COPIM
Revenue Models for Open Access Monographs 2020

Izabella Penier, Martin Paul Eve, Tom Grady

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Glossary of terms

B2B – Business to Business
BM – Business Model
BPC – Book Processing Charge
DOAB – Directory of Open Access Books
DOI – Digital Object Identifier
HE – Higher Education
HSS – Humanities and Social Sciences (sometimes referred to as AHSS – Arts, Humanities and Social Sciences)
KU – Knowledge Unlatched
NUP – New University Press
OA – Open Access
OAPEN – Open Access Publishing in European Networks
OECD – Organisation for Economic Cooperation and Development
OER – Open Educational Resources
OLH – Open Library of Humanities
POD – Print on Demand
RM – Revenue Model
SPARC – Scholarly Publishing and Academic Resources Coalition
STEM or STM – Science Technology Medicine
SWOT – an analysis technique that appraises Strengths, Weaknesses, Opportunities, and Threats
TOME – Towards an Open Monograph Environment
UCL – University College London
UP – University Press

Background to the COPIM project

COPIM (Community-led Open Publication Infrastructures for Monographs) is an international partnership of researchers, universities, librarians, open access book publishers and infrastructure providers. It is building community-owned, open systems and infrastructures to enable OA book publishing to flourish.

COPIM will develop a significantly enriched not-for-profit and open source ecosystem for OA book publishing that will support and sustain a diversity of publishing initiatives and models, in the UK and internationally. To achieve its aims, the project is divided into seven work packages

ranging from the technical (building open-source, community-based infrastructures that support the publication and dissemination of OA books), through to advocacy and knowledge sharing activities (establishing and consolidating partnerships between HE institutions and OA book publishers).

Introduction

An important component in understanding how a transition to OA monographs will be possible is an up-to-date report on the variety of economic business models that can support open publication. ‘Developing a sound business model’, as Raym Crow (2009) puts it, ‘is a critical concern of publishers considering open-access distribution’ (p. 2). This report builds upon previous reports and studies to give a range of pragmatic models as things stand in 2020, along with a SWOT appraisal of them, and examples of their implementation.

Analysing business models requires attention to revenue streams and cost structures. The transition to OA, at a time of contracting academic library budgets and a consistent decrease in unit sales per title, may make certain cost structures unviable. It may be that certain types of activity that at present are common in academic publishing, such as the work of acquisition editors, frequently highlighted as a high-cost activity (see, for instance, Brown *et al.*, 2007), are simply not sustainable in the long term, regardless of OA. That said, it is notable that a great deal of scholarly monograph publishing is subsidised, which should cause us to question the potentially problematic rhetoric of ‘sustainability’. Admittedly, OA poses threats to existing models, but it also offers opportunities to rethink the way knowledge is disseminated.

Although we have opened this report using the term 'business model’, we actually primarily explore revenue streams and do not consider cost structures, which are equally important to make OA publishing viable, but which vary hugely from press to press. Revenue streams, i.e. sources of income, cannot be considered in isolation from cost structures and all publishers seeking transition to OA will have to review their costs. While this report focuses on ways in which presses can generate revenue when they are producing OA books, the main objective of the COPIM project is to work with publishers to convert to OA, whereby we will engage with cost structures and propose recommendations on how to scale them down.

It is not proposed that any single model herein will provide a one-size-fits-all solution, and it is likely that presses will need to use a combination of approaches. The AAUP report concluded that ‘no single new business model will replace the traditional print-based model. Rather, a mix of revenue sources will be required to sustain scholarly publishing in the future’ (Sherman, 2014).

Likewise, the 2018 OPERAS Report stated that:

> It is widely acknowledged that there is no single model among these that could fund open access monograph publishing on its own or that would work for all players, and

> that an ecosystem in which all of these models co-exist, used in different ways by different organisations, is likely to be the case for the foreseeable future. This is due to the prevalence of national languages in AHSS ..., the relative small size of communities, differences in national funding and a lower degree of standardisation in book publishing workflows and dissemination networks for open access books.

The examples of implementation of various models in this report illustrate that a large number of OA publishers mix several of the revenue models thus blurring the lines between them (see, for example, the hybrid RMs, both based on dual publishing of different book formats). Note that the examples of implementation we give are not exhaustive and are intended only to convey the variety of models in use.

Audience, scope of Report and methodology

There are several core assumptions that underpin the analyses in this report. Foremost among these is our situation working in the Global North (itself a highly contested term) and the biases that this can introduce. We are aware, for instance, of many initiatives outside the Global North that work differently to the types of press structures we examine here. Examples of cooperative publishing initiatives and movements from South America, for instance, such as Redalyc, AmeliCA, SciELO, give clues as to how alternative models might look. Nonetheless, as the Anglophone academy attempts to adjust to revenue models that are conducive to OA, we hope that this report will remain useful, despite our narrower perspective.

This report was prepared in three stages. First, we made a literature review of academic studies and industry reports to identify as many extant OA revenue models as possible and provide some examples of their implementation. Secondly, using a SWOT analysis, we evaluated strengths, weaknesses, as well as opportunities and threats for every model. Finally, we asked COPIM members and other stakeholders supporting various OA operations for their feedback.

In our SWOT analysis, we have identified some overlap between several models. For example, accusations of vanity publishing have been levelled against several supply-side revenue models. We have opted to leave these duplications in the SWOT analysis of different models for ease of reference.

Finally, we have decided not to treat ‘volunteer labour’ as a model in itself, but instead to mention in-kind support in the form of intellectual input from academics or infrastructural support from universities, libraries or other institutions in the descriptions of the models themselves.

In this report, we use the terms monograph and book interchangeably to refer to single-authored research works. Other types of media artefacts mentioned in this document include edited collections and textbooks, which have different economic profiles to the monograph, and are out of scope of this report.

Appendices

This report contains two appendices. The first of these is a 'business model canvas' document that maps out the ways in which the various components of OA monograph publishing interact with each other and shows how revenue models can support the operation as a whole. The second is a matrix of the revenue models with exemplars of where they are in use.

Acknowledgements

This report is indebted to several core documents and studies, which it builds upon and updates. These include (in chronological order): Raym Crow (2009) *Income models for Open Access: An overview of current practice*. SPARC (cited as Crow); Andrea Kwan (2011) *Open Access and Canadian university presses: A white paper* (cited as Kwan); Geoffrey Crossick (2015) *Monographs and Open Access: A report to the Higher Education Funding Council for England* (cited as Crossick); Nancy L. Maron, Christine Mulhern, Daniel Rossman, Kimberly Schmelzinger (2016) *The costs of publishing monographs: Toward a transparent methodology*; Eelco Ferwerda, Frances Pinter, and Niels Stern (2017) *A landscape study on Open Access and monographs: Policies, funding and publishing in eight European countries* (cited as Ferwerda *et al*.); OPERAS Business Models Working Group (Speicher, L., Armando, L., Bargheer, M., Eve, M.P., Fund, S., Leão, D., Souyioultzoglou, I.) (2018) *Open Access business models white paper* (cited as OPERAS).

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The changing publication landscape

The current publication landscape is one that is undergoing rapid change. We here expand on some of these challenges, within which new revenue models must be understood.

COVID-19

Perhaps the most foregrounded of current challenges is the coronavirus pandemic and its impacts upon higher education, its budgets, and its libraries. This, in turn, has serious consequences for revenue streams for academic publishers. A recent online workshop hosted by ALPSP highlighted some of the contradictions exposed by the pandemic, namely that there is an ever-greater need for open access to the fruits of scholarly communication, even while library budgets for purchasing and funding publishing activities are expected to drop.

Further, the pandemic has forced many institutions to make temporary, or even permanent, migrations to remote tuition and online learning. This, in turn, has highlighted the necessity of digital resources and spotlighted the challenges of working with digital copies that limit simultaneous access, for instance. Further, while it may be thought that this applies primarily to textbooks and the OER movement, different disciplines use the academic monograph in different ways for teaching: 'a reading list [for a course] does not always feature textbooks. For example, our history reading lists [at university of Huddersfield] cover a wide range of titles and many of these will be academic monographs – therefore the availability of monographs can be very relevant to undergraduate studies as well as to research' (Collins and Stone, 2014).

Finally, in addition to budget pressures there has also been a rise of demand- or patron-driven acquisition for monographs, alongside a displacement of monograph approval plans in institutional library budgets.

Changes to peer review

Recent innovations in peer review practices in the journal space – particularly in the natural sciences – have tended towards OA, post-publication peer review (Allen *et al*., 2019, pp. 163-175). Calls are likely to remain for academic humanities book publishing also to adopt new post-publication review practices, despite limited take-up among the small-scale trials of such practices (Bourke-Waite, 2015). In turn, these claimed changes in peer review practice (and particularly to pre-publication filtering) have potential implications for the *cost models* of academic publishers, particularly with respect to acquisitions editors and their role.

Increasing use of AI

Although its promise remains to be fulfilled, the continuous threat of artificial intelligence and machine learning in the scholarly communications space could have drastic implications for discoverability and re-use of material in academic monographs (Eve, 2020). While it is unclear what this will mean, it is clear that researchers in the future will be directed to material under the influence of algorithms that are not yet well understood in the publishing industry. This future discoverability challenge poses unknown threats to various revenue models.

Death of print

There has been long-standing debate over whether digital access results in a decline of print sales. This problem is compounded by the fact that it is unclear whether print sales would have remained stable at this time even without the OA movement and without a move to digital. For the largest threat to academic monograph purchasing, mostly in the humanities disciplines, has been the erosion of academic library budgets caused by big deal journal bundling in the STEM space. A good discussion of monograph supply and demand can be found in Geoffrey Crossick's 2015 report to HEFCE (Crossick, p. 21).

Despite the long-standing debates around the decline of print, the largest threat to print cross-subsidy is the development of new e-reader technologies that offer similar or superior

functionality to the print codex. New devices that excel at random and sequential access but that do not suffer from the drawbacks of backlit screens (O'Hara and Sellen, 1997 pp. 335-42) could cause a precipitous decline in print. Again, however, at this moment in time this remains speculative and it will not be outflanked by resisting the digital tide.

Plan S and the UK REF

At the time of writing, the plans for Plan S and the mandate monograph have yet to be decided. Further, it is unclear whether the UK's REF will be included in a future monograph mandate under Plan S principles. Certainly, Research England, which co-owns the REF, is a signatory of Plan S. However, the Higher Education Funding Council for Wales, the Scottish Funding Council, and Northern Ireland's Department for the Economy, the other co-owners, are not. There are significant cost implications to this (Eve *et al.*, 2017).

The New University Press ecology

A recent resurgence of interest in university presses, for branding purposes, but also for OA mandate compliance, is ongoing. Successful young enterprises such as the re-launched University College London Press carry substantial brand prestige while also being born-OA, thereby putting pressure on other publishing entities. This has also come with a surge of library-publishing entities, which has long been a rich publishing field.

It is perhaps curious to see this growth of an archipelago of smaller new presses, when there has been speculation for years that such smaller entities will be unable to compete with larger organisations: 'individual presses, even the largest ones, do not begin to have the scale or the resources to develop the digital systems necessary to compete in the digital publishing era' (Sherman, 2014).

The rise of preprints

In many scientific disciplines, preprints now play a substantial, albeit still controversial, role in the publication system. It is not clear whether this practice will take off in the humanities, although some disciplines such as philosophy have active cultures of 'working papers' already, which would be amenable to open preprints.

Systemic changes to research evaluation

As the principles of the San Francisco Declaration on Research Assessment (DORA) and the Leiden Manifesto work their way through university admissions systems, the prestige economy of academic monograph publications may come under threat, thereby unsettling the existing hierarchy of presses.

We have attempted to refer to these phenomena in our appraisals of each revenue model, where relevant.

Definitions

How do we understand a business model and a revenue model?

'[A] business model describes an architecture for how a firm creates and delivers value to customers and the mechanisms employed to capture a share of that value' (Teece, 2018, p. 40). Business Models show economic logic that sustains a business enterprise: its key business activities, revenues streams, and relationships with customers, partners and suppliers. BMs make it possible for a company to describe its business in terms of 'what it does', 'what it offers', 'how the offer is made' and 'who the customers are' (Ritter and Lettl, 2018, p. 3). For academic publishers of OA monographs, the BM describes:

- a value proposition and its offering (e.g. its portfolio and service provision);
- the customers (e.g. authors, readers and libraries) and partners (funders, sponsors etc.);
- the resources (e.g. authors, reviewers, intellectual resources, infrastructure, brand equity) that are required to deliver the value;
- the key activities (e.g. editorial, production, marketing etc.) necessary to deliver that value); and
- a mechanism that translates the value proposition into revenue (Osterwalder, Pigneur, Clark, Smith, 2010, pp. 15-19)

A revenue model, by contrast, refers to the means of generating income within a business model. Revenue models in this report are classified according to the following categories:

1. **Earned revenue models** – these are, in other words, service provision models. The publisher conducts activities, provides services, or sells items for which it charges a fee to generate revenue to finance its OA operations. To avoid introducing another term for this category of RMs, we have decided to use Crow's term (2009, p. 12).
2. **Embedded institutional support** – a publisher's OA operations are financed through a subsidy from its parent company, e.g. university, university library, research centre or institute, association (Ferwerda *et al*., 2017, p. 35). This RM may also include in-kind support, i.e. professional services provision 'human resources, finance, IT, marketing and communications, use of institutional repository as platform, library staff, and scholarly communications services' (OPERAS, 2018).
3. **Third-party subsidies** – grants are provided from external stakeholders (commercial and not-for-profit organisations);
4. **Consortial models** – where many stakeholders fund many presses without direct service provision.

This report proceeds alphabetically through the revenue models that we have identified under each of these category headings. Note that publisher classifications here are ours and not necessarily those used by publishers themselves.

In addition, each revenue model can be classified according to the following schema, which has been used by a number of previous reports:

1. **Demand-side RMs** – revenue comes from end-users or their proxies who pay on the users' behalf (e.g. sales of print, sales of premium products, sale of licences, end-user donations);
2. **Supply-side RMs** – revenue comes from the producers of content or proxies, the author or their institution (BPC) or from the publisher (e.g. through subsidies, ads, grants, endowments, in-kind support from a parent institution);
3. **Third-party RMs** – grants from external organisations who have a stakeholder interest in broad dissemination of knowledge, who are independent of and not related to the author or the publishers (e.g. subsidies and grants from governments and intergovernmental organizations, NGOs, corporations, etc.). Strictly speaking, this is a supply-side revenue model. We include it here simply to include the full range of stakeholders even while acknowledging that the internal/external distinction can be difficult to maintain.

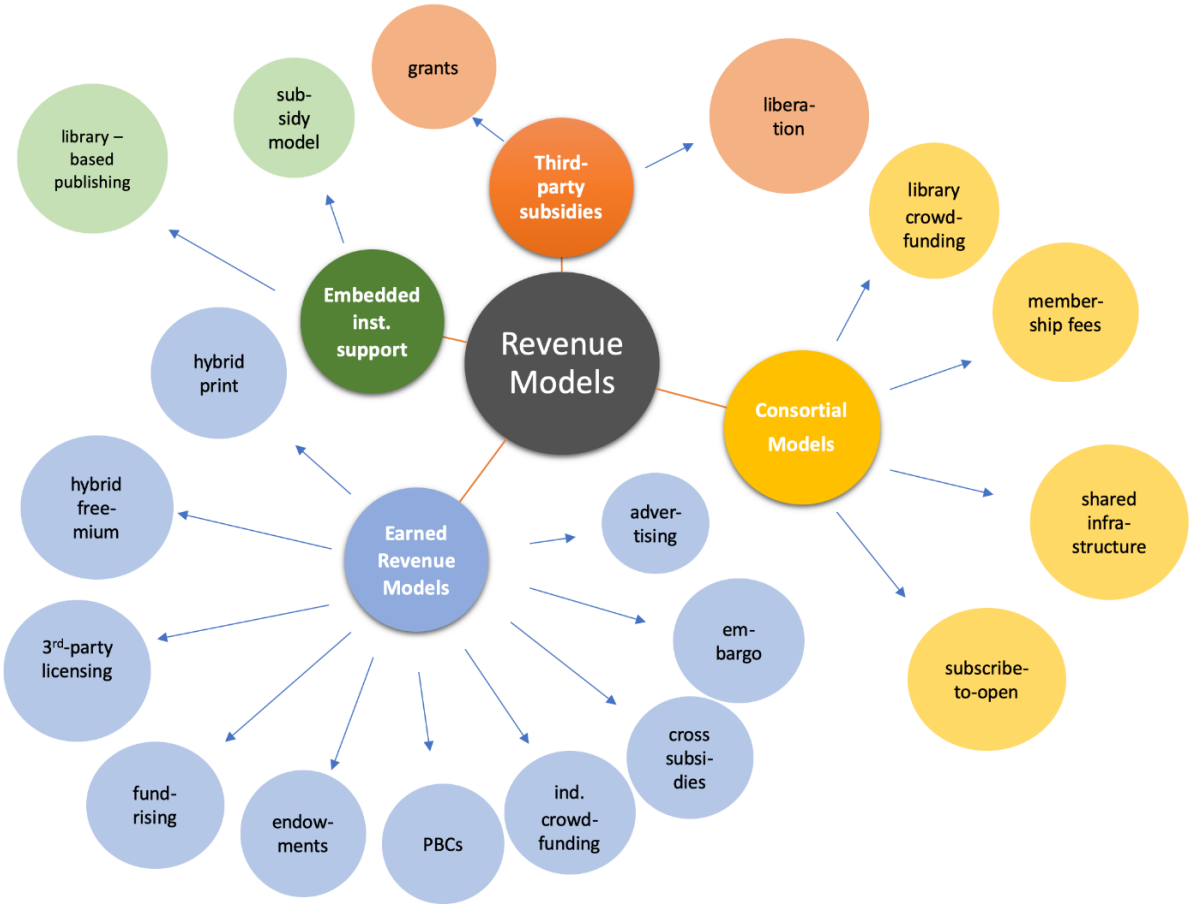

Fig. 1: Classification of revenue models.

Earned revenue models

Advertising

Description
A demand-side model that consists of advertisements, contextual links, and/or product placement within the OA monograph or on the publisher website.

Examples of implementation
- Academic journal publishing has done this for many years, both digitally and in print.
- Bookboon offers around a thousand OA textbooks and on-subscription e-books for business professionals with employer branding advertisements targeting professionals or students (OA book business models).

Strengths
- The model is easy to embed in almost every format.
- If sensitively planned, the correct types of advertisement could be genuinely of interest/use to the target audiences.
- The model has worked well for other types of internet companies.
- Online advertising can be dynamically updated and resold.

Weaknesses
- There is a potential for conflict of interest with advertising, i.e. an inability to criticise the advertising parties, which could infringe upon academic freedom (e.g. oil, tobacco, pharmaceuticals).
- The model could erroneously give the impression that the press's research publications are sponsored by the advertisers appearing in the publications.
- Advertising may give an unprofessional look to the publication and/or deter academics.
- The publisher requires a reputation -- or, at least, considerable traffic -- to solicit advertisements (i.e. new publishers will struggle to attract advertisers).
- GDPR administration and managing user data (setting cookies, using user data to deliver personalised ads) are time consuming and legal regulations are complex.
- It could take quite a lot of staff resources to generate leads, negotiate, design and incorporate advertising.
- Online adverts can be distracting for readers and website users.

Opportunities
- Publishers could solicit advertisements from advertisers who seek specialist audiences through academic books. 'There may be ad companies that specialize in academic or non-profit advertising, such as recruitment ads for universities, grad schools, etc., whose advertisements may be relevant for readers and less commercial than traditional online advertising' (Kwan, 2011).

- This model is not common at present so there is an opportunity for early movers to garner high-quality, relevant advertisements.
- Existing publishers with reputations may better be able to solicit paid advertisements.

Threats

- Tracking and analytics in advertising could be abused and will likely be required by advertisers.
- Negative reputational association with advertising could act to the long-term detriment of the press.
- New publishers without existing reputations may struggle to solicit paid advertisements.

Book Processing Charge

Description

A demand-side model in which publishers charge the author or his/her employer/funder a fee upon acceptance of the book for publication. Greco and Wharton (2008) propose that publishers could also consider charging submission fees for the initial assessment of the manuscript and then for the peer-review process. In this way, the publisher could cover the costs of processing all submitted manuscripts, not just those accepted and published. BPCs predominate among many commercial publishers (OPERAS, 2018). They are also popular among university presses, commercial and OA, for example: OUP, CUP, Bristol UP, Stockholm UP.

Examples of implementation

- Bloomsbury Academic has this option along with dual editions (Bloomsbury Academic's Gold OA model requires payment of a BPC to compensate for anticipated reduced sales revenue from these titles. Currently BPCs range from £6,500 to £12,000 depending on the extent of the monograph (Bloomsbury - Bloomsbury Open Access)
- Brill offers a BPC model. 'Brill will calculate anticipated revenue from sales and only charge a higher BPC when a book is published under a CC BY licence – where it is assumed that there will be no further sales of other formats' (Ferwerda *et al*., 2017, p. 35).
- Manchester University Press offers both BPCs (currently £9,850 + VAT 20% UK for manuscripts up to 120,000 words) and Chapter Processing Charges (CPC) calculated on the basis on the proportion of the chapter to the total manuscript.
- Ubiquity Press (also a widespread infrastructure provider to other OA presses) is often mentioned as an example of a publisher that relies on BPCs but has managed to streamline production costs resulting in lower charges (BPCs range from £3,650 to £8,860: Publishing with Ubiquity Press).

Strengths

- This revenue model gives all parties greater financial certainty.
- Lower BPCs can be attractive for prospective authors, particularly if they have recourse to funding and the funder has set a cap on the BPC.

- The model is simple to communicate.
- Accountability is simple in this model as the fee correlates to a unit (book).
- Flexibility to charge more or less depending on whether or not the press wants to retain some rights, e.g. could charge less for a CC BY-NC-ND licence and retain some rights in order to sell rights/translations etc.

Weaknesses

- The cost to the author may be prohibitive, particularly to HSS and early-career scholars (Kwan, 2011); it may also be prohibitive to those authors where funders place a cap on the BPC.
- '[D]ifferent levels of financial resources at different institutions make for an uneven and unfair situation for academics' (OPERAS, 2018). This inequality may be pronounced in national terms among lower and middle -income countries.
- This revenue model may give the erroneous appearance of vanity publishing ("pay-to-publish") (Kwan, 2011).
- The publisher may be disincentivised to market the monograph as costs have all already been recouped up-front.
- BPCs are not popular with authors or libraries but this may be due to the shortage of funding (there is also a perceived lack of transparency of costs).
- Individual transactions of BPCs are burdensome for all stakeholders, and costly to administer in terms of staff overheads/time.
- Existing library budgets cannot simply be transformed into BPC funds without adversely affecting local acquisitions (Collins and Stone, 2014).
- An uneven international take-up means that costs will accrue, in the early days under a BPC model, solely to those nations who pursue OA monographs.
- Excessive BPCs could lead to reputational damage and be difficult to justify given the average revenue brought in by a scholarly monograph.
- A BPC is a one-off transaction to cover publication of a single book, which does not take into account the full range of activities a publisher undertakes, such as evaluating proposals and undertaking peer review for books that are not ultimately accepted. It is unclear if BPCs can work alone and at scale for an entire publishing operation.

Opportunities

- As more funders mandate OA, the opportunity to use this model may increase as the practice of covering BPCs becomes more widespread. This has already occurred at some funders, such as the Dutch Science Fund (NWO). Indeed, a greater number of funders and libraries are extending their OA publication budgets to include books: 'examples include UCL, TU Delft and Lund University. In November 2013, Palgrave Macmillan published the first OA monograph funded by the Wellcome Trust' (Ferwerda, 2014).
- Collective coordination across institutions and presses could increase the acceptability of the model, especially for first books. For example, institutions might commit to funding first books of junior faculty (analogous to lab funding in STEM), legitimising the model with authors, presses, and tenure/evaluation committees (Crow, 2012)

- Social and technological efficiencies (e.g. through new technologies) may give the opportunity to lower the BPC.
- Publishers can potentially increase profits with print sales of a BPC-funded digital OA book.

Threats

- Any economic crisis (e.g. the current COVID-19 pandemic) can cause cuts in funding for monographs, especially in HSS for the benefit of STEM journals. In times of prioritisation, libraries and other entities may favour collections budgets over funding to pay for OA, although this is speculative.
- Political will (e.g. through mandates) may drive the allocation of institutional BPC funding, which may be withdrawn at any time.
- Dependent on ability to use OA block grants (UKRI, for instance) or other residual funds, which may be cut in the future.
- Publishers may wish to raise BPCs in future and there is no guarantee that the current level will be maintained.

Cross subsidies

Description

A supply-side model, in which funding for OA monographs comes from revenues from the publisher's commercial activities such as service provision, institutional funding, sale of translation rights, or profits from other non-OA publications. This model may look similar to the hybrid (print) revenue model, in which the same book is free online and sold in print, but in the finer detail it differs. In the cross-subsidies revenue model the revenue can come from sales of *any* non-OA books from the publishers' portfolio as well as from other operations (e.g. B2B services offered by the publisher). For example, a publisher may also be involved in publishing trade books or it may decide to sell cross-over monographs to the public. When it comes to services, OA publishers may sell publishing-related services and training, access to IT platforms, licences to use their software, archiving services etc. to generate profits to sustain their OA publications.

Examples of implementation

- A few university and commercial presses manage to generate larger profits publishing academic journals or textbooks and reference books (Palgrave, Cambridge and Oxford University Presses, for example, which may also be independently self-sustaining), but many publishers cross-subsidise monograph outputs.
- Similarly, some university presses also operate in the 'trade publishing' sector and can use those sales to finance scholarly monographs: 'Some presses have also taken on the important role of keeping prominent local authors in print … [and] have played an important role in the discovery of new writers: novelists like John Kennedy Toole (Louisiana University Press), Norman Maclean (University of Chicago Press), and Helen Hooven Santmyer (Ohio State University Press)' (Givler, 2002). Forthcoming funder

mandates (such as that suggested in the 2020 UKRI consultation) are considering excluding trade works themselves, though this would not preclude trade sales from cross-subsidising OA monographs.
- Author-facing services are offered at a fee by publishers such as Informa (Taylor & Francis).
- Ubiquity Press operates using a number of revenue streams between which there is cross subsidy. For instance, although they levy a Book Processing Charge, they also provide a 'partner network' of access to their underlying platform, for which clients pay, and are developing a repository solution. These revenue streams support Ubiquity's overall operation.
- UCL Press is mostly funded by internal subsidy from UCL but its other revenue streams include 'consultancy services and grants' (OPERAS, 2018).
- University of Chicago Press has a successful book-distribution business that helps finance its other projects (Services for Book Publishers from the University of Chicago Press).

Strengths

- Diversity of services and operations for cross-subsidy provides resilience.

Weaknesses

- Mission- and value-driven publishers may find this model attractive. However, a for-profit entity will have less incentive to pursue activities that are neither self-sustaining nor profitable, even if they may come with reputational advantages (loss leaders).
- If combined with a lowered BPC (and if people equate the BPC with the production cost or fair remuneration of a publisher), this model can hide the full cost of producing a monograph, thereby perpetuating an inaccurate impression of the level at which a BPC must be set. This is a problem carried forward from non-OA monograph publishing, where the market has become unwittingly habituated to subsidised provision.
- Running other revenue-generating activities can detract from publishing activities and resources. As the OPERAS (2018) report notes, 'It can take significant resource, skill and investment in business development to develop and sell such services at a level that makes them viable'.
- It would be difficult for most presses, especially small-medium ones (whether new or established), to move into publishing trade books and textbooks if they are not already publishing in these areas. These operations require significant investment and different skills, so most presses would not be in a position to branch out.
- Trade publishing is associated with a quite high risk – sales are not guaranteed, while investment is high (e.g. authors' advance payments).

Opportunities

- Increase in and strengthening of OA mandates is creating demand for OA platforms, which early movers may be able to exploit.

Threats

- An increasingly crowded marketplace of service providers could lead to intense competition and reduce the viability of cross-subsidising activities.
- Large technology providers could decide to offer similar services and it would be very hard for smaller providers profitably to compete with them.
- OER (or OA textbooks) could potentially devastate the textbook market, leading to a collapse of cross-subsidy from these titles.

Crowdfunding from individuals

Description

This is a demand-side model, in which the publisher organises crowdfunding campaigns pitching monographs online to readers. Publishers usually use crowd-funding platforms such as IndieGoGo, Kickstarter, Patreon or GoFundMe. Another platform, Unglue.it, concentrates specifically on making e-books free (and OA). There are different points at which crowdfunding can be applied: either before publication (a pledge), during production, or post-publication. OA can be promised or achieved at any of these points. See also Consortial Models, below.

Examples of implementation

- In 2013, De Gruyter, with the help of unglue.it, applied crowdfunding to OA monographs published between 1958 to 2003. Users could contribute as much as they wanted to a title. Once the required amount of money was achieved (USD$2,100 per title), the book was released under the Creative Commons non-commercial, no-derivatives licence (CC BY-NC-ND). Unglue.it's Pledge Campaigns ask their community to pledge their support for 'ungluing' a book, and only if the campaign is successful will the supporters' credit cards be charged and the book published.
- Unglue.it operates a mechanism by which books can be pledged or purchased in order to make them OA (Unglue.it FAQ). OBP have used this system to fund the publication of several titles.
- Kickstarter, a global crowdfunding platform focused on creative projects, has been used to fund an edited volume on video games and archaeology (The Interactive Past: A Book on Video Games and Archaeology) and an edition of Thomas More's Utopia (The Open Utopia: A New Kind of Old Book).
- An academic at Loughborough University ran a successful crowdfunding campaign on Indiegogo to raise funds to publish an OA book with Stockholm University Press.

Strengths

- Authors who have been successfully crowdfunded may become a loyal customer base who will contribute to future campaigns by the publisher, especially if the publisher specialises in a certain discipline or brings out themed series of books.
- If successful, a crowdfunding campaign could have the additional advantage of drumming up media coverage and PR.

- In pre-publication cases, this revenue model gives the opportunity to get some feedback on the monograph before it is actually published.
- In pre-publication cases this revenue model gives upfront financial certainty to a publisher.
- In post-publication cases this revenue model only allows OA once financial criteria are met.
- In post-publication cases this revenue model may allow exploitation of large backlists and the resurrection of out-of-print titles (though note that there is a difference between OA titles with an open licence and backlist titles that have been made freely available, but without a Creative Commons licence).

Weaknesses

- This revenue model may give preference to well-established authors and publishers with existing track records, large followings, and developed professional networks. It may also distort publication choices according to what will be popular/money-making, leading to the neglect of niche areas of interest.
- By itself, it may not be a sustainable RM. The success rates, measured by the percentage of books that are actually published, are not high. For example, Kickstarter reported the highest success rate of 46% for the comics category. Other categories, such as films, music, stage shows, journalism, video games, technology, or publishing, were less successful.
- Academic publishing typically has limited sales to individuals as libraries are the main customers, and so it may not benefit from this model. Crowdfunding platforms may not integrate well with library acquisition systems and so libraries may be unable to participate.
- Creating a professional looking campaign takes a lot of resources (finances and skills).
- Unsuccessful campaigns are bad publicity.

Opportunities

- This revenue model may become more successful as support for OA grows and readers will be more likely to donate because they believe in the cause. It is possible that we also see a subsequent decline once the radicalism of OA has worn off (see Hartley *et al.,* 2019).
- Examples of successful implementation of this business model from beyond the academic environment seem to suggest that this model may be suitable for innovative high-tech projects such as enhanced books.

Threats

- As with all models that rely on voluntary expenditure, financial crises and budget squeezes may pose a particular threat to crowdfunding. When OA becomes a norm, the incentive to crowdfund monographs may diminish.
- This model is dependent on third-party platforms and so has attendant dependencies/risks, including fees and potential changes to those fees at any point.

Embargoed/delayed OA

Description

A demand-side model, in which a monograph becomes OA only after a delay or embargo. During the embargo period, only priced editions are available. There are two versions of this revenue model: the length of the embargo period may be fixed in advance, or the embargo may last until sales reach a certain level (cf. Individual Crowdfunding, above). See also Cross Subsidies.

Examples of implementation

- AGORA, an EU co-funded project, explored the delayed green OA model in collaboration with Ontos Verlag (Ferwerda, 2014).
- Athabasca University Press uses this approach in its RMs mix.
- Goldsmiths University Press is the UK's 'first green open access monograph publisher', which may, for some titles, although not by necessity, involve an embargo.
- The MIT Press used this model for Peter Suber's *Open Access*.
- unglue.it uses this model with its 'Buy to Unglue' campaigns which makes books available under a Creative Commons licence after a certain number of copies are sold to the reader base (Buy-to-Unglue FAQ).

Strengths

- This RM 'allows presses to budget more predictably for sales revenue over the embargo period (in comparison with the hybrid [print] model, where there is currently no way of predicting how many people will choose to buy the print copy of a book when it is also available for free)' (Kwan, 2011).That said, even without OA editions, monograph sales are very unpredictable and '[t]here is scant evidence to say that OA has definitively harmed all print sales, and there is little understanding of what kinds of works actually see increased sales from OA exposure' (Adema and Stone 2017 p. 38. See also: Ferwerda, E., Snijder, R., & Adema, J. 2013; Ferwerda, E., Snijder, R., Arpagaus, B., Graf, R., Krämer, D., & Moser, E. 2018; Snijder, R. 2010; Snijder, R. 2014; and Snijder 2019)
- This model is media independent: it is possible to sell both print and digital editions during the embargo period.
- This model could allow for continued systems of author royalties.
- The longer-term nature of the disciplines in which monographs are prevalent mean that the embargo may be less detrimental to their use and relevance.

Weaknesses

- In case of monographs, this model may require longer embargoes than in the case of journals. Currently UKRI has suggested delayed OA within 12 months as the requirement, arguing that a 12-month embargo 'take[s] into account the diversity and development of OA book publishing, balanced against ensuring that the outcomes of UKRI-funded research are made freely accessible as soon as possible' (UKRI, 2020, p. 30) However some publishers think that period is insufficient as most monographs are

only starting to find their markets after a year, (a director of a UP in Canada, ctd. in Kwan, 2011).
- Print sales could decline if purchasers anticipate the release of the OA edition.

Opportunities
- Emergent funder policy consultations (e.g. UKRI, 2020) have suggested embargo periods.

Threats
- OA advocates may regard this model with scepticism.
- This model may not be compliant with other funders' policies, depending on the length of embargo.
- This model may detract from sales of the most successful 'runaway' monographs (if OA does indeed deter print sales – as previously noted, evidence suggests otherwise).

Endowments

Description
A supply-side or third-party model, in which the publisher builds or receives an endowment or subvention (for example as a part of a start-up grant) and uses annual interest to cover its expenses. This BM is particularly common in the USA (OPERAS, 2018).

Examples of implementation
- Princeton, Yale and Harvard University Presses all have large internal endowed funds – though these are not necessarily used for OA at present (Sherman, 2014).

Strengths
- A large enough endowment could wholly liberate a press from other revenue concerns.
- Endowments can make presses totally independent from parent institutions.

Weaknesses
- Endowments may come with terms and conditions that limit a press's actions (restricted funds or covenants).
- Endowments would need to be substantial to be useful. To ensure perpetuation, endowment disbursements are typically capped at 4-5% per year (Dixon, 2017). Hence, a $1.25 million endowment principal would be needed to generate $50,000 return per year. At $10,000 per title (for example), $1.25 million in endowment capital would be needed for every five titles funded.

Opportunities
- A large enough one-off endowment could allow a press to publish a series or collection as OA which could draw attention to their other titles and serve as an OA publicity/advocacy example to attract more sustainable funding.

Threats

- An endowment at a substantial enough size to fund an entire press is hard to come by.
- Endowments are more characteristic of the American publishing ecosystem and less prevalent elsewhere. 'This is not a guaranteed source of income, and the practice is not widespread enough for it to be a serious option, especially in Europe where philanthropy for universities or their presses is not common' (OPERAS, 2018).
- Profits from endowments are sensitive to stock market fluctuations and crises.

Fundraising (donations and grants)

Description

A demand-side model, in which the publisher solicits donations, periodically or continuously from individuals or foundations. This model is different from crowd-funding because publishers ask for continuous support for the organisation (in the form of small subscription or membership fees, for example) to cover some of their operational costs. Sometimes this RM takes the form of a 'pay what you want' system.

Examples of implementation

- Mattering Press solicits one-off or recurring donations (Support Mattering Press)
- punctum books solicits one-off or recurring donations (Support punctum)
- OBP solicits one-off or recurring donations (Support OBP)
- The WAC Clearinghouse, a publishing collective supported by Colorado State University Open Press, uses this BM (Support the Clearinghouse).
- Wikibooks, a Wikimedia project, solicits donations continuously as a click-through choice on the navigation bar.

Strengths

- Like crowdfunding, this model may help to build and to capitalise on a community of customers loyal to a publishing house.
- It may be more sustainable than one-off crowdfunding because it is based on regular, recurring payments.

Weaknesses

- Because donation levels are likely to be low, a large number of donors may be required to generate any significant level of revenue. This model is likely best suited as an add-on to others.
- Fundraising activities may require a concerted marketing campaign, which can be burdensome.
- It can be difficult to encourage donations to support a free product, unless there is a 'freemium'-style element to it where donors get rewards (e.g. Patreon's 'tier' system).

Opportunities

- Once a press has a donor base or a set of high-profile donors, there is a snowball or cumulative effect that attracts other donors.
- Given the current emphasis on OA and open science, one-off or recurring donations from foundations may be possible at this time.

Threats

- The voluntary nature of donations means that in tougher economic climates they are likely to be the first thing that is dropped.
- Running a platform to collect donations comes with overhead, as does using a third-party platform.

Hybrid (digital-only freemium)

Description

A demand-side model in which the OA edition is in one digital format (e.g. HTML) and the priced edition in other digital formats (e.g. EPUB, PDF, MOBI) that may have a higher utility. Publishers may enhance e-books for purchase with additional features, such as supplementary content or deep semantic mark-up as a revenue driver – so 'enhanced' e-books will have extra functionality. However, as Rupert Gatti (feedback) has observed, for most publishers the 'free' and 'paid-for' content will differ only in format, and the OA edition will not be inferior to other editions. The OA edition may serve as a promotional vehicle for other editions. This revenue model is frequently used alongside the hybrid (print) model, where the sold version is the online premium version and print.

Outside of the academic publishing world, this model is popular among companies that offer open source technologies, for example, WordPress and Moodle. Content is distributed for free, which stimulates demand for other premium services to leverage the content. Private users have free accounts, whereas businesses have paid accounts with more functionalities.

As Kwan (2011) has pointed out 'Freemium' is a term coined by venture capitalist Fred Wilson (p. 4). According to Chris Anderson (ctd. in Kwan, 2011), freemium works because:

> [a] typical online site follows the 5 Percent Rule – 5 per cent of users support all the rest. In the freemium model, that means for every user who pays for the premium version … nineteen others get the basic free version. The reason this works is that the cost of serving the nineteen is close enough to zero to call it nothing. (p. 4-5)

A freemium model applied to OA monographs might charge users for a value-added e-book (for example, an enhanced PDF, an EPUB file, access to additional content, hyperlinked citations, etc.) while offering a basic version of the book for free (Kwan, 2011). The low rate of conversion may make it difficult for this model to apply to niche consumer markets, such as the research monograph space, which is why scale is important in such models.

The authors of the OPERAS report (2018) add: '[T]he Freemium program creates a virtuous cycle where: the entire scientific community can freely access multidisciplinary, peer-reviewed content, including both journals and books; publishers increase their visibility and get funds to secure OA; libraries play their role of disseminating knowledge while benefiting from specially designed services, all this in keeping with an ethical approach and at reasonable, transparent costs' (OPERAS).

Examples of implementation

- 'Counterpress is experimenting with a freemium model, providing e-book versions of online publications on a 'pay-what-you-can' basis' (Adema & Stone, 2017).
- OECD Publishing, one of the world's largest publishers of books in the fields of economics and public affairs, OECD books, papers, and statistics in PDF, WEB and XML formats to online users at universities, governments and think tanks. Premium versions of OECD publications can now be purchased directly on OECD iLibrary (OECD Publishing).
- Open Book Publishers used this model up until 2015. They used to charge for PDF editions, but had a free to read edition online. Since then they have made all PDFs free. However, they do charge for EPUB and MOBI editions, primarily to facilitate their distribution through traditional routes (e.g. Amazon, EBSCO etc) rather than for revenue.
- Open Edition, a HSS portal, provides premium services and e-books to libraries, and makes the books from their publishing partners freely available online. Institutions may buy a subscription to Open Edition to receive six value-added services, including 'unlimited, DRM-free download access to PDF, EPUB files', technical support, customised alerts, COUNTER statistics on use, and participation in the user committee working group (Le programme OpenEdition Freemium) According to Newton, Dacos, Mounier, and Neuman (2014): ''The platform sets aside 33% of its general revenue to pay for the development of new services for libraries, and 66% of the revenue goes back to publishers. Thus 100% of revenue is reinvested in open access publishing' .
- PaperC (online platform to read reference books and scientific literature) offers to registered users a gratis OA platform that hosts 'academic, reference and technical texts' published by participating 'renowned publishers'. Premium services, such as printing, saving, and annotating can be purchased by the page, chapter, or book. Users can read for a limited time for free, then download and pay for just the sections of the book that they want. Publishers who work with PaperC may still print paper books (treated as 'luxury products') and publishers get most of the revenue. The granular usage data that this model provides is valuable to publishers and authors who wish to understand reader behaviour (Missingham, 2012).

Strengths

- This model is immune to the erosion of print, and print sales may eventually give way to e-book purchasing, although most examples that we found also had a print revenue stream.

- Offering a certain number of services for free helps to build up a loyal and interested potential customer base. There are similarities with music platforms like Spotify. T. P. Thomes (2013) puts forward a similar business model for streaming services: this 'two-tier freemium model' offers two types of service. Firstly, a free of charge option which is supported by advertising, then secondly a premium service, which charges a flat rate fee and offers extras, such as unrestricted access.
- Proponents suggest that this RM is a relatively safe way for traditional publishers to flip to OA (Newton, Dacos, Mounier, and Neuman, 2014).
- Enhanced e-books have the potential to exploit digital affordances and to create innovative, rich digital publications.

Weaknesses

- The difficulty of this model, at least in the streaming services, is to have a free service that is limited enough to drive premium conversions – upgrades must deliver significant value to the reader. According to Lucy Barnes (OBP): 'our HTML, PDF and XML editions all include hyperlinked footnotes, embedded multimedia, etc, as the paid-for editions do – so there isn't anything extra you get in the paid-for digital editions except that they're in EPUB or MOBI formats rather than PDF or HTML. They don't have any extra content or functionality. Like the PB or HB editions, they are a different format that the reader pays for – rather than including anything extra or superior' (feedback). This observation seems to suggest that readers might have preference for one format over others and de facto treat it as the premium product, and 'media preference' can be categorised as a freemium model regardless of whether a publisher wants to call its revenue model a freemium.
- 'There is no guarantee that sales of the premium version will recoup all the costs of publication' (Kwan, 2011).
- Conversion rates from free to premium services are usually low so there must be a large free customer base in which a sufficient number of premium customers are found to generate the income needed to sustain this RM.
- This model encourages publishers to disseminate the least useful version in an OA format, thereby making the OA edition the 'poor relation' of the premium version. However, this is also the fundamental logic underlying the model.

Opportunities

- This RM has proved particularly suited, elsewhere, to students and IT professionals, who are early adopters of high-tech solutions, and who are more likely to become premium customers.
- The RM may grow with the trend of lifelong learning which is often delivered online and makes use of cutting-edge technology (Missingham, 2012).
- The expansion of OA mandates may drive a growth in freemium as publishers seek the easiest route to compliance.
- New e-reading technologies may enhance the utility of freemium versions.

Threats

- The pricing of e-books is the source of ongoing controversy as the public expects the price point for e-books to be lower than print, but the cost of producing e-books (especially with added features and functionalities) is not necessarily lower.
- As Kwan (2011) notes, this model will be challenged by advances in technology: 'what is considered value-added will likely change as technology changes, thus requiring ongoing technological expertise'. Publishers must be aware of current technological developments in production and sales channels; they need to innovate to continue to attract revenue. This need to innovate could also be considered an advantage of the model.
- Publishers need to constantly analyse usage data to inform their strategy and ensure good levels of conversion.
- Challenges to this model do not have to come from other publishers; they can just as well come from platform stakeholders outside the academic publishing ecosystem (Google, Amazon etc.)
- Liberal open licences (such as CC BY) may make it possible for other third-parties to produce alternative formats, undercutting the publisher's ability to sell this in-house.
- 'Depending on how basic the basic model is, OA advocates may see it as sabotaging OA, or as doing the bare minimum to satisfy OA demands' (Kwan, 2011)
- Future mandates may specify minimum viable OA editions that erode the distinction between freemium and premium. For example, the recent UKRI consultation talked about depositing the accepted version in a repository: a free version in this context would probably have to offer more added value than the repository version.

Hybrid (print)

Description

A demand-side model that uses the dual formats of digital and print, which are priced by 'media preference'. The priced version could be a print edition while the online version is offered as OA. According to Kwan (2011):

> this model is the most common model for OA publishing in academic presses at present. The hybrid [print] model involves making titles freely accessible online, with print copies available [to purchase] ... The publisher (or author) retains a non-commercial, no derivatives Creative Commons [CC BY-NC-ND] licence for the work, which will still allow the collection of licensing rights for chapter reprints and excerpts used in other works and in course packs.

Indeed, there is much contention around the role that open licensing plays in this model. More recent evidence shows that in this BM, licencing policies are becoming less restrictive. Some monograph publishers, such as Brill, use a CC BY-NC licence to retain the ability exclusively to commercialise print or other electronic formats (see 'Hybrid Digital-Only Freemium', above). That said, Open Book Publishers, UCL, Huddersfield and Palgrave MacMillan, among others,

publish with a CC BY licence and still sell print copies – this is the model used by many NUPs/library-led presses.

As Ferwerda *et al*. (2017) reported:

> Looking at the OA books in DOAB, the various licences with NC add up to almost 60% of titles, but when we look at books added in 2016, the NC licences are declining in favour of CC BY, which was the largest single category in 2016. Cumulatively, CC BY-NC-ND is still the largest category in DOAB (34%). ND is usually at the request of the author, who generally retains the copyright of the content, entering into an exclusive arrangement with a publisher by way of contract (and governed by contract law and not intellectual property law). Authors of monographs tend to be more protective of their work than authors of articles, which is understandable considering the time it takes to write a monograph, but also for practical reasons: books may be translated, and ND licences allow authors to control the translation of their work. (p. 38)

Needless to say, this model is dependent upon the continuation of print sales even as an OA edition is made available. There are many studies making a convincing case about the persistence of print while others have argued that print is in decline (Crossick, 2015). The model allows for the print price to be significantly lowered; many NUPs report quite large print sales, which could be a result of affordable pricing. At present it is impossible to draw any definitive conclusions as to its future viability, with or without OA.

Examples of implementation

- Amsterdam University Press, one of the key partners in the OAPEN project funded by an EU grant, reported an increase in sales of printed books once they started using the dual-edition model) (Saskia de Vries, ctd. in Kwan, 2011).
- Athabasca University Press, Canada's first fully OA publishing house, 'has a business model that derives its budget from a combination of institutional funding, grants, and sales revenue. It makes every work it publishes available for free online, while at the same time offering traditional print copies for sale' (Kwan, 2011). Marketing campaigns for these titles do not advertise the OA editions. Linda Cameron, the director of University of Alberta Press, with whom Athabasca partnered for the print versions, reported that 'the sales of the print editions seem to be as expected, neither higher nor lower than we would have forecasted' (Kwan, 2011).
- Bloomsbury Academic's major OA RM is the freemium model; books are available online in HTML format, (see section 2.3). However, print monographs are also sold along with e-books (Bloomsbury Open Access).
- digitalculturebooks content at the University of Michigan Press is available to view for free online and for purchase in print and e-book format (digitalculturebooks).
- The National Academies Press has offered free online books and paid paper copies since 1994 (the sales of print have increased with OA) (Kwan, 2011).

- Open Book Publishers uses a hybrid membership and sales model to fund its OA publication programme with an online monograph 'views/downloads to sales ratio' of about 100:1; for textbooks the ratio is closer to 10:1 (Gatti, feedback).
- O'Reilly (Open Books Project/Open Library Project) makes free PDF versions available on its website while it sells print versions through traditional channels. It also digitises and 'opens' out-of-print books.
- punctum books uses a hybrid membership and sales model and reports that purchases of print copies are outpacing downloads by almost 2 to 1 (3,200 Persons + $10 Per Month = Sustainability / How You Can Help)
- Monographs from the Romance Studies series at Penn State University Press are published in dual edition model (Penn State Romance Studies)
- Signale, a series in modern German studies at Cornell University Press offers around 50% of its books for free upon publication (along with print for sale) while other titles are released after a four-year embargo (Signale).
- Selected new titles and backlist titles are published in print and digitally in OA at the University Press of New England in partnership with the Dartmouth College Library (Open Book Publishing Reduces Access Barriers-Sounds Good! – Library Muse).

Strengths

- The model requires no changes in the way that books are traditionally produced especially if the publisher makes a PDF version available online. Admittedly, converting the monograph to other formats as well as uploading them to distribution platforms, like DOAB or OAPEN can be more labour-intensive and costlier, and requires a different set of skills and processes (e.g. sales staff, inventory managers, and royalties accounting to support print sales, vs HTML and XML creation, and usage data and analysis to support OA).
- In POD setups, the press does not incur the cost of holding inventory since the books are printed on-demand as needed (Kwan, 2011).
- The purchase of print editions can be simplified by sending the purchaser to the printer's website to order the book (the distribute-and-print model replaces the old print-and-distribute model). In the words of Kwan (2011): '[t]his requires interfacing between the press and the printer, but can greatly reduce time spent managing single orders' (Kwan, 2011).
- Some University Presses used the model to revive sales of the backlist that is out-of-print (University of Michigan Press, University of California Press, University of Pittsburgh Press, Indiana University Press, University of Florida Press). Print was offered when the backlist books had many downloads.
- This model meets the needs of many 'authors [who] expect their books to be distributed through both traditional and new channels' (Ferwerda *et al*., 2017, p. 45) in a variety of media forms.
- This model appears to drive usage without a concomitant decline in revenue. AGORA, an EU co-funded project, explored a dual publishing model (along with a delayed OA model) in collaboration with Ontos Verlag. 'Results showed a significant increase in

usage, without loss of revenue' (Ferwerda, 2014). This model has also underpinned the launch of many of the NUPs over the past 10 years.
- Print editions can be sold easily through Yankee Book Peddler (owned by EBSCO), a core vendor in the supply chain used by many academic libraries to purchase books.
- This model could allow for continued systems of author royalties.

Weaknesses

- It may be costly and hard to manage both OA and traditional supply chains: '[t]he challenge for most university presses is that the infrastructure that is needed to support open access publication is different to the one that is needed to support a sales-driven publication approach' (Erich van Rijn, Director of Journals and Open Access at University of California Press quoted in Grimme and Watkinson, 2020).
- There is no guarantee that sales of the printed book will cover the full costs of production, although this risk is not unique to print with an OA edition.
- Tapping into traditional supply chains requires substantial publishing expertise and may favour existing publishers who have extant infrastructure. As OPERAS (2018) puts it: 'Selling books via traditional supply chains does require some staff resources to manage the process, set up agreements with third-party suppliers, provide advance information and metadata, and manage customer services. This can be resource intensive to varying degrees depending on the demand for the books, their global sales potential, the profile of the author, and the publisher's willingness to invest in this process (which will need to be assessed on the basis of potential return on investment)'.
- Print *may* require complicated technical and financial arrangements with the printer.
- If used, the unit costs of POD products would generally be higher than traditional litho printing, there may be a necessary rise in the price of the printed book.
- Publishers may raise prices to offset anticipated potential revenue losses from offering titles OA (although there is no compelling evidence substantiating the claim that OA decreases sales of printed editions, as argued earlier).
- This model constrains digital publishing to phenomena that can be replicated in print. Publishers may be less keen to pursue enhanced digital editions if they feel constrained by print, for which authors and readers continue to express a preference. Alternatively, the print edition may differ from the digital version and, as a consequence, be inferior, despite being the version that is purchased.
- Library catalogues mostly include the paid-for content and no, or very few, OA monographs.

Opportunities

- While online and distance education was expected to boost the popularity of e-books, recent studies show that students still prefer printed books to online copies. (See a UK HSS Researcher Survey Results [OAPEN-UK project report], [2012]; a meta-analysis on the effects of reading media on reading comprehension by Delgado, Vargas, Ackerman, & Salmerón, [2018],], Universities UK, Open Access Coordination Group [2018]).
- Maintaining print is favoured by authors and printing monographs is still a key value proposition for University Presses.

- Print editions are easy to preserve due to a developed international library system, and in the UK, there is a legal deposit programme including 6 libraries.

Threats

- Print sales may decline further or, at least, be spread out over a longer period, as readers become more comfortable with reading online and libraries are less inclined to buy print editions. The online free/print for sale model thus may be a transitional strategy.
- Traditionally academic presses have assumed that demand for their titles is inelastic, but if a free digital edition exists, it may limit the mark-up/price that can be sustained for printed works.
- The sudden invention of a new digital reading technology (for example, a new e-reader) that is as good as print could cause an abrupt drop in print sales.
- Regardless of OA, a drop-off in global print sales could threaten this model.
- The rising cost of books may be compounded by the reduction in library budgets, so libraries may be likely to buy fewer print copies.
- Library shelf space for print is increasingly limited.
- Libraries are moving towards a 'digital first' model.
- Very recent developments, such as the COVID-19 pandemic, which have resulted in campus lockdowns, have persuaded libraries and readers of the importance and merit of digital books over print. It will be interesting to see if this preference continues.
- In some countries, tax rates on e-books are higher than on print books.

Third-party licensing

Description

A supply-side business model, in which the publisher licenses some of its OA content to third-party distributors and uses some of the revenue to support the costs of OA publishing (the publisher might make the content available for commercial distribution under a separate licence). Publishers can generate additional revenue by licensing content to third-party information aggregators. There is also the potential for the third-party licensing of non-OA material to cross-subsidise OA versions (see 'Cross subsidies').

Examples of implementation

- None known in monograph publishing, although it has happened in the journal space (Crow, 2009, p. 36).

Strengths

- Capitalises on existing content.
- As one has more content, the model grows more viable.

Weaknesses

- It is unclear to what extent these opportunities are present in the monograph space, as opposed to journal publishing.
- Third parties may add restrictive DRM provisions that limit downstream re-use.
- The challenge of licensing OA content for a fee, which seems to go against many of the principles of OA, makes this a less likely model.

Opportunities

- New textbook and other educational markets may seek to re-use material that has been made openly available.

Threats

- Open licensing without a no-derivatives clause may render this RM obsolete or at least much harder to profit from.
- Funder mandates that disallow non-commercial licences may hinder this model.
- Despite creative commons licensing, some efforts to centralise openly licensed work met with a backlash indicating strong cultural norms that go beyond the legalities of licensing (Barnes and Gatti, 2019).

Embedded institutional support

Library-based publishing

Description

A supply-side model, in which the press collaborates with the university library – to share resources to make OA financially feasible. This model often involves sharing one budget between departments and a delineation of responsibilities according to each party's expertise. Resource sharing is often both in-kind and financial.

Examples of implementation

- The University of Calgary Press is based in the university's library.
- The Library Publishing Coalition Directory lists a large number of library-based university presses, including McGill University Library; University of Minnesota Libraries Publishing; and UTS ePress at University of Technology Sydney Library.
- University of Michigan Press, which publishes books in the OA model, merged with the University Library in 2009 (University to merge publishing operations with library).
- 'Tampere University Press recently shifted from a non-OA publishing model to an OA-only publishing model and it is an example of this business model. Their BPC is very low (around EUR 1,800 [approx. USD$2,018]) because the BPC does not cover salaries and overheads, which are part of the library budget' (Ferwerda *et al.*, p. 36).
- The University of Utah Press (UUP) is an agency of the J. Willard Marriott Library. The research library owns an Espresso Book Machine, and the opportunities for mutually-

beneficial use of that machine by the library and the press are potentially huge. In the words of Rick Anderson (2013), former Associate Dean for Collections and Scholarly Communication in the J. Willard Marriott Library at the University of Utah: 'Having the press and library working out of the same budget bucket makes such cooperation quite a bit more efficient and convenient than it would be if it required shifting money between discrete campus entities. For example: many research libraries (including ours) are experimenting with publishing projects. When we undertook digital and print-on-demand publication of some of our handwritten pioneer diaries a few years ago, we called on UUP experts to give us input on design and layout questions. When UUP wanted to make its long-out-of-print Anthropological Papers series available to the marketplace again, it called on the library to help with digitization and formatting and, with use of the Espresso Book Machine, to make printed copies available on demand'.

Strengths

- This RM benefits all involved parties, who share costs, resources, skills and risks. The press performs publishing functions, while the library handles online dissemination.
- In the library, presses are part of a mission-driven core institutional unit, rather than the market-driven auxiliary service that characterises many university presses (Watkinson, 2016).

Weaknesses

- Care should be taken to ensure that efficiency savings due to resource sharing do not negatively impact upon participating departments. As Kwan puts it: 'Should the model be successful on a long-term basis, the economies of resource sharing may make some staff members on both sides obsolete' (Kwan, 2011).
- Sometimes librarians have been accused of hostility towards academic presses (Sherman, 2014).
- An assumption that libraries have publishing know-how may be misplaced.

Opportunities

- Strong example-based leadership from advocating librarians can be a powerful institutional force for driving OA.
- Library-based presses could be advocated to University leadership as an integral part of the scholarly mission that is embedded in HSS research processes; they can also be used as impact evidence to research funders.
- Because libraries understand metadata requirements, Library presses are well-placed to provide high quality, enhanced metadata crucial for wide dissemination of monographs.
- Campus-based presses present an opportunity to educate students and faculty about OA publishing through internships, skills building workshops, and volunteer opportunities, further embedding them into the university's mission (Barnes, 2018).

Threats

- Universities are under increasing financial pressure and may expect new UPs to break even.

- Quality control measures (such as peer review) may become entangled with financial considerations, especially when considering authors based at the host institution.
- New UPs may come under pressure to publish books in subject areas that are pertinent to their host institution's mission, thereby losing autonomy. This might not be considered a threat as it could more closely align the press with institutional direction.
- Library-based UPs could be affected by cost-cutting exercises in general, and particularly by budget cuts initiated by Covid-19.
- New UPs can be seen as pet projects for VCs and/or library directors – so when they leave post, the press can be at risk without their support.

Subsidy model

Description

A supply side model, in which a university/faculty/research centre and/or library subsidise a university press directly or indirectly (financially or through facilities, equipment, or personnel, i.e. in-kind institutional support). This differs from library publishing, above, as it refers specifically to funding a university press as a separate entity. There are some overlaps, such as the fact that a university press *may* report to a library. At present it is estimated that levels of subsidy of US university presses sit between 5%-15% (Brown *et al.,* 2007, p. 53; Crow, 2012, p. 9).

Examples of implementation

- 'Early examples of dedicated OA book publishers using a hybrid publishing model in combination with institutional support are Athabasca University Press in Canada, ... ANU Press (formerly ANU E Press) in Australia and Göttingen University Press in Germany' (Ferwerda, 2014)
- 'UCL Press was the first fully open access university press to launch in the UK (2015) and it is funded by UCL to undertake open access publishing of monographs, textbooks and journals. UCL covers the costs of staff, production, marketing, infrastructure, BPCs for UCL authors, as well as all overheads. While UCL Press does have some revenue streams that are gradually increasing as the Press's activities grow, they don't cover the full costs and the institution does not expect the Press to cover its costs fully through income. UCL wants to support the Press in order to deliver impact, since its books are read by millions of people around the world via open access platforms. Current revenue streams include: sale of print copies, BPCs from non-UCL authors, library schemes such as Knowledge Unlatched, consultancy services and grants' (OPERAS, 2018)
- Several new university presses in the UK operate on this model (Cardiff, Goldsmiths, Westminster, LSE, White Rose).
- The punctum books and UCSB Library Partnership, where library expertise (IT, metadata, supply chain, scholarly communication space, staff and technology) are put toward making the press sustainable. The partnership is governed through a formal Memorandum of Understanding.

Strengths

- This RM 'may foster closer relations between the press and university administration' which can 'lead to other non-financial resources being allocated to the press, such as research assistant/work-study student hours, office space, or technological infrastructure' (Kwan, 2011).
- Provides good stability for the press and some shelter from market volatility.
- Makes it possible to publish solely on academic merit (if the publisher retains its independence from the parent institution).
- Emphasises the institutional importance of OA.

Weaknesses

- Requires a substantial amount of upfront financial support to set up from scratch.
- If care is not taken to ensure that the UP is autonomous, authors and readers may suspect such presses to be vanity publishers.
- No university can guarantee ongoing indefinite financial support. A change in the university leadership, its mission or financial strategy, may limit or terminate subsidies (Kwan, 2011).
- University presses might struggle to acquire authors from outside their own academy where the BPC is often covered for internal authors but still levied for external authors (e.g. UCL, LSE, Westminster, White Rose).
- If there is only a very limited level of subsidy available, then the resulting number of outputs could be very low.

Opportunities

- The prestige of a university can boost a new UP's reputation.
- Institutions can signal their investment in OA by establishing and funding OA presses. This could feed into funder statements, such as REF environment statements in the UK.

Threats

- The university may not have the prestige needed to boost a new UP's reputation.
- If institutional revenue decreases, or institutional priorities change, the press may be de-funded – it is unclear if they will be subsidised in perpetuity.
- Partial protection from market forces may desensitise a press to the needs of authors and readers, though this could be said of virtually all supply-side models.

Third-party subsidies

Grants

Description

A third-party business model, in which an institution (learned society, not-for-profit organisation, or foundation) subsidises OA publications, in whole or part, directly or indirectly (financially or

through facilities, equipment, or personnel i.e. in-kind institutional support). This model often includes start-up grants and may also work through commissioning (particularly textbooks).

Examples of implementation

- Athabasca University Press receives funding directly from the government and from funding agencies such as Federation for the Humanities and Social Sciences, and Canada Council for the Arts.
- The National Academies Press is a hybrid print model American OA publisher that used Andrew W. Mellon funds to develop an online ordering experiment to calculate if/how much their e-book sales would be cannibalised by offering free PDF downloads.
- Cornell University Press launched Cornell Open in 2016 (publishing out-of-print backlist titles as OA, including books in the Signale series) with funding from the Humanities Open Book Program. Cornell Open is a collaboration between the Press and Cornell Library.
- In Germany, 'Heidelberg Studies in Transculturality' was established by the 'Asia and Europe in a Global Context' Cluster of Excellence along with Heidelberg University Library. This series is a pilot project to establish a model for the publication of OA monographs, with initial support from Deutsche Forschungs Gemeinschaft (DFG).
- Language Science Press received initial funding from the DFG (EUR 580,000 / approx. USD$693,000) to set up the press and develop their workflows and business model.
- The MIT Press has engaged with several funders to develop open book publishing projects. For instance, the John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning published was subsidised by the MacArthur Foundation. The Arcadia Foundation has recently issued a grant to the Press to publish OA monographs on a sustainable basis.
- The Wellcome Trust and Historic England will pay a BPC for their grantees to publish their monographs openly.
- punctum books has a contract with the UCSB Architecture, Design and Art Museum (ADAM) to produce their exhibition catalogues.

Strengths

- This model provides upfront stability and resources for the period of the grant.
- This model works well for topical or agile research that has been backed by an external foundation.

Weaknesses

- Grants are extremely competitive and hard to come by. There is no guarantee that these projects will arrive 'on a platter'.
- Seeking grants is a labour-intensive activity.
- Grants are given for a limited period and cannot often be relied upon for long-term sustainability.
- These projects are often one-offs. As OPERAS Report (2018) puts it: 'Funding via grants is not a reliable source of income and can therefore lead to a stop-start, unsustainable

situation for publishers who need guaranteed regular income in order to build a sustainable long-term publishing operation'.
- Third-party funders may make demands of transparency on publishers, which comes with labour overheads.
- Third-party funders may restrict the autonomy of authors and publishers. This could also come with conflict of interest problems, which could lead to negative perceptions as to the impartiality of the published work.

Opportunities
- As funder mandates for monographs become more commonplace, funders will likely invest in open infrastructures to support them.
- Funder mandates that apply to commissioned work may drive authors to OA presses who can fulfil such briefs.
- Research commissioned through this route could be considered of a high quality as it has been selected for funding.
- Demand for open textbooks could lead to a boost in commissioning, although some funders exclude textbooks from OA policies.

Threats
- Care must be taken to ensure that third-party funders do not compromise academic freedom or demonstrate any conflict of interest.
- In the case of university presses, it is possible that fundraising efforts could detract from the university's own primary fundraising activities: 'there is a possibility that the institution may be concerned that … fundraising will funnel away donations from the university itself' (Kwan, 2011).
- Granting organizations may themselves be in a worse financial state in the coming years as a result of the COVID-19 pandemic that exposed financial weaknesses in the third-party research funding landscape

Liberation

Description
A third-party model for books that have already been published/are on backlists. Sponsors (foundations or governments) buy the copyright for books and then make them OA. Sponsors can also provide the financing for presses to convert their backlists to OA.

Examples of implementation
- The US National Endowment for the Humanities has a 'Fellowships Open Book Awards' programme in which previously published monographs, funded by their grants, are made openly available (NEH Announces Fellowships Open Book Awards | National Endowment for the Humanities).
- The Andrew W. Mellon Foundation also partnered with the National Endowment for Humanities to create the 'Humanities Open Book Program', which was 'designed to

make outstanding out-of-print humanities books available to a wide audience' (Humanities Open Book Program | National Endowment for the Humanities).
- MIT Press, the Internet Archive and the Arcadia Foundation collaborated to digitise and provide access to hundreds of MIT backlist titles (MIT Press Announces a New Collaboration).

Strengths
- Allows publishers to re-engage readers with backlist/out-of-print titles – perhaps capitalising on an anniversary, or on renewed interest due to current events. Publishing these as OA can be a shop window for the press and its other titles.
- Because the funding is retrospective, it is unlikely that there will be a loss of autonomy via any funder interference.

Weaknesses
- Some titles may never become OA under this model.
- This model may detract from sales of the most successful 'runaway' monographs in the long tail (if OA does deter print sales – though as noted elsewhere in this report, there is evidence that this is not the case).
- The press has to take a risk on publication before knowing whether OA funding is available (as in non-OA models).
- This model is better suited or more available to presses with a substantial back catalogue.

Opportunities
- As funders become more interested in OA monographs, there are likely to be additional schemes to liberate previously published work.

Threats
- Granting organizations may themselves be in a worse financial state in the coming years as a result of the COVID-19 pandemic.
- This is a sporadic and unreliable funding source.

Consortial models

Library crowdfunding

Description
This revenue model is one in which an intermediating platform connects many purchasers with the option to 'unlock' or 'unlatch' a title. This revenue model is similar to crowdfunding, but here the 'crowd' is made of institutions and there can be more than two parties that are engaged in cooperation. Many examples of this model, to date, have come from the journal space.

Examples of implementation

- Knowledge Unlatched pioneered this model, connecting individual libraries to one another in a purchasing consortium matched to multiple publishers. As of mid-2020, they have made over 1,900 books OA (Knowledge Unlatched – Free access to scholarly content for every reader across the world).

Strengths

- This model overcomes the single-point concentration of book processing charges.
- Offers publishers certainty of income before they opt for OA.
- This model de-fragments a highly distributed market of libraries and publishers.

Weaknesses

- Selecting which titles to fund can be difficult. There are fears that publishers will select titles for these schemes that they could not otherwise sell.
- Collective governance at scale of such platforms is tricky.
- Intermediaries may charge fees which could change at any point.
- Challenging to convince institutions to participate, particularly if budgets are being cut.

Opportunities

- Potential to publish works that might have intrinsic value rather than merely market potential.
- This model may appeal to authors because there is no author-facing charge.

Threats

- It is not always clear that the collective action threshold will be met for all titles (i.e. that enough individual libraries or other funders will pay).
- Commercialisation or for-profit buy-out of platforms in this space may damage trust among participating libraries.

Membership fees

Description

A supply-side model, in which distinct user groups create a platform for economic exchange that provides each group with the benefits of a large network. For example, a group of institutions form a consortium to support the cost of publishing of OA books. This multi-sided market model can involve many parties, e.g. library consortia, funders and publishers (publisher collectives). This cooperation can take place at subject level, library level, national level, and international level e.g. OPERAS (OPERAS, 2018). Its aim is to generate economies of scale. Usually, members of consortia allocate funds from membership dues to support the costs of publishing OA books. Consortia may subsidise individual publishers or independent publishers' collectives. In return, a publisher/publishers' collective may provide a range of reader-targeted benefits for this particular segment of customers.

Examples of implementation

- Lever Press (USA) 'is an initiative funded by the libraries of around 40 liberal arts colleges to create an OA press. They have raised over a million dollars and are in the early stages of planning their first publications. They plan to publish works suited to the nature of liberal arts colleges where there is a greater emphasis on teaching than research. The type of works that will therefore be supported are textbooks, introductory texts to key concepts and scholarly editions' (OPERAS, 2018).
- TOME (USA) 'is a collaborative approach between Association of University Presses, Association of Research Libraries, Association of American Universities, all in the USA. Universities commit to funding three OA monographs in HSS per year over five years at a fee of USD$15,000 each, to be published by members of the AUP or similar scholarly publishers [...] So far, 14 institutions have committed to the scheme' (OPERAS, 2018).
- In the journal publishing environment, the Open Library of Humanities have developed a library partnership subsidy model in which libraries each pay a subscription to secure OA to works. 'As of April 2018, the website lists 199 [libraries] as active supporters (and several more pending), meaning these institutions pay an annual membership fee into a central fund that allows OLH to conduct their publishing operations across 23 journals. This makes it possible for OLH to have no author-facing or reader-facing charges. The fee is not designed to allow authors from any particular institution to publish but rather for the common good. As such, and as per a direct ruling from HMRC in the UK, this business model is exempt from VAT' (OPERAS, 2018).
- Open Book Publishers has a library membership scheme (OBP Library Membership).
- punctum books also has a library membership programme (Supporting Library Membership Program – punctum books).

Strengths

- If a deal could be reached with library consortia to agree to this model, then revenues might be more stable than in some of the other possible revenue models (Kwan, 2011).
- This model can work well for established presses: 'This seems to have potential for success, given its collaborative nature and the range of key stakeholders. It is also forward-thinking in its support of the collaboration with established scholarly presses which are widely recognised by academics therefore lending credibility, and the fact that established presses have their operations and workflows well established' (OPERAS, 2018).
- This model could work well for individual book series within a press's list (i.e. a subscription or membership fee attached to a smaller subset of the total list).

Weaknesses

- It is difficult to establish the extent to which free-riding occurs in this model: 'It may be difficult, if not impossible, to monitor whether libraries that haven't paid are including the OA versions of the books in their catalogues. The system would have to work on an honour principle. There are likely to be highly complex negotiations involved in negotiating international library fees. How many libraries can your press count on to purchase most, if not all, of your titles?' (Kwan, 2011). Evaluating free riders in this

context can also appear mean-spirited, given that OA is supposed to reach readers without payment.
- Those purchasing books under this model do not know which titles they will receive in future.
- Metrics for ongoing purchasing decisions may be patchy.
- The overheads of implementing such schemes may be substantial (per Eve, 2020).
- It is not clear how many libraries, worldwide, would participate in such a scheme. 'As with any new OA initiative, scaling up could pose a challenge.' (OPERAS, 2018)

Opportunities
- This model can build and capitalise on a loyal customer community who wish to sign up for a membership.
- Cancellations of big deal journal bundles could lead to reinvestment in the open monograph subscription space. However, there are difficult politics of this kind of cross-disciplinary reallocation, particularly at a time when STEM subjects are perceived as higher value than their humanities counterparts.

Threats
- There is the possibility, with the proliferation of such models, that library 'fatigue' kicks in and institutions only support a small number of them; the costs of assessing these schemes are also high for libraries.
- 'Subscription'-like models of this nature may find themselves in competition with institutional journal purchasing budgets.
- Cancellations are possible during economic downturns, shifts in library administrative priorities, and curriculum.

Shared infrastructure

Description
A supply-side model, which entails sharing infrastructure and resources. It might involve adoption of 'a shared electronic publishing infrastructure across universities' to 'save costs, create scale, leverage expertise, innovate, unite the resources of the university ... create a blended interlinked environment of free information, and provide a robust alternative to commercial competitors' (Brown *et al.*, 2007). The resources are often created by collaborators (e.g. open source software for publishing monographs or alternative market or library integration platform).

Examples of implementation
- Ubiquity Press operate a 'partner network' in which they run infrastructure that is used by many presses.
- Lever Press is operated by several US universities working in concert.

- White Rose University Press is an OA digital publisher of peer-reviewed academic journals and books in various academic disciplines. It is run jointly by the Universities of Leeds, Sheffield and York, but it also publishes authors affiliated with other universities.
- OPERAS is a consortium of over 30 partners in twelve countries, led by OpenEdition. It aims to establish an infrastructure for open scholarly communication in HSS, such as HIRMEOS. It was founded as a proof of concept for the OPERAS goal to create a number of central HSS platforms. HIRMEOS focuses on OA monographs and integrates five platforms: OpenEdition Books (France), OAPEN (Netherlands), EKT Open Book Press (Greece), Universitätsverlag Göttingen (Germany) and Ubiquity Press (UK) to develop services, tools, standards and best practices across platforms. These include digital identifiers, open annotation, certification of peer review practices, automated entity recognition, and a service to provide usage data and bibliometrics (Bertino, Foppiano, Romary. Mounier, 2019)
- The Library Publishing Coalition is dedicated to such library publishing initiatives. 'In 2013, over 60 academic and research libraries collectively founded the Library Publishing Coalition, a professional association expressly charged with facilitating knowledge sharing, collaboration and advocacy for this growing field' (Lippincott, 2016).
- ScholarLed (and COPIM), an international consortium of five academic-led, not-for-profit, OA book publishers has collectively developed open source and community controlled publishing solutions, and to directly implement these within their own workflows.
- In May 2012, the WAC Clearinghouse launched the 25 Collective, whose goal was to publish 25 new books for USD$50,000—a fraction of costs borne by traditional academic presses. Leveraging university resources (office space, computing resources, and web servers) the project operated within its budget and had, by March 2017, reached its goal, producing 29 books at an average cost of less than USD$2,000 per book. The success of the project led to the launch of the Colorado State University Open Press in 2016 that also uses the model developed through the WAC Clearinghouse (The Sustainable Publishing Initiative - The WAC Clearinghouse).

Strengths

- This model thrives on cooperation rather than competition: 'Bringing together participants with a common interest is an excellent way of sharing services and infrastructure for the common good, of raising funds for a larger-scale collective project, or of bringing together stakeholders from different parts of the academy to find common solutions' (OPERAS, 2018).
- This model distributes risk, resources, and knowledge between many institutions, yielding a resilient infrastructure. It may also help to mitigate 'library fatigue' of individual press membership models (as highlighted in the Membership model threats above).
- This model can help small presses quickly build capacity that may not be available at a single institution.
- This model can capitalise on economies of scale.

Weaknesses

- 'As with other business models considered here, such initiatives can experience issues with scaling, sustainability and momentum' (OPERAS, 2018).
- There are 'concerns about a loss of control of certain aspects of the publishing process' (Adema & Stone, 2017 p. 79) when a process is handled at another institution.
- There are challenges of collective governance in this model.

Opportunities

- Some reports Brown *et al*., 2007, and the UK national monograph strategy roadmap (Showers, 2014) recommend the development of shared publishing platforms.
- Shared press facilities can capitalise on the reputation of several universities at a time.

Threats

- Depends upon ongoing institutional willingness which can be compromised if there is a change of strategic direction.
- The structure of the whole may be threatened if one of the component partners is financially destabilised.

Subscribe-to-Open

Description

A demand-side, supply-side or third-party revenue model (Crow *et al.*, 2019). The model is used to facilitate transition of subscription journals to OA but can also work in the book space. Under subscribe-to-open, libraries subscribe to have access to the content. After subscriptions reach a certain threshold, the content becomes openly available to all readers. 'In essence, subscribe to open is a no-risk opt-in for the subscribing institution' (Hinchliffe, 2020). By subscribing, libraries make sure their readers have immediate and continued access to publications. A variation on this model could consist of members subscribing to a backlist, with the revenue then used to make the frontlist openly accessible.

Examples of implementation

- In the journal space this model has been used by *Annual Reviews*.
- 'punctum books, Language Science Press and Ubiquity Press are all exploring subscription schemes and platforms to fund their OA publishing projects' (Adema and Stone, 2017).
- MIT Press has called their subscription mechanism for books 'a variation' on the Subscribe-to-Open model (McKenzie, 2019).

Strengths

- It is a familiar model for libraries and publishers because it is based on the subscription fees existing in the journal world, monographic series, and reference book collections.

- Platforms of known aggregators (OAPEN, JSTOR, MUSE, etc.) could adopt this model to generate revenue for publishers, acting as subscription intermediaries (see London School of Economics, 2015, p. 22).
- The model contains a threat of a reversion to purchase-access if there are cancellations, leading to high renewal rates (Eve, 2020).

Weaknesses

- This model may be harder to implement for publishers who have a less valuable backlist.
- For books, the challenge is to build a big enough platform with lots of high-quality content, although many established publishers already have such a list.
- The primary challenge of implementation is explaining the model (Eve, 2020), which could require a large campaign with marketing.
- The presence of network effects may affect the rate of membership signups. For instance, if one can attract large, prestigious institutions to support the model early on, other universities are more likely to follow suit. This could be considered an advantage, however, if one is unable to attract this initial attention, the rate of signup may be slower.
- Free-riders may benefit from the work without paying. (Although this is a core part of open access itself and evaluating "free riders" in this way may appear mean-spirited.) Subscribe-to-Open is designed to mitigate this risk by threatening a reversion to subscription status if an insufficient number of institutions participate. Further, other models, such as the Open Library of Humanities, seem to show that the free-rider problem is less severe than is hypothesized. There are, in fact, two different types of 'free rider' within such models: author-side free riders (where an author's library is not a member) and reader-side free riders (where a library of a reader is not a member). It is worth noting that although membership models such as Subscribe-to-Open have shown a good level of uptake among library members, there is still a silent majority of libraries who never participate in such schemes.
- If a funder requires OA for a monograph and this model has a threat of reversion to purchase access, would the funder deem this model compliant?

Opportunities

- The model 'integrates well with existing library purchasing workflows and distributes funds in a manner similar to subscriptions, therefore makes for an easier transition for libraries' (OPERAS, 2018).
- This model also addresses the relative lack of funding in AHSS and provides OA publishing without author-facing charges (OPERAS, 2018).
- The model may be able to capitalise on cancellations in the journal subscription space. However, it is not clear that money saved through cancellations will necessarily be reallocated.

Threats

- As library budgets are reduced and dominated by the cost of acquisition of journals, scalability can become an issue.

- New OA ‘big deals’ (transformative agreements) in STEM disciplines may also impinge on this budget.
- OA transformative agreements in other spaces may make libraries wary of such schemes in the monograph world.

Conclusion

> The sustainability of university presses in an open access world has … emerged as [a key area for discussion], as has the necessity of collaborating with other stakeholders in the scholarly communication process, such as libraries, university administration, faculty members and researchers, and funders. (Kwan, 2011)

This report outlines many possible approaches to facilitating OA monograph publishing. Some models are more practical than others and some RMs are already in use, and working effectively, at publishers both large and small. However, to repeat a potential cliché, it is clear that there is no ‘one size fits all’ approach; nor does one model emerge as the easiest to implement, or as the simplest, or most sustainable. Each model comes with its own challenges and benefits that must be weighed up alongside considerations of a press’s mission, partners/stakeholders, and costs.

Recurring themes and challenges noted are: sustainability; access to funding; uncertainty around the future of print; funder mandates and governmental policies; the evolving role of academic libraries and changes to their acquisition strategies and budgets; and the current and future financial climate. Challenges of scale and scaling, and technological advances are also points of note for publishers and their stakeholders.

It seems clear that presses of all sizes, and regardless of how well-established they are, will need to take what Rupert Gatti has called a ‘magpie approach’ to adopting OA revenue models (Gatti, 2015). That is, in order to remain sustainable, publishers will need to adopt a combination of several of the models outlined in this report.

It is hoped that this summary of economic models will serve as one component of a practical ‘toolkit’ on how presses might transition to sustainably publishing OA monographs. Future work in the COPIM project will implement some of these models with publishers and further document their strengths and weaknesses vis-a-vis new developments in the academic publishing market. We aim to present case studies showcasing possible symbioses between different models as well as focus more on the analysis of cost structures to recommend strategies on how to transition from value- to cost-driven structures without compromising the quality of published works or services for authors.

Appendix 1 Business Model Canvas for an OA university press

<table>
<tr>
<th>PARTNERS *</th>
<th>KEY ACTIVITIES</th>
<th>OFFER/VALUE PROPOSITION</th>
<th>CUSTOMER RELATIONS **</th>
<th>CUSTOMERS</th>
</tr>
<tr>
<td rowspan="2">OPERAS
OAPEN
DOAB
Jisc
JSTOR
Muse
Production service providers (e.g. Ubiquity Press provide services to other presses)
OpenEdition
ScholarLed
SPARC
KU
etc.</td>
<td>acquisition, reviewing, typesetting, production, different electronic formats, depositing, hosting, metadata enhancement, marketing, promotion, repositories, directories, library catalogues, sales (of print or premium product), aggregation, data archiving, digital preservation, copyright & licensing, strategic planning and development in response to the changing market etc.</td>
<td rowspan="2">important for funders/policymakers: OA is a more efficient way of disseminating research
important for authors: bigger impact on the discipline, career progression, metrics, quality (rigorous peer-review, open peer-review), speed of publication, chapter level discoverability (DOI for chapters), effective marketing, wider circulation/better access to target groups e.g. students, professionals (important for advertisers too)
important for libraries: scholar-led, transparent, good value for money, library-friendly workflow
important for third-party licensing: good, topical and important content.</td>
<td>Personal: dedicated editorial process that authors care about and community service for authors; discovery and cataloguing services.</td>
<td rowspan="2">authors
libraries
funders
advertisers
sponsors
publishing houses (in case of third-party licensing)
students
the public</td>
</tr>
<tr>
<td>KEY RESOURCES
brand equity
HR + intellectual resources (know-how)
production tools/software
platforms/infrastructure
books
journals</td>
<td>DISTRIBUTION CHANNELS
publisher’s website
aggregators
vendors
retailers
charities and NGO’s platforms (Jisc, etc.)
intermediaries and wholesalers (for print in dual/hybrid BM)
DOAB
OAPEN
etc.</td>
</tr>
</table>

COST STRUCTURE ***	REVENUES
Fixed costs: staff, website maintenance, investment in new technologies and infrastructures **Variable costs:** print/POD in hybrid publishing, book production, conversion, reviewers, DOI, preservation, marketing etc. (see KEY ACTIVITIES)	• advertising • Book Processing Charge • cross subsidies • crowdfunding from individuals • embargoed/delayed OA • endowments • fundraising (donations and grants) • hybrid (digital-only freemium) • hybrid (print) • third-party licensing • institutional subsidies • third-party subsidies • grants • library crowdfunding

*** PARTNERS:** alliances to optimise BMs, reduce risk, help to acquire/enlarge resources. Alliances are between *non-competitors* (e.g. in consortium), they can include Joint Ventures and supplier-buyer relationships (all companies that help with key activities or supply key resources are partners).

** **CUSTOMER RELATIONS** can include the following options: a) dedicated personal services, e.g. like the work of acquisition editors in a traditional publishing house; b) self-service, e.g. authors submit a camera-ready manuscript prepared to the publisher's specification) c) fully automated service, e.g. online submission systems in journals, d) community service, e.g. open peer review in PubPub with the use of open source software.

*** **COST STRUCTURE** can be a) 'cost-driven' – BMs can have a lean cost structure based on maximum automation (see CUSTOMER RELATIONS) and extensive outsourcing (to achieve economies of scale between non-competing publishers, see PARTNERS); b) 'value-driven' – BMs are based on personalisation (see, for example, dedicated personal relations in CUSTOMER RELATIONS). According to Crow (2012), presses can restructure their BMs from value-driven to cost-driven: 'some of the costs associated with the traditional production values of university monographs could be lowered, eliminated, or shifted.' (p. 7-8).

Appendix 2 Table of examples of RM implementation

This table shows examples of implementation as found in this report. The examples are not exhaustive and are intended only to convey the variety of models in use. Some of the initiatives here do not have an OA books programme but are nonetheless indicative of the use of particular economic models. Note that the classifications here are ours and not necessarily those used by publishers themselves.

You can access and download this table as a spreadsheet here: https://doi.org/10.5281/zenodo.4011836

Publisher or publishing initiative	Advertising	BPC	Cross subsidies	Crowdfunding from Individuals	Embargoed/ Delayed OA	Endowments (not necessarily used for OA)	Fundraising (Donations and Grants)	Hybrid (Digital-Only Freemium)	Hybrid (Print)	Third-party licensing	Library-Based Publishing	Subsidy Model	Grants	Liberation	Library Crowdfunding	Membership Fees	Shared Infrastructure	Subscribe-to-Open
Amsterdam University Press									X									
ANU Press									X			X						
Athabasca University Press					X				X			X	X					
Bloomsbury Academic		X							X									
Bookboon	X																	
Brill		X							X									
Bristol University Press		X							X									

Cambridge University Press		X	X						X									
Cardiff University Press		X							X			X						
Cornell University Press (Signale series)					X				X				X					X	
Counterpress								X	X									
De Gruyter		X		X					X									
Goldsmiths University Press					X				X			X						
Göttingen University Press									X			X						
Harvard University Press						X												
Heidelberg University Library /Heidelberg University									X		X		X					

Publishing																	
Huddersfield University Press									X		X						
Indiana University Press									X								
Informa (Taylor & Francis)		X	X						X								
Kickstarter				X													
Knowledge Unlatched														X			
Language Science Press									X				X				X
Lever Press									X						X	X	
Library Publishing Coalition																X	
Louisiana University Press			X														
LSE University Press		X							X			X					
Lund Univer							X		X			X				X	

sity Press																	
Manchester University Press		X	X						X								
Mattering Press							X		X								
McGill University Library											X						
MIT Press			X		X		X						X	X			X
National Academies Press									X				X				
O'Reilly									X								
OECD Publishing								X									
Ohio State University Press			X														
Ontos Verlag					X				X								
Open Book Publishers				X			X		X							X	
Open Edition								X									
OPERAS																X	
Oxford University Press		X	X						X								
Palgrave		X	X						X								

Macmillan																	
Paper C								X	X								
Penn State University Press (Romance Studies series)									X								
Princeton University Press						X											
punctum books							X		X			X	X			X		X
ScholarLed (and COPIM)																	X	
Stockholm University Press		X		X					X			X						
Tampere University Press		X							X		X							
TOME																X		
TU Delft OPEN												X						
Ubiquity Press		X	X						X								X	X
UCL		X	X						X			X						

unglue.it				X	X												
University of Calgary Press									X		X						
University of California Press (Luminos)									X			X					
University of Chicago Press			X														
University of Florida Press									X								
University of Michigan Press									X								
University of Minnesota Libraries Publishing									X		X						
University of Pittsburgh Press									X								
University of Utah Press									X		X						
University of West		X							X			X					

minster Press																	
University Press of New England/Dartmouth College Library									X		X					X	
UTS ePress at University of Technology Sydney Library		X							X		X						
WAC Clearinghouse							X					X				X	
White Rose University Press		X							X			X				X	
Wikibooks							X										
Yale University Press						X											

References

Adema, J., & G. Stone (2017). Changing publishing ecologies: A landscape study of new university presses and academic-led publishing. Jisc. https://repository.jisc.ac.uk/6666/

Allen, H., A. Cury, T. Gaston, C. Graf, H. Wakley, & M. Willis (2019). 'What does better peer review look like? Underlying principles and recommendations for better practice', *Learned Publishing*, 32.2 (2019), pp. 163-75. https://doi.org/10.1002/leap.1222

AGORA (2014). 'Scholarly Open Access research in European philosophy'. http://www.project-agora.org/

Anderson, R. (2013, Jul 23). 'Another perspective on library-press "partnerships"', The Scholarly Kitchen. https://scholarlykitchen.sspnet.org/2013/07/23/another-perspective-on-library-press-partnerships

Barnes, S. (2018), 'Arnhold-punctum publishing lab at UCSB library: A case study in library-publisher collaboration'. UC Office of Scholarly Communication. https://osc.universityofcalifornia.edu/2018/04/arnhold-punctum-publishing-lab/

Barnes, L. & R. Gatti (2019, May 21). 'Open Book Publishers' statement on Knowledge Unlatched and the Open Research Library Open Book Publishers', Open Book Publishers, http://doi.org/10.11647/OBP.0173.0097

Bertino A., L. Foppiano, L. Romary, & P. Mounier (2019). 'Leveraging concepts in Open Access Publications'. https://www.hirmeos.eu/wp-content/uploads/2019/06/Leveraging-Concepts-in-Open-Access-Publications-2.-Version-edited-03.2019.pdf

Bourke-Waite, A. (2015). 'Innovations in scholarly peer review at Nature Publishing Group and Palgrave Macmillan', *Insights*, 28.2. https://doi.org/10.1629/uksg.243

Brown, L., Griffiths, & R. J., Rascoff (2007, July 26). 'University publishing in a digital age', Ithaka S+R. https://doi.org/10.18665/sr.22345

Collins, E., & C. Milloy (2016). 'OAPEN-UK final report: A five-year study into open access monograph publishing in the humanities and social sciences, OAPEN Foundation. https://oapen.fra1.digitaloceanspaces.com/7a65d73f1087444d80807833a320fa36.pdf

Collins, E. & G. Stone (2014). 'Open Access Monographs and the Role of the Library'. *Insights* 27, pp. 11-16. http://doi.org/10.1629/2048-7754.163

Crossick, G. (2015). 'Monographs and Open Access: A report to HEFCE', HEFCE. http://www.hefce.ac.uk/pubs/rereports/year/2015/monographs/

Crow, R. (2009). 'Income models for Open Access: An overview of current practice'. SPARC. https://sparcopen.org/wp-content/uploads/2016/01/incomemodels_v1.pdf

Crow, R. (2012). 'A rational system for funding scholarly monographs: A white paper prepared for the AAU-ARL Task Force on scholarly communications'. https://www.arl.org/wp-content/uploads/2012/11/aau-arl-white-paper-rational-system-for-funding-scholarly-monographs-2012.pdf

Crow, R., R. Gallagher, & K. Naim (2019). 'Subscribe to Open: A practical approach for converting subscription journals to Open Access', *Learned Publishing*. https://doi.org/10.1002/leap.1262

Delgado, P., C. L. Vargas, R. Ackerman, & L. Salmerón (2018). 'Don't throw away your printed books: A meta-analysis on the effects of reading media on reading comprehension', *Educational Research Review* 25, pp. 23-38.

Dixon, M. (2017, May 8). 'Endowments should rethink the 5% rule'. *Pensions & Investments*, https://www.pionline.com/article/20170508/ONLINE/170509926/endowments-should-rethink-the-5-rule

Eposito, J. (2013.) Having relations with the library: A guide for university presses. The Scholarly Kitchen. https://scholarlykitchen.sspnet.org/2013/07/16/having-relations-with-the-library-a-guide-for-university-presses/

Eve, M. P. (2018, January 21). 'How learned societies could flip to open access, with no author-facing charges, using a consortial model'. Martin Paul Eve Blog. https://eve.gd/2018/01/21/how-learned-societies-could-flip-to-oa-using-a-consortial-model/

Eve, M. P. (2020). 'Reading scholarship digitally', *Reassembling Scholarly Communications: Histories, Infrastructures, and Global Politics of Open Access*, ed. by M. P. Eve and J. Gray. The MIT Press.

Eve, M. P., K. Inglis, D. Prosser, L. Speicher, & G. Stone (2017). 'Cost estimates of an Open Access mandate for monographs in the UK's third Research Excellence Framework', *Insights* 30.3. https://doi.org/10.1629/uksg.392

Ferwerda, E. (2014). 'Open Access Monograph Business Models'. Insights 27, pp. 35-38. http://doi.org/10.1629/2048-7754.46

Ferwerda, E., F. Pinter & N. Stern (2017, August 1). 'A landscape study on open access and monographs: Policies, funding and publishing in eight European countries', Zenodo. https://doi.org/10.5281/zenodo.815931

Ferwerda, E., R. Snijder, & J. Adema (2013). OAPEN-NL – A project exploring Open Access monograph publishing in the Netherlands, Final Report. OAPEN Foundation. http://oapen.org/download?type=export&export=oapen-nl-final-report

Ferwerda, E., R. Snijder, B. Arpagaus, R. Graf, D. Krämer, & E. Moser (2018). OAPEN-CH – The impact of open access on scientific monographs in Switzerland. A project conducted by the Swiss National Science Foundation (SNSF), Zenodo. https://doi.org/10.5281/zenodo.1220607

Gatti, R. (2015, October 15). 'Introducing some data to the Open Access Debate: OBP's business model', Open Book Publishers. https://blogs.openbookpublishers.com/introducing-some-data-to-the-open-access-debate-obps-business-model-part-one/

Givler, P. (2002). 'University press publishing in the United States', Association of University Presses. http://www.aupresses.org/about-aaup/about-university-presses/history-of-university-presses

Greco, A. N., & R. M. Wharton (2008). 'Should university presses adopt an open access [electronic publishing] business model for all of their scholarly books? Eds. L. Chan & S. Mornati, ELPUB2008. Open scholarship: Authority, community, and sustainability in the Age of Web 2.0 – Proceedings of the 12th International Conference on Electronic Publishing held in Toronto, Canada 25-27 June 2008, Toronto, pp. 149-164. http://elpub.scix.net/data/works/att/149_elpub2008.content.pdf

Grimme, S. & C. Watkinson (2020, July 23). 'State of open monographs series: The economics of Open Access monographs', Digital Science News Blog. https://www.digital-science.com/blog/news/economics-of-open-access-monographs/

Hartley, J., J. Potts, L. Montgomery, E. Rennie, & C. Neylon (2019). 'Do we need to move from communication technology to user community? A new economic model of the journal as a club', *Learned Publishing*, 32.1, pp. 27-35. https://doi.org/10.1002/leap.1228

Hahn, K. (2008). Research library publishing services: New options for university publishing, Association of Research Libraries.

Hinchliffe, L. J. (2020, March 9). Subscribe to open: A mutual assurance approach to Open Access. The Scholarly Kitchen. https://scholarlykitchen.sspnet.org/2020/03/09/subscribetoopen/

Karschnick, R. (2012, June 8). 'Geschäftsmodell: Die Firma, die Studenten Bücher schenkt'. *Die Zeit*.

Kwan, A. (2011). Open Access and scholarly monographs in Canada (Masters Dissertation). http://publishing.sfu.ca/2013/08/open-access-and-scholarly-monographs-in-canada/

Lippincott, S. K. (2016). 'The Library Publishing Coalition: Organizing Libraries to Enhance Scholarly Publishing'. *Insights* 29 (2), pp. 186-91. http://doi.org/10.1629/uksg.296

Maron, N., L., C. Mulhern, D. Rossman, & K. Schmelzinger (2016). The costs of publishing monographs: Toward a transparent methodology. Ithaka S+R. https://sr.ithaka.org/publications/the-costs-of-publishing-monographs/

McKenzie L. (2019, Oct 22). Could subscriptions create a pathway to sustainable open-access monograph publishing? MIT Press plans to find out. *Inside Higher Education*. https://www.insidehighered.com/news/2019/10/22/exploring-subscriptions-support-open-access-monographs

McKenzie, L. (2020, March 10). A looming challenge for OER? *Inside Higher Education.* https://www.insidehighered.com/news/2020/03/10/survey-suggests-challenges-open-textbooks-ahead

Missingham, S. (2012) Startup profile – PaperC. *The Bookseller*. https://www.thebookseller.com/futurebook/startup-profile-paperc

Newton, H., M. Dacos, P. Mounier & Y. Neuman (2014). 'Snapshots of three Open Access business models'. *Insights* 27, pp. 39-44. http://doi.org/10.1629/2048-7754.118

O'Hara, K. & A. Sellen (1997). 'A Comparison of reading paper and on-line documents', Proceedings of the SIGCHI conference on human factors in computing systems – CHI '97 (presented at the SIGCHI conference, Atlanta, Georgia, United States) ACM Press, pp. 335-42. https://doi.org/10.1145/258549.258787

OPERAS Business Models Working Group (2018, July 30). OPERAS Open Access business models white paper. Zenodo. http://doi.org/10.5281/zenodo.1323708

Osterwalder, A., Y. Pigneur., T. Clark, & A Smith. (2010). Business model generation: A handbook for visionaries, game changers, and challengers. Wiley.

Ritter, T. and Lettl, C. (2018). 'The wider implications of business-model research', Long Range Planning, Vol. 51 No. 1, pp. 1-8.

Sherman, S. (2014, May 6). University Presses under fire: How the Internet and slashed budgets have endangered one of higher education's most important institutions. *The Nation* https://www.thenation.com/article/archive/university-presses-under-fire/

Showers, B. (2014). A national monograph strategy roadmap. Jisc. https://www.jisc.ac.uk/reports/a-national-monograph-strategy-roadmap

Smith, K. (2012). *The publishing business: From p-books to e-books*, Bloomsbury Publishing.

Snijder, R. (2019). The deliverance of Open Access books. Examining usage and dissemination Amsterdam University Press. https://doi.org/10.26530/OAPEN_1004809

Snijder, R. (2014). The influence of Open Access on monograph sales: The experience at Amsterdam University Press. *Logos*, 25(3), pp. 13-23. https://doi.org/10.1163/1878-4712-11112047

Snijder, R. (2010). The profits of free books: An experiment to measure the impact of Open Access publishing. *Learned Publishing*, 23(4), pp. 293-301. https://doi.org/10.1087/20100403

Spezi, V., S. Wakeling, S. Pinfield, J. Fry, C. Creaser, & P. Willett (2018). '"Let the community decide"? The vision and reality of soundness-only peer review in Open-Access mega-Journals', *Journal of Documen*tation, 74.1 (2018), pp. 137-61 https://doi.org/10.1108/JD-06-2017-0092

Teece, D. J. (2018). 'Business models and dynamic capabilities', Long Range Planning, Vol. 51 No. 1, pp. 40-49.

Thomes, T. P. (2013). 'An economic analysis of online streaming music services', *Information Economics and Policy*, Vol. 25 No. 2, 81-91. https://doi.org/10.1016/j.infoecopol.2013.04.001

Universities, UK, Open Access Coordination Group (2018). Open Access monographs.

UKRI (2020). UKRI Open Access review: Consultation. https://www.ukri.org/files/funding/oa/open-access-review-consultation/

Watkinson, C. (2016). 'Why marriage matters: A North American perspective on press/library partnerships', *Learned Publishing*, Vol. 29, No. S1 Special Issue: The University Press Redux, pp. 342-347. https://doi.org/10.1002/leap.1044