REFERENCE GUIDE TO TRANSFORMATIVE AGREEMENTS

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ABOUT THE REFERENCE GUIDE

Whether starting to develop your own open access strategy or assessing a publisher "read and publish" offer for the first time, adapting to the changes underway in the scholarly publishing landscape can be daunting. Luckily, clear signposts have emerged and, thanks to the excellent resources shared by the community, you do not have to re-invent the wheel.

The ESAC Reference Guide is the narrative manifestation of a mapping exercise conducted in Spring 2021 by members the international ESAC community that have accumulated deep, first-hand knowledge and expertise in the negotiation and implementation of transformative agreements with scholarly publishers. Threading together and contextualizing the many guidelines, recommendations, toolkits, templates and data openly available, the reference guide serves as an authoritative and essential orientation for librarians and consortium staff just beginning to approach or looking to update their transformative agreement strategies based on the latest benchmarks.

The ESAC Reference Guide develops through the phases of preparation, negotiation and formalizing an agreement, but libraries and library consortia each have their own unique starting points, and the steps they take in adopting transformative agreements will have local flavors. As transformative agreements advance in driving the transition of scholarly publishing from the subscription paradigm to open access, the guide will be updated to reflect new benchmarks and practice.

Contact ESAC if you would like to suggest an addition or adjustment to the reference guide based on your own experiences.

Productive negotiations and successful agreements always build on careful and thorough preparatory work. In this section, we introduce the core elements involved in preparing for transformative agreement negotiations and share some strategic considerations for institutions and consortia.

Derive key insights based on data

In order to prepare and conduct negotiations that result in agreements that effectively and successfully fulfill their transformative potential, you will need to have a clear picture of your current position and the capacity to model potential outcomes—in terms of both projected costs and open access publishing services secured. To achieve these, there are key data points that you can collect and analyze and from which you can derive key insights to inform your approach.

Gather your publication data

For a fully informed approach, you should collect data on the articles published by your authors (institutional output) in order to quantify the annual total of articles published, along with the share of these in which your author is the corresponding author. You should also calculate the article growth rates over time, to help in modeling the entity of open access publishing services that will be needed by your authors over the course of the agreement and, potentially, in the longer term, so as to contextualize the trends that you observe. It is also useful to collect and analyze data related to citations, i.e. the articles cited in articles published by your authors, as this helps to get an even more complete understanding of the relevance of a publisher's journal portfolio to their research. Collecting this data retrospectively and systematically, on an ongoing basis, is something that every library and consortium should begin to do, in order to prepare for an open access paradigm in scholarly communication.

In 2021, the ESAC Data Analytics Working Group produced a guide on how to Uncover the publishing profile of your institution, which illustrates a variety of ways to collect and analyze institutional publishing data to prepare for negotiations. The guide has been utilized by various libraries and consortia since then; for a more recent example of how you can build upon it, see the Informing the Elsevier negotiations: Dominic Dixon on the work of the Data Analysis Working Group post at the Unlocking Research blog of Cambridge University Library.

Following the publication of the above-mentioned ESAC guide, a working group at SPARC also produced a collection of Data sources for analyzing open access offers from publishers and a more hands-on guide on Open Access Agreements: Factors to Consider, which overlaps with many aspects covered in the ESAC guide. The Negotiating with scholarly journal publishers: A toolkit from the University of California (UC Toolkit) contains a very useful section on the importance of data analysis for informing negotiations, as well as a case study on UC's approach. Analyzing Institutional Publishing Output: A Short Course by Allison Langham-Putrow and Ana Enriquez is a further set of detailed training materials and helpful step-by-step guides to assist academic librarians in analyzing publishing data. Many of the community of practice calls organized by the OA2020 US Working Group discussed the topic of data analysis, most importantly the July 10, 2020 Meeting: How to gather, analyze and use publication data for negotiating open access agreements.

Gather your expenditure data

In order to assess the total expenditure on scholarly publishing at your institution over time, you will need to track fees paid to publishers by both libraries and by authors. Libraries may already be collecting data on the entity of their subscription fees over time, and observing the trend of annual fee increases. Institutions should also establish processes to document all fees related to open access publishing, i.e. Article Processing Charges (APCs), which until now were most often paid by authors.

Although the majority of the journals indexed in the Directory of Open Access Journals (DOAJ) operate without article processing charges (APCs), the majority of *articles* published open access today rely on such per-article payments. Therefore, if your institution is not yet handling or tracking APC payments centrally, you should consider doing so. One way to start can be estimating open access publishing expenditure by combining figures on your institutional output (described above) with industry data on APC price points gathered, for example, from the Open Access Data & Analytics Tool by Delta Think, from OpenAPC, or from data collections such as Publisher OA Portfolios 2.0.

Extract key insights from the data

For librarians, in addition to specific insights relevant to negotiations, there are a couple basic insights that can immediately be derived from publication and expenditure data. The first is an understanding of the growth and relevance of open access publishing for your researchers, which can prompt considerations on how their needs are changing and how libraries can position themselves to address those needs. The second is an understanding of the cost developments that accompany the dynamic growth of open access publishing. In the case of "hybrid" open access publishing, the costs are additive with respect to subscription fees, i.e. "double dipping", but whether for publishing in "hybrid" or fully open access journals, outside of central, institutional open access publishing agreements or transformative agreements, these costs are unmonitored and unchecked. This, again, prompts considerations on the current and future role of libraries in managing their institution's financial relationship with scholarly publishers in order to secure the best possible conditions at the lowest possible price.

Insights to identify and prioritize publishers for transformative agreement negotiations

Until now, librarians have focused their attention primarily on the relevance of scholarly journals to their researchers as readers through usage data and assessing value with metrics such as cost per download. Now, as scholarly publishing shifts to open access, you will also need to gain an understanding of the value that researchers as authors place on journals, as illustrated by where they choose to publish their articles and the journals most cited in their publications. Many negotiating teams use pie chart data visualizations, such as this poster by the Max Planck Digital Library, for a high-level view of the publisher journal portfolios most relevant to their authors.

If you then compare the publishing data you have collected with expenditure data, you will be able to make strategic considerations about the cost/benefit of your current publisher relationships and define objectives for your transformative agreement strategy. For example, you might identify those publishers with whom central negotiations would have the greatest impact for your authors, i.e. where they most frequently publish. The data might also highlight fully open access publishing platforms that are particularly valued by your researchers, which you might consider supporting by re-purposing expenditure that was previously locked up in subscription fees. A rapid comparison of how your subscription investments are apportioned across publishers with how your institution's outputs are apportioned across the same publishers might also prompt considerations on where investments might be shifted to more equitably support the needs of all authors and foster greater diversity in research published openly.

If your data analysis covers a reasonable time interval, you can also project output volume over time and model the relative costs according to different scenarios. For example, you might assess and compare the impacts of continuing with the status quo, canceling a "big deal" in favor of individual subscriptions, or negotiating a transformative agreement with a given publisher. For concrete examples, take a look at the Pay it forward study by the University of California, or the DEAL Cost Modeling Tool and its companion Discussion paper by the Max Planck Digital Library.

Insights to build an exit strategy in case negotiations fail

Combining article output and citations with usage data can also provide you with important insight into how readers are interacting with content, especially when the data encompasses longer periods and can show emerging trends. For example, this kind of analysis can inform scenario planning for your BATNA (best alternative to a negotiated agreement) and possible exit strategies; for example, arranging post cancellation access, or providing flyers and webpages with information on alternative access routes to scholarly articles, such as these by the FinELib consortium, the Bibsam consortium and the University of California. In the case that no open access agreement can be reached, some institutions resort to simply reducing their subscriptions and use the tool Unsub to identify those journals of less relevance to their readers for cancellation.

Insights to shape the next cycle of agreement negotiations

If you have already negotiated a transformative agreement, your data gathering and analytics work should continue in order to prepare you for the next cycle of agreement negotiations. In addition to monitoring publishing and costs, you can enrich your analysis by assessing existing processes and workflows, such as author opt-out rates, rates with which eligible articles are accurately identified, quality of reporting, or metadata delivery, and identify areas that need to be addressed and improved upon in your next agreement.

Key references

- Negotiating with scholarly journal publishers: A toolkit from the University of California
- ESAC: Uncover the publishing profile of your institution
- SPARC: Data sources for analyzing open access offers from publishers
- Analyzing Institutional Publishing Output: A Short Course
- OA2020 US Working Group: How to gather, analyze and use publication data for negotiating open access agreements
- Open APC initiative
- Pay it forward: Investigating a Sustainable Model of Open Access Article Processing Charges for Large North American Research Institutions
- DEAL Cost Modeling Tool
- University of California: Priorities for publisher negotiations

Engage stakeholders and plan communications

Just as transformative agreements bring together the two sides of scholarly publishing (reading and publishing), they are also an opportunity for libraries to bring together and align the different stakeholders involved: faculty and university leadership. Sharing the insights gained in the publication and expenditure data analysis with people from outside the library or consortium offices can help build strong coalitions within with your institution's communities and garner support for your negotiation strategy. After all, the open access publishing rights secured through your transformative or open access agreements help your institution fulfill its mission, increasing the visibility and impact of the research of your scholars and scientists.

By working together with a broad set of stakeholders in the early stages of developing your approach, it is easier to arrive at a framework for negotiations that is embraced across the institution, and it empowers you with greater leverage, knowing that you represent your entire community in your negotiations.

Build coalitions and alignment

The Negotiating with scholarly journal publishers Toolkit from the University of California is a rich resource with both universal recommendations and UC-specific case studies on articulating goals, defining strategies, and managing communications around publisher negotiations. Jisc also produced a useful resource on Working with transitional agreements, and the Communicating with senior stakeholders section of the guide is a particularly useful manual on the background, benefits, and financial implications of transformative agreements.

You can also find useful information on the Take Action section on the OA2020 website and many of the OA2020 US Working Group's community of practice calls, especially the recording of the September 30, 2020 Meeting: Stakeholder alignment in preparation for negotiating open access agreements.

Engage stakeholders in negotiations

It can also be extremely effective to involve stakeholders from outside the library or consortium in the negotiation process. For example, it can be effective to seek out and involve influential members of your community in your negotiations team, taking care to clearly define negotiation roles and responsibilities, in order to conduct the negotiations in a straightforward way.

As an example of an approach one might take for involving stakeholders, we recommend the recently published article Negotiating Open Access Journal Agreements: An Academic Library Case Study by Mihoko Hosoi, which presents a useful case study on how roles and responsibilities were defined for publisher negotiations at the Pennsylvania State University. The study illustrates that in order to conduct successful negotiations, institutions have to take an approach that involves a variety of actors and careful planning. For specific publishers, you might also consider engaging researchers from your community who serve on editorial boards to increase your negotiation power or simply to learn more about the practices of the publisher, from their perspective. The Open Editors database can be a useful resource to help you identify faculty whom you might engage.

Plan for communications

As you proceed in your strategy, a good communications plan is essential in order to keep stakeholders informed and aligned, and to build trust within your communities. Here is an excellent example of how you might communicate about your strategy and an example of how to keep stakeholders informed of the progress of individual negotiations. For another great example of a transparent communications campaign, see the running blog post series by the Cambridge University library, such as Dr. Jessica Gardner on the 2021 negotiation between Cambridge and Elsevier or Michael Williams on the Elsevier negotiations: What's our 'Plan B'?

Key references

- OA2020: Take Action
- Negotiating with scholarly journal publishers: A toolkit from the University of California
- Jisc: Working with transitional agreements
- Jisc: Communicating with senior stakeholders
- Negotiating Open Access Journal Agreements: An Academic Library Case Study
- Practical Idealism: UC's Approach to Open Access

Understand your negotiation counterparts and the current environment

Gathering, analyzing and discussing data relative to your institution with stakeholders will form the basis of your strategy, but there is another side to the coin in terms of preparing for negotiations. Meeting the publishers at eye-level means familiarizing yourself with the scholarly publishing ecosystem and their position in it. In this way, you can anticipate the position of your counterparts, of what they might want to obtain from the negotiations, and it will help you to better position yourself at the negotiating table.

Understand the scholarly publishing market in transition

The ESAC Market Watch was developed with this precise goal in mind: to provide the community with an overview of the changing scholarly communications landscape, with a special focus on the market impact of transformative agreements. Naturally, there are other instruments for assessing global market size, publishing trends, and the uptake of OA over time, out of which the Open Access Data & Analytics Tool by Delta Think is particularly useful, as are their newsletters and webinar series. In addition, for evaluating the subscription business of larger publishers, the EUA Big Deal surveys can provide you with valuable information in terms of reference points and benchmarking of traditional subscription agreements.

You can also follow the publishers' own public statements and progress reports on the open access transition, as many of them have made commitments and set ambitious deadlines for themselves to flip their entire subscription portfolios to open access. The Dimensions and Society Publishers' Coalition Members Report, published in early 2023, highlights the rate of progress toward open access, especially of society publishers.

There is also a rich collection of publisher statements in this compilation of responses to the public Request for Information issued in 2020 by the U.S. Office of Science and Technology Policy (OSTP) on Public Access to Peer Reviewed Scholarly Publications, Data, and Code Resulting from Federally-Funded Research.

Gain strategic insight on the publisher's market position

You can also apply many of the data gathering and analysis exercises used in the context of understanding your own institution's publishing trends and expenditure to analyze the market position of publishers. For example, you might want to look at their overall publishing output, the APC price points of their journals and how these have developed over time, and look at the transformative agreements they already have in place, to form an idea of their current position in the market.

We once again refer to the Community of Practice for Negotiating and Implementing OA and Transformative Agreements by the OA2020 US Working Group, and highly recommend Keith Webster's talk on the July 10, 2020 Meeting: How to gather, analyze and use publication data for negotiating open access agreements (starting at 25:00). This talk provides great insight on assessing publishers in market terms, and you can learn more on how to find and understand their annual reports, financial statements, and investor presentations, for example.

It is also worth looking at the overall composition of journal portfolios, as well as how they change over time: are publishers launching subscription-based or fully open access journals? At what rate? Did important journals flip to OA recently? All of these factors can give insight into how the publishers are positioning themselves and how they see the market developing in the future; such insights will have an influence on whether or not and under what conditions your authors will be able to publish their articles openly.

Furthermore, you can also anticipate how policy interventions might affect the scholarly communications landscape in the future. For example, after the recent publication of the OSTP Guidance to Make Federally Funded Research Freely Available Without Delay, several analyses (for example, here, here and here) have been published on the impact of the Memo on publisher portfolios, highlighting that some of the most prestigious journals will be affected the most by the policy.

Apart from the composition and evolution of the publisher's current journal portfolio, you should also keep an eye on journal transfers and takeovers, as these could have an influence on the structure of your agreement, as well as a significant impact on the results of your cost modeling exercises. Finally, mergers and acquisitions of other companies or journal portfolios can be a clear signal of how publishers are positioning themselves in the shifting scholarly communications landscape; see, for example, the acquisition of Interfolio (which includes Researchfish) by Elsevier, Cureus by Springer Nature, Ubiquity by De Gruyter, Knowledge Unlatched and Hindawi by Wiley (and the subsequent launch of Wiley Partner Solutions), or F1000 by Taylor & Francis.

APC price transparency frameworks promoted by cOAlition S and the FOAA can also be useful tools for gaining insight on APC price points in negotiations, and many publishers have already begun to adopt them; see for example Cambridge University Press, The Company of Biologists or Copernicus Publications. These frameworks not only provide valuable information on their own, but can serve as a basis of comparison among multiple publishers and exerting critical market pressure on the pricing for open access publishing services.

Quality metrics, such as impact factors and other journal-level metrics, may also provide information relevant to understanding the publisher's position in the ecosystem; after all, one of the intended applications of citation analyses was to provide a basis for the calculation of cost-benefit ratios in order to better manage library budgets. Similarly, indexing in various databases, such as the Directory of Open Access Journals can be used as a metric for assessing quality of journals for consideration in your modeling. You can also consider whether publishers are delivering key metadata elements (such as license URLs) to Crossref by looking at members' pages in the Crossref Participation Reports, or check whether they participate in initiatives as I4OC or I4OA.

Learn from the experience and benchmarks of your peers

The ESAC Registry of Transformative Agreements was created to help the library community share key information and benchmarks in their transformative agreement negotiations, and Registry entries can be a starting point to compare and consider specific clauses, business models, and further information on transformative agreements between publishers and institutions. In addition to ESAC's practitioner community, you can find information, experience and support through international networks such as OA2020, with their periodic Summits of Chief Negotiators, and, for member consortia, ICOLC.

Key references

- ESAC Registry of Transformative Agreements
- ESAC Market Watch
- OA2020 US Working Group Community of Practice for Negotiating and Implementing OA and Transformative Agreements
- Delta Think Open Access Data & Analytics Tool
- Crossref Participation Reports

Defining your approach to transformative agreement negotiations

Ideally, your approach to open access negotiations will synthesize the lessons learned by analyzing your own data, gathering an understanding of the scholarly communications landscape, and collecting perspectives from stakeholders. Your current level of subscription spending, the relative volume of the publications of your researchers, and your institution's core values and commitment to open access to research will all contribute to formulating your negotiation approach, establishing criteria for evaluating proposals, and, essentially, defining what you consider to be a successful outcome in terms of both service and cost.

Some may opt for a consolidated approach, seeking transformative agreements with all relevant publishers as each subscription agreement comes up for renewal and, potentially, taking advantage of variance in their spending/publishing with different publishers to balance their overall strategy. Others may begin by piloting negotiations with just one or two publishers, in order to gain experience and build up capacity for the open access transition. Ultimately, transformative agreements are not just an instrument to drive publishers to transition their journals to open access. They are, equally, a framework for libraries, institutions and national research communities to reorganize their subscription-based processes and financial investments, so that the money currently locked-up in pre-paid subscription agreements is disaggregated and can follow authors wherever they choose to openly disseminate their papers.

Defining your negotiation principles

ESAC defined the nature and purpose of transformative agreements and their general guidelines. Additionally, as part of this reference guide, ESAC has produced the spectrum How Transformative Is It? to help institutions develop their own negotiation principles and assess publisher proposals. Transposing these to their own contexts, libraries and consortia have created their own local open access transformation roadmaps complete with principles, requirements, roadmaps, checklists, and recommendations to guide their own negotiations and implementation strategies; many of these are featured in the 15th Berlin Open Access Conference posters and ESAC's listing of negotiation principles from around the world to provide inspiration for others. Some particularly thorough resources, such as Requirements for transitional open access agreements by Jisc or Priorities for publisher negotiations by the University of California, can be very helpful in mapping out your approach to negotiations.

Modeling costs for the open access transition

Transformative agreements are grounded in the understanding that the large-scale transition of subscription journals to open access is possible within the current global subscription spend. Based on this principle, many institutions and consortia find that aiming for cost-neutrality with respect to former subscription expenditures—greatly reducing or even fully omitting author expenditure on APCs—is a fair and reasonable financial objective for their negotiations, as affirmed in the Final Conference Statement of the 14th Berlin Open Access Conference.

The principle of a global cost-neutral transition in which the current subscription expenditure with a given publisher is re-purposed to cover open access publishing of the institution or consortium's authors' articles (as well as providing reading access to content still behind the paywall) has been proven many times over at the institution and consortium level, as well.

Nevertheless, upon analyzing your publication and expenditure data you will surely note cases in which your current subscription fees—largely based on historic print spend—do not easily translate into expenditure for open access publishing services, due to the proportions of one or the other. For example, you might have a significant subscription expenditure with a publisher in whose journals your authors publish very little, and there might be publishers in whose journals your authors publish a high number of articles, but your subscription expenditure is very low or even non-existent. As you prepare for negotiations, you will have to model the financial impact of your future agreements and consider possible adjustments to how you budget for open access publishing, as opposed to subscriptions.

An easy way to model and compare costs would be to calculate theoretical transformative agreement fees or Investment per article (IPA) by dividing the total fees you are currently paying by the number of articles your authors are publishing in the relevant journals. It is common to calculate such values for evaluation purposes, and it can be really eye opening if you compare your institution or consortium's IPA with different publishers. This exercise can also be useful in considering what divestments can be made in favor of other services.

As you review library subscription expenditure and author expenditure on open access publishing together with your institution's publishing trends, an important follow-up question to consider is: Can you afford not to invest in open access? All current observations strongly suggest that the OA publishing market is growing rapidly, at a rate greater than the underlying scholarly journals market. Considering this, you can anticipate that without a transformative agreement, the OA output of your institution will continue to grow, and your authors will be expected to pay more and more for OA publishing in a decentralized fashion outside of the oversight of the library, even as the library continues to pay subscription fees. Modeling and comparing costs for different scenarios—including the "do nothing" scenario—can help you to uncover potential cost-avoidance through transformative agreements.

Planning for the reorganization of financial streams

At the institutional level, it is important to share the results of your cost modeling exercises with other stakeholders, i.e. faculty governance and administration, as there is, often, little knowledge outside the library of the actual total costs of scholarly publishing, i.e. subscription expenditure and APC expenditure. Conversations about such costs can be extremely helpful in developing an institutional perspective on fair pricing for scholarly publishing services, how budgets might need to be reshaped to fully support open access publishing of your institution's output, and, potentially, how library subscription funds and grant funds might be integrated, or at least channeled efficiently, to make the open access transition sustainable on the immediate term. This introductory guide to the UC model transformative agreement and the Recommendations on the Transformation of Academic Publishing: Towards Open Access by the German Science and Humanities Council that advocates for integrated information budgets that support both the reading and open access publishing needs of researchers provide excellent bases for such considerations.

On a consortium level you will also need to consider new models for cost-distribution, as the former distribution of costs among members (based on reading access) might not be a fair and reasonable distribution of costs based fully or, at least, mainly on the open access publishing services delivered to each institution (i.e. articles published by their authors). Everyone gains when research is openly disseminated, but reorganizing budgets to support the open access publishing services used by authors can be challenging—especially for research-intensive institutions. Many library consortia are therefore developing new and transitional cost-distribution models that enable a gradual re-distribution of costs over time. Take a look at the Report on internal cost reallocation models within the Bibsam consortium and the recent article on the lessons learned from the Austrian Transition to Open Access project.

Key references

- ESAC: Negotiation principles internationally
- Jisc: Requirements for transitional open access agreements
- UC: Priorities for publisher negotiations
- Disrupting the subscription journals' business model for the necessary large-scale transformation to open access
- Report on internal cost reallocation models within the Bibsam consortium
- Austrian Transition to Open Access: a collaborative approach
- 15th Berlin Open Access Conference posters

In the recent past, library and consortium negotiations with scholarly publishers were often limited to requesting and, with varying degrees of success, obtaining a certain level of cost containment in their annual subscription fees. In the context of the open access transition, the scope of negotiations has expanded significantly, requiring a greater level of understanding and expertise in the art of negotiation. There are, of course, many sources on negotiation theory, which you can study to improve your negotiation skills; some consortia have even hired professional negotiators to support their work.

This section addresses a few key considerations around transformative agreement negotiations and identifies important elements of information and data exchange that are part of the negotiation process. Communicate your progress, seek input from your community when needed, and avoid the trap of making decisions in the negotiation room. You can also get the upper hand by not waiting for publishers to come up with proposals themselves, but taking the initiative and formulating your own proposals based on your objectives. Overall, it is best to be prepared to encounter situations that you have not experienced previously, and, as in any negotiation, seek to be practical and constructive.

Define your negotiation goals

Having grounded your approach with overarching principles and made data-based cost/service assessments to inform your strategy, you are ready to define some specific negotiation goals. As is the true nature of negotiation, not all of your stated goals will be met fully all of the time, and it is important to stay flexible and pragmatic. While setting a high bar can increase your negotiation power, being too rigid can limit your freedom in making decisions. Without disclosing too much information about your position, your goals should encompass a range of positive outcomes even if adjustments and prioritizations need to be made in the course of negotiations. In the end, you are negotiating the terms of your future agreement.

It is also important to keep in mind that transformative agreements are iterative by nature, and it could take more than one agreement cycle to come to an agreement that will satisfy all your goals. Special consideration should be given to enabling smaller independent publishers to participate in Open Access transformative arrangements, who might need opportunities to build up their operational capacity for transformative agreements, in particular around the financial processes and workflows, or who are seeking feedback from the community on new models to take the next step in their OA transition. Therefore, you might find it worthwhile to support them at the beginning of their transition phase, especially if they are highly relevant to your community, or if they show alignment with your values. While TAs with large commercial publishers may be a necessity to achieve the greatest impact on institutional output and investment, focusing only on large agreements, alone, is not enough to enable 100% of any institution's output to be published open access. To foster a diverse scholarly communications ecosystem, libraries and consortia are complementing their TA strategies with a variety of approaches to invest in OA, engage with fully OA publishers, support community-led publishing, diamond models, and many more.

Key resources

For further inspiration on defining negotiation principles and goals, check out the Requirements for transitional open access agreements and Assessing transitional agreement proposals by Jisc, or the Guidelines for Evaluating Transformative Open Access Agreements and Priorities for publisher negotiations of the University of California.

How transformative is it?

To evaluate publisher proposals during the negotiation process, to assess the progress of your current TAs, and to map out your next negotiation objectives, ESAC has produced the "How Transformative Is It?" spectrum of open access transformation drivers that characterize TAs.

Recognizing that libraries and library consortia will all have unique starting points and priorities, the spectrum maps out how successive transformative agreement iterations depart from the limitations of the subscription paradigm and lead, progressively and concretely, to an open and diverse scholarly communication environment.

Inspired by the "How Open Is It" guide for authors created by SPARC in conjunction with PLOS and OASPA, the ESAC spectrum reflects the range of mechanisms advancing the open access transition through the over 350 agreements documented in the ESAC Registry or that are under discussion in current negotiations.

For each transformation driver, the spectrum starts (at the left) with the overarching negotiation objective, contrasted by a description of conditions under the subscription paradigm. The spectrum then progresses through different agreement iterations toward the envisioned characteristics of an open scholarly publishing paradigm.

Explore the "How transformative is it?" spectrum in the next page.
Direct link to standalone spectrum PDF here.

ESAC

HOW TRANSFORMATIVE IS IT?

A spectrum of transformation drivers leading to an open scholarly publishing paradigm

This spectrum illustrates the array of transformation drivers that characterize transformative agreements[1] (TAs), to help institutions evaluate publisher proposals during the negotiation process, assess the progress of their current TAs, and map out their next negotiation objectives. Recognizing that libraries and library consortia will have their own unique starting points and priorities, the spectrum maps out how successive transformative agreement iterations depart from the limitations of the subscription paradigm and lead, progressively and concretely, to an open and diverse scholarly communication environment. It reflects the range of mechanisms advancing the open access transition through the over 350 agreements documented in the ESAC Registry or that are under discussion in current negotiations. For each transformation driver, the spectrum starts (at the left) with the overarching negotiation objective, contrasted by a description of conditions under the subscription paradigm. The spectrum then progresses through different agreement iterations toward the envisioned characteristics of an open scholarly publishing paradigm.

TRANSFORMATION DRIVERS	SUBSCRIPTION AGREEMENTS	SPECTRUM OF TRANSFORMATION					
OPEN ACCESS PUBLISHING Empower authors with the means and opportunity to publish 100% of their research articles, accepted for publication in all journals of the relative publisher, open access.	Authors are required to relinquish copyright of their articles to publishers, unless they can afford to cover open access publishing fees (APCs) for open access publishing in "hybrid" journals on their own. The vast majority of journal articles are published behind the subscription paywall.	Open access publishing is incentivized with centrally negotiated discounts on APCs, but the agreement does not cover any specific amount of articles, and relies on author-facing hybrid payments without central oversight An indeterminate amount of journal articles may be published open access.	The agreement empowers authors with the means and right to publish their articles under an open license, but this is capped to a degree that only covers a limited percentage of their article outputs, i.e. 50%-70%. A fair amount of journal articles are published open access.	The agreement empowers authors with the means and right to publish their articles under an open license, but this can potentially be limited, mainly because the agreement covers a fixed number of expected articles, agreed and paid in advance, and actual volume of article output can vary. All journal articles could potentially be published open access.	The agreement empowers authors with the means and right to publish articles under an open license without a cap, but OA publishing rights for a certain subset of journals remains excluded from the agreement, for example the publishers' fully open access journals or specific journal imprints. All journal articles in a large portion of the complete publisher portfolio are published open access.	The agreement empowers authors with the means and right to publish an unlimited amount of articles under an open license in the complete journal portfolio of the publisher. All journal articles are published open access.	Authors retain copyright and openly license their articles.
ORGANIZE INVESTMENTS AROUND OA INSTEAD OF PAYWALLS Rein in and re-engineer the parallel financial streams of the subscription-paradigm and orient institutional investments in scholarly publishing around open access.	Institutions pre-pay undisclosed lump sums in annual subscription fees for reading access to closed and "hybrid" journals and journal portfolios. Additionally, and in parallel, authors pay APCs to publish their articles openly in "hybrid" journals without any central representation to negotiate more favorable conditions and bring pricing into check. There is no central oversight or control into the total amount in fees being paid to publishers.	Under one central agreement, institutions pre-pay annual subscription lump sum fees for reading access and a certain quota of open access publishing rights (articles) are included in the price, disbursed, for example, in tokens or vouchers. While institutions cover the costs for a certain amount of open access publishing, the subscription paradigm persists with, largely unchanged and undisclosed, lump sum subscription fees.	Under one central agreement, institutions pre-pay annual, lump-sum fees that cover both open access publishing fees and fees for reading access, for example as in "Read & Publish" models.	Under one central agreement, institutions pre-pay annual, lump sum fees for open access publishing that are calculated based on their publishing output, according to a transparent fee, for example as in certain transformative models adopted by learned societies or tiered models.	Under one central agreement, institutions pay for open access publishing based on fees that are calculated and post-paid or partially post-paid in direct proportion to the services rendered under a transparent pricing framework, for example based on per-articles fees.	Under one central agreement, institutions pay for open access publishing services in direct proportion to the services rendered and based on transparent and differential pricing that responds to market pressure and community expectations for fairness, sustainability and equity.	Researchers everywhere are able to read and publish without financial and administrative burden; fees for open scholarly publishing services are covered by their organizations (institutions, grant funding agencies).
A SUSTAINABLE TRANSITION Establish mechanisms to ensure sustainability and mitigate potential financial risks as the scope of agreements evolves from the static lock-in of subscriptions to the dynamic nature of (open access) publishing.	Ever larger portions of library materials budgets are locked in journal subscription agreements whose prices increase year after year beyond standard inflation rates. While global scholarly article output has continued to grow steadily for more than a century, dynamic growth in open access publishing in both fully open access journals and "hybrid" journals means that authors are spending more and more on APCs. The increasing costs on both sides and lack of market control represent the highest level of financial risk and lack of sustainability.	The centrally negotiated agreement remains subscription-based but stipulates discounts on "hybrid" APCs that continue to be paid by authors. While there is a small, overall reduction in total cost, authors must continue to pay for open access publishing while the library continues to pay annual subscription fees, raising concerns of sustainability and financial risk.	The centrally negotiated agreement covers both reading access and a fair amount of open access publishing, but the overall costs are additive, i.e. fees for open access publishing come on top of subscription fees. While open access publishing without author-facing fees is integrated into the institutional agreement to a fair degree, it raises concerns of financial sustainability.	The centrally negotiated agreement integrates both reading access and open access publishing for a fixed fee, but sets a cap on the number of articles covered, without including robust mechanisms to compensate for changes in publication volume. While a good portion of open access publishing may be achieved, actual publication volume might exceed or fall short of the cap, placing the financial risk entirely on the institution.[2]	The centrally negotiated agreement integrates both reading access and uncapped open access publishing (prepaid or post-paid). Additionally, the agreement includes cost control mechanisms to compensate for unanticipated fluctuation in actual publication volume Open access publishing for the vast majority of articles is covered and mechanisms are in place to mitigate financial risks and provide stability and sustainability.	The scope of the centrally negotiated agreement is based fully on open access publishing and includes provisions to mitigate risks of unexpected fluctuation in publishing volume and cost controls on the fees for open access publishing services of both "hybrid" and fully open access journals, such as caps on APC price increases. Open access publishing is fully covered and mechanisms are in place to mitigate financial risks and provide stability and sustainability.	Institutional budgets are reorganized to support the open dissemination of research results and scholarly communication services needed by researchers in our digital age.
OPTIMIZE PROCESSES FOR OPEN ACCESS Establish accountability for continued optimization of processes around open access publishing, such as identifying authors covered under the agreement and signaling to them their open access publishing entitlements, reporting on articles at appropriate points in the publishing pipeline, verifying eligibility of articles under the terms of the agreement, handling payments, and monitoring articles published.	Under the subscription paradigm, workflows related to scholarly publishing remain rooted in the print era. Library budgets and processes are organized around providing access to paywalled content. Authors wishing to publish their articles open access are confronted with complicated processes, and libraries are rarely equipped to support them. Without coordinated demand, there is little motivation for publishers to innovate and improvements are incidental.	Early stage agreements often rely on manual, ad hoc or retrofitted processes to implement and manage the workflows associated with open access publishing; without automated processes, there is significant risk of human error and less than successful fruition of the agreement.	Publishers commit to managing processes such as author identification, verification, and article reporting, but institutions are excluded from the process and quality standards are not met. For example, while publishers may provide reports on a regular basis, they may not include all relevant data elements. Without library visibility into the publishing pipeline and complete data, processes and workflows are at risk of breaking down and manual intervention will be required.	As publishers and libraries gain more operational capacity for open access publishing, author identification, verification and payments are handled through automatic processes and shared dashboards that ensure visibility every step of the way. Regular reports complete with all relevant data fields help streamline processes. The community-developed ESAC Workflow Recommendations[3] provide the foundation for setting out requirements in many transformative and open access publishing agreements.	Publishers and libraries prepared for open access publishing on a large scale implement automated identification and authentication processes that require minimal manual intervention. Regular reporting based on the ESAC Workflow Recommendations streamlines processes. Fulfillment of the agreement objectives can be further optimized by agreeing strategies to avoid author opt-outs and to integrate retrospective conversion of closed articles to open access.	Author, library and publisher workflows are oriented around open access and aligned with the ESAC Workflow Recommendations and supported with industry-standard provision of open metadata and APIs[4] connecting dashboards and other third-party systems.	The process of open dissemination of research is supported and optimized with infrastructure and standards that streamline the work of authors, institutions, funders, publishers and other partners in the scholarly communication ecosystem.
PRICE TRANSPARENCY Articulate the service levels, terms, conditions and pricing of the agreement openly and transparently to enable community benchmarking and cost comparisons.	The rationale for pricing of journal subscription agreements and "big deals" has been opaque since the start of the digital transition. Shielded from market scrutiny by non-disclosure clauses, subscription pricing has increased year after year at rates far beyond those of standard inflation. Journal-level APC prices are listed publicly, but authors, individually, exert little market pressure to constrain or reduce them and are additionally confronted with print-based fees such as page and color charges.	Agreements still closely aligned with the subscription paradigm often carry non-disclosure clauses requiring complete confidentiality and prohibiting public disclosure of the agreement.	In an initial step toward transparency, some agreements are published openly, but certain terms of the contract, for example, the financial terms, are still subject to confidentiality clauses.	As a service to the broader community, libraries and consortia enter key details of the transformative agreements they sign in the ESAC Registry, an open, community resource aimed at increasing transparency around publisher agreements. Even if institutions do not publicly disclose their agreements or full terms and conditions, the ESAC Registry enables the community to benchmark key TA characteristics and feeds into the data visualizations of the ESAC Market Watch,[5] quantifying their impact.	A number of libraries and consortia have already achieved full transparency in their transformative agreement negotiations, securing the right to publicly disclose their agreements (no non-disclosure clauses). This commitment to fostering a transparent scholarly publishing market is further supported by their entries in the ESAC Registry, complete with links to the agreement full texts.	In the current landscape, the greatest level of transparency around transformative agreements might include public disclosure of the agreement, entry in the ESAC Registry, public reporting on contract performance (e.g. development of opt-out rates, shares of publication volume, etc.), and application of transparency price frameworks[6] that foster comparability in cost/service assessments.	With transparent articulation of services/prices, scholarly publishing will finally be subject to the force of market competition, which, in turn, creates opportunity for other market players and drives innovation, allowing scholarly communication to evolve.
COMMIT TO AN OPEN PARADIGM Garner publisher commitment to a sustainable, equitable and irreversible transition to open access.	The current subscription paradigm perpetuates barriers for readers whose institutions cannot always afford subscription fees and barriers for authors without institutional support to publish their articles openly.	While negotiations of individual institutions and consortia may have the dual objective of reining in costs and supporting authors to publish their articles openly, transformative agreements, collectively, have the specific function of transitioning the subscription-based journals valued by authors to open access models. Some early stage agreements do not clearly set out the community objective and expectation of a full transition of publisher portfolios to open access.	Accountability for transitioning journal portfolios to open access cannot reasonably be placed fully on the shoulders of publishers, until subscribing libraries and consortia globally voice the shared demand for a transition to open access. Nevertheless, including a statement of intent on the open access transition in the agreement, for example, in a preamble, can be a signal of both the publisher and the negotiating library/consortium's commitment to the open access transition.	To harness the potential of the large swaths of articles being published openly through transformative agreements globally (as well as hybrid OA publishing outside of TAs), some agreements include provisions holding publishers accountable for flipping individual journals to a fully open access model when a certain threshold in the proportion of OA to closed articles published annually is reached.	Libraries and consortia wishing to support the open access transition can prioritize making agreements with those publishers that have formulated and transparently communicated a strategy to transition their journals or portfolios to a sustainable and equitable open access model.[7]	Libraries and consortia wishing to support the open access transition can prioritize making agreements with those publishers that have made a formal commitment to converting journals or portfolios with immediate effect or within a specific timeframe.[8] Libraries and consortia committed to providing their authors with a variety of open access publishing opportunities also enter agreements with publishers adopting other transitional frameworks[9] and with fully open access publishers, as well as supporting community-based platforms and local/local-language publishing venues.	Open access as the default in scholarly communication.

References

1 ESAC Transformative Agreements https://esac-initiative.org/about/transformative-agreements/

2 In the former case, this could result in additional costs to the negotiating institution/consortium to cover 100% of articles or, potentially, leave the consortium with less than 100% OA coverage—depending on what was stipulated in the agreement. In the latter case it would result in overpayment/financial loss, unless, some compensation mechanism is established for the unused publication rights (e.g. transferability to subsequent years).

3 ESAC Workflow Recommendations https://esac-initiative.org/about/oa-workflows/

4 OA Switchboard https://www.oaswitchboard.org/

5 ESAC Market Watch https://esac-initiative.org/market-watch/

6 Plan S Price Transparency Frameworks: guidance and requirements https://www.coalition-s.org/price-and-service-transparency-frameworks/

7 ACM Open https://libraries.acm.org/subscriptions-access/acmopen, Society Publisher's Coalition, Unlimited Open Access https://www.socpc.org/action, etc.

8 The Royal Society, Our transition to Open Access https://royalsociety.org/blog/2021/05/our-transition-to-open-access/

9 Subscribe to Open Community of Practice https://subscribetoopencommunity.org/, Fair Open Access Alliance https://www.fairopenaccess.org/, etc.

The spectrum is a companion to the ESAC Reference Guide to Transformative Agreements, where you can find out more about the specifics of how to prepare for, negotiate and implement transformative agreements. Inspired by the "How Open Is It" guide for authors by SPARC in conjunction with PLOS and OASPA, this spectrum is based on one created by the German working group Forum 13+, and further developed and adapted for the ESAC community.

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Finding common ground and mutual gain

In your interactions with publishers, you will most likely encounter a variety of approaches and, over time, you will be able to anticipate what the other party is trying to achieve with the negotiations. You might invest some time reflecting on what you think are the publisher's primary interests and goals and consider how you could use these to your advantage.

The most obvious goal of your counterpart will be to increase their revenue by selling OA publishing rights on top of existing subscriptions, but scholarly publishing is a complex ecosystem and, in their views, transformative agreements might also help them to:

- Align with researcher communities around the principle of open access as essential for progress in science and society
- Make OA publishing in their journals more attractive for your authors by removing financial and administrative barriers of the OA publishing process
- Make sure that authors can continue to publish in their journals by providing publishing routes that comply with funder mandates
- Increase institutional participation in a consortium agreement by making the terms and conditions more attractive, i.e. by providing additional services, such as OA publishing elements
- Save operational costs by simplifying the administration of OA publishing, as well as streamlining the invoicing processes
- Increase their visibility and reputation—this is particularly relevant for new entrants to the market with innovative business models

Some of the publisher's objectives might even overlap with your own, and by working together, you can secure agreements that help you in fulfilling your mission, keep your budget controlled, and leave all parties satisfied with the outcome of the process. Additionally, you should not discount the value that your authors bring to publishers in the form of their peer-review, service on editorial boards, publications and citations. You can leverage the value your institution brings to the table to strengthen your position in the negotiations.

Getting clarity on the technical aspects of the agreement is also a key part of the negotiation process. You should discuss the OA Workflows of your future contract, ideally at a very early stage your negotiations. Even if your objectives are not fully met, you can establish frameworks for desired improvements and a roadmap for their implementation and revisit them over the term of your agreement. For this, you should establish contact with people who are typically outside the regular sales- and management teams of publishers, including those involved in journal production, workflows, metadata, and so on. For example, you might ask for screenshots of the author journey or the sample text that your authors will receive from the publisher informing them about their OA publishing option, so that you can propose and negotiate improvements as needed.

Finally, negotiations on price should not be separated from negotiations of the terms of your agreement. You should always have the potential agreement terms in mind as you negotiate, as these can heavily influence the performance of the agreement you eventually reach. A checklist of agreement terms is provided in this Reference Guide to help clarify their rationale and significance in negotiations.

Information and data exchange

Negotiation rounds are essentially sequences of exchanging information, be it data, proposals and counter-proposals, or the interests of the other party. In this section, our special focus will be on essential data elements that publishers should generally be able to supply, and which form an essential part of the negotiations.

Article-level publication data

While it is always crucial to conduct your own publication analysis, publishers should carry out the same exercise, and the two of you should compare notes with an article-level overlap analysis of the corresponding authored papers of your institution or consortium published in the journals of the publisher. This analysis serves to give both parties a common understanding of the entity of open access publishing services to be covered by your agreement and will enable you to uncover any blind spots or discrepancies in your respective counting methodologies, in order to arrive at the most accurate picture. The comparison will also give you an inside view into how the publishers' systems are set up, what data they are capable of capturing, and whether they will be able to deliver the services necessary for a seamless OA publishing experience for your authors.

An overlap analysis can also be used to compare financial information, such as APC spending. Such an exchange can help you understand whether the APCs actually paid by your authors match the figures derived in your cost modeling exercises, and shed light on the type and volume of APC discounts the publisher might be granting your authors. Publisher-generated APC data might even be more accurate than your own estimations, especially if your institution does not currently track APC payments.

Some publishers even indicate the invoicing channel in the articles' metadata, i.e. specifying whether the open access publishing of an article was invoiced directly to the authors, was billed to an institution (i.e. covered by a central transformative or open access publishing agreement), or paid by other means. This is not yet a common practice, but the community would welcome standardization in this area, in order to help all players in the ecosystem to better track and understand the financial flows around open access publishing.

Journal title lists

In addition to article-level metadata, you will also exchange title lists with the publisher to reach agreement on the journals for which open access publisher services (and reading access) will be provided. Just as in the case of subscription agreements, you will need title lists in order to communicate the terms of the agreement effectively to your authors—via your own author support pages or compliance verification tools (for example the cOAlition S Journal Checker Tool)—and to operate efficient workflows. Once again, keep in mind that you are now negotiating the terms of your agreement, and receiving one initial title list from the publisher does not mean that this will have to be the final version. You can—and should—further refine the lists, especially if journals that are important for your authors are marked as "excluded".

Looking closely at publisher title lists indicating those journals that are eligible for inclusion in the open access publishing component of your agreement will help to clarify whether:

- given journals operate with special business models (i.e. relying on length-based charges instead of flat fees)

- the publisher applies different APC prices based on license types (i.e. the APC for articles with a CC-BY license is different from one with a more restrictive license)
- the publisher applies different APC prices according to the article type (i.e. the APC of a brief communication is different than the APC of a research article)
- there are certain types of APC discounts and waivers extended by journals (and whether or not these will still be applied, in addition to any discounts stipulated under your central agreement)
- journals operate inside or outside the publisher's standard OA publishing workflows (which might not be a trivial issue for authors, especially in the case of journals published on behalf learned societies).

Core elements of data exchange

Ideally, publishers should be able to provide the data elements below for both title lists and publications, in order to arrive at the best possible model and a successful implementation of transformative and open access agreements. Must-have data points are marked with an *.

Journal title lists

- Publisher name*
- Imprint* (where relevant)
- Owner* (society, etc.)
- Customer name (when relevant)
- Journal title*
- Journal ID (publisher-specific)*
- Print ISSN*
- Online ISSN*
- Journal URL*
- Journal discipline (e.g. STEM/HSS)
- Journal publishing model (e.g. hybrid, fully OA, subscription)*
- if fully OA, DOAJ yes/no
- Reading rights: yes/no*
- Publishing rights: yes/no*
- APC list price (where relevant)*
- APC currency*
- Other charges yes/no
- if yes, type
- Waivers offered yes/no
- Current agreement APC discount
- Other discount types and groups
- Licenses offered* (where relevant, e.g. CC-BY)
- Publisher's Standard / non-standard OA workflow* (where relevant)
- Subscription list price (where relevant)
- Open archive and embargoed OA (where relevant, i.e. articles are free to read after x months)
- Copyright policies (i.e. copyright retention by authors)
- Date active from
- Date added to the agreement*
- Date updated
- Changes made*
- Journal-specific notes (where relevant, i.e. special article types, varying APCs, transfers, takeovers, etc.)

Publications

- DOI*
- Article title*
- Article Open Access type (e.g. gold, closed)*
- Article License (where relevant, e.g. CC-BY)*
- Article type (e.g. original paper, review article, etc.)*
- Article type relevant to contract (yes/no, i.e. peer reviewed article)*
- Publication date (first/online)*
- Relevant date for agreement (date of submission/acceptance/publication)
- Discipline (e.g. HSS/STEM)
- Publisher name*
- Journal title*
- Journal ID (publisher-specific)*
- Print ISSN*
- Online ISSN*
- Journal business model (e.g. hybrid, fully OA, subscription)*
- APC list price (where relevant)*
- Invoice amount (where relevant)*
- Invoicing channel (i.e. author, funder, agreement)
- Currency (where relevant)*
- Discount/surcharge category
- Discount/surcharge amount
- Corresponding author name* (or eligible author that counts under the agreement, i.e. submitting) (if multiple, list all)
- Corresponding author email*
- Corresponding author ORCID
- Corresponding institution name* (affiliation as on the VoR) (if multiple, list all)
- Corresponding institution ID (e.g. ROR, Ringgold)
- Funder ID (where relevant)
- Funder name (where relevant)
- Grant ID (where relevant)
- Funding acknowledgement from the article (if available)
- Notes and comments

Downloads

- Excel template for article data
- Excel template for title lists

After successfully conducting the negotiations, and settling on the terms of an agreement, you will have to ratify the outcomes in a written contract, put into practice new workflows and processes—both internally and with the publisher, and establish mechanisms for ongoing monitoring and assessment of the agreement.

Your experience with these elements will also serve to inform the next negotiation cycle or phase in your transition strategy, building on the outcomes you—and others—have achieved and acknowledging shifts in the landscape that have occurred as transformative agreements proliferate and the proportion of articles published openly in hybrid journals increases.

Agreement terms

Your negotiation principles and goals will most certainly influence the nature of your agreement, which can be more or less restrictive or generous. Nevertheless, how you define terms such as eligible authors, article types, and relevant dates (date of article submission, date of article acceptance, date of publication) is of paramount importance, as they have enormous impact on the efficiency of the workflows which will bring the conditions and services negotiated to fruition.

Transitional by nature, transformative agreements expand the scope of former subscription contracts to include open access publishing, so the terms of traditional subscription licenses must likewise be expanded. The following list explains some core terms that transformative agreements should include, in addition to access-related terms (authentication, perpetual access terms, KBART standard title lists relevant for your reading access entitlements, COUNTER compliant usage reports, Text and Data Mining, data protection, etc.)

This list of open access publishing terms builds largely on the ESAC Workflow Recommendations for Transformative Agreements and Sample agreement terms, the Checklist for Open Access terms in Publisher Agreements with Nordic Consortia, Managing OA publishing in transitional agreements by Jisc, and the SPA-OPS – Transformative Agreement Toolkit by Information Power which fed into the Toolkit to foster Open Access Agreements published by cOAlition S and the Association of Learned and Professional Society Publishers (ALPSP).

Purpose of the agreement

It is useful to start with a clause or statement that clearly sets out the purpose and intent of the agreement, most narrowly: to provide eligible authors with the means and opportunity to publish their articles Open Access during the agreement term and in the journals that are covered by the agreement. Sometimes formulated as a preamble, the statement can also express shared principles such as a formal commitment to the open access transition and practices of diversity, equity and inclusion.

Eligible authors

Usually limited to corresponding authors (authors who take the administrative role in the publication workflow), who are affiliated with the institution (or, in the case of consortia, eligible institutions). It is now common practice in open access publishing that the costs for open access publishing of an article are attributed to a single institution, generally identified through the affiliation of the corresponding author; to this end, the corresponding author's affiliation must always appear on the final published version of the article.

Typically, corresponding authors are identified on the published version of the article with an asterisk or other icons. Limiting eligibility to corresponding authors serves the purpose of assigning one article to exactly one paying institution, and avoiding discrepancies around multiple affiliations. In specific cases, this can also be done by using the submitting author (as papers might have multiple corresponding authors), or using the affiliation senior/last/first authors in certain fields, where these are appropriate.

Keep in mind that affiliation can have different meanings: usually it is the institution where the research was conducted, but when authors move around, they can also list their current institution in the list of affiliations. Therefore, the most important factor for determining eligibility should be that the research leading to the publication was conducted at the eligible institution.

Article types

Article types are usually limited to broad categories like peer-reviewed articles, primary research articles and review papers, in order to exclude content like editorials, interviews, or obituaries. In cases of uncapped agreements, the list of article types are usually more liberal and can include all types of content. Keep in mind that different journals can operate with different article types and adopt different nomenclatures for describing article types, meaning that you could end up with dozens of article types across a journal portfolio.

Some agreements can also cover conference proceedings, in which case you should take into account the topical and unpredictable nature of when and how many proceedings papers could potentially be published by your authors. You should reflect on this factor when analyzing and modeling your publishing output, for example by using annual averages over several years, to flatten out such fluctuations.

Relevant dates for eligibility

Different agreements can use different dates for determining eligibility—and you will most likely have a mix of these across your various agreements. The most important objective, in any case, is clarity, and the relevant date for eligibility is usually one of these three options:

- Submission: the date when authors submit their paper to the journal
- Acceptance: the date when the authors are informed by the editorial team that their paper has been accepted for publication
- Publication: the date when the paper first appears in the journal or on the platform

All of these options have their pros and cons:

- Submission: while it is a straightforward and independent variable, and provides ample time to inform authors about the possibility of OA publishing, the length of the peer review process can cause that articles are published several months (if not years) after the eligibility check took place, creating a messy situation around reporting the (annual) outcomes of the agreement. Moreover, during the publishing process, important metadata fields used for determining eligibility can (and most likely, will) change, making it necessary to institute multiple checks following the original determination of eligibility. The article itself can also be rejected or referred to other journals (within or outside the portfolio of the publisher), causing further complications.
- Acceptance: as article acceptance is an editorial decision, the article metadata can be practically be considered final (although it is not always the case), which makes it easier to avoid errors

in checking the eligibility. As the authors are already in contact with the editors of the journals regarding the decision on the paper, it is also easy to communicate the availability of the OA publishing option. However, there is still a lag between the editorial decision and the publishing date, which can, once again, cause issues in reporting and create problems if important metadata elements change during this time.

- Publication: as the article is published in its final form, the metadata used to verify eligibility can be considered final. However, if the verification process is too close to the publishing date of the article, there will be less room to correct possible errors, especially if your agreement does not provide default OA publishing to your authors.

Publishers might operate with additional relevant dates depending on their specific article verification infrastructure (i.e. editorial decision date, approval date, referral date, allocation date, received into production date, etc.) It is important to clarify if these dates are already covered by the ones listed here (submission, acceptance, and publication), or if the publisher is seeking to establish an additional date as a criterion for the article eligibility. Such cases will have to be considered carefully.

Journals eligible for OA publishing

Just as with entitlements under subscription agreements, you will need to specify the journals that are included in the OA publishing component of your agreement. This can be integrated as a title list within the agreement, or exchanged via other channels.

As noted in the core elements of data exchange, the metadata elements of open access publishing title lists will most likely have fields that differ from the KBART standard, and they might be different from the title list relative to the reading component of the agreement.

Changes to the journal portfolio

Just as in the case of subscriptions, open access publishing title lists can change. This is an important point to consider during the negotiations, and your agreement should regulate whether journals can move in and out of your agreements.

For example, agreements should define rules on what happens to your publishing rights in the case of journals that change publishing models, such as flipping to fully OA while under agreements that only cover open access publishing in hybrid journals. Agreements should also address the case of journals that are transferred to other publishers (or acquired by the publisher) during the term.

Open access publishing entitlements

Transformative or open access agreements can take many different forms, and we are currently in a phase where new models are still emerging. Therefore, it is of utmost importance to state the entity of open access publishing covered in the agreement e.g. if the agreement allows a certain (limited) number of articles to be published OA, or if there are no article caps and it provides unlimited OA publishing for authors. Caps can take different forms, such as simply stating the number of articles to be covered, having a publishing-fee allowance from which a per-article fee will be deducted over time, or dividing total fees by a fixed per-article amount to come up with a number of tokens or vouchers.

Apart from the generalities, you should also double check that the articulation of open access publishing entitlements applied in the agreement corresponds to what was agreed in the course of negotiations (and presumably used in your model calculations). Libraries and consortia have reported cases in which they had modeled an average APC for the publisher's entire portfolio in order to define their open access publishing entitlements in the course of negotiations, but later found the final agreement calculated publishing entitlements modeled with journal-specific APCs; this caused unexpected hurdles, namely running out of their publishing allowance earlier than expected.

Fee structure and payment schedule

Closely related to the open access publishing entitlements, a section in the agreement should describe how fees are articulated and charged. Fees can be articulated in bulk or on a per-article basis. Fees can be charged as pre-payments, post-payments (i.e. after articles are published), or as a combination of the two (i.e. a certain amount is paid in advance, with the balance post-paid based on the actual number of published articles).

In the case that your fee structure is articulated on a per-article basis and post-paid, the terms should define if you will get an invoice separately for every single article or if cumulative invoices will be issued with a specific frequency (i.e. monthly, quarterly, annually).

The invoicing location should also be specified in the agreement, i.e. if payment will be made centrally (by the consortium or some other central unit), by the library, by the authors (in case of APC discounts), or if the invoices are split in some way between various players (for example, as in the University of California multi-payer model).

You should define specific metadata fields to use in invoices in order to be able to efficiently process and approve payments. See the ESAC Workflow Recommendations for the specific fields.

Per-article fees and APCs

If the fee structure of your agreement is articulated with per-article fees or includes APCs, you will have to clearly specify the amounts in the agreement. This makes it easy for your agreement administrators to verify not only the eligibility of articles, but also whether the prices marked in invoices are correct. Depending on your fee structure, you can define the amounts in a variety of ways, for example setting a uniform per-article fee for all articles covered in the agreement or all articles in certain journal categories (e.g. setting uniform fees for hybrid journals), or indicating the journal level APCs. If the agreement provides discounts or caps on APCs, or allows authors to use discounts via other channels, this should also be specified in the agreement. Finally, you should also indicate whether the fees are subject to change over the term of the agreement, i.e. if, how and when fee adjustments may be applied or whether they are to remain stable for the entire term.

Mechanisms to ensure sustainability and mitigate potential financial risks

Although your modeling exercises can help predict the number of articles that might be published in each year of the term of the agreement with a good level of certainty, the publishing output of your authors is influenced by many factors beyond your control and you might encounter unanticipated changes in your publishing trends. For example, an unexpected increase in publishing output might cause you to run out of your open access publishing allowance before the end of the calendar year. One way to handle this case would be to simply pause the OA publishing component of your agreement, but this might cause confusion and frustration for your authors. Another way to handle this case would be to top up your payment to cover all articles that are published over the article cap, but this would put significant financial pressure on only one contracting party in the negotiations, specifically the library (or consortium).

Many agreements therefore have provisions that aim to provide stability for both parties, even in the case that the actual publishing output deviates from the expected publishing output. Such provisions can include setting upper and lower thresholds or corridors that allow articles to deviate by a certain percentage rate without affecting the agreed publishing fees; a threshold can also be set to specify a maximum amount in extra payments/refunds in case the expected articles amounts are exceeded or not reached. Other agreements include provisions to roll over unused publishing allowances from one year to the next (or, for multi-year agreements, calculate a total number of articles for the entire term instead of annual caps).

You can define even more sophisticated mechanisms, for example defining ranges on article growth and connecting those with future price increases in such a way that the future costs can be adjusted based on the uptake or performance of the agreement.

Successful agreements are those in which the terms are sustainable for both parties and the financial risks that might stem from unexpected fluctuation in publishing output are shared fairly.

Discounts and waivers applied outside of the agreement

Some journals provide special discounts or waivers to authors as part of their membership to a learned or professional society, if they serve on editorial boards, conduct peer review for the journals, and so on. The agreement should clearly define whether these discounts and waivers will still be applicable for articles published under the agreement, and how these will be applied and calculated.

Such discounts and discounts groups (when applicable) should be indicated on the open access publishing title lists of the agreement and in OA publishing reports.

Refunding APCs paid outside of the agreement

The contract should clearly state that in cases in which articles from eligible authors are published OA outside of the central agreement due to workflow inefficiencies or other errors, and a fee was unduly incurred by the author, the fees paid for such articles will be refunded.

Additional fees and services

It's important to ensure that no extra "print-based" charges, such as page charges, color charges, etc. will be charged to the authors. The inclusion or exclusion of journals that operate with additional fees for any "value added services" should be clearly indicated.

Author identification parameters

An extremely important factor contributing to the successful fruition of the agreement is the publisher's timely and accurate identification of eligible authors. This will ensure that authors are provided with cues to signal their entitlement to publish open access. Author identification is usually achieved by one or a combination of the following parameters:

- Affiliation as stated on the final, published paper
- ROR, RingGold, or other organizational identifiers extracted from submission systems
- Email domains used during the submission process
- Authors selecting their institution from a list at submission
- IP addresses

OA publishing options (default OA)

It is essential to define whether the option to publish their articles open access will be presented to eligible authors as the default choice, or if they will have to actively choose the OA option from a selection of choices offered in the publishing process. In the case of default OA publishing, it is also important to specify in the agreement whether authors will be given the possibility to opt-out from OA publishing or not. Naturally, these clauses will heavily influence the OA uptake of your authors, and consequently, the overall performance of your agreement implementation.year to the next (or, for multi-year agreements, calculate a total number of articles for the entire term instead of annual caps).

You can define even more sophisticated mechanisms, for example defining ranges on article growth and connecting those with future price increases in such a way that the future costs can be adjusted based on the uptake or performance of the agreement.

Successful agreements are those in which the terms are sustainable for both parties and the financial risks that might stem from unexpected fluctuation in publishing output are shared fairly.

Open licenses choices for articles

Just as in the case of OA publishing options, your agreement will have to specify under which open licenses articles may be published. Most agreements operate with the Creative Commons license CC-BY as the default and sometimes, the only option. Others may offer variations (such as CC-BY-SA and other variants), and some even have publisher-specific licenses.

Changing licenses of published articles

As it is possible that eligible articles are published behind the paywall, or under a restrictive license, because of workflow inefficiencies or other errors, the agreement should allow these articles to be converted retrospectively to an open access license and it should generally be possible to change restrictive article licenses to more liberal license.

Notifications and verification

Some agreements operate with automatic workflows for which institutional checks to validate the eligibility of articles is not required. In cases where such verification is needed, the agreement should stipulate that institutions should be notified when an article is accepted or submitted (see relevant dates) in order to verify the eligibility of the authors, the article type, the article license (if the agreement limits these to certain types), and other fields, in a timely fashion. When the verification procedure is defined in the agreement, it can also specify a time interval (number of days) by which the verification process should be completed.

Publisher reporting

A section on reporting should define metadata fields used in the reports and their frequency (monthly, quarterly, annual, etc.) For a detailed list of data fields, see the ESAC Workflow Recommendations.

Customer tool/Dashboard/Account

Some publishers use dedicated tools (either in-house or commercial solutions or an independent intermediary) for a variety of workflow purposes (e.g. article verification process and/or monitoring of an agreed article contingent and/or monitoring a prepayment amount and/or reporting). It needs to be clearly defined in the agreement which services can be accessed via the tool and which services will depend on manual or ad hoc provision by the publisher.

Metadata delivery to relevant third parties

The agreement should mention that the publisher will make article metadata openly available and deliver metadata (including Open Access license information) to Crossref and other relevant third parties. To learn more, see the Negotiate metadata in contracts page of Metadata 20/20.

Article delivery (i.e. repositories)

More and more transformative agreements have clauses around delivering the version of record either directly to the institution, or automatically depositing the VoR in the relevant institutional repository, for example via the SWORD protocol.

Open Access funding acknowledgement

Providing a funding acknowledgement to indicate the entity that funded the research leading to the publication is now common practice. Similarly, in order to publicly display that an article has been published OA thanks to a specific transformative agreement, the published articles shall be labeled accordingly; for example, the footnote of the OA Article in the version of record shall state that "Open access funding provided by [the Institution]".

Transparency, no non-disclosure

Transparency around OA agreements is crucial, especially in the transition phase and, generally, no non-disclosure clauses should be in place between the parties.

In order to foster a transparent scholarly publishing market, enable community benchmarking of the costs and service conditions offered by commercial publishers, and support authors through third party systems such as the cOAlition S Journal Checker Tool, the contract can formally state that the agreement details will be shared via the ESAC Transformative Agreement Registry. Register you transformative agreements here!

Responsibilities of the publisher

The agreement should also state the responsibilities of the publishers, including, but not limited to:

- Will clearly communicate the existence of the agreement on its platform and its communications with the authors
- Will be responsible for the identification of Eligible Authors
- Will provide Eligible Authors with the OA publishing option as the default
- Shall not directly charge Eligible Authors for APC payments (unless agreed otherwise)

For a more comprehensive list, see the 2021 Enhancement to the ESAC Workflow Recommendations.

Responsibilities of the institution

Similarly, the agreement should also state the responsibilities of the institution, including, but not limited to:

- Will clearly communicate the existence of the agreement on its website, to consortium member institutions, and to researchers
- Will supply the information necessary for author identification, such as email domains or institutional identifiers like ROR, just as with IP addresses in the case of traditional licenses
- Will share the agreement details in the ESAC Transformative Agreement Registry

For a more comprehensive list, see the 2021 Enhancement to the ESAC Workflow Recommendations.

Communication

For an optimal implementation, the contract can also specify dedicated contact persons for agreement-related issues, technical personnel, and staff dedicated to workflow related issues. It can also reference regular progress updates or "health checks" on the performance of the OA workflows, and set a commitment to implement (improved) workflows and other, specific service elements, which may not yet be but are necessary for a smooth process and are on roadmaps for the future.

Level of service

Just as with provisions around downtime and the availability of content in traditional contracts, transformative agreements can have similar conditions for the accuracy of the workflows, in order to foster improvements over time.

Availability of content

The agreement should include provisions for archiving and warranties of availability of published OA articles.

Workflows

For thorough guidance on workflows, check out the ESAC Workflow Recommendations and the 2021 Enhancements, produced by the agreement implementation subgroup, for more information on the operational aspects of managing your agreement.

The international ESAC library and consortium community, together with other partners in the scholarly communication ecosystem, continues to share experiences and promote good practice around the key workflow touch points that determine the success of a transformative or central open access publishing agreement: author identification, eligibility, verification, reporting, payment, monitoring and quality control.

Contact ESAC if you would like to get involved and to share your questions and suggestions.

Monitoring and assessment

The key drivers of transformation presented in the How Transformative Is It framework can help shape your approach to monitoring and assessment of your agreement; and, naturally, how you measure the progress and outcomes of your agreement will depend on the specific principles and objectives you define for your negotiations. Here are just a few aspects you might consider when developing metrics or KPIs to assess your agreements and their impact:

- Author uptake of the opportunity secured through the agreement to publish their accepted articles open access
- Proportion of the institution or consortium's output with the publisher that is published openly
- Comparison of agreement costs with previous expenditure to determine the entity of cost avoidance of APCs in the wild
- Usage and altmetrics
- Administrative effort

As your monitoring and assessment exercises will largely depend on the quality of metadata you receive from publishers, it is important to establish criteria for publisher reporting in your agreements and to check compliance over the course of the agreement term. You may also wish to integrate checkpoints in the agreement for integrating workflow and reporting improvements to improve the success of the agreement. Inspiration can be taken from a variety of reports and updates publicly shared by many libraries and library consortia, and appropriately formatted for the relevant stakeholder audience. For example, here is a brief executive summary assessment by the German Rectors' Conference of the first year of the DEAL-Wiley agreement. A series of annual reports from the Bibsam Consortium in Sweden and from Jisc in the UK provide an assessment of their first "offset" agreement with Springer Nature. There are many highly-visual, web-based open access monitoring reports on the national (e.g. in the Netherlands and Finland) or international level. In some cases, information about the proportion of articles published open access as enabled by TAs and other strategies can feed into funder-specific reporting, such as this report from the NWO in the Netherlands. This Science Europe Briefing Paper on Open Access Monitoring provides some insightful recommendations on the key questions that research organizations should answer in order to develop a plan and criteria for monitoring their progress in the open access transition, generally.

Again, contact ESAC if you would like to get involved and to share your questions and suggestions.

CONCLUDING REMARKS

As noted in the introduction, the ESAC Reference Guide is the narrative manifestation of an informal mapping of guidelines, good practice and insights conducted in Spring 2021 by a dedicated task group of experts from the international ESAC community, acknowledged below. By no means exhaustive in its references and examples, the guide covers the practical elements to preparing, negotiating and formalizing a transformative agreement.

While this ESAC Reference Guide focuses primarily on the negotiation of transformative agreements, further community resources related to communications, agreement implementation, agreement characteristics, monitoring and assessment are in the works.

As transformative agreements are, by nature, transitional, the guide will be updated to reflect new benchmarks and practice as scholarly publishing makes a definitive shift to open access.

Contact ESAC if you would like to suggest an addition or adjustment to the reference guide based on your own negotiation experiences.

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ABOUT ESAC

The ESAC community includes library practitioners who collaborate to produce open resources and who exchange experiences and insights via mentorship, dedicated working groups and other activities focusing on open access author and library workflows, data gathering and analytics, agreement terms, and stakeholder engagement.

If you would like to be matched with a mentor or would be interested in participating in any of ESAC's working groups and activities, contact us with your area of interest.