1], Saskia C.J. DE VRIES[b] and Johan ROORYCK[c]
a. Birkbeck, University of London and the Open Library of Humanities
b. Sampan – academia & publishing and Linguistics in Open Access
c. Leiden University and Editor in Chief of Glossa

Abstract. In this article, we explore the state of the OA market and the current situation with respect to offsetting deals in the Netherlands. We then offer a case study of the LingOA model for a transition to open access, backed by a consortial funding mechanism: the Open Library of Humanities (OLH). We also suggest how this approach can be extended into new disciplinary spaces (in particular, mathematics and psychology, where there is already some willingness from editors).

Keywords. Fair Open Access Publishing, APCs, Open Library of Humanities, Flipping existing subscription journals, Sustainable model for scholarly communication.

1. Introduction

In May 2016, the European Council of Ministers set an ambitious goal: to make open access (OA) to scientific publications the default by 2020.[1] This bold proposal to make peer-reviewed research available freely to read and re-use online, though, came with few indications as to how it would actually be achieved and, thus far, the road to OA has been winding and bumpy. Further, at least in this transition period, the total cost of academic publishing has been raised by hybrid journals and a lack of effective offsetting measures.[2,3] The concentrating effect of new business models, such as Article Processing Charges (APCs), have made it clear that any transition will also require careful thought about economic distribution.[4] A range of proposals and approaches are currently in simultaneous development in order to achieve what was

1 Corresponding author, Department of English and Humanities, Birkbeck, University of London, United Kingdom. Email: martin.eve@bbk.ac.uk.

thought to be a singular goal, from OA offsetting deals with large, existing publishers through to models for global "flips" to OA.[5,6]

In this article, we explore the state of the OA market and the current situation with respect to offsetting deals in the Netherlands. We then offer a case study of the LingOA model for a transition to open access, backed by a consortial funding mechanism: the Open Library of Humanities (OLH). We also suggest how this approach can be extended into new disciplinary spaces (in particular, mathematics and psychology, where there is already some willingness from editors).

2. The State of the Open Access Market

Scholarly communications environments have long been deemed strange when compared to other market environments. For instance, Peter Suber has noted that "[e]very scholarly journal is a natural mini-monopoly in the sense that no other journal publishes the same articles", which makes the possibility of substitute goods and effective price pressure mechanisms extremely difficult to introduce.[7] Further, Martin Paul Eve has shown how a symbolic economy of prestige maps onto the material library economy and leads to a lack of price sensitivity among researchers.[8] It is these features, combined with the mass expansion of higher education (and, therefore, research volume), that have led to the *circa* 300% rise above inflation in required serials expenditure since 1986 charted by the ARL.[9]

A recent report commissioned by OpenAIRE on behalf of the European Commission, 'Towards a Competitive and Sustainable OA Market in Europe', thus defines the scholarly publishing market as "an 'intermediated market'", worth approximately ten billion USD per year "with researchers acting as both producers and consumers of research, while the purchase of content is typically undertaken by academic libraries".[10] As before, this leads to the situation that "weakens the price sensitivity of consumers" on both author and reader fronts.[10] While the OpenAIRE report notes that, in 2015, annual revenue from English-language science, technology and medicine (STM) journals was estimated at between $7 and $10 billion, the broader STM information publishing market is worth around $26 billion of which roughly 55% comes from the US and 28% from Europe according to a report using data from Simba.[11] This economic environment, which draws mostly on university library budgets, is compounded by payments to national copyright agencies for reproduction rights.

The OpenAIRE report identifies four paths for open access to scientific research (where "scientific" is used in the European sense to span many more disciplines than the Anglo-American usage of the term), splitting the well-known green/gold distinction into a range of sub-components that specify business models:

- Green open-access archiving: usually an author's accepted manuscript, sometimes with an embargo, within an institutional or subject repository
- Hybrid gold open access: peer-reviewed articles inside subscription/toll-access journals are made immediately open access, by the publisher, often upon payment of an APC. This can be achieved either directly or through an offsetting arrangement (a kind of "big deal" for open access)

- Gold open access via APCs: fully open-access journals that require a payment from an author, institution, or funder
- Gold open access without APCs: fully open-access journals that require no payment and have alternative business models in place (sometimes also called: "platinum OA").

This fresh characterization of the modes is useful, since the initial terms were never supposed to specify the underlying business models.[12] Yet, it is also clear that the redistribution proposed by article-processing-charge based models comes with new challenges.

These distributional effects can be considered through an allegory.[13] Consider, for example, that there are 100 people in a room. They have $10 each. An academic speaker will give the audience a talk but the venue wants $50 to cover its costs (and any profit/surplus). There are 40 such talks per year. There is, finally, an indefinitely large group of people (let us call them "the general public") who might want to hear the talk but who can't afford to pay anything.

The subscription logic would be: each person pays $0.50 and gets access to the talk. If a person does not pay, s/he/they may not hear the talk. This logic is implemented to introduce a classical economic system. With the funding available, each person can choose to attend this talk or another. However, each of the 40 talks is different and doesn't cover the same material. The attendees do not really know whether a talk will be useful to them in advance. They can attend 50% of the talks. This model spreads costs but limits access; 50% of the talks could be attended by 100% of the attendees but nobody from the "general public" group gets to hear the talks. Further, it is unlikely that all 100 participants will attend the same 40 talks, so knowledge of the talks' contents is diffuse. Some believe this is the best way of ensuring the venue is compensated and remains open for talks because it incentivizes people to pay. The speaker doesn't necessarily get the largest possible audience from this model.

The logic of an APC would be: the speaker will pay the venue's cost of $50 and let anybody hear the talk for no charge. This makes sense to the academic as her only motivation is to be heard (she is one of the lucky ones who has an academic post). The problem is that she only has $10 herself. This model concentrates costs (sometimes impossibly so) but allows the theoretically widest access. In this particular case, though, an idealised logic led to no access since no single individual can afford the total cost. APCs have a problem of the current distribution of resources.

Finally, the logic of new consortial OA funding mechanisms such as Knowledge Unlatched and the Open Library of Humanities would be: 5 people attend each talk. They each spend their full allowance of $10 on that single talk. However, they let everybody else attend any talk for which they have paid, in expectation of reciprocity and for the public good. They record the talk and let others view this for no charge. This model spreads costs and allows broader access than the subscription model; 50% of the talks could be heard by not only 100% of the attendees but also by the group who can't afford to pay. This is the logical choice for those present but some are worried that they may pay while others might not return the favour.

There are also arguments that the $50 venue fee is extortionate, since it appears that 35% of it ($17.50) is pure profit for the venue organization, which is in fine financial health. Some point out that were this closer to 6% ($3.00) the organization would still be fine and could pay all its staff but each talk would only cost around $35. At that rate, it would be possible to host approximately 29 of the planned talks and, with the distribution in the different models, allow other groups to have access.

The current state of the open-access market, though, is a mix of these different types of logic, all adding costs on top of one another. The proliferation of author/institution-facing charges has led to a need to see reductions in the current level of subscription expenditure, even though not all players in the global ecosystem are moving to gold OA via APCs at the same rate. This has meant that a series of "offsetting deals" have come into play.

3. Open Access Offsetting Deals

In the hybrid gold environment described above, researchers and institutions are able to purchase open-access for specific articles, even while subscriptions continue to be charged for the journal. This has led to the accusation that publishers are "double-dipping"; that is, charging twice for the same material through both subscriptions and APCs.[14] Representatives of large publishers like Elsevier, such as Alicia Wise, have denied that they double-dip, though, stating in a kind of double-think that "there is no connection between subscriptions and APCs: they are 'decoupled'. She says the money coming in through a journal subscription is used to pay for a particular number of articles, and that open-access articles in hybrid journals are additional to that".[15,16]

Nonetheless, as APCs have grown to consume more and more of library resources, it has become necessary to find ways to "offset" subscription expenditure against gold payments (whether hybrid or pure).[2,17] The OpenAIRE report identifies four different types of offsetting arrangements that have been put into place:

- A local reduction from a subscriber's fees of the total amount of all APC revenue from the previous year
- A cap, whereby subscriptions are maintained, but subscribing organizations pay no extra to have all their own outputs made openly available
- An APC discount, sometimes of up to 95% of the standard APC, for authors at subscribing institutions
- A voucher system equivalent to a subscription spend to be used on APCs.[18]

One country that has been actively monitoring the effects of these deals, aside from the already-cited sources in the UK, and from which we can glean some knowledge is the Netherlands.

Agreements between Dutch university libraries and traditional academic publishers with open-access options have been actively monitored in the country since 2015.

There has also been an active effort to collate data on the costs incurred per-university, per-publisher using the Government Information (Public Access) Act.[19]

A September 2016 request to the VSNU (the association of Dutch universities) under this legislation asked for "provision of a copy of the open access licenses purchased by your institution in the past year from various publishers such as Elsevier, Springer, Wiley, Taylor & Francis, ACS, SageKarger, Thieme, Walter de Gruyter, RSC, Emerald and any comparable licenses, with the essential understanding that the institution shall pay a previously-established fee to the publisher, in exchange for which the publisher will publish accepted academic articles by authors affiliated with your institution open access in licensed journals".[20] This request revealed a large variance in spending, with the largest share going to Wiley at €3,818,000, with Taylor and Francis a close second at €2,318,584.

Perhaps most interesting, though, was the deal struck in more recent days between Elsevier and Dutch Universities. The paragraph around open-access provision in the leaked details of this deal paint a picture of a large organization attempting to hinder progress towards OA, at least in some interpretations. As Sicco de Knecht has put it:

> "The agreement draws a disheartening picture of the so called 'Golden deal' reached by the Dutch universities with their major publisher: Elsevier. Hindered by severe restrictions only Dutch corresponding authors from the combined institutions are eligible to publish in a very select set of journals in the Elsevier collection.
>
> Simultaneously Elsevier raises its collective fees in 2017 and 2018, with 2.5% and 2.0% respectively from the level of €11,697,147.68 in 2016. The contract also states that Elsevier will not levy publication charges to authors. This is included in the price of the deal which has been raised by the publisher to cover the lost revenue. At the end of the contract period parties will decide whether the 'experiment' was worth their while."[21]

While these models retain the distributional characteristics of the subscription environments, one of the primary concerns about such setups is that they also perpetuate lock-in. That is, because the libraries have already agreed to pay this group of publishers, it becomes difficult for new actors to mount any substantial market challenge. What is clear, though, is that these deals are becoming more prevalent; a fact that we attribute to a desire for the distributional regime of subscriptions within an open-access environment. For the final section of this paper, we turn to a project description of the Fair Open Access model; the LingOA project; and the Open Library of Humanities platform, that we believe retain the desired characteristics of subscription funding while accruing the benefits of open access, within a competitive price framework.[22]

4. The Fair Open Access Model

In the Linguistics in Open Access (LingOA) model, several international linguistics journals have recently moved from their traditional publisher to a new open access publisher, moving their entire editorial staff, authors, and peer reviewers from the traditional subscription model to a model that we call "Fair Open Access". The Open Access publisher has to comply with the following conditions, a.k.a. the Fair Open Access Principles:

1. The journal has a transparent ownership structure, and is controlled by and responsive to the scholarly community.[23]

2. Authors of articles in the journal retain copyright.[24]

3. All articles are published open access and an explicit open access license is used.[25]

4. Submission and publication is not conditional in any way on the payment of a fee from the author or its employing institution, or on membership of an institution or society.[26]

5. Any fees paid on behalf of the journal to publishers are low, transparent, and in proportion to the work carried out.[27]

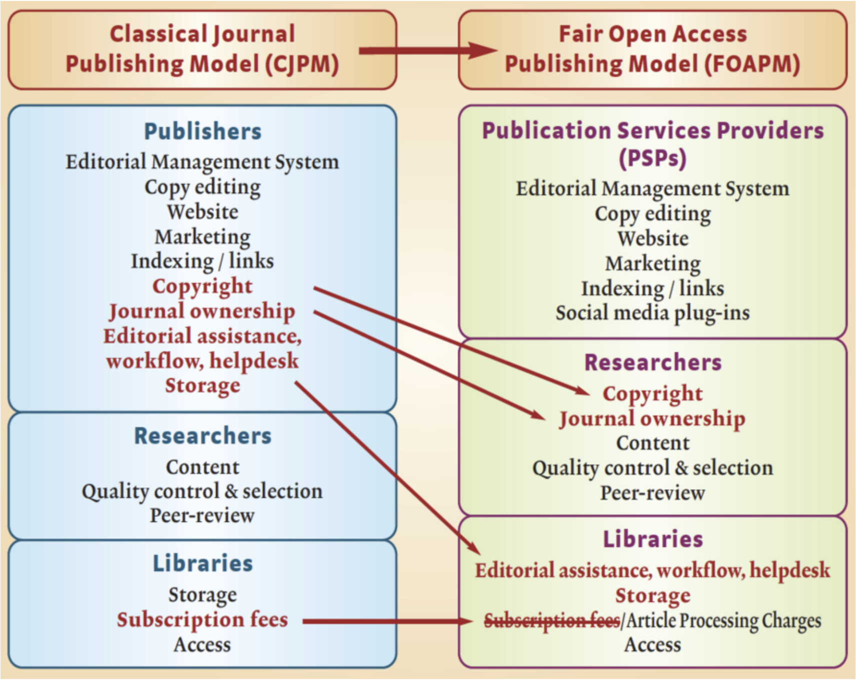
LingOA facilitates this radical move by paying for the article processing charges (APCs) of the articles published in these journals during the first five years as a transition measure. The journals *Glossa*, *Laboratory Phonology*, and the *Journal of Portuguese Linguistics* are now published by Ubiquity Press. The *Italian Journal of Linguistics* joined LingOA early 2017. The publisher of this last journal, Pacini in Italy, complied with the Fair Open Access conditions, so this journal stayed with its publisher. To ensure long-term sustainability, LingOA has partnered with the Open Library of Humanities (OLH). OLH will guarantee the continued publication of the journals associated with LingOA after the first five years through its consortial library funding model, provided that its Library Board votes in favour through its journal selection procedures. OLH is a charitable organization dedicated to publishing Open Access scholarship with no author-facing APCs. This will provide long-term sustainability for Fair Open Access journals, ensuring that no researcher will ever have to pay for APCs out of his or her own pocket.

Because the community of linguists is relatively small and close-knit, this created nearly ideal conditions for the project. Once the transition of the first journals – including all of their editors, editorial board, peer reviewers, and authors – had been completed, we immediately found that the linguistics community realized that the journals have essentially remained the same. Authors and readership was not affected, even in case of a name change. Citation-, ERIH- and H-indices – important quality metrics in this field – are therefore not expected to decline, or will at least recover quickly.

The editorial board at the Elsevier journal, *Lingua*, left the publisher to establish a new journal. In its first year, 2016, this new journal, called *Glossa*, has had 319 articles submitted, 51 published and 54 in production. In 2017, 80 articles have already been submitted and 27 published, with 55 in production. Thus, the editorial board saw no negative repercussions from their move.

After the successful transition of these journals, LingOA hopes to convince the editors of many other prominent linguistics journals to join them. As such, LingOA expects to become a model for the transition to Fair Open Access in other disciplines as well. Various editors of journals in for example Mathematics and Psychology have already expressed their interest in flipping their journal to fair open access. Such an approach will require up-front funding, both for the initial transition period, and to expand consortia like the Open Library of Humanities to ever-larger sizes to facilitate the wide distribution of costs.

This will result in a transition of the classical journal publishing model to a Fair Open Access publishing model, by redistribution of several labour functions of the publishing model back to academia as follows:



The journal flipping procedure consists of two distinct stages:

1. The transition of three years: The journal's editorial board seeks admission to the Open Library of Humanities. The editorial board then asks the publisher to comply with the conditions of Fair Open Access. If the publisher refuses to comply, the entire editorial board leaves the journals to set up a new journal with a publisher who does. APCs are paid for by a 3-year fund. For LingOA, the fund is financed

by the Netherlands Organization for Scientific Research NWO and the Association of Dutch Universities (VSNU). Radboud University Library has provided a journal manager for the 4 journals.

2. The final stage after three years*:* Journals that move have re-established their prestige metrics. APCs are paid by the consortium of librariesparticipating in the Open Library of Humanitiesensuring long-term sustainability.'

The Open Library of Humanities is a non-profit, academic-led open access publisher and open-access funder for the humanities and social sciences. OLH promotes flipping existing subscription journals to open access. It consists of a library consortium model: participating libraries pay an annual membership fee (currently approximately €500 - €1500) that pays for all APCs of OLH-associated journals. Libraries vote on which journals to admit to OLH after an initial screening procedure. By March 2017, over 220 libraries participated in the OLH, including Harvard, Princeton, Yale, Carnegie Mellon, UCL, and Cambridge. OLH recognises that there is labour in publishing that must be fairly remunerated but also subscribes to the Fair open access principles and is willing to work with and potentially fund any publishers who also do so. Thus, OLH provides a long-term sustainable solution for flipping existing journals from subscription to Fair Open Access, enabling libraries to redirect funds from subscriptions to APCs.

There are several features of this flipping model that make it a desirable alternative to the above big-deal and/or offsetting deals:

1. A discipline-based approach. Within each academic discipline, a foundation is set up that helps flipping established subscription journals to Fair Open Access. Existing networks within the discipline are exploited to influence editors to flip their journal to Fair Open Access. This allows for an understanding of specific disciplinary circumstances.

2. No APCs. The foundation pays for the APCs during the transition period. It also covers legal advice costs associated with flipping the journals. This avoids the cost-concentration effects of article processing charges.

3. Long-term sustainability. After the transition period, journals join a worldwide library consortium such as the one provided by the Open Library of Humanities. The worldwide library consortium durably pays for APCs. Thus, library funds are redirected from subscriptions to APCs while maintaining the distribution effects of a subscription environment.

The LingOA model provides a tested roadmap for flipping subscription journals to Fair Open Access; a model that increases downward price pressure and cost re-distribution. Investment in the funding for the transition period is temporary, because it is only necessary during the transition period. On the other hand, long-term return on investment is substantial across library bodies, since in the longer term the model facilitates the cancellation of subscriptions, the re-negotiation of big-deal bundles, and the costs of open-access publications become transparent and in proportion to the work carried out. The scheme also facilitates downward price pressure on APC models since the OLH is also an in-house publisher and so is able to generate a rationale for a specific price point. The library consortia of the model of the Open Library of Humanities enable library funds to be redirected from subscription to open access, although additional upfront philanthropic or government funding may be required to expand such consortia to the necessary size to support larger disciplines since building such a consortium is highly labour intensive. This transition to Fair Open Access is also driven by editors and authors. And last but not least: academics face no costs for publishing or accessing research results.

5. Conclusion

The road to open access will likely involve multiple business models. Although the APC route has gained favour with a number of organizations because it presents a mode in which a unit cost can be assigned per article, the concentrating effects of this model make it difficult to scale without economic redistribution. Subscription models retain the distributional characteristics that spread these costs among many actors but come with an access gap. Consortial models for open access retain the best of both of these models but only by changing to a non-classical economic environment. That is, there is the potential for free riders.

The LingOA model, underwritten in the long-term by the Open Library of Humanities, presents a case study for a transition to open access that includes offsetting using a non-classical economic model. While costs to libraries remain low, there is no evidence of the possibility of free-riders causing cancellations and the OLH has a 100% renewal rate. As the model scales, it may be necessary to fragment the offerings into different packages to avoid both "Big Deal"-style lock-ins and also to ensure that scaling does not lead to library drop-outs. Further, in targeting publication venues rather than individual authors, the social features of this model lead to open access without the need to convince every academic author of its merits.

Finally, there is enthusiasm to extend the LingOA model into other disciplinary spaces, specifically in mathematics and psychology. An expansion to these other disciplines will require up-front funding to cover the transition period and to cover the expansion of the OLH consortium.

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[22] Parts of the description in the following section have been published, or are under submission, elsewhere.

[23] Clarification note on Fair Open Access principle 1: This could be ownership by an editorial board, or by a democratically controlled scholarly society, for example. Key points are that the controlling organization, not a commercial publisher, must own the journal title, so that a change of service provider can be achieved without changing the title, and so publishing companies simply compete to offer services to the journal. We strongly recommend that the ownership structure allow for democratic input by the community of readers, authors and referees, in addition to editors, and that procedures for making key decisions about the journal's future be formally (even legally) specified. We strongly recommend that the governing organization be fully nonprofit (for example, IRS 501 (c) (3) in USA). A for-profit company accountable only to shareholders is not compatible with Principle 1.

[24] Clarification note on Fair Open Access principle 2: The journals and their publishing house can still propose, among their services, to take care of possible legal issues pertaining to copyright on the author's behalf, under the author's oversight. We strongly recommend that reviewers also retain copyright of their reviews, and journals retain ownership of all correspondence and mailing lists compiled on the electronic submission system put at their disposal by the publisher.

[25] Clarification note on Fair Open Access principle 3: Any form of subscription paywall is unacceptable, including "hybrid OA". We strongly recommend that the industry standard CC-By licence be used. All content of the journal should be easily accessible from the journal website to anyone with a standard internet connection.

[26] Clarification note on Fair Open Access principle 4: The key idea is that journals be "free at the point of use" by authors and readers. Principle 3 deals with readers and Principle 4 with authors. Compulsory APCs (article publication charges) are not compatible with this principle. Journals should ideally be funded by general contributions from universities and research funders, with these contributions not tied to individual articles or groups of authors. Principle 4 is not compatible with "APC Big Deals", whereby institutions pay for APCs of their employees but do not contribute to a general fund. Also not compatible is the practice of charging APCs by default to the author's institution, with waivers for authors who do not have institutional funds. The principle does not preclude voluntary APCs, but requests for these must be unobtrusive and no barrier to publication. APCs must be "opt-in", never "opt-out".

[27] Clarification note on Fair Open Access principle 5. "Low" depends on the particulars of each journal, but we strongly recommend an absolute maximum of $1000 per article published or $50 per page for the total expense of any journal, and substantially lower fees in all possible cases. We recommend that

an itemized price structure be made public in order to ensure transparency and make the proportionality principle apparent.