



Digital Science Report

The State of Open Monographs

An analysis of the Open Access monograph landscape
and its integration into the digital scholarly network

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Foreword by Michael A. Elliott

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Contents

1. Foreword	2
Michael A. Elliott, Dean of Emory College of Arts and Sciences, Emory University	
2. Introduction	3
3. The Open Access Monograph Landscape in 2019	4
4. How Many Monographs Are Published Each Year?	7
5. Challenges in Information Supply Chain	8
6. Valuing and Understanding Monographs - Their Role in the Scholarly Record	12
7. Understanding Costs and Finding Funding	16
8. Conclusion	20

Foreword

"What follows is an "Opportunity Report" offering a chance to rethink practices and relationships that we have taken for granted for some time"

The open monograph speaks to our deeply-held aspiration to produce knowledge as a public good. At a time when the research mission of higher education — particularly the research of the humanities and the social sciences — remains poorly understood beyond the academy, the mission of making our research widely and openly available could be more urgent than ever.

In this report the authors carefully outline critical challenges that must be met if the open monograph is going to thrive and expand in the scholarly landscape. I therefore think of what follows as an "Opportunity Report." Each area of challenge — whether the supply chain or the funding model — offers a chance to rethink practices and relationships that we have taken for granted for some time. As the report explains, several distinct experiments are in motion, including Knowledge Unlatched, TOME, and the Sustainable History Monograph Pilot. The proliferation of initiatives risks some confusion for scholars and their institutions, but I hope that it will also generate greater excitement and even engagement. I do not think we should be too quick to settle on a single model for supporting open monographs; let us use this time to learn from each of these initiatives as we move forward.

There is another opportunity as well — one that is beyond the scope of this report. As these models for publication and support change, it remains possible, even likely, that the development of the open monograph will change the shape and form of the monograph itself. Will monographs become longer — or shorter? Will they become more specialized — more general? None of the above? Might these changes eventually dislodge the ironclad monograph-for-tenure practice of most research universities? As publishers and librarians continue the task of questioning and remaking their practices to support this new mode of publication, I am eager to see whether scholars might eventually be willing to engage in a similar self-reflection and evolution. As we do so, I feel deeply grateful that we will be able to rely on passionate and diligent supporters of our research, both the authors of this report and all of those who engage with what they have written.

Michael A. Elliott,
Dean of Emory College of Arts and Sciences, Emory University

Introduction

A much-repeated axiom in scholarly book publishing is that the monograph is the “coin of the realm” in the humanities. By all indications, this axiom remains as true as ever in 2019. Despite the growth of new forms of digital scholarship, faculty in most disciplines of the humanities and humanistic social sciences (referred to collectively as HSS) are still expected to publish at least one monograph - preferably with a university press - during their assistant professor years in order to secure tenure.

This situation isn't likely to change significantly anytime soon. Scholarly societies, including the American Historical Association, have tried to get out in front of the new digital publishing landscape by creating guidelines for evaluating born-digital works that don't fit the usual definition of a monograph. University presses such as Stanford (<https://www.sup.org/digital/>), Michigan (<https://www.fulcrum.org/>), and Minnesota (<https://manifoldapp.org/>) have investigated ways of reviewing, creating, discovering, and preserving new products of digital scholarship with support from the Andrew W. Mellon Foundation. However, the reality is that traditional “long-form” scholarship is viewed as *the* crucial indicator of a scholar's *bona fides* in a way that no other published scholarship, digital or print, can. HSS scholars describe the act of “thinking through” and writing a monograph as a formative intellectual exercise, central to the way they give structure to a body of research, test out and analyze arguments, and identify links to other areas of research and directions for future exploration¹. Some even view the monograph as the central format through which the humanities contributes to a “diverse ecology of inquiry and methods².”

So what is the problem? While monographs continue to be central to the intellectual and professional identity of HSS fields, the technology for publishing them continues to be driven largely by the needs of a print-based market. As a result, monographs remain largely outside the growing digital scholarly information infrastructure³.

This report addresses the question of how to integrate monographs into this digital scholarly information infrastructure. What are the particular challenges in the year 2019 and what specific steps need to be taken to overcome these challenges going forward? The focus is primarily on open access monographs because we believe that the trend in scholarly book publishing is toward open access (OA). For example in the USA, federal mandates for open access, [NEH and Mellon](#) have made it possible for university presses and other non-profit publishers to digitize their backlists and make them OA. At the same time, initiatives such as [Knowledge Unlatched](#) and [TOME](#) are experimenting with new business models that presume a world where open access becomes the norm for monographs.

Following a brief survey of the OA monograph landscape in 2019, Charles Watkinson offers a publisher's perspective on the particular challenges scholarly publishers face in adding open access monographs to their publishing programs. These challenges include not only issues with general discoverability and inclusion in library catalogs, but also the flow of usage

"Some view the monograph as the central format through which the humanities contributes to a 'diverse ecology of inquiry and methods'"

¹ Crossick, Geoffrey. 2014. *Monographs and Open Access*. HEFCE. Retrieved from: https://dera.ioe.ac.uk/21921/1/2014_monographs.pdf

² Elliott, Michael A. (2015). “The Future of the Monograph in the Digital Era: A Report to the Andrew W. Mellon Foundation.” *Journal of Electronic Publishing*, 18, 4. <https://pid.emory.edu/ark:/25593/q4fd0>

³ Brian O'Leary and Kevin Hawkins, “Exploring Open Access Ebook Usage,” *Book Industry Study Group*, May 2019, <https://doi.org/10.17613/8rty-5628>

"This report addresses the question of how to integrate monographs into the digital scholarly network"

information back to the publisher, funder, and author. Book publishers have been slow to adopt DOIs, especially at the chapter-level, while continuing to rely mainly on the ISBN. This must change if books are to take their place within the information supply chain.

Next, Mike Taylor asks how we go about assessing the true value of monographs in a networked world. A lack of metadata, identifiers, and unifiable internet locations currently prevents us from gaining a clear picture of the monograph's place in the larger ecosystem but, as he shows, this problem is eminently solvable; that is, there is nothing inherent in monographs that prevents them from being more discoverable, and their impact being better recorded. At the same time, research evaluation needs to recognize that monographs take much longer to author, commission, and publish than research articles; they are larger scale pieces of work. It should come as no surprise, therefore, that their impact – both through citations, downloads and broader impact / altmetric activity – takes place over a longer timeframe.

Finally, Sara Grimme looks at what it will cost to transition monograph publishing to open access. The move to OA in journals publishing has been expensive, and it seems likely that an equivalent move to OA for books will similarly require significant investment. Where will the funding come from and how do we move the process forward?

The Open Access Monograph Landscape in 2019

Open access is still a relatively small part of the monograph landscape. As of mid-2019, the Directory of Open Access Books lists fewer than 20,000 OA books of all dates (<https://www.doabooks.org/>). This is compared to an estimated 86,000 (see the basis for this number below) monographs published internationally every year. As such, assessing the current state of open access monograph publishing is particularly challenging, if for no other reason than that the terrain is so messy – more so even than it is for journal publishing. One has to account for any number of commercial presses, university presses (both new and old), and small presses started by individual scholars⁴. That said, a very brief survey of OA book publishing over the past decade reveals some noteworthy trends.

In many ways the UK and Europe have led the way. Two of the first OA monograph publishers were launched in London in 2008: [Open Book Publishers](#) (OBP) and [Open Humanities Press](#) (OHP). Both have adopted a semi-market-based business model that relies on keeping costs down and generating income through a combination of sales (of print-on-demand editions), grants, and donations. Both are still going strong in 2019: OBP has published over 100 titles while OHP has published nearly 50

⁴ For more on this, see the 2019 report by the Universities UK Open Access Monographs Group, "Open Access and Monographs," March 2019. Retrieved from: <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2019/open-access-and-monographs.pdf>

books and 21 journals. And they now have plenty of company as a new generation of open access book publishing has emerged in the UK over the past decade.⁵

In 2012 [Knowledge Unlatched](#) (KU) was founded by Frances Pinter as a not-for-profit Community Interest Company that aims to make monograph publishing sustainable through a collective library purchasing model. Libraries throughout the world pledge financial support and, if enough support is pledged, books are then “unlatched” in Open Access editions. Now in its 6th year, and expanding after being sold in 2016 to German entrepreneur Sven Fund, KU GmbH has unlatched over 1,000 books and 16 journals. In May 2019 KU announced the beta-launch of the Open Research Library, the goal of which is to unite all Open Access (OA) book content.

Also worth noting is Open Access Publishing in European Networks ([OAPEN](#)), a not-for-profit organization based in the Netherlands that started in 2008 as a pilot project to explore sustainable publication models for HSS monographs in Europe. OAPEN is not a publisher but it operates two platforms that have been important for building an open infrastructure: OAPEN Library, a central repository for hosting and disseminating OA books, and the Directory of Open Access Books, a discovery service for OA books.

In North America open monograph publishing has taken longer to get off the ground. The few initiatives thus far have generally taken what Raym Crow has called a “supply-side approach” to funding.⁶ Some, like Punctum Books (2011) and Lever Press (2016), depend on funding obtained through close affiliation with individual libraries and consortia of libraries. The University of California Press's [Luminos](#) initiative (2015) has adopted a modified author-pays business model in which UC Press and its library partners absorb some of the costs while authors are expected to secure the rest through their institutions. Punctum has published over 200 OA books since 2011. Luminos has published around 70 monographs since 2015.

[TOME](#) (Toward an Open Monograph Ecosystem), which launched in 2016, has approached the problem through a collaborative approach that brings together multiple national organizations: the Association of American Universities, the Association of University Presses (AUPresses), and the Association of Research Libraries. TOME is a pilot project in which participating institutions agree to fund a set number of monographs by their faculty - three per year over a five-year period. Awards start at \$15,000 for a baseline 90,000 word monograph. Over 60 university presses have agreed to accept grants under the terms of the initiative. The first eight [TOME monographs](#) were published in 2018 and early 2019 by six different university presses, with another 30+ titles in the pipeline.

TOME both builds on and incentivizes open access publishing programs that have started at a number of North American university presses. These include entirely open access publishing programs at university presses such as Athabasca and Amherst as well as open access programs at presses such as Cornell, Michigan, MIT, Penn State, Virginia, and University of North Texas – to name but a few.

"In many ways the UK and Europe have led the way while in North America open monograph publishing has taken longer to get off the ground"

⁵ Adema, Janneke, and Stone, Grahame. 2017. *Changing Publishing Ecologies: A Landscape Study of New University Presses and Academic-Led Publishing*. JISC. Retrieved from: <http://repository.jisc.ac.uk/6666/1/Changing-publishing-ecologies-report.pdf>

⁶ Crow, Raym. (2012). "A Rational System for Funding Scholarly Monographs: A White Paper Prepared for the AAU-ARL Task Force on Scholarly Communications" Version 1.0, November 24, 2012; Version 1.1, updating citations, May 16, 2014. <https://www.arl.org/storage/documents/publications/aau-arl-white-paper-rational-system-for-funding-scholarly-monographs-2012.pdf>

Among the newest OA initiatives is the [Sustainable History Monograph Pilot](#) (SHMP), a Mellon-funded project that focuses on OA monographs in a single academic discipline; history. SHMP brings together Longleaf Services, a not-for-profit publishing services provider owned by the University of North Carolina Press, and 20 university presses that have agreed to participate in the initial stages of the pilot. A stated goal of SHMP is to show that monographs can be published successfully with subsidies as low as \$7,000.

A number of other publishers, including several university presses, have used grants from the Humanities Open Book program supported jointly by the National Endowment for the Humanities and the Andrew W. Mellon Foundation to make backlist titles available open access. Over 2,500 books have been made open access through the four year grant program that ended in 2019.⁷

Why Authors Choose Open Access

"There were two main reasons I wanted an open access version of my book. One is that my book moves across a range of fields, some of which do not overlap much. I hope to reach new and diverse audiences. My other interest is socially driven. Given the changing landscape of higher education, it is more important than ever to grapple with the inequities in access to research materials. To my mind, open access is the best way forward."

— Gina Bloom, University of California, Davis

"I wanted my book to reach the largest possible readership, especially among international audiences and economically underprivileged communities who may not have the financial or institutional resources to easily purchase books or access them through university libraries."

— Emily Wilcox, University of Michigan

"When I select books for my own classes I really consider the cost and I don't want the reading to pose too much of a burden on the students. The fact that my book is free really means that it's much more available for graduate instruction and undergraduate instruction as well."

— Danna Agmon, Virginia Tech

⁷ <https://www.neh.gov/news/national-endowment-humanities-and-mellon-foundation-announce-grants-digitize-essential>

How Many Monographs Are Published Each Year?

Answering an apparently simple question, such as “how many monographs are published every year?” is fraught with difficulties. Although the authors of this report are able to informally describe what they believe to be monographs (lengthy academic works in any language or field, that are aimed at a postgraduate readership, and that have consistent authorship throughout the work, is not a collection of essays, etc), definitions are rarely represented in the literature or expressed in the available data. Neither Amazon nor library suppliers provide data for this category, for example. As with so many other areas, definitions are subjective. A monograph in one field might be seen as a report in another. A retrospective review of the literature might be a collection of essays in one country, but a monograph in another.

To estimate the number of monographs published per year the authors used three techniques, each of which was based on some data, and then extrapolated using two values to create a range of values that are, to an extent, ‘hedged’.

The first estimate is based on the number of works classified as monographs published in 2013 on the *Dimensions* platform - 37,050. As Dimensions monographs are limited by Crossref and PubMed documents, two experts provided values representing the coverage of monographs within these sources, those values being 45% and 65%. This yields a range of 57,000 to 82,333.

The second estimate is based on a 2017 Mellon-funded/AUPresses report⁸, which estimated the number of monographs published by American University Presses (excluding Cambridge University Press (CUP) and Oxford University Press (OUP)) at 4,000. Adding in half of CUP and OUP’s combined output brought the total to 5,463. This figure - which represents US outputs only, needs to be boosted to allow for other countries and commercial publishers. If Dimensions monograph authorship data is representative of the global picture, this suggests that this value of 5,463 represents approximately 9% of the world’s monographs. However, if it under-represents international scholarship, then 4% is considered to be a more appropriate value. These values yield a range of 67,706 to 136,588.

The third estimate is based on the number of monographs published by the major commercial publishers. These are known to have very high rates of DOI coverage and good quality metadata. The big five published 26,102 monographs in 2013. Estimates of their coverage of the overall market range from 35% to 25%, which yields a range of 74,557 to 104,408.

The six values have an arithmetic mean of 85,935; a number the authors are content with, although it is slightly above the intersection range suggested by the three methods (74,577-82,333). While there has been some growth in monograph output in the years following 2013, we may assume in this very rough calculation that the number in 2019 is not hugely different.

"Estimating the number of monographs published per year using three approaches: (1) DOI coverage, (2) AUPresses estimates, and (3) market share of commercial publishers - suggest an approx value of 86,000 for 2013"

⁸ <https://www.mellon.org/resources/news/articles/monograph-output-american-university-presses-2009-2013/>

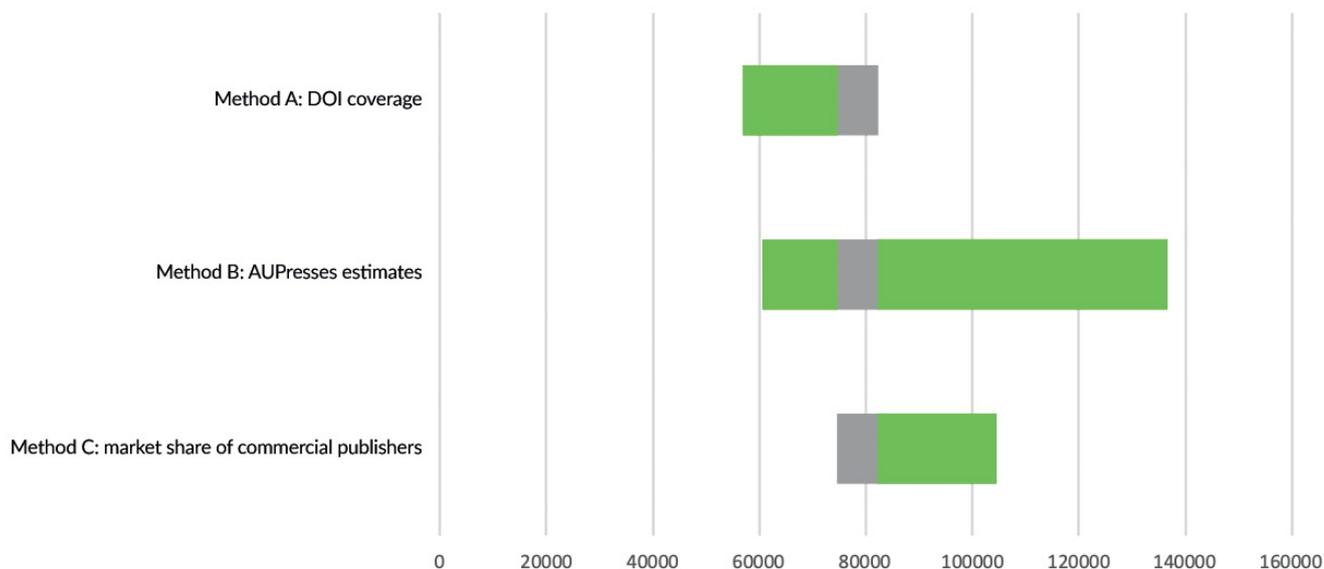


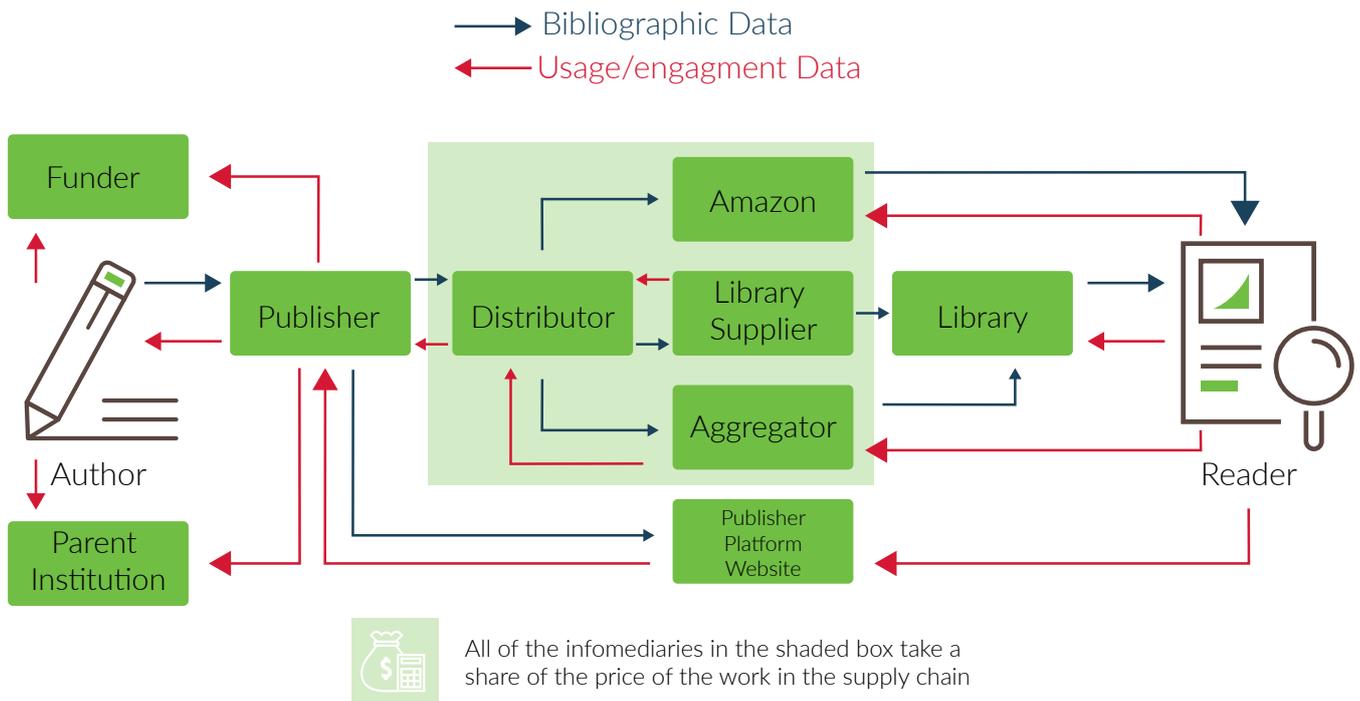
Figure 1: Estimating the number of monographs published per year: three approaches, based on (A) DOI coverage, (B) AUPresses estimates, (C) market share of commercial publishers - each with maximum and minimum correction factors applied - suggest an approximate value of 86,000 for 2013.

Challenges in the Information Supply Chain

Some structural issues of the information supply chain currently impede the full participation of monographs in a networked, digital, open access environment. In this context the term “information supply chain” refers to the network of organizations that transfer bibliographic data and associated content from the author to the reader (see Figure 2). While this journey is increasingly disintermediated by digital technologies, the long heritage of the book and the persistence of print formats means that most readers will only access the author’s work after it has passed through multiple hands. Each stage in the chain can add value, but it also can create impediments. This is especially conspicuous in open access publishing because the business models that have historically compensated partners in the supply chain for their work are challenged by “free stuff” and the partners are also not incentivized to funnel usage and engagement data, the currency for sustaining open access approaches, back through the system.

Central to the information supply chain for journal articles are Digital Object Identifiers (DOIs), but book publishing has been slow to adopt DOIs. Thanks to the scholarly linking governance structures that DOI-issuing agencies such as [Crossref](#) have put in place, a reader who clicks on a DOI can be almost guaranteed a direct link through to the digital version of record. Book publishers, however, continue to rely mainly on the International Standard Book Numbering (ISBN) system, [developed in the 1960s by British retailer W. H. Smith](#), which does not require links to the version of record to be maintained. A reader who tries to navigate from an ebook ISBN to a digital version of the record may well have a frustrating

Simplified Ebook Supply Chain for Monographs



experience. Depending on publisher practices, there may also be several different ISBNs for ebook versions (for example, one for each file format).

The continued dominance of the ISBN is linked to the nature of the retail supply chain, which is still extremely important for academic book publishers. The majority of revenue for most university presses, for example, comes from the sale of printed books through general retailers and wholesalers, such as Amazon or Ingram, and specialist vendors like EBSCO GOBI - organizations who have structured their systems around ISBNs.

The fact that ISBNs were designed as retail identifiers adds a particular problem for OA ebooks. If there is no monetary value connected to an OA ebook, what incentive does a retailer (whose business model is mostly based on taking a percentage of the sale as commission) have to distribute it and, therefore, what demand is there for an ISBN to separately identify an OA version? Large retailers, such as Amazon and Barnes & Noble, have been the main force behind the systematization of supply chain standards. Without their demands, publishers have tended to be very unsystematic in whether and how they allocate a separate ISBN for the OA version of a book, further confusing the flow of resolvable metadata.

Given the challenges of ISBNs outside the world of print retail, it is clear that publishers who do not allocate DOIs to their ebooks, and increasingly to their ebook chapters, are doing their authors a disservice. DOIs are the building blocks that form the foundation for a whole range of tools and relationships that allow authors to get recognition for their work, linking to other standards such as [ORCID](#) (for identifying individual people) and feeding into faculty profile systems, reviewer recognition tools, and indicators of public engagement. The DOI system also has room for further expansion relevant to open access publishing, such as [signaling the peer review process an academic book has gone through](#) to reinforce its quality.

Figure 2: A typical book supply chain showing metadata and usage data flows, and impediments to their smooth operation

"Given the challenges of ISBNs outside the world of print retail, it is clear that publishers who do not allocate DOIs to their ebooks, and increasingly to their ebook chapters, are doing their authors a disservice"

"If the issues surrounding DOIs and ISBNs seem abstruse, the tensions between ONIX and MARC standards when it comes to OA ebooks may appear impenetrable"

Frustrated by the lack of publisher proactivity in assigning DOIs, organizations that have tried to create supply chain channels for ebooks have taken to minting their own DOIs. This action may lead to a danger that the DOI system for books will become as chaotic and messy as the ISBN system has. [Project Muse](#) and [JSTOR](#) are two aggregations of ebooks that have needed to create DOIs to align their systems for delivering books and journals. This has posed challenges to publishers who had already created their own DOIs, and confusion to those just getting into the DOI business. In response, [Crossref has created a solution, "co-access"](#), that allows multiple Crossref members to register content and create DOIs for the same book content; both whole titles or individual chapters. Overlay organizations that use DOIs to measure attention and engagement, for example, currently struggle with co-access but hopefully these technical issues will be overcome soon. Furthermore, authors often choose to share their work on open repositories such as figshare and social networks such as ResearchGate which also generate their own DOIs. Assessing the impact of these works is further diluted as many parts of the supply chain spawn more DOIs to identify the same scholarly object; only a subset of these platforms provide for API access which helps map, collect and track usage.

The evolving relationship between ebooks and DOIs poses some additional challenges for publishers of OA ebooks, especially around the question "what happens when a publisher wants to create different digital versions of the same book?" That desire for differentiation usually manifests currently when a publisher wants to create an ebook version for sale in addition to an OA ebook version. This practice is discouraged by libraries, and the [Anti-Double Dipping Coalition](#) founded by Knowledge Unlatched GmbH has been created to discourage publishers from "hiding" the availability of an OA version. However, the continuing development of enhanced ebooks and interactive scholarly works that may appear in several versions, depending on the differing capacity of ebook readers to display them, shows that clear guidance regarding best practices in assigning DOIs to different versions of record of the same work is desirable so that diverse publisher practices don't further confuse the ecosystem.

If the issues surrounding DOIs and ISBNs seem abstruse, the tensions between [ONIX](#) and [MARC](#) standards when it comes to OA ebooks may appear impenetrable.

ONIX is the XML standard that most publishers use to deliver bibliographic information about books to information supply chain partners. Created by EDItEUR, ONIX is a well-documented and continuously developed framework that in 2014 published best practices for describing [Open Access Monographs in ONIX for Books](#). These include a clear indicator of whether a book is OA or not, details of the license terms under which it is available, and credit to the funder. It has taken much longer for the coordinators of the MARC standard (which originated [from the Library of Congress](#) as MACHine-Readable Cataloging in the 1960s) to clearly accommodate OA ebooks. It is only in 2019 that the MARC Advisory Committee [has adopted a recommendation made by OCLC and the German National Library](#) that will dramatically improve clarity for libraries around which resources they acquire are

OA and what flavor of OA that is. OCLC has already [implemented OA filter functionality in WorldCat](#), and the addition of the change in MARC will make it much easier for libraries to communicate with users as to whether OA versions are available or not.

The problem with both the ONIX and MARC standards is that they require a diverse range of partners in the information supply chain to change their practices to accommodate updates. In most cases, efficiency gains are a strong incentive to reengineer systems and processes to handle the new standard. However, for OA ebooks there is little direct incentive for the predominantly commercial intermediaries that manage the supply chain for books, especially to libraries, to advertise the availability of a free version of a publication that the library might otherwise buy. In short, the real costs of identifying, cataloging, and delivering OA ebooks still exist for vendors such as EBSCO, ProQuest, OCLC, JSTOR, or Project Muse, but it is not obvious who will pay. Until that question is resolved, the availability of OA versions of ebooks within the dominant systems that libraries and users rely on to identify and acquire academic books remains patchy, however good the MARC and ONIX standards are. ProQuest is the largest provider of such Library Service Platforms (LSPs) for academic libraries, followed by EBSCO, and OCLC. OCLC has shown leadership in this area, but the attitude of ProQuest and EBSCO to OA ebooks remains unclear or at least inconsistent between their services and their content collections.

For OA ebook publishers who believe in their products and want to increase the number of users, two strategies have emerged. One is to try and work within the system and support the intermediaries in developing business models that help them integrate OA ebooks into existing workflows. The other is to try and create a parallel information supply chain that sidesteps existing book-focused players, and is more aligned with the tools and philosophies of tech disruptors such as Google or Facebook. Working within the system has been a more popular approach in North America, while [OA infrastructure initiatives in Europe such as OPERAS](#) have focused more on building an alternative system for metadata distribution that does not involve commercial entities. Somewhere in the middle of these two approaches sit infrastructure initiatives such as the [Directory of Open Access Books \(DOAB\) that exposes metadata openly](#) to anyone who wishes to harvest it while still integrating its data within library discovery services such as ProQuest's Primo or Digital Science's Dimensions. The existence of these two different approaches are worthy of attention by libraries, since the attempt to disintermediate their core suppliers risks also disintermediating them. When users can find, acquire, and use OA ebooks through their favorite search engine, the potential for the library to enrich discovery and support high quality information is largely sidelined.

In the end, of course, the reader will choose the route to finding, acquiring, and using ebooks that has the least friction. The "[Mapping the Free Ebook Supply Chain](#)" study supported by the Andrew W. Mellon Foundation in 2017 suggested that Google is currently the dominant channel for OA ebook discovery, but that Twitter, Facebook, and LinkedIn groups also play important roles. Library catalogs were largely irrelevant, a situation observed by other studies.⁹ That is undoubtedly changing,

⁹ McCollough, Aaron. "Does It Make a Sound: Are Open Access Monographs Discoverable in Library Catalogs?" *portal: Libraries and the Academy*, vol. 17 no. 1, 2017, pp. 179-194. Project MUSE, [doi:10.1353/pla.2017.0010](https://doi.org/10.1353/pla.2017.0010)

"OA sheds a harsh light into how academic book publishing is faring in its transition to a networked digital world"

thanks to the energy of a few infomediaries attempting to systematize OA ebook discovery – particularly JSTOR, Project Muse, OAPEN, OCLC, BiblioLabs, and the new [Open Research Library](#) from KU, as well as smaller players like Unglue.it and Ingenta Open. For infomediaries with substantial cost overheads to cover, some financial opportunities seem to be emerging around OA ebooks, from charging publishers relatively small fees to include OA ebooks (as JSTOR does) to using the draw of OA content to “funnel” customers into purchase and lease options for other content. While that may sound Machiavellian, such funneling may just involve identifying new potential customers for other products based on use patterns of an OA ebook collection.

Historically, most book publishers have preferred not to spend too much time thinking about the minutiae of the supply chains that connect authors to readers. In libraries too, “technical services” has become a somewhat marginalized area of librarianship as attention shifts from content to services. What the growth of OA ebooks has revealed is how important understanding these mechanisms is, how convoluted the supply chain is, and how issues of discovery, acquisition, and usage tracking have been increasingly outsourced over the last few decades to commercial operations whose incentives are misaligned with the support of open access. As described in other areas of activity mentioned in this report, OA sheds a harsh light into how academic book publishing is faring in its transition to a networked digital world, and reveals dusty corners and dirty piles of laundry that we might rather have forgotten.

Valuing and Understanding Monographs - Their Role in the Scholarly Record

Viewed from 30,000ft, the scholarly landscape - as represented by its published output - could seem unremittingly homogeneous. Millions of research articles stretch out across an endless plain, and each year the output exceeds its predecessor by between 100-200k articles. Other types of output - books, chapters, proceedings etc, represent a small proportion of the total - generally less than 10% of the number of articles, and do not expand at the same remorseless rate.

It's not until you zoom in on research fields and disciplines that the observer can become aware of features that differentiate this landscape; the preference for proceedings in computer science, the importance of reviews in medicine, the drive towards preprints and data in astronomy and physics, not to mention the strong position of monographs in the social sciences, arts and humanities and their important role in non-English language scholarship. These discipline-level features are well-known and reported throughout the literature. They are the basis on which bibliometricians have created field-normalized metrics.

However, it is not until you study topic-level trends that the real importance of different types of output becomes apparent. Studied at the

level of, say, migration studies, or autonomous driving, or vegan nutrition, the student will become aware of the phases and stages of research. Review articles allow us to pause and reflect on an area of research. Articles incrementally expand knowledge. Chapters in collected works explore nascent questions, experimentally addressing tricky problems. Monographs allow scholars space in which to expand their ideas, establish their reputation in a topic, and deliberate at length and in depth.

	Articles	Chapters	Mono-graphs	Grants	Policy Documents	Article Altmetrics	Chapter Altmetrics	Monograph Altmetrics		
2010	Growth			Growth						
2011										
2012		Small peak	Small peak					Twitter		
2013						Big peak	Policy cites	Twitter	Blog, Twitter	
2014		Growth							Policy cites, Blog, Twitter	
2015							Policy cites			
2016					Big peak		Small peak	Policy cites		Policy cites, Blog, Twitter
2017			Big peak					Policy cites, News, Twitter	News, Blogs, Twitter	Wikipedia cites, News, Twitter
2018	Peak					Twitter	Twitter	Wikipedia cites, Twitter		

Just as outputs vary within topics, so does their impact. A proceedings paper in computer science will likely get all its citations within two years of publication. Monographs often take two years before they accrue their first citation. In contrast, the lifespan of these latter forms of work often stretches into decades. This has led some people to conclude that the monograph is ill-suited to the data-driven, real-time world of modern scholarship, and that this is all the more true in the absence of sales figures for open access works, and in fragmentation of usage data - arguably the best proxy for citations that we have.

Figure 3: Illustration of phases of output in the topic of “migration studies” from recent webinar. Data from Altmetric and Dimensions are combined to form a table showing the type and timing of the impact of monographs, versus chapters from edited values, versus research articles. The deepest colour indicate the most intense burst of activity.

The Fragmentation of Usage Data: A Growing Problem for OA Books

Usage data fragmentation is a larger issue for books than for journals because a large proportion of monographs are produced by publishers without their own dissemination platform. Except for large commercial publishers (e.g., Springer, Taylor & Francis) and select university presses (e.g., Oxford, Cambridge, Duke, MIT, Michigan, Manchester), most monograph publishers exclusively distribute their ebooks through aggregators (notably EBSCO, ProQuest, JSTOR, Project Muse). The quality of usage data these aggregators provide is variable and not easily comparable. COUNTER, the standard for measuring downloads, is less useful for books than journals because of the different ways publishers classify the parts of a book versus articles; several aggregators do not provide COUNTER-compliant stats to publishers. In addition to

"The growth in open access book publishing brings about its own problems based on differences in the information supply chain"

the problems of aggregating usage stats that ebook publishers face, publishers of OA ebooks also see their openly-licensed titles redeposited across other platforms - including dedicated open access platforms with which publishers may have a relationship (e.g., OAPEN, Ingenta Open, HathiTrust), but also collaters of OA ebooks with which they may not (e.g., Internet Archive, Unglue.it, Open Research Library, or institutional repositories). After conducting a community consultation supported by the Andrew W. Mellon Foundation, the Book Industry Study Group published a white paper in May 2019 outlining the issues with OA ebook usage stats and proposing a 'data trust' mechanism for resolving these.¹⁰ This approach complements the work of other initiatives such as the [Distributed Usage Logging Project](#), while recognizing the need for a federated system that reflects the interests of both small and large publishers. This need has been emphasized by the EU-based [HIRMEOS project](#) which stressed the importance of aligning open approaches to usage-gathering with the open nature of the content.

It doesn't help that monographs refuse to fit neatly into the dominant world of the article. The peer-review process is not precisely the same, and those databases that can't adapt to the differences often under-represent the importance of the monograph, first by coverage, and then through citations (as only documents contained in A&I databases can accrue citation in any readily reportable manner). Citations in books are harder to find and extract, they may be presented at volume, chapter or page level, and are much less frequently shared by publishers. Elsewhere, the lack of a ready supply of title-level metadata restricts the number of volumes discoverable and, therefore, their ability to have their citations counted and reported.

This differentiation makes itself known throughout the scholarly communication infrastructure. For many years, it has been understood that to search for a research article, you use one tool. For a comprehensive search of monographs, you use another. Modern platforms are beginning to break down these silos, but the growth in open access book publishing brings about its own problems based on differences in the information supply chain described elsewhere in this report.

Issues of comprehensive and rich metadata cause problems elsewhere in the research ecosystem. As well as the reduced capacity for citation reporting, systems designed to report the broader impacts of research - whether socio-economic via policy documents, economic via patents, or through social discourse in the mass media - need to take into account the varying degrees of coverage and metadata supplied by publishers.

It is a truth that for both bibliometrics and altmetrics, absence of evidence cannot be taken as evidence of absence. Rather, when we have evidence, we should use it for the basis of understanding how to value and understand monographs. As the [HumetricsHSS](#) initiative is exploring, the issue of what is 'valued' around the writing and publishing of monographs has deeper connections to some underlying differences between HSS and STEM scholarship, but there are some data-based differences between the behavior of journal articles and monographs that are also notable.

¹⁰ O'Leary, Brian and Hawkins, Kevin. 2019. *Exploring Open Access Book Usage*. Book Industry Study Group. <http://dx.doi.org/10.17613/8rty-5628>

Monographs Build Broader Impact Over Time

Bibliometricians have long been aware of the differences between field citation rate, and differences between monographs and research articles. Less well understood are the differences in broader impact between the different types of research output. Comparing Altmetric data for two sets of monographs and research articles (N = 2414 for both sets), categorized in the field of history by Dimensions, and published in 2013 reveals some striking differences.

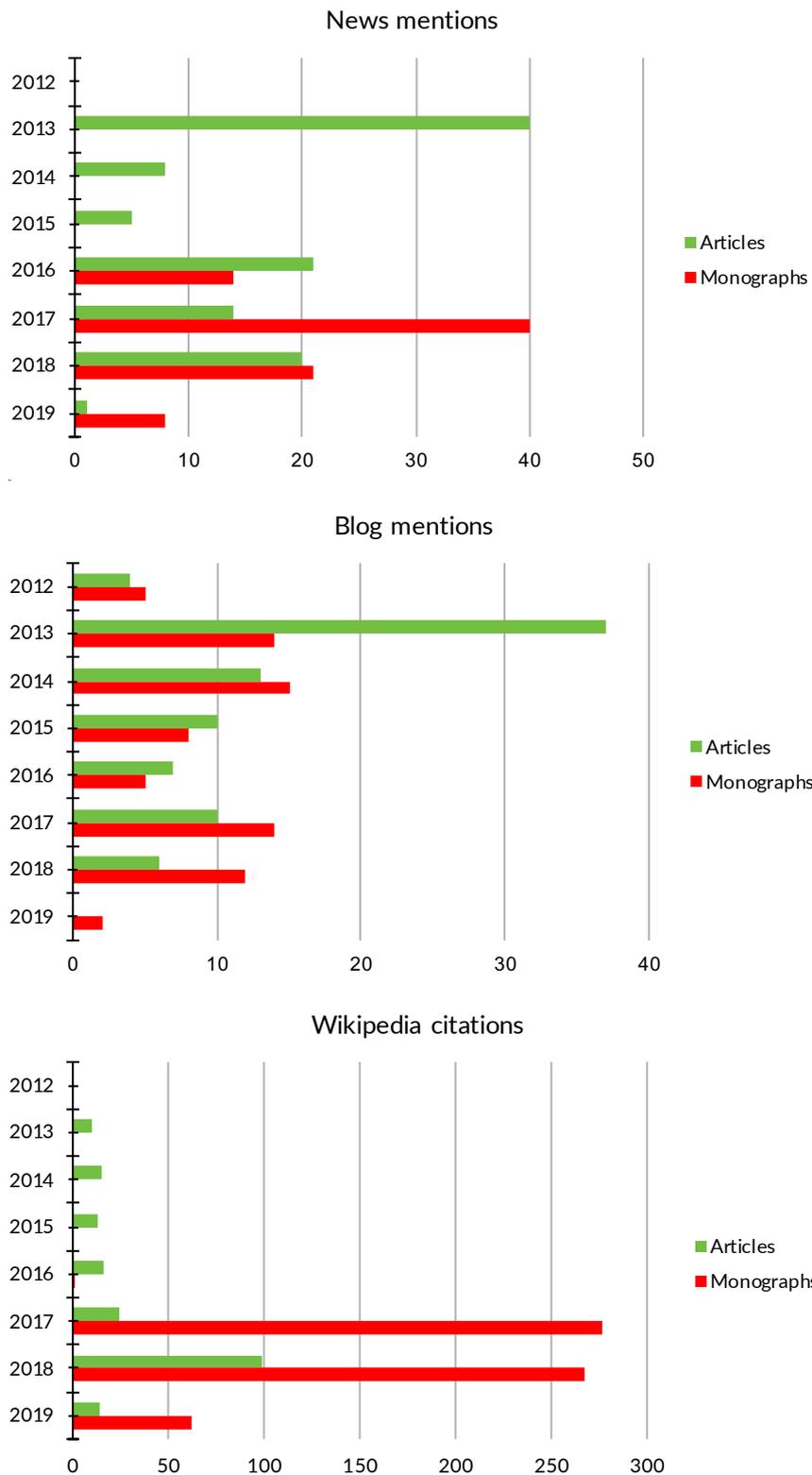


Figure 4: History monographs and research articles show different behavioral patterns for news and blog mentions, and Wikipedia citations (data: Altmetric).

"Monographs overtake articles for annual activity for news and blog mentions four years after publication"

In each of the attention sources highlighted here, we can see that monographs take much longer to accumulate activity. Monographs overtake articles for annual activity for news and blog mentions four years after publication.

The most striking difference is in Wikipedia, where monographs dominate article citation rates. This last attention source is particularly influential: Wikipedia is widely used as an educational resource, and as a "jumping-off" point for research, as well as powering the abstracts presented by Google and Bing.

That these differences are apparent is all the more remarkable, considering the notable obstacles that monographs face when being evaluated using traditional criteria. As described elsewhere in this report, almost all research articles published in journals have a DOI, freely-available metadata, are found in the most widely-used academic search engines, direct users to a unified web location, and are highly active within the usual three-to-five-year window used by research evaluation communities. In contrast, most monographs do not have DOIs or freely available metadata, are located in multiple places on both public and private networks, and reach peak impact well after the five-year window. Additionally, an article is much smaller and easier to consume and reference than a monograph: even when a monograph has a DOI and open metadata, only rarely is it discoverable at a chapter level.

"The issue is eminently solvable: there is nothing inherent in monographs that prevents them from being more discoverable, and their impact being better recorded"

The conclusions from this section suggest two important findings:

1. The lack of metadata, identifiers and unifiable internet locations are an impediment to understanding the true value of monographs in the scholarly record: where data does exist, that value can be demonstrated. This issue is eminently solvable: there is nothing inherent in monographs that prevents them from being more discoverable, and their impact being better recorded.
2. Research evaluation needs to recognize that some forms of research output have impact over different timescales, and at different rates. Monographs take considerably longer to author, commission and publish than research articles; they are larger scale pieces of work. It is not unsurprising, therefore, that their impact - both through citations, downloads and broader impact / altmetric activity should take place over a longer timeframe, and potentially at a more sustained rate.

Understanding Costs and Finding Funding

Following on from the success of the open access article, one might anticipate that the open access monograph is ready for its own close up. However, understanding the landscape in which the monograph exists - the nuances in domain, funding, and downward pressure on cost,

amongst other issues - is absolutely critical in exploring whether or not such a moment in the sun will ever be possible for the open access monograph.

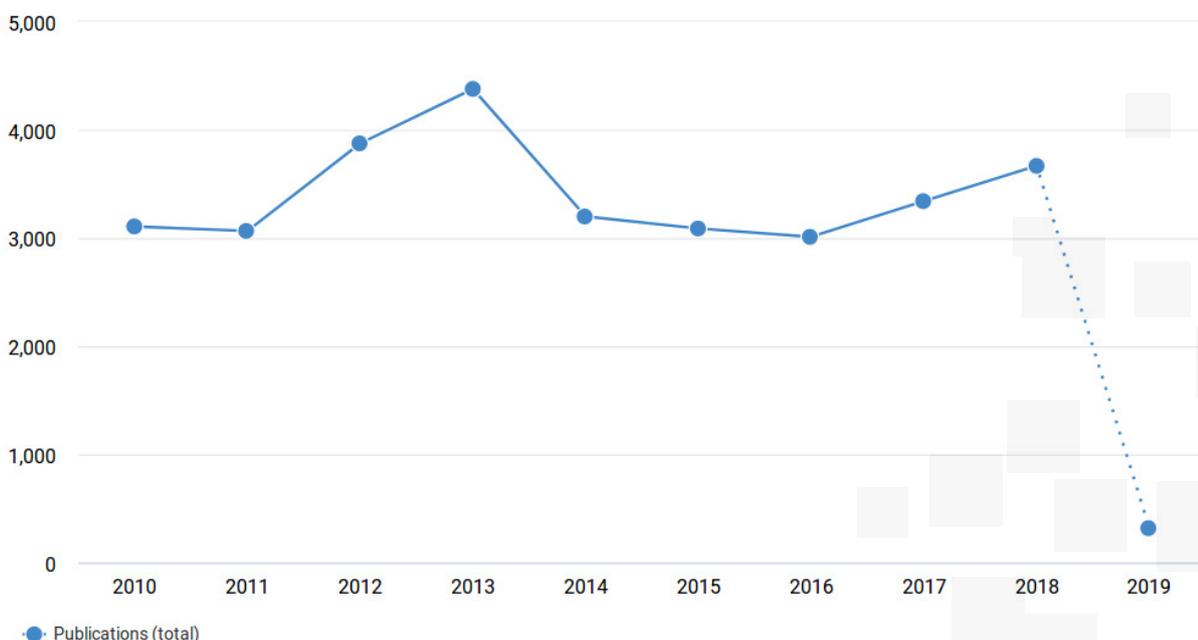
As mentioned earlier in this report, output across academia has grown steadily across the years - each year we see an increased output of somewhere between 100,00-200,000 articles. However, books in all formats - multi-edited works, monographs, reference works - make up just a small fraction of this, and see considerably smaller increases in growth year on year. In financial terms, the total science, technology and medicine (STM) market is estimated to be worth ~\$26 billion in annual revenues, with approximately \$10 billion assigned to journals against \$3.3 billion for books.¹¹ While cash-poor university presses continue to struggle economically, faculty in HSS fields continue to write books and seek publishers for them. In fact, some argue that there is actually an “undersupply” of monographs. According to some estimates, as much as 15% of assistant-rank faculty members in the humanities and social sciences seeking to publish a first book cannot get published by North American university presses in an average year. Libraries have noted that the increasing output of HSS research seeking a publisher, the efforts of especially commercial publishers to maintain revenues by producing more titles, and the proliferation of new niche publishers (including academic-led and new university press entrants) have actually resulted in an increase in the number of available monographs. Within this landscape, there is an increasing desire by funders and institutes to make open research, and open access, the standard across the industry. Given the constraints on both book revenues, and research funding, what effect does cost have on the monograph author’s ability to take part in an open research framework?

While article publishing costs (APCs) vary widely, there is a lot of literature and discussion about the level at which they have been set. There is much less standardization around book publishing costs (BPCs) and the relationship between “price” and “cost” is even less examined.

“What effect does cost have on the monograph author’s ability to take part in an open research framework?”

Figure 5: Trend of open access monographs since 2010 (Source: Dimensions).

Note: only includes those monographs with a DOI.



¹¹ https://www.stm-assoc.org/2018_10_04_STM_Report_2018.pdf

"Efforts to reduce the costs of producing monographs have taken on extra urgency in an open access world"

Monograph sales revenues have dropped, but the cost of producing them has not. While all publishers have realized savings in baseline production costs thanks to advances in digital publishing technologies, many of the labor-intensive costs of doing business that are essential to scholarly publishing — acquisitions, manuscript editing, design, and marketing — still exist and continue to rise. Estimates as to the real cost of producing monographs vary considerably, but the most extensive study to date, by Ithaka S+R, puts the overall average cost per monograph in twenty university presses at between \$28,000 and \$40,000¹². To put this into perspective, let's consider a monograph in comparative literature with a 300-copy print run. If the publisher were able to sell 250 of those 300 copies at a price of \$85, the resulting revenue (assuming, say, a 20% discount) would be \$17,000, which is far below the \$28,000 figure in the Ithaka S+R report.

Ebooks also factor into the current state of the monograph. While university presses have now largely incorporated ebooks into their workflows, the resulting revenues have been underwhelming. Print remains the major format sold, accounting in most university presses for over 80% of sales. While many libraries now employ an "e-preferred policy" when acquiring books for their collections, the resulting income to presses has not matched the income lost from print sales which have declined continuously over the last few decades. Most libraries now purchase (or license access to) ebooks from vendors such as EBSCO, ProQuest, OverDrive, JSTOR, or Project Muse, which in turn offer them in bulk packages or on rental terms that dramatically discount the per-title price. For instance, a monograph priced at \$45 may generate less than \$10 for the publisher when sold as part of a package from one of the major vendors.

Publishers of all types are working to reduce the costs of producing monographs by outsourcing functions such as copyediting and typesetting, using more flexible labor pools such as student help, or increasing volunteer labor - not least the amount of production-type work done or paid for by the author. Large commercial publishers have economies of scale within their organizations and university presses are increasingly collaborating to leverage shared services. Longleaf is taking a particular lead in this area. As mentioned above, UNC Press and Longleaf are behind the Sustainable History Monograph Pilot (SHMP), an initiative that aims to "decouple" the different activities that contribute to the costs of producing monographs, arguing that the time and effort taken positioning a book for sales can be saved in an open access environment. SHMP envisions lowering the initial costs of producing an online monograph, perhaps in half, and then investing further money if the reception of the work is positive.¹³ This hybrid strategy aims to balance the expectations of authors for the high quality university press experience with the realities of the market.

Efforts to reduce the costs of producing monographs have taken on extra urgency in an OA world where there is an expectation that a Book Publishing Charge (BPC) will cover the total cost of publishing and BPCs are being set at challengingly low rates by funders. In 2013 the Wellcome Trust estimated that "the fee for existing open access options (ensuring all published material is converted to XML, and then made

¹² Maron, Nancy, Schmelzinger, Kimberly, Mulhern, Christine, & Rossman, Daniel (2016). *The Costs of Publishing Monographs: Toward a Transparent Methodology*. *Journal of Electronic Publishing*, 19(1). Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=edsmzh&AN=2017025024&site=eds-live&scope=site>

¹³ <https://www.insidehighered.com/news/2019/05/03/north-carolina-press-seeks-sustainable-open-access-model-monographs> On the question of decoupling, see Hill, Steven A. (2018). "Decoupling the Academic Book." *Learned Publishing* 31: 323-327. <https://onlinelibrary.wiley.com/doi/10.1002/leap.1201>

available in html and PDF) for books currently averages around £9,500, and we anticipate the average cost to make a book chapter open access will be £1,800.¹⁴ In 2017 a cost estimate was established to support an open access mandate in the UK's third Research Excellence Framework (REF), with an established baseline of £7,500¹⁵. Even this preliminary estimate assumes variance in book type, editorial model and subject area, and in the absence of further follow up studies, we are left to guess at the basis on which this number was established. In this environment, publisher BPCs vary widely; from £5,000 with Open Book Publishers, up to £11,000 at several other publishers. The appropriate level for BPCs is likely to be an area of much debate and contention over the next few years. Funders clearly want to pay as little as possible, while publishers want to ensure there is money to reinvest in their programs beyond direct cost reimbursement. Variables such as the persistence of a market for print sales of OA ebooks and the changing expectations of authors about the level of service they want from their publishers add complexity.

In the midst of this lack of clarity around the appropriate economic model, we are seeing increasing pressure from funders for authors to publish open access, across all content types. Once excluded from the open access debate, the monograph now finds itself firmly embedded in the story. In the UK, REF2027 will set the expectation that all monographs are published open access. Plan S has not yet come out with a definitive strategy for monographs, but early indications are that they will be brought into the plan in some way. Whilst the US appears to be content with the status quo, there are enough external forces on researchers in Europe to suggest that something will have to change.

While funding for HSS has been increasing slightly, it remains extremely low compared to STEM fields¹⁶. This suggests that any attempt to mandate OA across all output types risks alienating HSS researchers, thereby placing further strain on the monograph as a legitimate publication type. However, to ensure that monographs participate fully in an increasingly OA environment, HSS researchers must now concern themselves with finding sources of funding. Funders such as Bill and Melinda Gates and the Wellcome Trust will pay open access fees for books but their focus only touches occasionally on HSS fields. For those researchers not quite so fortunate to be funded by large organizations with open access embedded within their DNA, a range of flexible models such as institutional memberships, crowdfunding, or freemium models must be embraced.¹⁷

In this new and challenging environment, it seems inevitable that the university's role in securing funding to publish monographs OA will only grow. However, does this come at the risk of the researcher's independence in choosing where to publish? Will administrators push researchers to those options they perceive to be more affordable and more in line with open access journal fees? Or can librarians intervene to create a more nuanced conversation about balancing values and impact? TOME is an excellent example of how universities and publishers can come together to develop flexible and innovative solutions for researchers. There is no doubt room for more similarly creative solutions, especially outside the US.

"In the UK, REF2027 will set the expectation that all monographs are published open access"

¹⁴ <https://blogs.lse.ac.uk/impactofsocialsciences/2013/07/01/monographs-and-book-chapters/>

¹⁵ <https://insights.uksg.org/articles/10.1629/uksg.392/>

¹⁶ <https://www.humanitiesindicators.org/cmsData/pdf/IV-10b.pdf>

¹⁷ A helpful and regular updated review of the options and literature is maintained here: http://oad.simmons.edu/oadwiki/OA_book_business_models

The final challenge to mention in this piece is that of the licensing model. It is now a given in journal publishing that “pure” open access means CC-BY, i.e., that reuse of the article or data set is limited only to attribution, and all reuse, including that by commercial organizations, is allowed. So far, the same is not true for monographs. Does this need to change, and, if so, why?

The issue comes down largely to disciplinary differences. In STEM fields, where reuse is perceived to be the bedrock of academic advancement, the CC-BY license, disliked intensely in its early days, has now become the status quo - likely in part due to publishers such as PLOS leading the way. In HSS fields, such a move to CC-BY has not yet been embraced, largely due to concerns around intellectual property and re-use which have led to a preference for CC-BY-NC-ND. Whilst it may be fair for funders to require CC-BY of STEM researchers, is it fair to require the same of researchers in HSS fields? Or could such a mandate cause HSS researchers to reject open access altogether?

Conclusion

From the vantage point of 2019, the increase in OA book publishing over the past decade has been impressive. If not for sheer numbers of books published, then surely for what it suggests about the growing willingness on the part of publishers, librarians, funders, and university administrators to grapple with, at least in principle, the financial and practical implications of OA for the future of the monograph. And surely it also suggests a growing acceptance of OA among HSS authors who, of course, are the heart of the scholarly publishing enterprise and must be front and center of any successful path forward. Of course, it will take more time and more experimentation until we know for sure that we've found that path, but in 2019 at least, there are reasons to be encouraged.

So what needs to happen over the coming year to move us closer toward the goal of full integration of monographs into the digital scholarly information infrastructure? Three areas require particular attention:

1. The Publication Process: Publishers can greatly advance the move to digital formats by routinely doing the following with each and every monograph they publish:

- Build the use of XML into the publication workflow
- Assign a single DOI to each piece of content (in coordination with vendors) and, if appropriate, also at the chapter level
- Surround the scholarly work with metadata for discovery and then work on collating as many usage statistics as possible

Doing these few things when publishing every OA monograph will ensure that when these monographs are released into the world they can obtain much needed data and be pushed to newer discovery platforms. These data can then be used to better show the value of the monograph and ensure that its contribution to the scholarly community and society at large is better understood by all parts of the scholarly ecosystem.

"We hope we can move from identifying and understanding the problems to solving them"

2. The Supply Chain: All players in the supply chain should find ways to work together to address common challenges.

Engage all players embedded in the supply chain in resolving the impediments to bringing OA monographs to life, identifying what challenges might be addressed in the short term and what might take more time. Sometimes small changes in any workflow can have a big impact. Standards organizations have an important linking role to play as well, and need to engage with the particular challenges of the OA monograph.

3. Funding: Greater coordination among all of the stakeholders in order to create a more rational system.

While there are a growing number of initiatives out there to support publication of OA monographs, navigating this landscape can be extremely confusing for authors, and sometimes even for publishers. There needs to be greater coordination among all of the stakeholders - librarians, publishers, university administrators, and funders - in order to create a more rational system. The time is ripe for experimentation, and at the same time a push for the move to digital, which many of these new initiatives embrace. However, authors also need to be free to concentrate on creating their works, rather than getting bogged down in a labyrinth of funding mandates and business models.

"20/20 Vision" is often used idiomatically to imply clarity and acuity. But as we head toward the year 2020, it is far from easy to predict what the monograph publishing landscape will look like a year from now. We hope this report will raise awareness in other parts of scholarly publishing (especially journal publishing) of the importance of the monograph to the scholarly publishing system as a whole so that we can move from identifying and understanding the problems to solving them.

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