

Open Access Workflows for Academic Libraries

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There is a growing acceptance of open access funding models among academic publishers and a growing adoption of open access publishing agreements among academic libraries. In this context, libraries are taking on new roles and new processes to ensure the successful implementation of open access funding initiatives. This article will examine some of the key issues and considerations in the area of open access workflows, and discuss how one research-intensive library in the United States has approached these new functions.

Introduction

The transition of scholarly journal publishing from its historic subscription business model to new open access models is accelerating. In the wake of Plan S, the international initiative by research funders to advance open access, the European approach to advancing open access through centrally licensed agreements has migrated to North America. All major commercial publishers now have open access agreements in the United States, as do many not-for-profit publishers.¹ While there are alternatives that forgo article processing charges (APCs)—such as Subscribe to Open and the tiered model developed by Association of Computing Machinery (ACM)—the most prevalent open models at this time, such as Read and Publish, are based on the payment of charges per article. These charges are intended to substitute for the revenue generated from subscriptions, allowing the object of exchange between library and publisher to shift from paywalled content to open access publishing services for institutional research. At the time of writing, Cambridge University Press had signed over 300 Read and Publish agreements with US libraries.² This indicates a broad willingness on the part of US libraries to enter into open access publishing agreements. Furthermore, new guidance, released in August 2022, from the United States Office of Science and Technology Policy will require publications from US federally-funded research be made freely available and publicly accessible without embargo or delay. While concerns still abound over the sustainability, unintended consequences, and equity of APC-based models,³ the current trajectory and pace point to even higher levels of future uptake.

In part, the recent success of open access models in displacing the traditional subscription model stems from the growing momentum behind open science.⁴ The scientific community's adoption of open research practices in response to the COVID-19 pandemic affirmed the

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importance of sharing research data and open access to research publications.⁵ That journal publishers, in the chaotic early months of the pandemic, felt obliged to drop paywalls to the coronavirus literature to help accelerate research discovery, will not soon be forgotten, as it demonstrates their full understanding that paywalls impede science. The lessons learned from the pandemic have found their way into UNESCO's new Recommendation on Open Science, which will be followed by 193 countries, and state, "...the global COVID-19 health crisis has proven worldwide the urgency of and need for fostering equitable access to scientific information..."⁶ The renewed commitment to open science, and, by extension, open access, will further grow the number of libraries entering into APC-based agreements.

For libraries that are new to making open access agreements, questions often arise about how they are negotiated and the work involved with their successful implementation. This article will examine some of the key issues and considerations in the area of open access workflows. This includes key agreement clauses, funding verification, invoicing, reporting and analysis, post-publication processes, situating open access workflows in the library, and the role of third party-tools for improved workflow management. Where appropriate, this article offers modest suggestions related to these considerations rooted in the lessons learned by one research-intensive US library from implementing open access agreements across a wide variety of academic publishers. The article will also examine the successful incorporation of open access workflows into an Electronic Resources unit, which is a likely area of consideration for other libraries when locating their own open access workflow processes.

This article will help address the current gap in the literature on open access workflows as practiced within the context of the United States. The topics covered will be of interest to those who are currently responsible for developing and implementing open access publishing agreements, regardless of the size of their institutions or their functional location within the library. While support for the open access publication of institutional research may sometimes be seen as the domain of research-intensive institutions, its proportionally lower cost for institutions at the other end of the research output spectrum should make it an easier sell, with the goal of making all local research open more easily achievable. It is the hope that this article will also be useful to those considering the extent of their involvement with these new initiatives.

Literature Review

Open access workflows, as required by APC-based open access models like Read and Publish, are new to most North American academic libraries, but certain aspects are not necessarily unknown. Lessons have been gleaned, for example, from experiences operating local open access funds and, from a distance, from the experiences of European libraries and consortia that were early adopters of APC-based open access agreements. The limited literature on open access workflows in academic libraries largely runs through these two channels, the deepest being, by far, that originating from European experiences implementing central open access agreements.

For many US libraries, their first experience with open access workflows came through the operation of an open access fund. Open access funds, which cover the cost of affiliated author APCs, offered libraries a direct way to support open access publishing on their campuses. A SPARC survey in 2014 found that 51 libraries in North America were operating open access funds, with nearly 4,000 research articles published.⁷ Several articles and reports on open access funds mention the underlying workflows. Greg Tananbaum mentioned the importance of vetting applications for eligibility, verifying article publication, tracking results, and fund

disbursement.⁸ Stephen Pinfield mentioned the importance of establishing streamlined procedures and regular performance reviews.⁹ Heidi Zuniga and Lilian Hoffecker found that student registration data and employee HR information are useful sources for determining author affiliation.¹⁰ By 2016, interest in library-administered open access funds began to wane over funding concerns,¹¹ slowing open access fund workflow experimentation and development.

The most significant work to date in establishing, improving, and documenting open access workflows has been done by the Efficiencies Standards for Article Charges (ESAC) initiative, which focuses on optimizing, promoting standards, and good practices for open access workflows. In 2016 and 2017, ESAC organized two largely European workshops around open access workflows that demonstrated the need for workflow improvements in areas such as author identification, metadata exchange, and invoicing.¹² Workflow concerns and issues experienced by those negotiating and implementing open access agreements were surfaced in case studies by the Max Planck Digital Library¹³ and the Vienna University Library.¹⁴ To help address issues, ESAC published workflow recommendations covering author and article identification and verification; funding acknowledgement and metadata; and invoicing and reporting.¹⁵ In 2021, the recommendations were updated to include responsibilities of institutions, funders, and consortia; responsibilities of publishers; and relevant metadata.¹⁶ The ESAC standards have been heavily utilized in open access negotiations and conversations with publishers to establish and improve open access workflows.

Other relevant research has been done in the areas of open access workflow tools, metadata, and organizationally locating open access workflows. George Machovec provided an overview of tools and services to manage open access agreements.¹⁷ Publishers were found to not deliver consistent metadata to open access agreement customers in Europe.¹⁸ And Jill Emery, Graham Stone and Peter McCracken put forward ways to envisage open access management as part of their “Techniques for Electronic Resources Management” framework (TERMS), which includes considerations for metadata and reporting and for direct deposit of articles into institutional repositories.¹⁹

Open Access Workflow Considerations

The first thing to say about the work of managing and implementing open access agreements is that there is a wide range of possible approaches. Publishers are eager to offer agreements that are simple to implement, and libraries have limited staff resources available to take on new tasks. And it is indeed possible to enter into some open access publishing agreements without actually doing anything other than signing an agreement and paying an invoice. Others may also require institutions to approve each article for funding under the agreement. Some institutions will benefit from the possibility of such minimalist approaches, but this article takes a more expansive view of the library’s role, considering the full variety of ways library staff can take action to ensure the success of these initiatives and ultimately lay the groundwork for the broader shift of collections budgets from subscriptions to open access publishing. What follows is a general description of these processes, followed by a case study discussion of their implementation at the authors’ institution.

The Agreement

Not all library support of open access publishing requires a legal agreement. For example, Subscribe to Open, Diamond open access support, and ad hoc institutional APC payments

are all methods of funding open access publishing that can take place outside of any ongoing legal contract. Read and Publish initiatives generally require signing an agreement by their nature, and it can also be advantageous for libraries to establish agreements with pure open access publishers like PLOS and Frontiers. These agreements establish expectations in a way that is binding for both parties, giving libraries the opportunity to improve the publication process (for example, by requiring deposits to an institutional repository) or to standardize across their open access funding portfolios (for example, by establishing uniform eligibility criteria). More broadly, they provide the framework for a scalable and sustainable transition of library funding from subscriptions to open access publishing.

The actual process of negotiating such an agreement is very similar to that of negotiating a traditional content licensing agreement (and the “read” portion of Read and Publish agreements can be identical), but there are several potential considerations that are unique to these agreements. This is not the place to provide an in-depth description of the wide variety of open access publishing agreements, but some of these unique clauses include:

- **Article cap:** is there a maximum number of articles (or a maximum APC value) that can be published under the agreement? Preferably the answer would be “no”, allowing the institution to locally determine its own maximum based on its budget. Alternatively, some agreements do not specify a maximum because they are designed from the outset to cover all eligible articles, regardless of their number.
- **Unused funds/vouchers:** for agreements that rely on a deposit account (or a per-article voucher equivalent), what happens to any unused funds at the end of a term? It is in the library’s interest to be able to continue to roll these over from term to term.
- **Affiliation:** how does the publisher commit to identifying eligible authors? Do they take responsibility for this identification, or do they put the burden on researchers or the institution?
- **Eligibility:** which roles are eligible authors under the agreement? This might include both institutional roles (e.g. faculty) and author roles (e.g. corresponding authors). At what stage is eligibility considered—at submission, acceptance, publication? Which publication types are eligible?
- **Content license:** from which Creative Commons licenses may authors choose? Do the authors retain the remaining copyrights?
- **Retroactive conversion:** sometimes eligible publications fall through the cracks of the eligibility process and are only identified as eligible after publication. When this occurs, can these publications be converted to open access after the fact?

Most of these clauses will have a direct impact on the rest of the workflows arising from the agreement, and it will be beneficial if the relevant staff have a working knowledge of each agreement. For this purpose, libraries might use a simple table noting the pertinent details of each clause for each agreement.

Funding Verifications

Generally, a “traditional” Read and Publish agreement requires institutional funders to verify the eligibility of each article before it is applied to the agreement. This is in the interests of the library, ensuring that the limited resources defined by the agreement (an APC deposit, or allotment of vouchers) are not used for ineligible publications.

There are, however, funding models that impose no limits or per-article costs, where such a process is unnecessary. Examples include ACM's tiered model, Flat Fee Agreements and other models from PLOS, and uncapped Read and Publish agreements that are not APC-based. Under these deals, the institution pays an annual fee covering all eligible publications, regardless of their number. Since there are no resource constraints, there is little incentive on the institutional side to ensure that only eligible items are applied to the agreement. However, it should be noted that future renewal costs may be based on the volume of articles published under the agreement. So taking the long view, it may be wise to verify submissions under all agreements. Furthermore, even where there is no local incentive, some agreements require institutions to agree to verify eligibility.

Before library funders can confirm eligibility, the publisher must associate a particular submission with a particular institutional agreement. The methods for establishing this affiliation can vary, including:

- Author e-mail domain
- Institution selected from prepopulated list during submission (these lists may be populated based on organizational identifiers like GRID, ROR or Ringgold)
- Institutional affiliation as stated in the manuscript

It is in the interest of libraries to ask publishers to cast a wide net during this process, potentially using all of these methods in combination, so that submissions matching any one of these criteria would be associated with the agreement. False positives can always be filtered out during the next step, eligibility verification.

The criteria defining an eligible publication can be specified in the agreement, but this legal definition should be as broad as possible, allowing institutions to flexibly define their own local criteria as needed throughout the term of the agreement. In that local context, the library's communications with researchers will likely be the constraining factor. In other words, there can be two sets of "agreements" about what makes a submission eligible—a very broad legal agreement with the publisher, and a potentially more narrow informal set of expectations with one's institutional researchers about what will be published under the agreement.

There is a useful analogy here from the library acquisitions method of patron driven acquisitions (PDA). When use is low and purchase triggers are few, it is safe to define the pool of eligible content as broadly as possible. But when a high level of purchases risks draining the budget, the criteria defining that pool can be tightened. It is at least theoretically possible for libraries to take the same approach with open access agreements. That being said, the necessity of communicating these criteria transparently with researchers does limit their flexibility. Budgets notwithstanding, it is certainly best for libraries to provide consistency and intelligibility in their open access funding eligibility criteria. The publishing process is already confusing, without libraries offering a sort of "APC roulette."

From the library perspective, the actual process of verifying eligibility will depend on the publisher and the tools they have adopted. There are three main methods:

- Proprietary dashboard—some publishers have developed their own user interfaces for viewing metadata and confirming (or denying) eligibility.
- Third-party dashboard—other publishers have opted to use a third-party tool for the same functions, for example RightsLink from the Copyright Clearance Center. Alternatively, libraries can use their own third-party platform, an option that will be discussed in more detail below.

- **E-mail**—If the publisher doesn't have a purpose-built interface for communicating eligibility decisions (and can't connect to any locally implemented systems), e-mail correspondence is the universal backup option.

Regardless of the tool used, the process requires checking whether the submission is eligible for funding. This can be done manually, automatically, or both. For examples of automation, it may be possible to automatically verify institutional role with an automated lookup to the university's personnel directory, or to configure a maximum APC in the verification dashboard. Even when automations are in place, automatically declined submissions should be manually reviewed for problems with the process or potential exceptions.

Once the eligibility has been confirmed or denied, the publisher will communicate that decision to the authors. In cases of denial, there may have been an opportunity for the library to state the reason for the denial, which will typically be included in the same author communication. The authors will then have a choice of using alternative funding, finding an alternative venue for publication, or (in the case of hybrid journals), publishing "behind the paywall."

Invoicing

Details on invoicing will depend to some extent on the structure of that agreement. Possible scenarios include:

- **Deposit**: one lump sum intended to cover all publishing under the agreement during the term, which may be replenished as needed.
- **Flat fee**: one lump sum, which covers all publishing under the agreement during the term.
- **APC batch payments**: periodic payments, perhaps monthly, to cover all publishing during the period.
- **Per APC**: an invoice for each publication under the agreement. This option is only recommended for agreements with a low publishing volume.

In all cases, invoicing may be done directly with the publisher or through an intermediary. The intermediary may be a library consortium in the case of consortial deals, or a third-party service provider.

Reporting & Analysis

It is important for libraries that are parties to open access publishing agreements to receive timely, accurate, and consistent reports on how the agreement is performing. At minimum, such reports should be able to answer questions such as:

- How many articles have been published under the agreement?
- How much of our deposit has been spent? How much remains?
- What is the average APC paid under this agreement?
- How many submissions have been approved by the library? How many denied?
- How many eligible publications were not published open access (and why)?

The same "dashboards" described above for confirming eligibility can typically also be used for reporting submission-level details on all items published under the agreement. And here again, where purpose-built dashboards aren't available, e-mail fills in the gaps, with some publishers periodically sending a spreadsheet with this data.

These reports can be used for a variety of important purposes, including:

- Identifying problems with the current agreement: will we run out of funds before the end of the term? Are we receiving many fewer submissions than anticipated?

- Assessing the value of each agreement, which can also inform future negotiations. What factors result in a low cost-per-article, and how can these be reproduced across publishers?
- Assessing the value of the library's open access funding agreements as a whole, which may be a powerful tool in continuing to build support for this approach.

Of course, for Read and Publish agreements, data on open access publishing will only be half of the story, and evaluation of traditional institutional COUNTER usage data will need to be considered as well. (As an aside—the need to evaluate two forms of “outputs” (articles published and items used) is an argument for maintaining two separate costs (Read and Publish) to evaluate them against, rather than lumping both “read” and “publish” under one cost.)

Other data points might be considered as well, such as the usage (globally or institutionally) of the open access articles published under the agreement, or citations of the same.

Due to a lack of standardization and industry norms, the synthesis of this article-level metadata across agreements currently stands out as a significant challenge. Kate Amos, Bethany Harris and Amy Devenney detail the difficulties of collecting, cleaning, and analyzing such data at the level of a large national consortium, but even a single institution will face similar obstacles as it enters into more open access agreements.²⁰ There is great potential for international collaboration to improve this situation. One such initiative, the OA Switchboard, is discussed below.

Post-Publication Processes

There are two tasks that can only be completed after the submission has been accepted for publication and officially published: verifying open access and depositing the version of record to an institutional repository.

A single open access article can represent thousands of dollars of institutional investment and mistakes can happen. So for hybrid publishers in particular, it is important to verify that all of the items that a publisher claims to have published on an open access basis are indeed open. This check can be performed manually or in an automated way by, for example, passing the DOI to the CrossRef API to retrieve the type of license assigned to the publication.

The Creative Commons licenses assigned to open access publications remove any potential legal barriers to ingesting these publications into an institutional repository in a systematic way. By doing so, institutional repository administrators can get closer to providing a comprehensive collection of their institution's research output and thereby stewarding the future of their institutional research. Ingesting every publication from each open access agreement doesn't need to be a burdensome manual process. The SWORD protocol was developed with just such a use case in mind. SWORD was “designed to facilitate the interoperable deposit of resources into systems such as repositories.”²¹ By implementing SWORD, a publisher can automatically deposit its publications into the institutional repositories of its authors. While most open access publishers have not yet implemented SWORD, academic libraries and other open access funding institutions should continue to press for this functionality.

The Role of Third Party Tools

The growth of open access publishing, and Read and Publish agreements in particular, has spurred the development of a number of tools or systems designed to ease the implementation of open access funding schemes.

Most importantly, the OA Switchboard is a new initiative, developed in Europe but global in scope, to create a centralized data exchange hub that facilitates the automated delivery of open access publication data among publishers, author institutions, and research funders. This hub has been in operation since 2021, and currently sends two basic kinds of “messages”—one message inquires about the eligibility of a submission, the other notifies that a submission has been published. The OA Switchboard represents a collaborative and open solution to the problem of open access workflows—instead of each publisher running its own proprietary system to serve its institutional open access funders, under this option it sends standardized messages via the Switchboard. The great benefit of the OA Switchboard is the standardization of the format and delivery method of these communications between the relevant stakeholders. This not only has the potential to streamline workflows for libraries and institutional funders, but it also potentially reduces the barriers to entry to open access publishing for small and medium academic publishers.

The OA Switchboard is not, primarily, a front-end user interface—it is agnostic about the destination of the messages it relays. E-mail notifications may be the most basic option for delivering OAS messages, but this avenue is technically limited. This is where the third-party dashboards described above, sometimes called “federated OA account management systems” can play a role.

This emerging category of digital service platforms is designed to ease the burdens of institutional open access management. It includes Oable (from Knowledge Unlatched/Wiley), and Chronos Hub. Institutions with the necessary resources, especially large consortial funders, may have the opportunity to develop their own solutions customized to their local contexts. These systems function as a dashboard, a single interface to handle open access workflows across (ideally) all publishers, including those described above: funding verifications, reporting, and invoicing.

A significant challenge faced by these services is integration with publisher data systems. To exchange data in an automated way between these platforms and any given publisher system requires an investment of legal and technical expertise on both sides, investments that increase as the number and variety of these systems increase. The OA Switchboard is thus poised to solve a real problem by offering a centralized neutral hub for publishers and institutional funders to send and receive standardized article-level data.

Open Access Workflows At Iowa State University

Iowa State University is a public land-grant university with approximately 1,500 faculty. According to Dimensions, the bibliographic index from Digital Science, Iowa State authors published 3,945 articles in 2021. The University Library signed its first open access agreements in 2019, and at the time of writing has agreements providing for the open publication of Iowa State research with sixteen publishers. While the foregoing has been a general description of considerations related to open access workflows, this section describes this work in this specific institutional context, focusing in particular on its largest open access agreement, a Read and Publish agreement with Wiley.

Open access workflows at Iowa State have been established and are overseen in the library’s Electronic Resources unit. For the library’s earliest open access agreements, however, the workflows did not have an organizational home and were handled jointly by the library’s Scholarly Communications Librarian and the Collections program staff. This approach be-

came untenable when the volume of articles covered by the increasing number of agreements ballooned. The Electronic Resources unit offered several advantages as a permanent open access workflow home. First, after shifting and prioritizing current responsibilities, the unit offered staff time that could be permanently reassigned. Second, the ER unit staff brought experience and expertise working with publishers and publisher platforms. And finally, the ER unit already worked closely with the Collections program on licensing and access, making the transition of the new responsibilities somewhat seamless.

The Agreement

The first stage of adopting a new open access agreement is typically initiated by Collections program staff, once they have identified prospective publishers with common ground with the library on pricing and models. Once the costs and basic structure of an agreement are in place in a draft, the E-Resources Librarian reviews the agreement against a standardized rubric that includes the library's preferred clauses and requests any necessary changes. As with a standard content licensing process, there can be several rounds of edits and, when successful, the resulting document is inevitably a compromise between the two parties.

Getting Started

Once the agreement is finalized, processes are initiated by both the publisher and library to implement it. The publisher activates their eligibility processes and may create a dashboard account for the library. Both entities will typically take measures to promote the new agreement. Generally this includes, at the very least, mutually listing the other party in a public list of open access agreements. Iowa State University maintains a page on its website listing current open access agreements,²² with the intended audience of researchers looking for open access publishing options. This page is intentionally simple and glosses over many of the complexities described above. For each agreement we only state who is eligible (typically "Iowa State Corresponding Author") and which publications, with a link to a more detailed list where available.

More can be done in terms of promotion, such as a press release or e-mails to faculty. At Iowa State, to retain a position of neutrality in the publishing industry's competition for the university's research, the library is typically reluctant to do more than a press release. Also note that the incentive structure of an agreement may have a bearing as well. Librarians should carefully reflect before heavily promoting an agreement based on APC payments per article.

The Iowa State agreement with Wiley began with a kickoff meeting where the details of the workflow were reviewed. At this meeting, Wiley shared a series of screenshots showing the author workflow, which have often been referred to since, in order to help answer questions from Iowa State researchers. Whether in the form of screenshots or a video, libraries should ask for detailed information on the author experience. This information can help identify problems encountered by their researchers, which can result in valuable feedback to the publisher on improvements to their author services. For example, one agreement was underperforming, and it was only when the library saw what submitting authors see that the cause was understood. For some journals from this publisher, authors were being asked to select a publishing agreement from a list of three or four options, and there was nothing clearly steering them to the open access option. This information allowed Iowa State to communicate with the publisher about improvements to this process (work which was already ongoing) and know where researchers were likely to encounter a barrier to open access publication.

Funding Verifications & Reporting

In 2021, the first year of the Iowa State agreement with Wiley, open access publishing in both hybrid and fully Gold open access journals was paid from a deposit based on a discounted APC rate that varied per journal. Iowa State is notified by e-mail when a new Iowa State article has been submitted (for Gold open access journals) or accepted (for hybrid journals), and at that point relevant metadata can be reviewed and eligibility can be verified on a proprietary Wiley dashboard. This dashboard also provides a summary of the library's account, including the total amount of the deposit spent thus far.

Because Iowa State maintains very broad criteria for eligibility, the actual eligibility verification process is simple. When a new submission arrives, staff look up its corresponding author in the institutional personnel directory to verify that they are currently affiliated with the university. In those cases where the corresponding author can't be found, a search is done online to attempt to confirm that they are not affiliated before denying the funding.

Beginning in 2020, Iowa State has worked with the OA Switchboard to support its development, as well as with Knowledge Unlatched as beta development partners of their Oable platform. The library's motivation was both to implement a scalable open access management solution, with publishers routing messages through the OA Switchboard that are delivered to their Oable dashboard, but also to support services that can help accelerate the broader open access transition globally. More concretely, the library wanted a single platform for eligibility verification and reporting. That the "single platform" goal hasn't been reached for either system is due to the challenge of publisher buy-in described above. Publishers need to agree to share their data with these systems, and invest staff time in implementing the legal and technical requirements of such a connection. Out of sixteen Iowa State agreements, nine publishers were working at time of writing with one or both systems to some extent, leaving piecemeal workflows for the remaining seven.

Iowa State continues to make the case to the remaining publishers for working with the OA Switchboard, which should allow their data to flow to whichever platform their institutional partners prefer, whether that is Oable or another similar product.

Even without a direct data connection, with staff assistance it is possible to manually upload article-level metadata to Oable for reporting purposes. This method sits uneasily alongside the more direct data connection method, particularly as publishers switch from one method to another, and care must be taken to avoid duplication.

In August 2021, Wiley established a data connection directly with Oable, and in summer 2022 phased out their own proprietary dashboard, in favor of using Oable for all institutional customers. This has allowed Iowa State to verify eligibility, report on publishing, and monitor the deposit from the same platform as (some of) the library's other agreements.

Invoicing

The invoicing methods used at Iowa State are a function of the size and structure of the agreement. Large agreements, as well as Read and Publish agreements, are typically paid annually, either as a deposit or (more commonly) as a flat fee. Smaller agreements, which may only result in one or two open publications each year, are more often handled on a per-APC basis, especially for pure open access publishers.

Post-Publication Processes

Above, two post-publication processes were identified: open access verification and institutional repository deposits. Both processes can theoretically be automated, but at Iowa State the necessary systems have not been in place. It is likely that in the future, automated OA verification will be a feature offered by open access management systems like Oable. Until that is in place, library staff manually check each publication that appears in the reporting to ensure that it is indeed open to all.

Automated institutional repository deposits typically require a SWORD-enabled system. The library's previous commercial repository system did not have this functionality, but a recent migration to an open source SWORD-enabled option now allows set up with publishers who have already agreed to it.

Due to the great variety of models even within the library's sixteen agreements, a valuable reference tool for staff responsible for these workflows has been a simple spreadsheet listing the following values for each agreement:

- Publisher
- Eligible authors
- Eligible publications
- Term begin
- Term end
- Status (active, expired, etc.)
- Total annual cost (current or most recent term)
- Model (Read and Publish, etc.)
- Publishing limit (describes whether agreement includes limit on publishing under the agreement)
- Approvals method (Oable, e-mail, etc.)
- Approvals frequency
- Approvals stage (submission/acceptance)
- Reporting method (Oable, proprietary dashboard, etc.)
- Reporting frequency
- Invoice method (direct, consortium, etc.)
- Invoice frequency
- PO Line
- Contact
- Notes

While the lack of standardization can make this work complex, it should be noted that it is generally not time-intensive. At Iowa State, even with sixteen agreements, the total time spent on the tasks described above does not add up to one full-time position. As the number of articles and agreements continues to grow, it is hoped that greater standardization, aided by important initiatives like the OA Switchboard, will allow this to continue to be true.

Conclusion

Like scholarly communication more broadly, open access workflows are in flux. Besides adapting to future changes and refining the processes described above, librarians involved in this work should explore methods of evaluating it. That means evaluating not only the performance of the agreements themselves, but the work of implementing them described

above. How might managers assess the productivity, efficiency, effectiveness or accuracy of open access agreement implementation? When do we know we are doing well? Is it possible to answer these questions systematically when such wide variations exist between agreements?

These questions raise interesting avenues for future research. Because OA workflows are relatively new, little is known about the attitudes of technical services staff towards them. What is their level of understanding and interest? It would be helpful to know, as well, more broadly how US and North American academic libraries are establishing and approaching OA workflows. Where do they live in the organization? How much staff time do they require? How are staff being trained and supported to be successful? Further exploration of these topics would assist libraries in negotiating and implementing OA agreements.

It is a challenge to describe processes where little uniformity exists, whether between publishers or across time. Open access publishing is in a period of robust experimentation, with changing models cropping up regularly as publishers search for sustainable business strategies. At the same time, new infrastructure, products and services are regularly emerging to help facilitate this relatively new library function. Those responsible for implementing the workflows required by open access agreements must therefore be highly adaptive. They must also be vigilant. While a database outage is likely to be brought to the attention of library staff, a paywalled article that ought to be open might not ever be noticed by anyone. It falls to the staff responsible for this work to hold publishers accountable to their agreements, ensuring that every eligible publication is made freely available to all.

Notes

1. The ESAC Transformative Agreement Registry can be searched by country: <https://esac-initiative.org/about/transformative-agreements/agreement-registry/>.
2. Cambridge University Press, "OA Agreements in the United States," <https://www.cambridge.org/core/services/open-access-policies/read-and-publish-agreements/united-states>.
3. John Harle and Verity Warne, *Open Access: Challenges and Opportunities for Low- and Middle-Income Countries and the Potential Impact of UK Policy* (London: Foreign, Commonwealth & Development Office, 2020), <https://www.gov.uk/research-for-development-outputs/open-access-challenges-and-opportunities-for-low-and-middle-income-countries-and-the-potential-impact-of-uk-policy>; Sara Rouhi, Romy Beard and Curtis Brundy, "Left in the Cold: The Failure of APC Waiver Programs to Provide Author Equity," *Science Editor*, 45 no. 1: 5–13. <https://doi.org/10.36591/SE-D-4501-5>.
4. It should be noted that while much of the discourse around open access publishing focuses on scientific research outputs, the agreements that are the focus of this article potentially cover all academic disciplines, including those in the social sciences and humanities.
5. Michael M. Crow and Greg Tananbaum, "We Must Tear Down the Barriers That Impede Scientific Progress," *Scientific American* (December 18, 2020), <https://www.scientificamerican.com/article/we-must-tear-down-the-barriers-that-impede-scientific-progress>.
6. UNESCO, "UNESCO Recommendation on open science" (2021), <https://unesdoc.unesco.org/ark:/48223/pf0000379949>.
7. Greg Tananbaum, "North American Campus-Based Open Access Funds: A Five-Year Progress Report" (SPARC, 2014), <https://sparcopen.org/wp-content/uploads/2016/01/OA-Fund-5-Year-Review.pdf>.
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