



Sustainable routes to making research content open access

Position Paper

The Society Publishers' Coalition ([SocPC](#)) supports all sustainable routes to achieving open access (OA). By sustainable we mean a business model that allows income generated by journals to continue supporting the publishing organisations' activities. This position paper outlines the range of business models currently in use across the SocPC membership which includes self-publishing and partner-published societies. The various business models are enabling the transition of peer-reviewed content in journals from being published behind a paywall, to being made OA under a Creative Commons license (CC-BY) immediately upon publication with the final and authoritative Version of Record available and reusable by all.

Transformative Models

We define a transformative model as one that moves the business model from 'paying to access content' to 'paying for OA'. The following models fit this criterion:

- Transformative Agreements
- Transformative Journals
- Flipping all or part of content, i.e., certain article types in a journal
- Subscribe to Open and other supporter-type models

Transformative Agreements (TAs)

Typically, TAs are made between publishers and consortia, but are now offered by some to individual institutions. A TA combines read access and OA publishing charges in a single payment. The aim is to drive up the share of OA content in the journal. A flip to fully OA will, in theory, occur when all authors who are publishing in the title are affiliated with institutions that have taken up the TA. These deals are transitional in nature and the 'full flip' point has, at the time of writing, not been reached by any, yet. TAs have been constructed to enable publishers and institutions to adjust to the model over time without large increases in price or losses in authorship, nor revenue. These models have gained ground since their introduction five years ago, with variations as detailed below.

Read & Publish (R+P) and Publish & Read (PAR) models

There have been several attempts to draw a distinction between R+P and PAR, see for instance [1]. Both R+P and PAR models combine read access and OA publishing within one bundle. However, there are different ways in which the fee is broken down and calculated. The first (from Springer Nature) as well as largest (Projekt DEAL) deals have shaped the market and expectations.

Fees are based on Institutions paying a single annual fee to read paywalled content and to allow their authors to publish OA in a journal or group of journals. Within this core concept lies an important distinction.

UNLIMITED OA publishing	CAPPED Deals
<p>Fees are paid upfront for the following:</p> <ul style="list-style-type: none"> • An unlimited number of OA papers can be published over the duration of the agreement • A broad range of article types including research and reviews (as well as commissioned reviews) can be eligible for OA publication. • Often offered to both individual institutions and/or larger consortia. • Can be multi-year OR single-year deals, which may form part of annual institutional renewals, including purchasing via subscription agents. • Examples include SocPC unlimited OA** offerings listed here. 	<p>OA publishing fees are paid upfront for the following:</p> <ul style="list-style-type: none"> • A specified number of articles, or • Until the ‘publish’ element of the payment exceeds the OA article limit or monetary value outlined in the contract. • There are restrictions on which article types can be published OA under the deal and deals can be limited to articles funded by particular funders. • Most often offered only to consortia • Most often multi-year deals only



** Borne from a collaboration between SocPC self-publishing societies in 2019 came the **Unlimited Open Access** model. By collectively adopting the same model, and agreeing the principles (but not pricing), it offers institutions a route to OA which demonstrates the willingness of non-profits to devise a

sustainable and affordable pathway. It has specific appeal to institutions whose budgets can be better managed with the certainty that they will not need to top-up mid-year. It has also been adopted by a number of non-Society publishers such as Rockefeller University Press.

For these mixed purchasing models, the calculation of the ‘read’ and ‘publish’ elements of pricing are not strictly defined. Whether the terminology puts ‘read’ before ‘publish’, or the other way round, may signify where the publisher or institution places the greatest value. As transformative agreements evolve, we may see new variations of these models.

Read + Publish	Publish & Read	Tiered
Institutions pay a single fee to read paywalled content and to allow their authors to publish OA in a journal or group of journals. Typically, the 'read' element of the fee is based on subscription spend and the 'publish' element of the fee is based on recent APC spend or historical published article output (sometimes smoothed over two or more years).	This calculation may be based on the number of OA articles published under the deal and the read access is provided for free. The fee can be fixed based on historic output multiplied by a notional APC or calculated over the agreement period by multiplying actual articles published by the notional APC.	To make pricing more predictable and stable, institutions are assigned tiers according to averaged publishing output. At the lowest end of the output scale, the tier pricing reflects 'read' benefit and so decreases in proportion to OA article increases.

APC: Article Processing Charge – a per-article fee payable to the publisher for immediate OA publication of the final version / 'Version of Record' of that article.

Common to all Most publishers require the corresponding author to be at a participating institution at manuscript acceptance. Verifying author eligibility is variously accomplished by matching email domains, using ORCIDs or Institutional IDs (typically Grid, ROR or Ringgold).

Variations

Hybrid/pure OA	Some agreements include only the publisher's hybrid titles, some portfolio-wide deals include fully OA journals too.
R+P + join	American Physiological Society are piloting this model which includes free membership of the Society for corresponding authors who publish as part of the agreement.
Research only	Limited to specific article types for publishing, but all read content is included.
Banded/tiered	Both ACM and Microbiology Society models motivate conversions in advance of a full flip to OA. Each institution is encouraged to transition to the new model at their own pace, taking into account budgetary constraints and the perceived value of migrating to an OA future.

TAs are a good choice for publishers when:

- There is a good overlap of authors and subscribing institutions
- The subject area is well funded for the publication of research, such as in biomedical and life sciences, and the geography of authorship for a journal is such that it lines up with the receipt of funding to support TAs.

TAs are, in general, a useful tool in some cases, and there is evidence of them being able to redirect institutional spend from subscriptions towards OA, as shown by the 2019 vs 2020 Biochemical Society and Microbiology Society data presented in a recent blog post: [SocPC: leading the way for open scholarship](#).

However, the geography of authorship and whether published output increases or not has a large bearing on the success of deals. See Discussion Points for further exploration of the challenges presented by this model that question whether TAs are actually sustainable.

Transformative Journal

The '**Transformative Journal**' (TJ) concept has been developed by Plan S with the stated aim of allowing publishers who may not be able to negotiate transformative agreements to offer authors a globally compliant route to publish their articles immediately OA with an APC. Some research funders will refuse to allow research that they have funded to be published in hybrids with payment of an APC, although a green route is compliant. Publishers can apply for Transformative Journal status for a hybrid journal if they publicly commit to increase the proportion of OA articles in that journal by at least 5% in absolute terms and 15% in relative terms and commit to a complete flip when they reach 75% OA. Alongside this, they commit to adjusting subscription prices in line with the increases in OA content so there is no double charging. TJ status allows publishers to charge an APC in these circumstances.

TJs are a good choice for publishers when:

- The publisher is not able to negotiate TAs but there is good take up of the hybrid-OA option where authors seek to publish their articles OA via payment of an APC
- An additional compliance route is sought alongside a TA to increase OA output, to give more choice to authors (who might otherwise not have any 'gold' route be forced to follow the 'green' route), and allow publishers to continue to charge APCs on articles published in hybrid journals.

Flipping all or part of content

For some publishers, it already makes financial sense to change the business model to one that only monetizes OA on a per-article charge basis for some or all content. For some society publishers like the **IET** and **ASBMB** fully flipping their contents to CC-BY OA coincided with moving to a commercial partner to implement an OA business model. Ultimately flipping the content to OA is the option publishers with TAs or TJ status are aiming for as the end point of their transition. However, the business models that underpin transformation to OA (flipped) journals or content are not necessarily solely-APC driven and it will be interesting to see how models adapt and develop.

Variations

Research only **BMJ** and **American Society for Clinical Investigation** have both flipped all their research content to OA while maintaining a subscription on other content. This allows for the journal to be compliant with funder policies and for authors to continue to use funds to pay individual APCs.

Flip forward Flipping the business model to OA for future content, whilst maintaining the paywall for archival content.

Flipping to OA is a good choice for publishers when:

- The % of OA content in a journal is already very high and the discipline is well funded, or, for those with the option of diamond OA, where sponsorship funds the publishing operation, and all outputs are OA
- There is significant page charge revenue that cannot be included in calculations for TAs
- Authors are accustomed to paying to publish their articles
- Author revenue (paying to publish) is significantly higher than subscription revenue.
- There is a high proportion of non-research content in the journal where a subscription on part of the journal content can be maintained.

Subscribe to Open (S2O) model

Pioneered by Annual Reviews with its journal, *Annual Reviews of Public Health*, **S2O** (which was adopted by **EMS Press** and **IWA Publishing** for 2021) converts subscription access journals to OA using existing library subscription income, with no fees for publishing.

Subscribers are offered the choice of either renewing their subscription as usual, or paying a discounted price to become a 'supporter' with the aim of helping the journal move to fully OA. The publisher internally sets a threshold of how many supporter payments it needs to reach, and if it reaches that threshold by a specified deadline, the content for the following subscription year is opened up globally and permanently and authors are not required to pay APCs. The offer is repeated annually, and targets need to be met annually in order to open up the content for each volume. If thresholds are not met, subscribers still benefit from the discount and have access via their subscription, but content will be pay walled for non-subscribers.

S2O is a good choice for publishers when:

- Authors' research is typically unfunded
- Content is commissioned; is not original research, e.g., review or commentary; or is otherwise unlikely to attract APC funding from institutions or funding bodies
- For certain disciplines such as arts, humanities, social sciences (where author pays OA is more challenging due to the funding models and general lack of funding for publishing fees).

Out of scope models

For completeness, we round up this position paper with a mention of models which are commonly used and may be Plan S compliant, but in the terms of this paper not deemed financially sustainable. They are not seen as a viable means for replacing the subscription income generated by journals that supports the continuance of the publishing organisations' activities.

The green route and also the Plan S Rights Retention Strategy mandate that a prior version, usually the author accepted manuscript (AAM) be deposited in an institutional and/or subject-based repository. Most publishers have allowed this for some time and many imposed an embargo period to protect subscription income. Plan S (including UKRI) recognises the green route as compliant, but additionally requires a CC-BY licence to be applied to the AAM and does not permit any embargo period on access. Plan S makes these requirements whether or not that contravenes the publishing terms of the selected journal.

As this is not a 'business model' nor independent from subscriptions on which it is reliant, it along with fully OA models such as PLoS's **Community Action Publishing** and other pure Publish models, discount and membership deals are out of scope of this paper.

Discussion Points

The models described in this paper are viewed as sustainable, gradual transitions to open access, but their success is still in question. The experiences of particular disciplines, societies and journals differ greatly. Routes that are sustainable for one society are unworkable for another.

When will we have a full transition?

Because cOAlition S funders have set an end date for the transition to OA, they will not fund TAs after 1 January 2025. The question is whether we will see a full transition across all academic publishing by that date or whether the picture will be more mixed. Will authors need to check mandates and journal status and understand the various compliance routes of funders beyond the transition date?

The challenge for all publishers in meeting this deadline is therefore to calculate the risks of flipping their journals to OA and surviving the financial consequences of removing their main source of income. They could remain hybrid but would then run the risk of losing papers to journals which publish articles immediately OA and are therefore clearly funder compliant. Some publishers in some disciplines might cut off gold (APC) funded OA altogether and instead allow a green route to remain funder compliant and continue to serve their author communities funded fully by subscriptions. Mixed model packages (R+P, PAR) may prevail beyond the Plan S deadline.

Truly sustainable? Challenges for partner published societies

About 70% of SocPC members publish with a commercial or not-for-profit partner. Those members often have little choice about the model of open access transition. They may also be caught up in a transition that does not work on a journal or society level, even if it works at scale at a publisher level. Similarly, they may be involved in a model of transition that is not aligned to their disciplinary mission. Below we explore a few of the challenges being faced by our partner-published societies.

At the moment, partner-published society challenges seem to be most acute around TAs. At their core, TAs are organised on the principle that the unit of purchase is the article, meaning that volume is connected to financial success. As a result, this model can mean driving up the number of publications in order to maintain income. Some partner-published societies are seeing pressure to accept more papers or change the bar of acceptance. The emphasis on OA publishing in these instances is pushing both societies and publishers in the direction of a numbers game that simply drives more submissions and more published articles, potentially sacrificing quality. For partnered-published societies, income distribution from TAs is reliant on published output. For self-published societies, published output is the basis for being able to renew a TA with an institution/consortium.

TAs also do not work for institutions with scholars in regions that are not funded to support such deals or that do not prioritize OA publishing. There are, therefore, issues with making TAs work in unfunded disciplines and regions. At a journal level, there may be a strong divide between authors in territories negotiating TAs and those that are maintaining a subscription model. In some cases, this imbalance results in a financially unsustainable model. Some societies are experiencing reduced interest from commercial partners, estimations of significantly reduced income or deprioritizing their commitment and service to journals in their efforts to make TAs work.

For journals within certain disciplines, internationalizing the author base (a pressure created by balancing subscription territories with territories covered by TAs) is a challenge because there are differing traditions of research culture, expression and language for authors and

readers. In these fields, where the form of the written word – the textual persuasion and presentation of the argument, and even the data – is so important, the challenge to internationalise requires significant additional resource.

As we look forward to a transition moment, the questions over sustainability increase for these same disciplines and partner-published societies. For many, the ‘sustainable’ fee – real or notional – for each publication would be far higher than the funding available within the discipline.

While these challenges are common amongst those societies in the Arts, Humanities and Social Sciences, they are by no means exclusive to those disciplines and the SocPC has STEM-associated societies who share these challenges in relation to lack of funding and sustainable transitions.

Most society publishers, with missions to promote, support and develop their disciplines, value the principles of open access publishing; however, the models of transition currently in use need to be tested longer-term before we can be confident of their sustainability.

Footnote

[1] [Transformative agreements: a primer](#), by Lisa Janicke Hinchliffe, the Scholarly Kitchen, April 23, 2019

About the Society Publishers’ Coalition

We are an organisation of Society publishers who share the common ambition to see an orderly and sustainable transition to open scholarship and to improve the efficiency of the scholarly communication ecosystem for the benefit of researchers and society at large in a fair and sustainable way. Our members represent a diverse range of academic disciplines, which face an equally diverse range of challenges in making this transition. We have come together in the spirit of cooperation and collaboration to explore the challenges and develop solutions.

New members are welcome.

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