

The growth of Library Publishing in North America and the Role of the Open Journal System

by

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Abstract

Scholarly or academic publishing is one of the most lucrative sectors in the publishing industry; ever since the 1960s, commercial publishers have profited from disseminating academic research and scholarship. This has resulted from the commercialization of journals in the 1940s that shifted scholarship from a public good to a commodity. As of 2018, scholarly publishing is estimated to be a \$25 billion-dollar industry. While there are other types of publishers, including non-profit, society and library publishers in the scholarly space, they generate a small portion of scholarly output and revenue compared to commercial publishers. This report examines the trends that influenced library publishing, a relatively new type of publisher that emerged in the early 2000s within North America, and the concurrent growth of Open Journal Systems among North American academic libraries. Libraries were and continue to be supporters of Open Journal Systems, both financially and through their use of the software. New technologies such as Open Journal Systems allow library publishers to address some of the issues that resulted from the commercialization of scholarly research. As of 2018, at least 92 educational institutions from Canada and the United States use Open Journal Systems. This report also provides an analysis of library publishing as a field within scholarly publishing. Library publishers are willing to experiment with content and media, and their expertise in metadata and the relationships they maintain with academics are their strengths as publishers. As library publishing is an extension of their role as libraries, they may not have the resources (labour and financial) or support to execute this work entirely. Library publishers could utilize the relationships they have within their broader community to develop publishing partnerships. As library publishing is relatively new, they face a challenge in becoming seen as a legitimate publishing avenue. While it is unlikely that all libraries will take on this new role, having library publishers is overall beneficial, as it provides an alternative route to publish work and a means to publish content ignored by traditional publishers.

Keywords: Library publishing; scholarly publishing; journals

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List of Acronyms

APC	Article Processing Charge
ACRL	Association of College & Research Libraries
ARL	Association of Research Libraries
CALJ	Canadian Association of Learned Journals
DOAJ	Directory of Open Access Journal
LPC	Library Publishing Coalition
MOOC	Massive Open Online Courses
NMS	Natural and Medical Science
OA	Open Access
OCS	Open Conference System
OER	Open Education Resources
OHS	Open Harvester Systems
OJS	Open Journal System
OMP	Open Monograph Press
OPS	Open Preprint Systems
OSS	Open Source Software
PKP	Public Knowledge Project (PKP)
PKP PS	PKP Publishing Services
STM	Science, Technology and Mathematics
SFU	Simon Fraser University
SSH	Social Sciences and Humanities
U of A	University of Alberta
UBC	University of British Columbia
U of T	University of Toronto
UI/IX	User Interface/ User Experience

Introduction

Libraries have always been a part of the scholarly publication cycle; they are a resource for researchers, ensuring access to other research by developing collections, including monographs, serial publications, and digitization of content. Although their primary role is to develop and provide access to collections, they have been involved in publishing niche work, such as catalogs, long before their work as library publishers. The earliest record of libraries doing this work dates to the 1600s, with libraries publishing printed catalogs of their holdings.¹ However, since the early 2000s, the library's role in scholarly publishing has increased significantly.

Libraries have adopted the role of publishers as a response to the perceived gaps and frustrations from the existing publishing environment.² For example, they support the publication of informal scholarly communication in a system where traditional publishers focus on established forms of scholarship. Libraries have also been interested in publishing work for faculty, students and the broader community.³ This new role that libraries have adopted is distinct from that of the university press, which are often established (and separate) entities, which at time might operate under the umbrella of the library.

Regardless of the type of scholarship or who produces it, library publishing is defined by the set of activities performed or offered by college and university libraries, “to support the creation, dissemination, and curation of scholarly, creative and educational works.”⁴ These activities support a wide range of publication types (including conference papers and proceedings, databases, datasets, educational resources, capstones, electronic theses and dissertations, journals, monographs, reports and newsletters) for

¹ Sarah Kalikman Lippincott, *Library as Publisher: New Models of Scholarly Communication for a New Era* (Michigan Publishing, University of Michigan Library, 2017), <https://doi.org/10.3998/mpub.9944345>.

² Sarah Kalikman Lippincott, “The Library Publishing Coalition: Organizing Libraries to Enhance Scholarly Publishing,” *Insights the UKSG Journal* 29, no. 2 (July 5, 2016): 186–91, <https://doi.org/10.1629/uksg.296>.

³ Ji-Hong Park and Jiyoung Shim, “Exploring How Library Publishing Services Facilitate Scholarly Communication,” *Journal of Scholarly Publishing* 43, no. 1 (October 6, 2011): 76–89, <https://doi.org/10.1353/scp.2011.0038>.

⁴ Katherine Skinner et al., “Library-as-Publisher: Capacity Building for the Library Publishing Subfield,” *The Journal of Electronic Publishing* 17, no. 2 (May 19, 2014), <https://doi.org/10.3998/3336451.0017.207>; Daniel G. Tracy, “Libraries as Content Producers: How Library Publishing Services Address the Reading Experience,” *College & Research Libraries* 78, no. 2 (February 2017): 219–40, <https://doi.org/10.5860/crl.78.2.219>.

which libraries often provide a combination of services (including analytics, author advisory, cataloging, editorial support, digitization, metadata, indexing, ISBN and ISSN registry, marketing, print-on-demand, and training).⁵ Although library publishers serve a similar role to traditional publishers, there are also a few key differences in how they do so. To start, library publishers are almost exclusively mission-driven; they function for the common good to meet the academic community's needs, unlike commercial publishers whose goal is to generate a profit from their publishing activities.⁶ It is important to note that libraries are not the only mission-driven publisher that operate in the academic publishing sector; there are other non-profit academic publishers such as university presses, society or association owned publications that may operate with their own mission. As a result, libraries (and other mission-driven publishers) face a very different budget reality than commercial players. A vast number of U.S.-based library publishers operate using funds from appropriation, tuition and grants and, as a result, they do not have a steady stream of funding, which directly impacts the resources libraries need to operate their publishing program and what service they can offer.⁷ These budget limitations and fluctuations, however, have not prevented library publishing from flourishing.

In 2007, 14 of the 123 members of the Association of Research Libraries (ARL) were offering publishing services, with journal production accounting for the bulk of their publishing programs.^{8,9} A more recent (2017) survey indicates that most of the current 124 ARL members engage in publishing or publishing-support activities.^{10,11} While the 2017 report does not provide an exact number, the use of “most” suggests a significant growth in publishing activities from the 14 (11%) members in 2007. Journal hosting was

⁵ “Library Publishing Directory | Library Publishing Coalition,” accessed June 22, 2020, <https://librarypublishing.org/lp-directory/>; Lippincott, *Library as Publisher*.

⁶ Kate McCready and Emma Molls, “Developing a Business Plan for a Library Publishing Program,” *Publications* 6, no. 4 (October 23, 2018): 42, <https://doi.org/10.3390/publications6040042>.

⁷ McCready and Molls.

⁸ Martha Kyriallidou and Les Bland, “ARL Statistics 2007-2008,” December 7, 2009, <https://publications.arl.org/ARL-Statistics-2007-2008/>.

⁹ Karla L Hahn, “Research Library Publishing Services,” n.d., 41.

¹⁰ “ARL Statistics 2016–2017 Publications Describe Resources, Services of Member Libraries,” *Association of Research Libraries* (blog), accessed November 12, 2020, <https://www.arl.org/news/arl-statistics-2016-2017-publications-describe-resources-services-of-member-libraries/>.

¹¹ Laurie Taylor et al., *SPEC Kit 357: Libraries, Presses, and Publishing (November 2017)*, SPEC Kit (Association of Research Libraries, 2017), 9, <https://doi.org/10.29242/spec.357>.

and remains the most common publishing-related service that library publishers offer, which is true among ARL and the Association of College & Research Libraries (ACRL); members' journals are the most common type of publication.^{12,13}

The term library publisher is not universally recognized or applied but, for this report, libraries that provide publishing services and publish work themselves are generalized as "library publishers," even though not all libraries that provide these services would consider themselves as such. That is, this report considers that all libraries that are involved in library publishing activities, as described above, are in essence, publishers. Self-identification as a library publisher may depend on the extent to which the library program has the support of the broader institution and whether these labels fit the institutional mandates. However, as this report explains, the combination of publication types and services depends on the library staff's resources and skills and the needs of the faculty and students. Libraries at all levels, including community, private and public university, and small private liberal arts colleges, engage in library publishing.¹⁴ This report focuses on the library publishing activities of North American public universities.

Although, as noted above, a large number of library publishers provide journal publishing as one of their activities, library publishers are quite diverse in terms of the types of libraries, the services they offer, their size and scale, and how they identify as publishers. All library publishers, regardless of size, have a general focus on publishing scholarship from within their institution.¹⁵ Depending on budget and staffing, libraries may choose to focus their efforts solely on publishing scholarship created by their institutional stakeholders or potentially extend their services outwards to include the wider community or members of other institutions.

Whether the focus is internal or to reach a broader community, there are generally two approaches a library publishing program takes when starting: they can either be Service

¹² Hahn, "Research Library Publishing Services."

¹³ Christine Fruin, "LibGuides: Scholarly Communication Toolkit: Library Publishing Programs," accessed June 27, 2020, //acrl.libguides.com/scholcomm/toolkit/librarypublishing.

¹⁴ Lippincott, "The Library Publishing Coalition."

¹⁵ Lippincott.

Driven or Editorially Driven.^{16,17} While service-driven publishing operations see the libraries' role as being a publishing service provider, editorially driven operations focus on acquiring and curating journal publications. For example, the publishing service at University of New Brunswick, for example, takes a service-driven approach with a program that publishes 24 (active and archived) journals produced by faculty and students every year, whereas the eScholarship program at the University of California leans more towards an editorially driven approach as they “focus on emerging fields and areas of study that have significance for researchers and practitioners alike.”^{18,19} Both models are described in more detail in the following sections.

Service Driven

Most libraries that start their publishing program provide a service, rather than acquiring, managing, and owning their scholarly work portfolio. This approach focuses on providing services to their campus stakeholders (often faculty and students); these services include the maintenance of publishing platforms and related services to maximize their use. Some library publishers might provide additional services, including editorial training, metadata expertise, indexing, copyright, licensing and supplemental hosting. This model focuses on publishing content that typically comes to the library ready for publication and that is produced by and is intended for faculty and students. Examples could include faculty-led academic journals, course or student journals, faculty-produced open education resources, and faculty-written Open Access (OA) monographs. Depending on the publishing program's size and the broader institution's mission, library publishers' services may extend to the external community.

Editorially Driven

Editorially focused library publishers work towards building a “list” or portfolio of titles in a given subject area, similar to how a book publisher might curate their catalog. Through

¹⁶ Educopia Institute, “Library Publishing Curriculum - Unit 5: Content and Access,” accessed December 16, 2020, https://drive.google.com/drive/folders/1_K-6Vx-eJOVXnrzWZXg7Hn3UaYo-p5eu.

¹⁷ As defined by in the Library Publishing Curriculum is an educational tool developed by Educopia Institute and the Library Publishing Coalition (LPC) in partnership with the Public Knowledge Project (PKP), NASIG, and BlueSky to BluePrint.

¹⁸ “Publishing Services,” UNB Libraries, accessed November 25, 2020, <https://lib.unb.ca/cds/publishing-services>.

¹⁹ “eScholarship,” accessed November 25, 2020, <https://escholarship.org>.

an analysis of scholarly trends and disciplines, they seek to identify publishing opportunities in specific areas. An editorially-driven library publisher generally aligns their area of interest to the larger institution's expertise. Having an editorial focus helps to build national or international prestige and reputation. This type of publishing program acquires, commissions and recruits projects that fit their discipline, which requires dedicated staff and more support than a service-driven approach. Based on a review of the LPC members' publishing program, this seems to be a less common approach to library publishing.

Regardless of the approach, the library's ability to engage in publishing activities is, in part, attributed to several tools that became available in the early 2000s.²⁰ As mentioned, publishing is the library's way of addressing some of their frustrations with the existing scholarly system, including the high cost of subscriptions enforced by commercial publishers. The release of online publishing platforms, such as Open Journal System (OJS) by the Public Knowledge Project (PKP) and commercial services like BePress, allow libraries to provide publishing services as an alternative to commercial publishers.²¹ It is not a coincidence that these tools and services were largely developed by university actors and, in many instances, were released as Open Source Software (OSS). For libraries, the university-orientation and the open software license permitting its re-use aligns with their mission and are a natural counter to the commercial offerings they perceive as problematic. No other project continues to embody this spirit better than the Public Knowledge Project—a university led-initiative responsible for multiple OSS platforms supporting academic publishing.

Overview of the Public Knowledge Project

John Willinsky—then a professor at the Faculty of Education at the University of British Columbia—founded PKP in 1997 with the intent of “improving the scholarly and public quality of research.”²² It is now affiliated with Stanford University and Simon Fraser

²⁰ Maria Bonn and Mike Furlough, “The Roots and Branches of Library Publishing Programs,” in *Getting the Word Out Academic Libraries as Scholarly Publishers* (Association of College and Research Libraries, a division of the American Library Association, 2015), 1–11.

²¹ BePress was originally a university-lead initiative, although the software was not open sourced.

²² “History | Public Knowledge Project,” accessed June 22, 2020, <https://pkp.sfu.ca/about/history/>.

University (SFU), where Willinsky holds faculty appointments. Since 2005, SFU has been the administrative and operational home of PKP. PKP is a growing organization supported by over 30 developers, technical and support specialists, researchers, librarians, and other staff with varying employment categories. As a non-profit research initiative, it benefits from a mixed structure of employees that include continuing SFU employees and independent part-time or full-time contractors, short-term student positions along with external community members.²³ PKP has experienced rapid growth in terms of the number of users of its software, recognition, and staff. As a result, it is in the midst of transitioning into a more formal organization, rather than an ongoing academic “project” as it was founded. PKP has established the following three pillars for sustainability: open source software; research, education and advocacy; and publishing services.²⁴ PKP is currently financially supported by a mix of revenue generated by PKP Publishing Services, grants, development partners/sustainer contributions, and in-kind support.²⁵

Open Source Software

PKP began releasing its open source software in 2000 with Open Conference System (OCS), which was quickly followed by Open Journal Systems (OJS) in 2001 and Open Harvester Systems (OHS) in 2002. In 2013, PKP released Open Monograph Press (OMP) and, most recently, Open Preprint Systems (OPS) in 2020. Through its open source software, PKP helps lower the barrier to participation in scholarly publishing by providing a way for less well-resourced actors to create different types of publications. For example, of the adaption of OJS in the Global South is a result of the multiple language translations made available in OJS through community contribution that allows for increasing diversity in scholarly communication. These publications are traditionally been seen as too niche or local by commercial publishers. The software streamlines the publishing process by offering tools for managing editorial workflow and combining it

²³ External community members are not PKP employees, however, they provide in-kind contribution towards PKPs initiatives by providing volunteer labour in spirit of open source software development. PKP occasionally hires students for short-term paid position. This offers students an educational experience that helps to introduce the next generation of scholars and alt-academics to the concepts of open source and open access.

²⁴ Juan Pablo Alperin et al., “The Public Knowledge Project Reflections and Directions After Two Decades” (Public Knowledge Project, March 2018).

²⁵ John Maxwell et al., *Mind the Gap: A Landscape Analysis of Open Source Publishing Tools and Platforms*, 1st ed. (PubPub, 2019), <https://doi.org/10.21428/6bc8b38c.2e2f6c3f>.

with tools for publication. New versions of the software incorporate feature requests from its users and are developed to encourage best publishing practices; PKP also partners with various organizations, such as Crossref and Google Scholar to ensure journals are optimized for discoverability.

All software that PKP develops is free to use under the GNU General Public License v3, which allows users to use, modify, and redistribute the software free of charge.²⁶ Users can either download the software and host their journals, requiring some technical knowledge, or acquire the service of PKP Publishing Services to host their journals or another hosting provider, such as an academic library or commercial publisher or hosting provider.

Research, Education and Advocacy

As an academic-led initiative, PKP continues to be part of the community it serves. Their research and development initiatives focus on scholarly communication, teaching and developing educational materials, and advocating for models of OA. As a project with academic leads, PKP produces original research in multiple areas that inform their work and that of the scholarly communications community at large. Aligned with this pillar, John Willinsky actively produces research on scholarly topics such as copyright and OA funding models.^{27,28} Similarly, Associate Director of Research, Juan Pablo Alperin, actively produces research around altmetrics and preprints.^{29,30}

While PKP staff advocate for OA through their work, at events and conferences, and in some of their writing, perhaps PKP's largest-scale OA advocacy effort is through Coalition Publica, a partnership between PKP and the French-language initiative, Érudit,

²⁶ "Download | Public Knowledge Project," accessed September 15, 2020, https://pkp.sfu.ca/ojs/ojs_download/.

²⁷ John Willinsky, "Copyright Contradictions in Scholarly Publishing," *First Monday* 7, no. 11 (November 4, 2002), <https://doi.org/10.5210/fm.v7i11.1006>.

²⁸ John Willinsky and Matthew Rusk, "If Research Libraries and Funders Finance Open Access: Moving Beyond Subscriptions and APCs," *College & Research Libraries* 80, no. 3 (2019): 340–55, <https://doi.org/10.5860/crl.80.3.340>; John Willinsky and Alberto Corsín Jiménez, "Subscribe-To-Open: Simplifying the Move of Subscription Journals to Open Access," in *PKP Scholarly Publishing Conference 2019, 2019*, <https://conference.pkp.sfu.ca/index.php/pkp2019/pkp2019/paper/view/765>.

²⁹ Asura Enkhbayar and Juan Pablo Alperin, "Challenges of Capturing Engagement on Facebook for Altmetrics," *ArXiv:1809.01194 [Cs]*, September 4, 2018, <http://arxiv.org/abs/1809.01194>.

³⁰ Mario Malički et al., "From Amazing Work to I Beg to Differ - Analysis of BioRxiv Preprints That Received One Public Comment till September 2019," preprint (Scientific Communication and Education, October 15, 2020), <https://doi.org/10.1101/2020.10.14.340083>.

that seeks to advance scholarly research dissemination and digital publishing in Canada.³¹ This work focuses on supporting scholarly work in social science and humanities. Using OJS and the erudit.org platform, Coalition Publica is developing a national infrastructure that is both non-commercial and open source.

PKP is also involved in two larger-scale education efforts: the PKP School and the Library Publishing Curriculum. The first, dating back to 2013, is the PKP School that was formed in partnership and with funding from USAid to develop an online educational resource that follows the structure of massive open online courses (MOOC) that provide training on developing editorial skills and using OJS. Today, PKP School offers additional courses and modules for their core curriculum in English and Spanish and will soon offer the library publishing course. The second effort, established in 2019, is participation in the Library Publishing Curriculum through a partnership with Educopia. This curriculum offers free downloadable resources for educational trainers to adapt and deliver content on starting and sustaining a library publishing program. Documents for this curriculum are freely available through the Educopia website. While PKP is involved in several research, education and advocacy initiatives, their work in this area is highlighted in this report, given its relevance to library publishing.

These two efforts have come together, as PKP began to develop Educopia's Library Publishing Curriculum into the PKP School MOOC format – a free online self-paced educational tool that features topic-based courses with content modules and activities. Contributors to the PKP School library publishing course include cross-appointed PKP staff, students and librarians from other North American institutions. The contributors reviewed the content developed by Educopia, simplified and adapted it for self-guided learners worldwide (a departure from Educopia's trainer model). After the initial review and draft, contributors develop the visual content for the course and modules. Each course contains a combination of written material, video/audio slides, external videos, additional reading, discussion questions and quizzes to engage learners in the material. As of December 2020, PKP's library publishing course is still under development and is not yet offered through PKP School. By offering technological tools, such as OJS, OMP, OPS, educational resources to help libraries start as publishers, and optionally its

³¹ "Coalition Publica," Coalition Publica, accessed October 6, 2020, <https://www.coalition-publi.ca>.

hosting services, PKP has established itself as a significant contributor within the library publishing sector.

Publishing Services

Lastly, the third PKP pillar is publishing services. Established in 2007, PKP Publishing Services (PKP PS) provides hosting, preservation, and indexing services for small publishers, scholarly societies, organizations, and institutions that may lack the technical resources to host their own OJS, OMP, and OPS installations. PKP PS offers tiered OJS hosting plans that cater to clients with different levels of technical and support requirements. They also offer institutional plans that give educational institutions discounted bulk hosting prices and free student journal installations. As of Fall 2020, university-affiliated journals and libraries represent a large proportion of PKP PS clients. They include a number of academic institutions worldwide that host their journal installations with PKP PS and offer hosting as part of their library publishing services.

The revenue PKP PS generates is reinvested back into PKP software and resources development and currently accounts for somewhere between 40 and 50% of PKP's annual operating budget.³² Demonstrating the demand for publishing services based on OSS, PKP PS has grown by an estimated 21% between 2018 and 2019.³³ As of September 2020, PKP PS hosts over 500 client installations, 97% of which are OJS installations, with the remaining 3% being a combination of OMP, OHS and legacy OCS installations.³⁴ Going forward, PKP PS looks to promote its hosting services and potentially expand its service offering and market.

Working at PKP

This report is based on work completed during my professional placement with PKP between April to August 2019 for the Library Publishing Curriculum project outlined previously. It also ties in experience and observations from my experience in working in scholarly publishing. In addition, it highlights examples from various published materials. While researching and writing this report, I have continued to work with PKP on a part-

³² Alperin et al., "The Public Knowledge Project Reflections and Directions After Two Decades."

³³ "Missed Our AGM? Recording and Annual Report Now Available | Public Knowledge Project," accessed September 16, 2020, <https://pkp.sfu.ca/2019/07/31/missed-our-agm-recording-and-annual-report-now-available/>.

³⁴ Internal PKP data

time basis and became a full-time member of the PKP PS team in May 2020. This report aims to report library publishing growth as a subfield within North America and how OJS, developed by PKP, has grown alongside this. While library publishing encompasses different services, this report focuses on journal hosting publishing, as it is the most common and usually the first service a library publisher offers.

This report begins by providing an overview of the scholarly landscape and the trends that have prompted the start of library publishing as a subfield. It is followed by a discussion on the growth of OJS in North America, with a critical focus on its adoption by North American institutional libraries. The last section provides an analysis of library publishing as a subfield. This report concludes by highlighting the importance of library publishing and OSS like OJS in the scholarly community.

Part I: The Scholarly Landscape

Overview of Scholarly Publishing

Scholarly publishing is dedicated to the distribution of academic research and scholarship, intended to function as a public good to facilitate inquiry and knowledge.³⁵ Scholarly publishing is an integral part of scholarly communication, idealistically defined by the ACRL as the overarching “system through which research and other scholarly writings are created, evaluated for quality, disseminated to the scholarly community, and preserved for future use.”³⁶

Scholarly publishing continues to be in a constant state of change and development, with the 1940s marking a significant shift in who owned and operated scholarly journals.³⁷ Journals had traditionally been owned and operated by non-profit scientific societies, although the demand for academic research had exceeded these scientific societies' capabilities. At that time, scientific societies had a reputation for being inefficient, with long backlogs of articles for publication and lacking funds needed to print and distribute scholarly work consistently in decent quality.³⁸ In response to this, governments (who fund most of the research) turned to commercial publishers to address this issue, with examples such as the British government looking to commercial publishers to solve these publication issues, as the growth in science resulted in societies being unable to handle the increased workload.³⁹

One of the notable commercial publishers of this period was Pergamon Press, founded by Robert Maxwell, later known for transforming the scholarly publishing business. Pergamon Press was one of the first to realize that they would need to create new journals for the new areas being studied; this contributed to Pergamon's success.

³⁵ American Library Association, “Principles and Strategies for the Reform of Scholarly Communication 1,” Text, Association of College & Research Libraries (ACRL), September 1, 2006, <http://www.ala.org/acrl/publications/whitepapers/principlesstrategies>.

³⁶ American Library Association.

³⁷ Sarah Caro, *How to Publish Your PhD: A Practical Guide for the Humanities and Social Sciences* (Los Angeles ; London: SAGE, 2009).

³⁸ Stephen Buranyi, “Is the Staggeringly Profitable Business of Scientific Publishing Bad for Science?,” *The Guardian*, June 27, 2017, sec. Science, <https://www.theguardian.com/science/2017/jun/27/profitable-business-scientific-publishing-bad-for-science>.

³⁹ Buranyi.

Since they did not face the same restrictions societies had, they could start new journals quickly. To generate revenue, Pergamon Press began selling subscriptions to university libraries that, at the time, had extensive government funding.

By the mid-1960s, Pergamon Press had created 150 journals; it had become clear, especially to scholarly societies, that this was a model for success. Some societies went as far as letting Pergamon take over their journals for a small fee and by the end of the 1960s, commercial publishers had become the status quo, with Pergamon leading the expansion by offering faster publication and more stylish packages. By the mid-1970s, publishers had started to have more influence on standards and research itself. Elsevier eventually acquired Pergamon Press and its, by this point, 400-strong journal catalogue to form the world's biggest scientific publisher.⁴⁰ With journals now being owned and operated largely by commercial publishers, the intent of scholarly research permanently shifted from a purely public good motive to one that involved generating profit. This dynamic is still prevalent today, as commercial players continue to dominate the publishing market and have expanded their operations to include other elements of the research ecosystem.⁴¹ This commercial control, at the expense of academic-led initiatives, is one of the many issues libraries are looking to address.

Since the early 2000s, scholarly publishing has reportedly been one of the fastest-growing industries and among the most profitable.⁴² Unlike trade publishers, scholarly publishers acquire free content, free labour and top-level editorial expertise needed to conduct peer review. As the same researchers and scholars that submit work to commercial publishers are often these same people who provide the quality control, for free, when serving as reviewers and editors to get a manuscript from submission to publication. While there is additional work involved with publishing scholarly that include copyediting and layout editing, large commercial publishers have the paid staff that assist in the management, production, and distribution of scholarly work. Moreover, the fee that commercial publishers charge is structured in a way that already factor in these costs. In this way, scholarly publishers, in particular commercial

⁴⁰ Buranyi.

⁴¹ Claudio Aspesi et al., "SPARC Landscape Analysis: The Changing Academic Publishing Industry – Implications for Academic Institutions," preprint (LIS Scholarship Archive, April 3, 2019), <https://doi.org/10.31229/osf.io/58yhb>.

⁴² Bernard Forgues and Sébastien Liarte, "Academic Publishing: Past and Future," *M@n@gement* Vol. 16, no. 5 (2013): 739–56.

publisher avoid many of the traditional costs of publishing, while simultaneously benefiting from a captive market.

Scholars' involvement as authors, reviewers or editors, with journals, especially those with prestige garnered over their long histories, are important during their evaluation for career advancement.⁴³ As a result, scholars are motivated to provide their labour, which is funded by their institutional salaries as well as indirectly funded or subsidized by governments or institutional grants, to publishers and, because they need to read research to do their work, to require their institutions to invest in subscriptions to access the work.

Scholarly Publishing Trends

Similar to the frustrations scholars had with society publishers during the 1940s, library publishing emerges in the context of a shifting scholarly publishing landscape caused by numerous frustrations with the existing scholarly ecosystem and technological advancements during the early 2000s. The following section outlines some of the scholarly publishing trends that have impacted the scholarly community. These scholarly trends have also directly impacted libraries and are some of the contributing factors to why libraries have taken on the role of publisher. These trends include the rise of commercial publishers, the serials crisis and the shift towards Open Access.

The Big 5 Publishers in Scholarly Publishing

During the 1980s to 1990s, the scholarly community and the rest of the world were faced with the growth of the internet. The technology change made it difficult for many academic publishers to stay competitive, although this was not the case for a select number of commercial publishers. Elsevier, for example, had increased their prices by 50% by 1994, after acquiring Pergamon Press.⁴⁴ Many of these commercial publishers have continued to thrive, with the largest scholarly publishers—Elsevier, Springer

⁴³ Lesley A. Schimanski and Juan Pablo Alperin, "The Evaluation of Scholarship in Academic Promotion and Tenure Processes: Past, Present, and Future," *F1000Research* 7 (October 5, 2018): 1605, <https://doi.org/10.12688/f1000research.16493.1>.

⁴⁴ Buranyi, "Is the Staggeringly Profitable Business of Scientific Publishing Bad for Science?"

Nature, Wiley-Blackwell, Taylor and Francis, and Sage—forming what has been described as an oligopoly.⁴⁵

Elsevier was founded in 1880 and specializes in Science, Technology, Mathematics (STM) content, and continues to be the most profitable publisher within scholarly publishing. Springer Nature was formed in 2015 as a result of the merger between several commercial publishers and is the largest academic book publisher, while publishing some of the most prestigious STM journals.^{46,47} Wiley-Blackwell publishes STM and humanities books, journals, and online content, and is known for its ability to build and maintain strong relationships with professional and scholarly societies. Taylor and Francis publish the largest collection of Social Science and Humanities (SSH) journals, along with cutting-edge theoretical and applied STM journals.⁴⁸ Finally, Sage publishes books and journals and provides a growing suite of library products and services, with a focus on the social and behavioral sciences.⁴⁹

A key trend that impacts the scholarly community is the dominance of large commercial publishers in a lucrative industry.⁵⁰ In 2011, the largest publishers held 50% of the market share in terms of research output worldwide; Elsevier alone accounted for 18% of this.⁵¹ A report by Vincent Larivière confirms that this trend continued through to 2015, with Elsevier owning 24% of the scientific journals on the market, while Springer and Wiley-Blackwell held 12% each.⁵² In contrast, all not-for-profit publishers combined

⁴⁵ Vincent Larivière, Stefanie Haustein, and Philippe Mongeon, “The Oligopoly of Academic Publishers in the Digital Era,” ed. Wolfgang Glanzel, *PLOS ONE* 10, no. 6 (June 10, 2015): e0127502, <https://doi.org/10.1371/journal.pone.0127502>.

⁴⁶ “Springer Nature | Publons,” accessed July 26, 2020, <https://publons.com/publisher/6074/springer-nature>.

⁴⁷ “Springer Nature | Publons.”

⁴⁸ Taylor & Francis Group, “Journals,” Taylor & Francis Group, n.d., <http://taylorandfrancis.com/journals/>.

⁴⁹ Sage Publishing, “About,” SAGE Publishing, accessed November 27, 2020, <https://group.sagepub.com/about>.

⁵⁰ “The World of Academic Publishing,” Enago, April 26, 2017, https://www.enago.com/academy/the-world-of-academic-publishing/?to_id=7188&from_id=7519; Jon Tennant, “Scholarly Publishing Is Broken. Here’s How to Fix It,” Aeon, accessed November 8, 2018, <https://aeon.co/ideas/scholarly-publishing-is-broken-heres-how-to-fix-it>.

⁵¹ Brian Resnick, “The War to Free Science,” Vox, June 3, 2019, <https://www.vox.com/the-highlight/2019/6/3/18271538/open-access-elsevier-california-sci-hub-academic-paywalls>.

⁵² Buranyi, “Is the Staggeringly Profitable Business of Scientific Publishing Bad for Science?”

published only 20% of the STM journals.⁵³ These trends remained mostly unchanged in 2017; the estimated global market size of the STM market (including journals, books, technical information and standards, databases and tools, and medical communications and some related areas) was \$25.7 billion, with journals earning \$9.9 billion in revenue and books earning \$3.2 billion.^{54,55} In addition, the top five commercial publishers published 70% of papers in the social sciences.⁵⁶ According to an Elsevier representative, in 2014, they received 1.5 million article submissions and published 420,000 of them; 14 million scholars worldwide chose to publish with Elsevier.

As previously mentioned, scholars and researchers also provide commercial publishers with free labour in serving as reviewers and editors. Elsevier continues to be one of the commercial publishers that benefit from this free labour, with over 800,000 scientists who volunteer their time to assist with editing and peer-review.⁵⁷ The labour that scholars provide is a big contributing factor in making commercial publishers so profitable.

In addition to their journal publishing profitability, these large commercial publishers also monopolize the publishing industry with what others have described as racketeer business practices.⁵⁸ As of 2013, the five biggest publishers published 51% of the articles in SSH and similar proportions in Natural and Medical Science (NMS) (with the exception of select subjects such as physics, where scientific societies are still dominant).⁵⁹ In owning a majority of the journals and scholarly output, these commercial publishers are positioned to receive the profit generated from them.

More recently, commercial publishers like Elsevier have begun acquiring several scholarly services, including SSRN, a pre-print repository and ranking system. The 2017 acquisition of Bepress, an institutional repository and journal publishing platform for libraries, and subsequently Aries Systems, who developed Editorial Manager, another

⁵³ Robert Johnson, Anthony Watkinson, and Michael Mabe, "The STM Report. An Overview of Scientific and Scholarly Publishing. 5th Edition," accessed October 9, 2020, https://www.stm-assoc.org/2018_10_04_STM_Report_2018.pdf.

⁵⁴ Johnson, Watkinson, and Mabe.

⁵⁵ Johnson, Watkinson, and Mabe.

⁵⁶ Larivière, Haustein, and Mongeon, "The Oligopoly of Academic Publishers in the Digital Era."

⁵⁷ Buranyi, "Is the Staggeringly Profitable Business of Scientific Publishing Bad for Science?"

⁵⁸ Tennant, "Scholarly Publishing Is Broken. Here's How to Fix It."

⁵⁹ Larivière, Haustein, and Mongeon, "The Oligopoly of Academic Publishers in the Digital Era."

journal workflow and publishing platform, sparked concern among the scholarly community.⁶⁰ In response to the acquisition of Bepress, PKP issued a statement indicating that OJS is not for sale and vowed that it will never be for sale.⁶¹ With the acquisition of Aries, Elsevier can now offer publication services that it was not able to offer previously. There are members of the scholarly community who feel that this is a move that would increase commercial publishers' control over openness and, at the same time, result in maximized profits for publishers who follow these strategies.⁶² In a case study of Elsevier, researchers Alejandro Posada and George Chen confirm that Elsevier develops and acquires scholarly services that extend their influence over all stages of the knowledge production process.⁶³

The combined consolidation of publishing in a few companies and the encroachment of their activities into every aspect of the research lifecycle further commercializes the research enterprise and strengthens commercial control over scholarship, with financial implications for the rest of the scholarly community. As a result of their growth and ownership, commercial publishers, and their ability to dictate market pricing, have contributed to the Serials Crisis, with substantial increases in journal subscription prices.

Through their work as publishers, libraries look to redirect control and spending away from commercial publishers by offering an alternative to publishing in commercial journals. Libraries are also actively involved in advocacy and education for more open and free access to research.

Serials Crisis

The term 'serials crisis' refers to the high inflation rate associated with the cost of academic STM journals that began in the late 1980s. The commercialization of publishing has resulted in prices for journal subscriptions exceeding the general

⁶⁰ John Willinsky, "The Academic Library in the Face of Cooperative and Commercial Paths to Open Access," *Library Trends* 67, no. 2 (2018): 196–213, <https://doi.org/10.1353/lib.2018.0033>.

⁶¹ "OJS Is Not for Sale | Public Knowledge Project," accessed June 22, 2020, <https://pkp.sfu.ca/2017/12/05/ojs-is-not-for-sale/>.

⁶² "Publishers Increasingly in Control of Scholarly Infrastructure and This Is Why We Should Care," *The Knowledge G.A.P.* (blog), September 20, 2017, <http://knowledgegap.org/index.php/sub-projects/rent-seeking-and-financialization-of-the-academic-publishing-industry/preliminary-findings/>.

⁶³ "Publishers Increasingly in Control of Scholarly Infrastructure and This Is Why We Should Care."

economic inflation rate and library budgets.⁶⁴ Given their size and control over scholarly output, commercial STM publishers exercise their ability to enact high subscription prices.⁶⁵ Cornell University cites that the ARL statistics indicate that between 1986 to 2001, there was a 5% decline in the number of academic journals purchased.⁶⁶ However, these journals' average price had increased by 215%, while the Consumer Price Index for that same period only increased by 62%.^{67,68} Commercial publishers continue to charge more for access to content than scholarly society publishers or university presses.⁶⁹

Traditionally, the libraries role is to provide faculty and researchers with access to content and faculty and researchers have an expectation the library and institution will cover any associated costs (i.e., cost of subscriptions). This leaves libraries with minimal choice but to subscribe to these journals. The subscription fees libraries pay account for a large portion of their budget and contribute to a substantial portion of the revenue commercial publishers generate.⁷⁰ For example, in the early 2000s, 25% of Cornell University's library budget went towards Elsevier journals, while these journals only accounted for 2% of their subscriptions.⁷¹ What the libraries spend towards these commercially owned journals is often disproportionate to what they acquire in return.

A 2004 pricing survey published in the *Library Journal* outlines some of the pricing trends in scholarly publishing.⁷² The pricing trend within STM publishing is well documented in many other sources, indicating that STM journals are expensive and have

⁶⁴ American Library Association, "Principles and Strategies for the Reform of Scholarly Communication 1."

⁶⁵ Rowland Lorimer, "Introduction: Scholarly Communication and the STM Serials Pricing Crisis," *Canadian Journal of Communication* 22, no. 3 (1997), <https://doi.org/10.22230/cjc.1997v22n3a999>.

⁶⁶ "Cornell University Library Issues in Scholarly Communication," accessed August 3, 2020, <http://people.cs.uchicago.edu/~laci/cornell.dir/cornell2003Dec17.html>.

⁶⁷ The Consumer Price Index was instituted in World War I as a way of calculating and indexing the cost raising a family.

⁶⁸ Phil Davis, "The Consumer Price Index and the Argument for OA," The Scholarly Kitchen, June 1, 2009, <https://scholarlykitchen.sspnet.org/2009/06/01/consumer-price-index-oa/>; Forgues and Liarte, "Academic Publishing."

⁶⁹ "The Crisis in Scholarly Communication," accessed August 3, 2020, <http://collectiondevelopment.library.cornell.edu/StatementOnCrisis.htm>.

⁷⁰ "The World of Academic Publishing."

⁷¹ "The Crisis in Scholarly Communication"; "Cornell University Library Issues in Scholarly Communication."

⁷² Lee Van Orsdel and Kathleen Born, "Periodicals Price Survey 2004: Closing in on Open Access," *Library Journal*, accessed August 7, 2020, <https://www.libraryjournal.com?detailStory=periodicals-price-survey-2004-closing-in-on-open-access>.

the highest price increases.⁷³ In 2004, chemistry and physics journals were the costliest in the scientific discipline, with an average subscription price of \$2,695 and \$2,543, respectively. The average cost of a subscription to chemistry journals increased by 35% over the period 2000 to 2004. Meanwhile, a subscription to physics journals has risen by 36% in the same period. In comparison, art and social science journal subscription prices were a fraction of this, though they rose by a similar amount: the average subscription price of music journals was \$80 in 2000, with a 33% increase in 2004 to \$106.

In addition to STM journals having high subscription prices, commercial publishers have also bundled these journal titles that give libraries little or no choice to purchase individual titles.⁷⁴ These price bundles are intended to maximize publisher profits and often provide little benefit to libraries or are inappropriate for their collection.⁷⁵ A 2012 ARL survey of its members found that over 90% of libraries have purchased their content in bundles.⁷⁶ Commercial publishers also make it difficult for subscribers to cancel these bundled journals, as with Cornell University and their bundled subscription with Elsevier. These bundled deals are often multi-year contracts with few or no cancellation options.⁷⁷ One of the main concerns identified by libraries is the substantial price increase for these individual journals, should they cancel their bundle.⁷⁸ Many other North American institutions are evaluating their current deals and considering whether to cancel their “Big Deals” with commercial publishers. In response to this, an online database – Big Deal Knowledge Base – has been created by the Scholarly Publishing and Academic Resources Coalition (SPARC) to track what institutions across

⁷³ Judith M. Panitch and Sarah Michalak, “The Serials Crisis A White Paper for the UNC-Chapel Hill Scholarly Communications Convocation,” January 2005, https://ils.unc.edu/courses/2019_fall/inls700_001/Readings/Panitch2005-SerialsCrisis.htm.

⁷⁴ “The World of Academic Publishing.”

⁷⁵ Panitch and Michalak, “The Serials Crisis A White Paper for the UNC-Chapel Hill Scholarly Communications Convocation.”

⁷⁶ Karla Strieb and Julia Blixrud, “The State of Large-Publisher Bundles in 2012,” 2013, <https://publications.arl.org/rli282/13>.

⁷⁷ Jeffrey G. Coghill, “The Big Deal: Should Libraries Stay or Should Libraries Go?,” *Journal of Electronic Resources in Medical Libraries* 16, no. 3–4 (October 2, 2019): 121–28, <https://doi.org/10.1080/15424065.2019.1691965>.

⁷⁸ “Cornell University Library Issues in Scholarly Communication.”

North America are paying for journal subscription packages.^{79,80} In 2019, at least three North American institutions, including Florida State University, University of California System and the University of Saskatchewan, cancelled their “Big Deal” packages. At least seven other institutions, Louisiana State University, Northeastern Illinois University, Temple University, University of Oklahoma-Norman, University of Oregon, Wayne State University and West Virginia University, have unbundled their packaging, opting to keep several titles for various reasons.⁸¹

The serials crisis is viewed nearly everywhere as a problem for libraries and as a result, libraries continue to find ways to cope with these price increases; they have and continue to be very vocal about these increases.⁸² The increasing subscription prices lead libraries to take cost-saving measures, which include joint library purchases that result in heavy reliance on interlibrary loans and reducing budgets for other scholarly forms, such as monographs, which has had a lasting impact on the monograph landscape today.^{83,84} Large-scale cuts force libraries to make difficult decisions on what subscriptions to keep and which to cancel.⁸⁵

The serials crisis has resulted in several concerns among librarians, including librarians from Kansas State University, Eastern Michigan University, and Tufts University, calling attention to these issues with dedicated web pages.⁸⁶ Some of the general concerns that librarians are trying to express to researchers is that the rising cost of journals is reducing the number of available resources and their access to these

⁷⁹ SPARC works to enable the open sharing of research outputs and educational materials in order to democratize access to knowledge, accelerate discovery, and increase the return on our investment in research and education

⁸⁰ SPARC, “Big Deal Knowledge Base,” SPARC, accessed October 11, 2020, <https://sparcopen.org/our-work/big-deal-knowledge-base/>.

⁸¹ SPARC, “Big Deal Cancellation Tracking,” SPARC, accessed October 14, 2020, <https://sparcopen.org/our-work/big-deal-cancellation-tracking/>.

⁸² Panitch and Michalak, “The Serials Crisis A White Paper for the UNC-Chapel Hill Scholarly Communications Convocation.”

⁸³ Panitch and Michalak.

⁸⁴ American Library Association, “Principles and Strategies for the Reform of Scholarly Communication 1”; Forgues and Liarte, “Academic Publishing.”

⁸⁵ Phil Davis, “Challenging the Access Crisis,” The Scholarly Kitchen, July 15, 2011, <https://scholarlykitchen.sspnet.org/2011/07/15/challenging-the-access-crisis/>.

⁸⁶ The following library response to Serials Crisis can be found: <https://www.lib.k-state.edu/collections-budget-and-sustainability>, <https://guides.emich.edu/c.php?g=188046&p=1241954>, <http://sites.tufts.edu/scholarlycommunication/open-access/the-serials-crisis-explained/>

resources. In addition, the traditional copyright under a subscription model often means that authors sign away their rights to publishers, which affects their ability to use their own work for future research and teaching.

Overall, high subscription costs result in decreased access to scholarship. The serials crisis continues to have a profound effect on libraries' ability to provide access to a wide range of disciplines and in particular their ability to purchase monographs as a large portion of library budgets is tied to a small number of journals within a specific discipline.

As publishers, libraries look to address the issues that serialization has caused by incentivizing scholars and journals to publish without subscription fees. In addition, they also welcome the publication of work from all disciplines. In doing so, they are creating a means for scholars to have access to all disciplines.

Open Access

Open Access (OA) refers to content without any usage barriers (financial or legal), meaning it is free to read, download and reuse with proper attribution.⁸⁷ There are two ways to make content open access: authors can choose green or gold open access. Green OA means authors publish their work (in any journal) and then allow for content to be freely accessible by self-archiving a copy in an open institutional repository or archive. While most publishers permit self-archiving, authors may be subject to an embargo period. Meanwhile, gold OA means authors publish their work in a fully open access journal or subscription-based journal with an OA option (for a fee).⁸⁸ One of the main benefits of gold OA is having content freely available as soon as it is published which facilitates communication around research and scholarship worldwide by fast-tracking the pace of discovery and innovation.⁸⁹ While many OA journals make content freely available without any fees, it has become increasingly common, especially among commercial publishers, to charge these fees. The adoption and growth of OA within the

⁸⁷ "What Is Open Access?," accessed August 6, 2020, <https://www.openaccess.nl/en/what-is-open-access>.

⁸⁸ "Green & Gold Open Access Publishing," What is Open Access?, accessed December 10, 2020, <https://library.concordia.ca/research/open-access/open-access.php?guid=greengoldopenaccess>; "Gold Open Access and Green Open Access: What's the Difference?," ZB MED - Informationszentrum Lebenswissenschaften, accessed December 10, 2020, https://www.publisso.de/en/no_cache/advice/publishing-advice-faqs/difference-between-gold-and-green-open-access/.

⁸⁹ "Gold Open Access and Green Open Access."

scholarly community is a response to the frustration many felt, in part attributed to the commercialization of scholarly publishing and the serials crisis.

Traditionally, publishers have used subscription fees to cover publication costs; however, the increasing expectations for OA prompted publishers to find alternative business models that could support making work freely available to the public. The shift away from subscriptions calls for business models that typically ask either the publisher or author(s) to cover the cost (as opposed to the readers who subscribe).⁹⁰ Traditional commercial publishers have largely settled on the use of what are known as Article Processing Charges (APCs). The APC model was pioneered by the Public Library Of Science, a non-profit publisher who became successful by pairing these fees with a “mega-journal”. By charging authors, who in turn pay from their grants or from other institutional funds, the APC allows publishers to cover the cost of producing and making the research article freely available online. Some publishers have opted for a “hybrid Open Access” approach that uses APCs to make content OA within otherwise subscription journals. These fees can vary significantly between disciplines and publishers.⁹¹ In both APC and hybrid business models, the publication cost ultimately falls on the researchers and their institutions to either pay fees upfront with APCs or through subscription fees, with publishers profiting regardless; so much so, that in 2018, Elsevier had revenue growth of 2%, equating to \$3.2 billion.⁹²

The first hybrid journals were started in 2004 by Elsevier and Wiley.⁹³ Since then, the number of journals offering a hybrid option has increased exponentially. By 2017, there were over 10 thousand journals and, unsurprisingly, the top 5 publishers owned most of them.⁹⁴ The APCs for hybrid journals have been higher than for fully OA journals, with an

⁹⁰ Antoinette Cass, “Library Research Guides: Open Access and Scholarly Publishing: Open Access,” accessed August 9, 2020, <https://bond.libguides.com/open-access-and-scholarly-publishing/open-access>.

⁹¹ Pablo Markin, “How Much Do Top Publishers Charge for Open Access? | Open Science,” April 20, 2017, <https://openscience.com/how-much-do-top-publishers-charge-for-open-access/>; Heather Morrison, “APC Price Changes 2019 – 2018 by Journal and by Publisher,” *Sustaining the Knowledge Commons / Soutenir Les Savoirs Communs* (blog), November 26, 2019, <https://sustainingknowledgecommons.org/2019/11/26/apc-price-changes-2019-2018-by-journal-and-by-publisher/>.

⁹² Resnick, “The War to Free Science.”

⁹³ Najla Rettberg, “The Worst of Both Worlds: Hybrid Open Access,” *OpenAIRE* (blog), June 26, 2018, <https://www.openaire.eu/blogs/the-worst-of-both-worlds-hybrid-open-access>.

⁹⁴ Rettberg.

average APC of \$2,700 and at times exceeding \$5,000.^{95,96} Setting up the hybrid option is generally low risk and inexpensive for publishers, as they do not depend on the APC revenue stream but maintain the journal through subscriptions. Hybrid Open Access is an appealing option for scholars, as it provides immediate access to the article, while still providing authors with the perceived prestige of publication in a prestigious journal, which is still widely subscription-based.⁹⁷

OA, as it currently functions, is not a sustainable solution to replace subscriptions.⁹⁸ The current approach results in the scholarly community financially sustaining two systems – paying subscriptions and funding OA.⁹⁹ However, there are current initiatives that look to address this. OA in its current state presents a number of issues, such as commercial publishers continuing to profit from both subscription and Open Access business models; yet, it does provide several benefits to the scholarly community.

Support for non-commercial, low-cost, Open Access among libraries

There continues to be a lot of support for OA among libraries as it aligns with their mission.¹⁰⁰ The Open Access Initiative is a broad international movement aimed at increasing access to publications and data.¹⁰¹ Libraries were among the first involved in the OA movement¹⁰², as a consequence of the need to bear the cost of high subscriptions; they provided publishing support and helped raised funds towards APCs. Willinsky reports that libraries appear ready to redirect upwards of \$10 billion globally on subscriptions to support OA publishing models such as Subscribe to

⁹⁵ Rettberg.

⁹⁶ 2020 Forbes article, "How Prestige Journals Remain Elite, Exclusive And Exclusionary" along with other related articles reveal that Nature journals "landmark" open-access option starting January 2021 could cost authors up to €9,500 (nearly US \$11,400). The full article is available online at <https://www.forbes.com/sites/madhukarpai/2020/11/30/how-prestige-journals-remain-elite-exclusive-and-exclusionary/>

⁹⁷ Rettberg, "The Worst of Both Worlds."

⁹⁸ Francis Dodds, "The Future of Academic Publishing: Revolution or Evolution Revisited," *Learned Publishing* 32, no. 4 (October 2019): 345–54, <https://doi.org/d>.

⁹⁹ Ann Okerson and Alex Holzman, "Introduction," in *The Once and Future Publishing Library*, 2015.

¹⁰⁰ Jennifer Richard, Denise Koufogiannakis, and Pam Ryan, "Librarians and Libraries Supporting Open Access Publishing," *Canadian Journal of Higher Education* 39, no. 3 (2009): 33–48.

¹⁰¹ "What Is Open Access?"

¹⁰² Linnéa Stenson, "Why All These Directories? An Introduction to DOAJ and DOAB," *Insights* 25, no. 3 (November 5, 2012): 251–56, <https://doi.org/10.1629/2048-7754.25.3.251>.

Open.^{103,104} Libraries also endorse and focus on OA publishing as it aligns with their core values.¹⁰⁵

This is evident among Canadian institutions with research libraries collaborating on scholarly publishing innovations through the initiative between PKP and Érudit. As mentioned, many Canadian institutions support PKP both financially and by other means to continue the development and educational efforts of PKP around OA. Meanwhile, Érudit is an initiative by three of the academic institutions in Quebec.¹⁰⁶ Nationally, there is also financial support from funders like the Canada Foundation for Innovation, the Social Sciences and Humanities Research Council, and the Department of Canadian Heritage to move scholarship towards OA.¹⁰⁷ According to a 2019 analysis by the European Commission, 13 of the 14 Canadian research funders either encourage or require OA as part of their publishing mandate. They also found that all Canadian and US research funders encouraged and required OA archiving.¹⁰⁸ The Council on Prairie and Pacific University Libraries Scholarly Communications Working Group released an issue brief on OA Mandates in Canada that provides lists and links of universities and funders that have defined mandates supporting OA.¹⁰⁹ Some of these universities listed have adopted these mandates since the mid-2000s.¹¹⁰ Similarly, the Canadian Library Association (CLA) had also released a statement encouraging all Canadian libraries to support and promote OA.¹¹¹ The

¹⁰³ Willinsky, "The Academic Library in the Face of Cooperative and Commercial Paths to Open Access."

¹⁰⁴ Willinsky and Jiménez, "Subscribe-To-Open."

¹⁰⁵ Melanie Schlosser, "The State of the Field: An Excerpt from the 2019 Library Publishing Directory," November 29, 2018, <https://librarypublishing.org/library-publishing-landscape-2018/>.

¹⁰⁶ "Érudit | La Plateforme Numérique d'accès à La Recherche Francophone En Sciences Sociales et Humaines d'Amérique Du Nord," accessed October 17, 2020, <https://apropos.erudit.org/en/>.

¹⁰⁷ Sonya Betz, Patty Gallilee, and Robyn Hall, "Open Access Mandates in Canada," *Canadian Association of Research Libraries* (blog), January 31, 2017, <https://www.carl-abrc.ca/news/cspwg-releases-interim-report/>.

¹⁰⁸ European Commission, "Trends for Open Access to Publications," European Commission, accessed July 16, 2020, https://ec.europa.eu/info/research-and-innovation/strategy/goals-research-and-innovation-policy/open-science/open-science-monitor/trends-open-access-publications_en.

¹⁰⁹ Membership initiative that uses the collective expertise, resources, influence and capacity of University in the Prairie and Pacific region of Canada to improve student experience and research within their home institutions.

¹¹⁰ Betz, Gallilee, and Hall, "Open Access Mandates in Canada."

¹¹¹ Canadian Federation of Library Associations, "Open Access for Canadian Libraries Position Statement," *Canadian Federation of Library Associations* (blog), November 16, 2016, <http://cfla-fcab.ca/en/guidelines-and-position-papers/open-access-for-canadian-libraries-position-statement/>.

Canadian Association of Research Libraries also expressed its support for Open Access and the Canadian Government policy on OA.¹¹²

More broadly, support for OA is also evident in the increased number of journals being indexed in the Directory of Open Access Journal (DOAJ), “a community-curated online directory that indexes and provides access to high quality, Open Access, peer-reviewed journals.”¹¹³ In 2005, the DOAJ had more than 1,400 journal titles; there has been a continued increase in journals indexed. Between 2012 to 2013, there was a 15% increase, with 3.5 journals being added daily.¹¹⁴ As of August 2020, the DOAJ has over 15,000 journals indexed. An altmetric analysis by the EU indicates that Open Access accounts for approximately half of scholarly output.^{115,116} The issue of sustainability is vital in the continued growth of Open Access.¹¹⁷

¹¹² Canadian Association of Research Libraries, “Open Access,” *Canadian Association of Research Libraries* (blog), accessed October 17, 2020, <https://www.carl-abrc.ca/advancing-research/scholarly-communication/open-access/>.

¹¹³ DOAJ, “Directory of Open Access Journals,” accessed August 23, 2020, <https://doaj.org>.

¹¹⁴ Faye Chadwell and Shan C. Sutton, “The Future of Open Access and Library Publishing,” *New Library World* 115, no. 5/6 (May 6, 2014): 225–36, <https://doi.org/10.1108/NLW-05-2014-0049>.

¹¹⁵ Alternative metrics are complementary to more traditional citation impact metrics. Generally, altmetrics consider impact based on the number of times work has been mentioned online either through citations or social media.

¹¹⁶ European Commission, “Trends for Open Access to Publications.”

¹¹⁷ John W. Maxwell, Alessandra Bordini, and Katie Shamash, “Reassembling Scholarly Communications: An Evaluation of the Andrew W. Mellon Foundation’s Monograph Initiative (Final Report, May 2016),” *The Journal of Electronic Publishing* 20, no. 1 (March 2, 2017), <https://doi.org/10.3998/3336451.0020.101>.

Part II: The role of the Public Knowledge Project

Open Journal Systems adoption in North America

Since its release in 2001, the number of OJS users globally has continued to increase. Given that this software is OA, users are free to download, install and use the program both on the web and locally on their computers, without any requirement to report or register with PKP or elsewhere; it continues to be a challenge for PKP to provide an exact number of journals using OJS. PKP's best efforts are documented in conference presentations and on a code repository.^{118,119} Other sources have helped determine the extent of OJS adoption. Using a combination of various sources that include internally provided, public and third-party data, this section will discuss the adoption of OJS in North America, focusing on North American academic institutions and some of the partnerships PKP has established in the region.

In an attempt to determine the number of users, PKP developed web crawlers to find OJS journals on the web; this method yielded a total of 32,000 journal instances, of which over 8,000 were found to meet an arbitrary criterion of "5 articles published in a single year to be officially included in the count of OJS journals" in 2014.¹²⁰ The PKP website, at one point, provided data and graphics based on this established criterion. However, these do not account for all possible installations or journals as OJS can be modified to remove traces of PKP, which was how crawlers were programmed to recognize them.

The OJS Map available on the PKP website shows OJS journal users' location published at least five articles in that year using PKP Harvester and OAI PMH.¹²¹ Data from this map shows that there has been a consistent growth between 2001 to 2015, at which point it plateaus and decreases. OJS usage is highest in Europe & Central Asia and Latin America & the Caribbean, accounting for 60 to 70% of OJS journal usage

¹¹⁸ Juan Pablo Alperin, Kevin Stranack, and Alex Garnett, "On the Peripheries of Scholarly Infrastructure: A Look at the Journals Using Open Journal Systems," 2016, <https://summit.sfu.ca/item/16763>.

¹¹⁹ *Pkp/Ojsstats*, Jupyter Notebook (2015; repr., Public Knowledge Project, 2020), <https://github.com/pkp/ojsstats>.

¹²⁰ "OJS Usage | Public Knowledge Project," accessed June 22, 2020, <https://pkp.sfu.ca/ojs/ojs-usage/>.

¹²¹ Stranack, Kevin, "How Many Journals Use OJS?," accessed November 28, 2020, <https://pkp.sfu.ca/2015/10/01/how-many-journals-use-ojs/>.

every year. Meanwhile, North America accounted for approximately 8 to 12% from 2001 to 2019.

Although PKP does not require registration for users of the software, it does provide an indexing service that journals can opt in to; the PKP Index. In an analysis of data provided by PKP of the journals taking part in the PKP Index as of May 2019, over 18,000 journals worldwide being indexed. Of the 18,000 + journals worldwide, there were 2,115 North American journals indexed. North American institutions account for 519 journals indexed from 92 educational institutions from Canada and the United States. These journals are a combination of student, faculty, and institutionally hosted journals. Between 2001 to 2019, the number of institutional journals indexed yearly increased from 107 to 481. A similar internal data set revealed that, in 2018, 423 Canadian journals used OJS hosted by 32 Canadian institutional libraries and 1 American institutional library.¹²² University of Toronto (U of T), Simon Fraser University (SFU), York University and University of Alberta (U of A) had the highest journal counts. This is not surprising, as SFU is home to PKP, including PKP PS; U of T has an established journal division; and U of A is a long-term PKP Sustainer, dating back to as early as 2014.¹²³ In a similar trend, the number of North American academic institutions that PKP PS hosts has significantly increased from 2005 to 2019. Between 2005 to 2010, two academic institutions were hosted through PKP PS, seven between 2010 to 2015 and 25 between 2015 to 2019.¹²⁴

As a third point of reference on OJS adoption among North American academic libraries, external data from LPC and DOAJ is analyzed.¹²⁵ As of May 2020, there were 935 North American journals being indexed in DOAJ. Of the 935 journals, 231 journals had indicated that they were using OJS as a publishing platform. Seventy-two academic institutions account for 67% (154 journals) using OJS, with the University of Pittsburgh having the highest count of OJS journals being indexed in DOAJ at 22 journals. As there are inconsistencies with how journals and publishers determine this information, there may

¹²² Kevin Stranack, "List of Canadian Journals Using OJS," June 2, 2020, <https://scholcommincanada.slack.com/archives/C2J4SM143/p1591127286032700031700>.

¹²³ "Helping High School Researchers Get Published | Public Knowledge Project," accessed June 22, 2020, <https://pkp.sfu.ca/2014/04/29/helping-high-school-researchers-get-published/>.

¹²⁴ As of November 2020, the number of academic institution that PKP PS hosts is higher as a result of update data categorization within PKP PS. Academic institutions (libraries and university hosted journals combined) make up the largest client type.

¹²⁵ To determine the journals using OJS in DOAJ, filtered platform, followed by Publisher, then checked for Society or institution and finally URL for academic domains

be more journals using OJS unaccounted for in these numbers. Examination of the LPC Directory showed that its members use 21 different publishing software platforms in their library publishing activities, three of which are developed by PKP (OJS, OCS, and OMP). Year-over-year, 41 to 46% of LPC members use OJS as part of their library publishing activities. Between 2014 and 2020, OJS has been used by 114 LPC members; 92 are North American academic institutions, including 24 Canadian academic institutions. Institutions have either continued to use OJS year after year, for a single year, or sporadically.

PKP and North American Libraries

As an organization deeply ingrained within the scholarly community and with software created to “empower academic societies, universities, and individual scholars and scientists by enabling them to retain control of the journals that publish research relevant to their interests, activities, and regional needs, independently and autonomously, at no cost to the reader,” it comes as no surprise that libraries throughout North America have been key supporters in the maintenance and development of OJS.¹²⁶ This section highlights some of the collaborations between PKP and North American libraries in the development of OJS. Broadly, North American libraries, such as the University of Toronto Libraries, Indiana University Libraries, University of Illinois and York University provide critical financial support for PKP and its development as part of their Sustainers initiative.¹²⁷

In addition to Sustainers, PKP relies on development partnerships to provide financial and developmental support. Development partnerships were first established in 2012.¹²⁸ Along with Sustainers, they provide financial and non-financial support for PKP activities, but they also fund and contribute to OJS and other PKP software development. In 2018, revenue from development partners and sustainers accounted for 11% of PKP's yearly income.¹²⁹ In 2019, PKP had six development partners: Ontario

¹²⁶ “OJS Is Not for Sale | Public Knowledge Project.”

¹²⁷ Sustainers provide financial contribution towards the development and support of PKP software. PKP offers a number of donation levels. A list of the current sustainers can be found at <https://pkp.sfu.ca/sustainers/>. Past sustainers are typically provided in the PKP Annual Report.

¹²⁸ “History | Public Knowledge Project.”

¹²⁹ “PKP Annual Report 2018,” accessed June 22, 2020, <https://pkp.sfu.ca/wp-content/uploads/2019/07/pkp-annual-report-2018.pdf>.

Council of University Libraries, Simon Fraser University, and Stanford University, University of Alberta, University of British Columbia and University of Pittsburgh. These North American library institutions are long-term partners and continue to contribute to the development of OJS and other initiatives that are beneficial towards the wider OJS and scholarly community. Some recent contributions from some of the development partners are highlighted below.

The development partnership between PKP and U of A was established in 2015, with an agreement to provide ongoing financial and development support of its open source software suite, having been users since 2006.^{130,131} They have been involved and continue to be a vital contributor to the user interface/user experience (UI/IX) testing review of its OJS 3.0 and succeeding releases. The user testing of OJS 3.1 in 2017 was organized and conducted by a U of A library staff member. With the recent release of OJS 3.2, U of A library was again involved in the organization and recruitment of participants for its user testing. Several other UAL staff are also members of the PKP Accessibility and Documentation interest group. PKP has partnered again with U of A library to incorporate accessibility testing into its general usability testing to address and improve the accessibility of OJS. U of A was also a member of the PKP PLN advisory committee in 2015.¹³²

The University of Pittsburgh has been a PKP development partner since 2011. University of Pittsburgh's library system developer has been providing leadership and assistance in the forum.¹³³ In addition to the financial contribution and membership the University of Pittsburgh offers to PKP, they have also developed (and collaborated on) many plugins shared with the broader PKP/OJS community, including the ORCiD

¹³⁰ "PKP Annual Report 2015/2016," accessed June 22, 2020, <https://pkp.sfu.ca/wp-content/uploads/2016/09/pkp-annual-report-2015.pdf>.

¹³¹ Lindsay Glynn, "Editorial," *Evidence Based Library and Information Practice* 1, no. 1 (March 15, 2006): 1, <https://doi.org/10.18438/B8WC78>.

¹³² "PKP Annual Report 2015/2016."

¹³³ "PKP Annual Report 2015/2016."

Profile, HoneyPot, Better Password, PlumX and Akismet anti-spam plugin.^{134, 135, 136, 137} While these plugins were initially developed for the University of Pittsburgh publishing program, they are available to the broader OJS community and a number of them are available in the OJS plugin gallery for different versions of the software. These plugins provide OJS users with additional ways to deal with spam and bot users and ReCaptcha. Similar to U of A, the University of Pittsburgh also offers low-cost university-based OJS hosting to over 30 current and archived journals, using OJS with a focus on Open Access and alternative metrics.¹³⁸

Aside from being used by a number of North American academic institutions, it is a widely used journal management and publishing system worldwide. As a university-led initiative offering OSS, it helps reduce the cost associated with publishing, thus being the preferred solution for academic publishing around the world. This is evident by the 11,572 active journals using OJS in 2019 worldwide.¹³⁹ It is especially an attractive solution for many North American libraries who are not only looking for these solutions but also have philosophies that aligned with those of PKP. Throughout the years, PKP has established many partnerships with individual libraries as well as groups of libraries that support their work. It is clear that PKP has strong ties with libraries in particular, North American libraries as all of PKP's development partners are North American libraries. Additionally, since 2012, there are various North American libraries that continue to financially support PKP.¹⁴⁰

¹³⁴ For integration to ORCID

¹³⁵ Plugin to reduce number of bot registration by creating minimum and maximum registration times.

¹³⁶ Plugin that provides additional password restriction when new users create

¹³⁷ Plugin for alternative metrics. Timothy S. Deliyannides and Clinton T. Graham, "OJS and PlumX: Altmetrics at the University of Pittsburgh and Beyond" (conference, PKP Annual General Meeting, Simon Fraser University, Burnaby, BC, Canada, October 3, 2014), <http://d-scholarship.pitt.edu/23411/>.

¹³⁸ "Why Publish with Us? | University Library System (ULS)," accessed June 22, 2020, <https://library.pitt.edu/why-publish-us>.

¹³⁹ "Global Use of OJS, 2017-19," RPubS-OJS Usage Statistics, accessed November 27, 2020, <https://rpubs.com/saurabh90/pkp-dashboard>.

¹⁴⁰ Yearly list of the libraries that financially support PKP is available on <https://pkp.sfu.ca/about/organization/>

Part III: SWOT Analysis of Library Publishing

As highlighted in this report, libraries have taken up publishing since the early 2000s as an extension of their work, largely because of their frustrations with the existing scholarly system.¹⁴¹ Many libraries have turned to PKP and its software as part of their solutions. In fact, the rise of library publishing and PKP cannot be separated from each other, with North American academic libraries being the earliest supporters of PKP—both financially and developmentally. The University of Pittsburgh was the first broad partnership PKP had formalized as development partner. PKP had also has a development partnership with larger library groups including the Ontario Council of University Libraries (OCUL), but even before the start of this partnership, OCUL already had members of their library staff across 5 of their libraries, with over 8 years of experience using OJS.¹⁴² Support from the library community also came in the form of help publicizing OJS, as with the University of Waterloo Library who, in 2014, designed materials to create awareness of OJS.¹⁴³ The partnerships that PKP has with individual libraries and, more recently, groups of libraries (such as LPC) are mutually beneficial; for example, LPC-PKP collaborate on activities such as joint workshops and presentations, shared advocacy initiatives, and assistance with software documentation. Although the relationship between LPC-PKP was already a strong informal partnership, a formal partnership was established in 2017 when they became strategic partners. The importance of such a relationship is recognized by LPC's Community Facilitator, Melanie Schlosser, who remarks that "PKP's software has been invaluable to the community of library publishers, and our community continues to benefit from innovations such as PKP's Private LOCKSS Network."¹⁴⁴ Many of PKP's partnerships with libraries and library organization have stemmed from the mutual support towards OA. Through the libraries' support and encouragement of the use of OA, they are addressing the significant impact that commercialization of publishing and the serials crisis have had on libraries. Libraries as

¹⁴¹ Lippincott, *Library as Publisher*.

¹⁴² Ontario Council of University Libraries, "Major Development Partnership with the Public Knowledge Project (PKP)," Ontario Council of University Libraries, accessed November 29, 2020, <https://ocul.on.ca/node/1312>.

¹⁴³ Karen Meijer-Kline, "Publicizing OJS at Your Library," Public Knowledge Project, accessed November 29, 2020, <https://pkp.sfu.ca/2014/10/17/publicizing-ojs-at-your-library/>.

¹⁴⁴ Kevin Stranack, "Library Publishing Coalition Becomes Newest PKP Strategic Partner," *Public Knowledge Project* (blog), accessed November 29, 2020, <https://pkp.sfu.ca/2017/11/29/library-publishing-coalition-becomes-newest-pkp-strategic-partner/>.

publishers serve as an alternative avenue to commercial publishing and provide a platform for scholarly work that does not find a home with traditional publishers. With the growth of OA and development of OA software, both of which align with their mission, this allows libraries to take on the role of library publisher with greater ease. PKP's open source software and PKP PS provide libraries looking to start publishing with a non-profit, non-commercial alternative that allows them to offer journal hosting services.

The final section of this report analyzes the strengths, weaknesses, opportunities and threats of library publishing as a scholarly publishing subfield. In doing so, it outlines the strengths and benefits libraries provide to the scholarly community, discusses weaknesses library publishers often have in comparison to more established publishers, highlights a few opportunities library publishers can consider to grow their services and the external factors that can negatively impact library publishers.

Strengths

Willingness to experiment and support niche and experimental publications.

As mentioned throughout this report, library publishing fills a need not being met by commercial publishing. This includes providing a way for publication to remain scholar-owned, countering the trend of large commercial publishers buying smaller publications.¹⁴⁵ Library publishers provide an alternative means for smaller publishers to avoid having to sell to for-profit publishers, by offering free or cheaper hosting along with other services to support their publishing efforts.¹⁴⁶ This also extends to small or niche publications with limited readerships that do not necessarily appeal to other publishers. Libraries are also more willing to embrace these projects as their main objective is to seek high-quality content.¹⁴⁷ Library publishers are also willing to publish scholars regardless of their career stage and provide an avenue to do so that commercial publishers do not.¹⁴⁸ Through publishing, libraries seek to transform scholarly communication by giving a home to content traditionally ignored.¹⁴⁹ More importantly, library publishers are aware of their

¹⁴⁵ "The World of Academic Publishing."

¹⁴⁶ Melody Layton McMahon, "DIKTUON: The Library as Publisher? Is It Possible for a Small Library?" 8, no. 1 (n.d.): 3.

¹⁴⁷ Lippincott, *Library as Publisher*.

¹⁴⁸ Chadwell and C. Sutton, "The Future of Open Access and Library Publishing."

¹⁴⁹ Lippincott, *Library as Publisher*.

opportunity to address inequalities within scholarly publishing, with many library publishers adopting social justice values and publishing work from underrepresented groups.¹⁵⁰

As library publishers operate on a very different business model with little or no emphasis on the profit—they have more room to experiment with content and formats, which differs significantly from commercial publishers that have distinct publishing portfolios and specialties. Their subsidized operating budget allows for greater flexibility, and even the ability to customize policies and appearance of journals, based on the desires of authors and editors.¹⁵¹

Commercial publishers tend to have a unified appearance and will often have subject-area specialties. On the other hand, library publishing tends not to specialize, allowing for variation in their portfolio. The University of Pittsburgh, for example, provides hosting using OJS for a variety of disciplines; its 2020 publishing portfolio ranges from medical (e.g., *International Journal of Medical Students*), humanities (e.g., *Anthropology & Aging*) to commerce (e.g., *Pittsburgh Tax Review*).¹⁵² Library publishers also have more tolerance for experimenting with formats. In *Library as Publisher: New Models of Scholarly Communication for a New Era*, Emory University Libraries is highlighted for publishing *Southern Spaces*, a multimedia journal that offers photo essays, videos, and presentations traditionally missing from these types of publications.¹⁵³ The University of Minnesota Press has also developed Manifold Scholarship, a publishing platform for “texts, research materials, and media from their research and writing in progress and to receive community feedback.”¹⁵⁴ Again, these are elements that are not typically offered by other publishers. Besides allowing for a broader range of formats and publications, library publishing also involves much less bureaucracy and financial risk, thus allowing for new projects without the high level of assessment and planning that commercial and other publishers must undertake.¹⁵⁵

¹⁵⁰ Lippincott.

¹⁵¹ Lippincott.

¹⁵² University of Pittsburgh Library System, “ULS Publications,” University of Pittsburgh Library System, accessed September 10, 2020, <https://www.library.pitt.edu/publications>.

¹⁵³ Lippincott, *Library as Publisher*.

¹⁵⁴ “Learn,” accessed November 27, 2020, <https://manifoldapp.org/learn>.

¹⁵⁵ Lippincott, *Library as Publisher*.

Established and New Relationships

One of the key strengths libraries have is their knowledge of scholarly publishing and their relationship with scholars, that they develop in working with them by ensuring they have access to research. Given the circumstance most libraries are currently in, due to serialization and declining library budgets, an understanding of researchers and their needs is important. In a 2020 panel discussion hosted by the Canadian Association of Learned Journals (CALJ), several Canadian librarians discussed the considerations they must make when they decide when acquiring collections and cancelling bundles or individual subscriptions.¹⁵⁶ Some of the factors they consider are expressed faculty need and whether their researchers cite these journals in their work. When there are discrepancies between the two, librarians discuss these with the faculty or researchers. Maintaining these relations and communicating with faculty is a unique trait that librarians have over other types of publishers within scholarly publishing.

Their new role as library publishers requires them to continue collaborating with faculty and scholars.¹⁵⁷ Librarians are known in the scholarly community for their strong work ethic and willingness to partner whenever needed.¹⁵⁸ With hosting being the most common library service, librarians will work with faculty and students to set up their journals, providing the technical infrastructure. In addition to this, librarians as publishing partners also provide their expertise and advice in the continually changing scholarly environment. Many libraries provide or curate resources to help journals establish their editorial boards, understanding reviews, journal policies and much more. The Open Journals @ Queen's publishing service offers advice to its clients as part of its service list.¹⁵⁹ In addition, libraries will often refer to published resources like the PKP School courses of documentation that PKP has developed for this purpose.

¹⁵⁶ Kristin Hoffman, Mariya Maistrovskaya, and Janice Adlington, "CALJ Webinar: Straight Talk from Librarians about Supporting Open Access and Building Collections," <https://www.youtube.com/watch?v=CnxcvoFI62U&feature=youtu.be>.

¹⁵⁷ McMahon, "DIKTUON: The Library as Publisher? Is It Possible for a Small Library?"

¹⁵⁸ Lippincott, *Library as Publisher*.

¹⁵⁹ "Open Journals @ Queen's: Service Description | Queen's University Library," accessed November 29, 2020, <https://library.queensu.ca/help-services/publishing-support/open-journals-queens-service-description>.

For faculty, the library's journal hosting service offers a convenient and efficient way to manage their journals.¹⁶⁰ In addition, library publishers often provide a lower cost or free option to publish for members of their own community. There are a number of North American library publishers, such as U of A and University of Minnesota, who offer free journal hosting for those that meet a basic set of criteria (such as including a home institutional affiliation) This provides a means for niche journals that might be hidden or otherwise not published by other publishers.

Libraries also demonstrate a willingness to publish scholars' work at all stages of their academic career, which naturally extends to students. Library publishers also provide education and support to students as content creators by publishing student and course journals. It also teaches them to be more informed consumers by educating them on the publishing process.¹⁶¹ In support of this, PKP offers documentation on course journals and student journals. Additionally, PKP PS offers free student journal hosting for institutional clients to support these types of publications. Student journals also provide a way to showcase and disseminate student work, while providing students with an opportunity to learn about publishing as an academic.¹⁶² This opportunity is beneficial to students and for the publishing ecosystem as a whole. With libraries educating and providing a means for publishing as students, it has the potential to produce experienced authors, reviewers and editors for the future. Student and course journals address the barrier to entry present in publishing and provide a platform for their work to be discovered.¹⁶³ Additionally, as libraries who follow the services approach do not have specialized portfolios, they have an opportunity to be more welcoming to students who may be otherwise hesitant to publish. The inclusion of students is consistent with library publishers' mission to establish a more equitable publishing environment.

¹⁶⁰ Jingfeng Xia, "Library Publishing as a New Model of Scholarly Communication," *Journal of Scholarly Publishing* 40, no. 4 (June 2009): 370–83, <https://doi.org/10.3138/jsp.40.4.370>.

¹⁶¹ Amy Buckland, "More Than Consumers," in *Getting the Word Out Academic Libraries as Scholarly Publishers* (Association of College and Research Libraries, a division of the American Library Association, 2015), 193–202.

¹⁶² Bonn and Furlough, "The Roots and Branches of Library Publishing Programs."

¹⁶³ Buckland, "More Than Consumers."

Expertise in Digital Publishing

Libraries are already experienced in curating and preserving content and this expertise offers them a lot of insight for their role as publishers. Librarians help make publications discoverable with their knowledge of how indexes and metadata work; they can advise journals (and editors that may be unaware) of what metadata to highlight on the level of the article and the journal to maximize their discoverability. They understand the importance of metadata standards and how to maintain them.¹⁶⁴ In doing so, library publishers are helping to ensure that these records do not disappear.¹⁶⁵ In addition, some libraries are also helping with ISSN registration and with getting publications listed in commercial and non-commercial indexes and aggregators.¹⁶⁶ For example, the University of Pittsburgh lists on its publishing page that they work with journals to expose their metadata through OAI-PMH, EBSCO Discovery Service, DOAJ, and other major indexes to increase their exposure and enhance their impact.¹⁶⁷ Similarly, SFU also offers advice on increasing journals and books' visibility and ensuring that content is accessible to a suitable audience.¹⁶⁸ By publishing themselves, libraries ensure that scholarly records are preserved over time as part of their work as librarians and help provide journals with discoverability by having good metadata.¹⁶⁹ To assist librarians in this work as publishers, many open source software packages—including OJS—offer rich metadata and are optimized for Google Scholar and Crossref.

Weaknesses

Varied or lack of Resources

Librarians are consistently willing partners and eager to take on roles to meet faculty and student needs as they arise. Libraries are resourceful and are able to reallocate staff,

¹⁶⁴ Anali Maughan Perry et al., "Libraries as Journal Publishers," *Serials Review* 37, no. 3 (September 2011): 196–204, <https://doi.org/10.1080/00987913.2011.10765382>.

¹⁶⁵ Lippincott, *Library as Publisher*.

¹⁶⁶ Buckland, "More Than Consumers."

¹⁶⁷ University of Pittsburgh Library System, "Tools and Services," University of Pittsburgh Library System, accessed September 11, 2020, <https://www.library.pitt.edu/tools-and-services>.

¹⁶⁸ "Contact + about | SFU Library," accessed September 11, 2020, <https://www.lib.sfu.ca/help/publish/dp/about#about-digital-publishing>.

¹⁶⁹ Skinner et al., "Library-as-Publisher."

rather than creating new dedicated positions to fill a need.¹⁷⁰ While this may seem like a strength, it can also signal a potential weakness. Publishing requires a considerable amount of staff time and expertise to implement and maintain,¹⁷¹ which might prove difficult, given that libraries often have limited staff and often budget. A 2019 LPC report found that, on average, North American libraries have 2.3 full-time professional staff per program, which often is not enough to fill the demand for services.¹⁷² Paige Mann from the University of Redlands indicates that the staff member that works directly with the publishing process also has other responsibilities.

Naturally, librarians working in library publishing operations find challenges in balancing multiple roles simultaneously.¹⁷³ To supplement this workload, the libraries use a combination of students, paraprofessionals, freelancers and vendors.¹⁷⁴ Some library publishers find it challenging to find vendors (e.g., printers, graphic designers, and editors) to work on small scale projects,¹⁷⁵ although it appears more vendors are becoming willing partners. This variability in staffing may limit what services libraries can offer and their ability to scale up.

Libraries undoubtedly seek to utilize staff expertise but might find it challenging to address their deficits. It is also important to consider that offering services based on staff expertise can become problematic if staff members leave the institution. Hiring additional staff members may not always be an option for libraries, given that most institutions face a flat or shrinking budget.¹⁷⁶

Funding and Institutional Support

Library publishing often starts or functions as a project within an institution, with funding from the library's operating budget, as is the case for Portland State University, Temple

¹⁷⁰ Lippincott, *Library as Publisher*.

¹⁷¹ Park and Shim, "Exploring How Library Publishing Services Facilitate Scholarly Communication."

¹⁷² Schlosser, "The State of the Field," November 29, 2018.

¹⁷³ Publishing Coalition Library, "Twitter Post," *Twitter*, July 7, 2020, <https://twitter.com/LibPubCoalition/status/1280511842792755200>.

¹⁷⁴ Lippincott, *Library as Publisher*.

¹⁷⁵ Lippincott.

¹⁷⁶ Monica McCormick, "Towards New-Model Scholarly Publishing Uniting the Skills of Publishers and Libraries," in *Getting the Word Out Academic Libraries as Scholarly Publishers* (Association of College and Research Libraries, a division of the American Library Association, 2015), 57–80.

University and Ohio State University.¹⁷⁷ The prevalence of this issue is also supported by the 2016 LPC, which finds that “nearly half of library publishers rely exclusively on the library's operating budget for their funding.”¹⁷⁸ With this type of funding model, library publishing operates a very different business from that of many other scholarly publishers. A majority of library publishers are not expected to generate revenue or break even.¹⁷⁹ Their reliance on grants and operating budgets, combined with the lack of profits or a sustainability plan, means that they do not have a steady flow of income to support their publishing activities, which could result in disruption of services if funding decreases or they are unable to maintain their overall program. Not all libraries face this issue, as there are some publishing programs with lean budgets, while others have institutional and grant funding available to them.¹⁸⁰ The support they garner will also be important as this also changes over time, depending on the university administration and the need for perceived specific institutional programs.¹⁸¹

Journal hosting is often one of the first services a library publisher offers using open source software; however, these types of software do require technical maintenance over time. It is not easy to calculate or anticipate the staff time involved with having to maintain the technical infrastructure. Libraries with less funding for their publishing program but with access to technical library staff with a strong commitment to OSS have leaned towards using OJS for their journal publishing; this is, perhaps, why many mission-driven libraries use OJS and OMP to host and publish their journals and monographs.^{182, 183}

For other digitization projects that cannot utilize existing platforms, libraries often look to grants to create or continue their development.¹⁸⁴ Unfortunately, grants are not as easy to acquire; funders and technical talent prioritize projects that create new

¹⁷⁷ Johanna Meetz, Karen Bjork, and Annie Johnson, “Building on What We've Learned: Approaches to Library Publishing from Three Different Universities,” *Library Faculty Publications and Presentations*, July 23, 2020, https://pdxscholar.library.pdx.edu/ulib_fac/313.

¹⁷⁸ Lippincott, *Library as Publisher*.

¹⁷⁹ Lippincott.

¹⁸⁰ Schlosser, “The State of the Field,” November 29, 2018.

¹⁸¹ Xia, “Library Publishing as a New Model of Scholarly Communication.”

¹⁸² “Findings from Community Consultation | Public Knowledge Project,” accessed October 18, 2020, <https://pkp.sfu.ca/findings-from-community-consultation-2018/>.

¹⁸³ Bonn and Furlough, “The Roots and Branches of Library Publishing Programs.”

¹⁸⁴ McCormick, “Towards New-Model Scholarly Publishing.”

knowledge, which creates an issue with sustainability. The existing project will often end up competing for funds, as is the case with PKP, which has been selected as one of 3 projects in SCOSS^{185,186} for its ambition to scale up its hosting and publishing services to subsidize the development of the software. The financial support of these funders is intended to support the non-commercial services that Open Access and open science depend on. As of November 2020, there are 3 academic institutions that have pledged their financial support for PKP.¹⁸⁷ Financial uncertainty has been echoed for other areas of the publishing process by Sonya Betz at the U of A in the LPC's Twitter thread. Betz indicates that finding consistent funding for copyediting and administrative management is a challenge for their editors.¹⁸⁸

Lean Service Offerings

Unlike other scholarly publishers, library publishers may not provide journals with a full range of services. As previously mentioned, the service libraries can provide are often directly tied to their library's staff. Some of the identified service shortcomings initially included acquisition, editorial management, contract negotiation, marketing, and subscription management.¹⁸⁹ A lean service offering might appeal to cost-conscious journals; however, established journals looking for a new publisher may end up overlooking the library for this particular reason. Librarians may also ignore ad hoc services, such as design or marketing. Syracuse University librarian, David Seaman confirmed that libraries tend not to do marketing or design and recognized the need to understand better the ad hoc skills of publishing and the mechanics of dissemination.¹⁹⁰

¹⁸⁵ Organization that vets scholarly projects that are looking for funding and connects them to institutions that may be interested in providing funding. Projects are given a funding cycle (2 to 3-year term) in which they can essentially crowdsource funding.

¹⁸⁶ "SCOSS – The Global Sustainability Coalition for Open Science Services – Facilitating Funding to Help Ensure the Long-Term Sustainability of the World's Open Science Infrastructure," accessed September 11, 2020, <https://scoss.org/>.

¹⁸⁷ Public Knowledge Project, "Sustainers Public Knowledge Project," accessed November 29, 2020, <https://pkp.sfu.ca/sustainers/>.

¹⁸⁸ Library, "Twitter Post."

¹⁸⁹ Sarah E. Thomas, "Publishing Solutions for Contemporary Scholars: The Library as Innovator and Partner," ed. Norbert Lossau and Sabine Rahmsdorf, *Library Hi Tech* 24, no. 4 (January 1, 2006): 563–73, <https://doi.org/10.1108/07378830610715428>.

¹⁹⁰ Lippincott, *Library as Publisher*.

While libraries do have expertise in metadata that provides journals with discoverability, they do not often provide traditional marketing for their journals or their programs that other publishers, like commercial publishers, can. Libraries may not have the staff and perhaps expertise to offer services such as advertising, e-mail marketing, or be able to attend disciplinary conferences that would help their journal's exposure and help grow their program.¹⁹¹ The 2020 LPC directory indicates that only 30% of the library members offer marketing services, up 3% from the previous year and similarly, only 36% of these members offer graphic design.¹⁹² This might be due to the lack of need for these services or the inability to provide them. Overall, there is a level of uncertainty about what authors, faculty and other community members expect from libraries regarding marketing and publicity.¹⁹³

Opportunities

To maintain and grow their publishing program, libraries have a number of existing and new opportunities they can take advantage of. These include seeking partnerships within their institutions and taking the time to examine market needs.

Press and the Library Publisher

Libraries already utilize the relationships they have with various members of their institution. To grow their library publishing program, librarians will need to seek more partnerships from their institutions and communities.

One partnership that some library publishers have taken advantage of is with the university press. There have been many recent collaborations between library and university press, emphasizing the potential for ongoing collaboration to innovate services and publications.¹⁹⁴ Several academic professionals have written about this type of partnership over the last decade. While it is important to note that there are circumstances where library publishers and university press are merged for various reasons, this is not the opportunity being highlighted. This section describes the potential

¹⁹¹ Lippincott.

¹⁹² Calculated using the results of the advanced search of the LPC directory available <https://librarypublishing.org/directory-year>

¹⁹³ Okerson and Holzman, "Introduction."

¹⁹⁴ Yuan Li et al., "The Library-Press Partnership: An Overview and Two Case Studies," *Library Trends* 67, no. 2 (2018): 319–34, <https://doi.org/10.1353/lib.2018.0039>.

benefits of a short-term project partnership, or where resources could be shared on an ongoing basis. Collaboration could potentially help reduce costs by reducing redundancy and sharing a list of vendors.

Examples of past collaboration between library publishers and university presses include having the library digitize the press's backlist; the library hosting supplementary files for press books; partnering to produce scholarly journals or books.¹⁹⁵ As the university press is often established long before library publishing starts at an institution, it is more likely to develop a brand and gain credibility amongst the scholarly community. Having a library publisher handle the digitization and hosting of the supplemental file(s) could help library publishers establish credibility through association. University presses would benefit from outsourcing these projects. University presses could also take advantage of hosting services that a library publisher can provide. For example, a monograph software such as OMP could be hosted with the library publisher and used to facilitate the manuscript's submission and review. Once accepted, the university press could continue their production work for print or online publication. The library can also host online versions of books. Alternatively, a university press could redirect submissions not suited for the press to the library for publication.

Collaboration could also mean sharing resources and specialties, which might mean having cross-appointed roles where the press and publisher can share expertise in editing and design for more general projects. It could also mean sharing vendor lists that would reduce the press and library's need to vet vendors such as external editors, printers and graphic designers. Less time required to do these tasks allows greater efficiency. Again, as the press is more likely to be the established entity, libraries could benefit from having a list of vendors that the press works with. This could help the library publisher's credibility by producing high-quality work and eliminating the perception that the library publishing is amateurish.

Library publishers could also consider a partnership with scholarly societies and non-profit academic organizations as there are potentially many that align with their mission.¹⁹⁶ Partnerships could also extend to professional programs within one's institution and, where possible, partnering with scholarly groups to publish their work.

¹⁹⁵ Li et al.

¹⁹⁶ Bonn and Furlough, "The Roots and Branches of Library Publishing Programs."

This would offer libraries a way to generate income to supplement their operational budget or become less dependent on the library's funding. Developing these scholarly networks could help to shift power from traditional publishers to university libraries and researchers.¹⁹⁷

Examining Market Needs

Library publishing responds to gaps in the scholarly publishing landscape that traditional publishers had not been interested in.¹⁹⁸ As mentioned, libraries are aware that there is a need to address inequalities within scholarly publishing and recognize that they are able to do so.¹⁹⁹ It will be necessary for libraries to look to the market for new opportunities to grow their publishing portfolios where applicable.²⁰⁰ Libraries will need to continue or start anticipating the needs of the scholarly community. With libraries often having a direct relationship or at least access to scholars, this provides libraries with a means to address unmet and emerging needs first-hand.

Library publishers can expand their services to add more scholarly formats, such as monographs and other digital works. The 2019 *Mind the Gap* landscape survey report provides open source tools and platforms that libraries can use to diversify their services. While not all scholarly work is best suited for digital format, it would be an excellent opportunity for library publishers to assist in the publication of works which are so suited. Libraries such as SFU offer researchers, students and faculty the option of publishing in a journal and a book. Using OMP, SFU provides hosting services to scholarly work in monograph form for those who meet their hosting criteria. The SFU Digital publishing program has published *SFU Archaeology Press* and has published *History of Community Mental Health in the Vancouver Area (1973 - 2000)*.²⁰¹ While SFU digital provides hosting for the work, the ad-hoc editorial work, including peer review and copyediting, falls on the authors.²⁰² Drawing from the work published by SFU digital,

¹⁹⁷ Dodds, "The Future of Academic Publishing."

¹⁹⁸ Lippincott, *Library as Publisher*.

¹⁹⁹ Lippincott.

²⁰⁰ Lippincott.

²⁰¹ Kate Shuttleworth, "Book Publishing Options with SFU Library," SFU Library Digital Publishing, September 14, 2020, <https://www.lib.sfu.ca/help/publish/dp/book-publishing-options>.

²⁰² Shuttleworth.

libraries could work with societies and associations to publish abstracts and proceedings from their conferences and meetings.

Threats

Undoubtedly, library publishing faces several threats to its ability to continue and grow; these include the perception of scholars and economic trends that could impact their funding.

Perception of Stakeholders

Scholars are among the most important partners library publishers have and are often why the library will offer publishing services. With the scholarly landscape continually changing, it is important to maintain the support of the scholars who see the benefits of publishing with the library and gain the support of skeptical ones. Some scholars may not wish to work collaboratively with libraries and librarians and just expect them to be readily available for resources. They perceive this as the role that libraries play and may hold resentment if they try to move beyond this.²⁰³ Researchers may be more reluctant to work with library publishers as they do not carry the prestige of an established commercial journal or university press. As mentioned, this is an important factor when scholars and faculty are evaluated for career advancement.

Given that library publishing is relatively new, it faces a concern over legitimacy, making the partnership with scholars from particular disciplines even more important. It is imperative to have processes for publication recognized as respectable venues for that specific discipline.²⁰⁴ This would most likely be journals for STM disciplines and monographs for humanities. Also, given that library publishers exist as a service for their institutional members, they would need to be mindful of appearing like a “vanity press;” again, this is where having established process and ensuring quality is important. Library publishers also face shared misconceptions from other scholarly publishers, researchers, and perhaps other librarians that work published through the library is not

²⁰³ J. Britt Holbrook, “We Scholars How Libraries Could Help Us with Scholarly Publishing, If Only We’d Let Them,” in *Getting the Word out: Academic Libraries as Scholarly Publishers* (Association of College and Research Libraries, a division of the American Library Association, 2015), 43–54.

²⁰⁴ Holbrook.

peer-reviewed.²⁰⁵ As not all work that libraries publish requires peer review, it further contributes to the misconception around what services libraries offer and what will be peer reviewed. Such misconceptions would negatively impact the credibility of the library and its brand and could deter scholars from certain disciplines that place great emphasis on peer review from wanting to start a publication with the library. Similarly, it could also deter established journals from considering services provided by libraries, such as hosting.

While experimentation and not establishing a publishing specialty are undoubtedly beneficial, it poses some potential drawbacks in how scholars perceive it. Scholars may overlook publishing with a journal hosted or published by a library because of the importance of publishing in the “right” places for one's career advancement. Publishing in a perceived lower-quality venue and outside their discipline is not recognized or rewarded. Along with the perception that library publishers do not peer review, this poses the greatest threat to libraries' legitimization as publishers.²⁰⁶ Lastly, experimentation could be perceived by others negatively. Libraries would need to exercise caution when starting journals and to experiment with formats. If scholars perceive this as amateur or low-quality, the library may be considered last resort if they cannot be published in a commercial publication, which is the hardest to get into. It could also harm the library and institution's image and lead to questions about the proper use of resources.²⁰⁷

Funding and Economic Trends

In 2020, almost half (48%) of the LPC respondents indicated that 100% of their library's publishing budget came from its operating budget.²⁰⁸ While it offers library publishers a financial buffer and allows them to experiment, it poses a level of economic uncertainty as their budgets might end up fluctuating from one fiscal year to another. It could mean having to reduce services or staff if budgets are reduced. Libraries face a flat or declining budget;²⁰⁹ this already has negative implications on the scholarly landscape.

²⁰⁵ Lippincott, *Library as Publisher*.

²⁰⁶ Lippincott.

²⁰⁷ Lippincott.

²⁰⁸ Melanie Schlosser, “The State of the Field: An Excerpt from the 2020 Library Publishing Directory,” February 20, 2020, <https://librarypublishing.org/library-publishing-landscape-2020/>.

²⁰⁹ Dodds, “The Future of Academic Publishing”; Lippincott, *Library as Publisher*.

Economic trends directly impact library budgets; consequently, the library publishers' ability to operate. Following the 2008 financial crisis, like all other societal institutions, libraries had been deeply affected, with budgets being severely cut, which most likely resulted in reduced resources, including programs, staff reduction, etc.²¹⁰ As this report is written over a current pandemic, it is unclear precisely what effect this will have on libraries. Many companies, including libraries, are already exercising hiring freezes, salary reduction, and cutting or eliminating non-essential expenses. However, librarians are certain of one thing; that this will result in budget cuts and freezes, with some preparing for it to be worse than the last economic crisis.²¹¹

Higher education institutions will face many challenges and will need to prepare for the economic changes. As many library publishers do not have an established financial plan independent of the library's operating budget, library publishing programs will undoubtedly be negatively affected. The lack of a consistent source of revenue could create challenges for library publishers to operate and grow. Budget cuts could significantly reduce or cut the budget for part-time staff, student positions, and vendors that many libraries rely on to keep their publishing programs running. It could also reduce the journals they can start or take on in the coming months.

The relationship between PKP and the library will continue to be important as more libraries look to offer publishing services. More importantly, the resources that PKP offers from its open source software, educational tools such as the library publishing course, and documentation would allow libraries to start offering these services. For institutions that do not have the technical infrastructure to host their own journals PKP PS offers institutional hosting that would allow them to do so. The PKP institutional hosting plan allows libraries the opportunity to offer student journals for free that have many benefits for the scholarly community by providing students with the opportunity to learn about scholarly trends as well applied training on developing journal policies and serving as editors and reviewers.

²¹⁰ Lindsay McKenzie, "Libraries Brace for Budget Cuts," Inside Higher Ed, April 17, 2020, <https://www.insidehighered.com/news/2020/04/17/college-librarians-prepare-looming-budget-cuts-and-journal-subscriptions-could-be>.

²¹¹ McKenzie.

Conclusion

Many trends shape the current scholarly publishing landscape; it is also important to note that it is in a constant state of change and development. The shift towards OA and subsequent initiatives exists as an ongoing attempt to address problems that the commercialization of scholarly publishing has caused. In response to this, PKP was created in 1997 to improve scholarly research, and presently, it is best known for its software development. OJS was considered visionary and unique; it offered users the option to publish outside the established commercial channels. Since then, the number of OJS users continues to increase. There are now over 10,000 journals worldwide using OJS.²¹² In North America, the number of academic institutions, including academic service providers, using OJS, has grown alongside general users. Both academic libraries that engage in publishing and provide publishing services are categorized as library publishers in this report. Analyzing internal and external data reveals that, between 2001 to 2019, there was an increase in the number of institutional journals in the PKP Index from 107 to 481. In 2018, 423 Canadian journals were using OJS, hosted by 32 Canadian institutional libraries and 1 American institutional library. Geoff Harder, who manages the OJS installations for U of A, expressed the need to have OJS and hosting services that are “positioned to go nose to nose with the big commercial publishers.”²¹³

As new libraries begin to engage in publishing activities, they will adopt a service-driven approach to their operations, primarily focusing on a need in their community. The first and most common service libraries offer is journal publishing, which is now possible with a number of available publishing tools and platforms. More specifically, open source software like OJS, highlighted throughout this report, has made it easier for libraries and similar institutions to either publish or assist others to do so. OJS is the most widely used open source journal publishing platform. More and more North American libraries are using it yearly, which is evident by the growth in the number of LPC members engaging in journal hosting or publishing and the increasing number of libraries hosted by PKP PS yearly. As libraries continue to engage in publishing activities, OSS will continue to play

²¹² Nancy L. Maron, “Understanding the Audience of the Public Knowledge Project’s Open Source Software,” March 2018, <https://pkp.sfu.ca/wp-content/uploads/2018/03/PKPCCommunityConsultationFindings.pdf>.

²¹³ “Findings from Community Consultation | Public Knowledge Project.”

an essential role in supporting them. Having OSS software available could help contribute to a library's ability to be a self-sustaining business.

As the current method of gathering OJS user data does not differentiate by the type of user, the increase in the number of institutions using OJS could suggest more libraries engage in library publishing activities. The emergence and growth of library publishing results from a number of scholarly trends in the past few decades, primarily the rise of commercial publishers, the serials crisis and the Open Access movement. The rise of commercial publishers and the serials crisis place libraries in a difficult position, with a lasting impact on their purchasing budget and other scholarly publishing areas. On the other hand, Open Access aims to revert control and profit away from commercial publishers and expand access to research that greatly benefits the entire scholarly community. Library publishing can offer “new, open and sustainable models for publishing academic research.”²¹⁴

That said, library publishing should not be thought of as competing with A-list commercial publishers but rather as a complementary and alternative pathway to publication.²¹⁵ As libraries support Open Access as part of their mandate, they would likely also encourage the journals to utilize services. Offering titles as Open Access publications alleviates the financial burden for libraries which would otherwise have to pay subscription fees, and potentially for authors who would have to pay for APCs.

Libraries undoubtedly play an important role in the scholarly community. As highlighted in the library publishing analysis, they provide an avenue for niche work often overlooked by commercial publishers. Library publishing emerged as a type of publishing with its values and business model that significantly differed from other publishers that provided them with the means to fill this need. With their new role as publishers, libraries address a market not served by traditional publishers. Libraries as publishers provide the scholarly community with benefits which include providing a means to publish work other publishers would consider niche or experimental; they provide expertise in many areas, including digital publishing.

As publishers or publishing service providers, libraries rely on metadata practices that enhance the discoverability of content. The library's expertise in this area is

²¹⁴ Lippincott, “The Library Publishing Coalition.”

²¹⁵ Lippincott, *Library as Publisher*.

beneficial for both scholars publishing within these journals and researchers seeking content. They also provide training and education on areas such as copyright and indexing. By hosting and providing support in new regions like student journals, libraries provide training and exposure to students on the scholarly publication process, translating to a real benefit to the scholarly community by having knowledgeable authors and experienced reviewers and editors in the future.

As a relative newcomer to publishing, libraries as publishers have several obstacles to address to become a sustainable alternative to commercial publishers. One of the key things that need to be addressed is the lack of a sustainable business plan, considering most library publishing activities are funded in part or wholly by the libraries' operating budget, which can impact their ability to sustain these activities if any significant economic trends occur. This is likely the situation with the current pandemic; many libraries are likely facing financial uncertainty that could impact their publishing activities or hinder their ability to start publishing or offering additional services if planned during this time. Another obstacle library publishers must address or work towards is gaining credibility as publishers within the scholarly community; the type of partnerships with stakeholders within their institution and, more broadly, the community will be imperative to ensuring this.

In summary, there are a number of benefits that library publishers can offer the scholarly community. Although it is unlikely that all libraries will engage in library publishing, let alone establish publishing programs, having more libraries engage in these activities would positively impact the scholarly landscape. Their support for OA, first as librarians and now as publishers, is an important contribution to the OA movement. By providing an alternative place to publish, library publishers help shift the number of publications and submissions away from commercial publishers. They could, over time, disrupt the oligopoly these commercial publishers have in the scholarly landscape.

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