How are transformative agreements transforming libraries?

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Abstract:

It was the library community, united in OA2020 and ESAC, that first defined Transformative Agreements (TAs) in 2018, and which, today, drives their continued evolution, compelling publishers to depart from the status quo of subscriptions. First adopted in Europe, the wave of TAs has now reached libraries in Asia, Africa, the Americas and Australia. With more than half a million new research articles published openly through TAs negotiated by institutions in 67 countries to date, there can be no doubt that TAs increase global access to research.

Beyond demonstrating the evidence of growing open access content thanks to TAs, the paper will illustrate how these agreements are transforming libraries in how they interact with publishers, researchers and their institution's leadership. Through key "transformation drivers", characteristic of TAs, libraries, globally, are advancing toward a fully open paradigm in scholarly communication while expanding and securing their own role in a post-transformation ecosystem.

Keywords: transformative agreements, open access, scholarly journals, libraries, OA transition

Introduction

After the digitization of scholarly journals in the early 1990s and the rise of "big deal" subscriptions, the first departure from the traditional license agreements for reading access were the so-called "offsetting" agreements. In this type of agreement, open access publishing and reading access were combined into one agreement and the costs for open access publication in hybrid journals of articles by an institution or consortium's authors were offset against the subscription fees. This approach was first experimented by IOP Publishing for Austrian publications in 2014 [1], but as the library community gained more experience in negotiation and implementation of such agreements [2, 3, 4], clearer and more ambitious objectives came into focus, leading to the evolution of transformative agreements.

One key advance in the conceptual evolution from offsetting to transformative agreements lies in a more incisive application of the principle of cost-neutrality, first introduced in the Max Planck Digital Library White Paper, "Disrupting the subscription journals' business model for the necessary large-scale transformation to open access" [5]. While offset agreements may have succeeded in neutralizing fees for open access publishing of articles in hybrid journals, usually in the form of author-facing article processing charges (APCs), that previously flowed to publishers as a second revenue stream on top of subscription fees paid by libraries, the core business between the two contracting parties, described and governed by the agreements, remained the provision of subscription access. As negotiation benchmarks progressed to transformative agreements, not only was the second revenue stream of hybrid APCs removed from the equations, but former subscription investments were more clearly and deliberately repurposed: in transformative agreements, the core business is no longer the provision of access, but open access publishing. This key development comes with significant implications for institutions, their libraries and publishers—touching workflows, processes, human resources, budgeting, financial streams and more. In this way, the agreement becomes a vehicle for transformation, providing the stakeholders in scholarly communication with a viable framework to reorient their organizations and frames of reference around open research communication instead of paywalls.

The ESAC Initiative uses "Transformative Agreement" as "an umbrella term describing those agreements negotiated between institutions (libraries, national and regional consortia) and publishers in which former subscription expenditures are repurposed to support open access publishing of the negotiating institutions' authors, thus transforming the business model underlying scholarly journal publishing, gradually and definitively shifting from one based on toll access (subscription) to one in which publishers are remunerated a fair price for their open access publishing services"[6].

The new concept for transformative agreements was validated and embraced by representatives of the global research community united at the 14th Berlin Open Access Conference (2018) who, in the final conference statement [7] affirmed their consensus and commitment

> "…to accelerating the progress of open access through transformative agreements that are temporary and transitional, with a shift to full open access within a very few years. These agreements should, at least initially, be cost-neutral, with the expectation that economic adjustments will follow as the markets transform. Publishers are expected to work with all members of the global research community to effect complete and immediate open access according to this statement."

Today, negotiating transformative agreements (TAs) with subscription publishers are a key strategy of the global network of research performing organizations united in the Open Access 2020 Initiative [8], whose mission is to implement practical approaches to drive the large-scale implementation of open access to scholarly journals [9]. Through the advocacy of OA2020, TAs have become one of today's most impactful strategies for enabling open access to research, as envisioned in the original Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities of 2003 [10].

A transitional strategy driven by research institutions and their libraries

Transformative agreements negotiated by libraries and library consortia have increased in numbers and gained momentum as an open access strategy, reinforced by the policies of research funders such those united in cOAlition S. The Joint Statement of May 2019 made by representatives of OA2020 and cOAlition S highlights how their "common strategy aimed at removing paywalls from published research articles…work(s) in synergy on both sides of the scholarly publishing chain to achieve open access in scholarly journals and alternative publishing venues" [11]. The Statement continues:

> Institutions who engage in such agreements will contribute to delivering the greatest possible range in Plan S-compliant publishing options to their authors while significantly growing the proportion of research made openly available. At the same time, cOAlition S recognizes the importance, as one of three routes towards full and immediate open access, of those agreements in providing a strong incentive for scholarly publishers who have yet to pilot open access models. Publishers will find institutions and consortia willing to partner on such agreements in exchange for a commitment to a definitive transition to full and immediate open access with fair and transparent pricing."

From the outset, transformative agreements were intended to be iterative and to continuously evolve, and in the few short years since the concept was established, libraries and publishers have proposed many distinctive models, calling them with a variety of names, i.e. "Read and Publish", "Publish and Read", etc. Rapid growth in TAs, a lack of visibility and understanding around this new and dynamic mode of institution-publisher relationship, and, especially, the lack of a unified set of library-led principles around TAs opened the library community to the risk that publishers might draw advantage from the global reach of their organizations to unilaterally establish and promote their own standards around the negotiation and implementation of TAs.

To address this risk, the institutions and libraries that first developed the concept of transformative agreements invited their library peers globally to come together in the ESAC Initiative, "an open community of information professionals dedicated to putting the vision of open access to research into practice" [12]. The scope of the ESAC Initiative is to "…share resources and knowledge to empower libraries and library consortia on their path to re-orienting their financial streams, processes, and workflows around open access publishing instead of paywalls, so that the research conducted in our institutions can freely be shared with scholars everywhere." The range of their activity includes:

- Optimizing open access publishing workflows for authors and libraries
- Promoting standards and good practice related to data exchange and analysis
- Increasing transparency around the market conditions in scholarly publishing

- Sharing experience and insights to make our publisher negotiations more impactful
- Building capacity in libraries and consortia to prepare for a fully open access paradigm

The many open resources developed by the ESAC community of practice make it the definitive library authority on transformative agreements:

ESAC Guidelines for Transformative Agreements
https://esac-initiative.org/about/transformative-agreements/guidelines-for-transformative-agreements/

ESAC Transformative Agreement Registry
https://esac-initiative.org/about/transformative-agreements/agreement-registry/

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

Approaches to data gathering and analysis uncover institutional publishing profiles
https://esac-initiative.org/about/data-analytics/publishing-profile/

ESAC Workflow Recommendations for Transformative and Open Access Agreements
https://esac-initiative.org/about/oa-workflows/

ESAC Reference Guide to Preparing, Negotiating and Implementing Transformative Agreements
https://esac-initiative.org/about/transformative-agreements/reference-guide/

Spectrum of transformation drivers

The number of transformative agreements entered in the ESAC Registry is now in the several hundreds, negotiated by more than 50 different publishers, large and small, and involving institutions in more than 60 countries worldwide. The growing critical mass of TAs and the information shared in the ESAC Registry has allowed the community to bring more clearly into focus the key drivers that characterize TAs as a vehicle for transformation.

'How transformative is it? A spectrum of transformation drivers leading to an open scholarly publishing paradigm' was developed by ESAC to illustrate "the array of transformation drivers that characterize transformative agreements (TAs), to help institutions evaluate publisher proposals during the negotiation process, assess the progress of their current TAs, and define their next negotiation objectives, mapping 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" [13].

Here we introduce the Spectrum's six transformation drivers, with excerpts highlighting the status quo of scholarly journal publishing under the subscription paradigm, the vision of a transformed and open paradigm, and the overarching negotiation objectives that act as a signpost to lead the community from the former to the latter. Through the lens of the Spectrum's transformation drivers, the community is also able to observe how transformative agreements are transforming the broader scholarly publishing landscape. Each driver listed below is accompanied by an observation on the impact that TAs are having for libraries and

other stakeholders in scholarly communication, indicators that the transition to an open paradigm is well underway.

Transformation driver: Commit to an open paradigm

Status quo under the subscription paradigm: 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.
Vision: Open access as the default in scholarly communication.
TA negotiation objective: Garner publisher commitment to a sustainable, equitable and irreversible transition to open access.

Observation: A growing number of libraries and national library consortia from around the world are making public commitments to an open paradigm and sharing their principles and frameworks for negotiating transformative agreements, from South Africa [14] to the UK [15], from Colombia [16] to the United States [17].

Perhaps even more significantly, however, scholarly publishers are also making formal, public commitments to transition their scholarly journals to open access. With such decisions being made unilaterally by prominent scholarly journal publishers, even libraries and institutions that have not yet developed an approach to the open access transition will soon be confronted with a new mode of interacting with these publishers.

Speaking in October 2020 on behalf of Cambridge University Press, Ella Colvin, Director of Academic Journals Publishing stated "We and cOAlition S want the same thing: a global transition to full and immediate open research. Of the three routes to compliance that they offer us, the transformative journals and transformative agreement routes give us a solid foundation for achieving our shared goals" [18]. Little over a year later, in the Cambridge University Press Annual Report 2021, the publisher announced, "In 2021, we reached the significant landmark that over half of all our published articles were open access (53%)" [19].

Similarly, The Royal Society, publisher of one of the world's first and longest-running scientific journals, Philosophical Transactions, has made its transition strategy public, with Stuart Taylor, Publishing Director for The Royal Society, stating in May 2021 "So far we have deals in place with over 160 institutions around the world for 2021 and a good pipeline for 2022. These include consortial deals with CDL, MPDL, Jisc, Bibsam, CAUL, MALMAD and IReL amongst others. In this way, we expect over the next few years to drive OA content in our four primary research hybrid journals up to the point where we can finally switch them to full open access" [20]. Half a year later, in January 2022, Taylor provided an update, reporting that "In 2021, we reached the significant landmark that over half of all our published articles were open access (53%)" [21].

Transformation driver: Open access publishing

Status quo under the subscription paradigm: 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.
Vision: Authors retain copyright and openly license their articles.

TA negotiation objective: 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.

Observation: Through their transformative agreement negotiations, a number of first mover national library consortia have succeeded in enabling well over half of their country's corresponding authored papers to be published immediately open access. That, combined with the proportion of research articles published in fully open access journals, brings the ratio of their publications immediately open access up to 75-80% of the country's annual research article output.
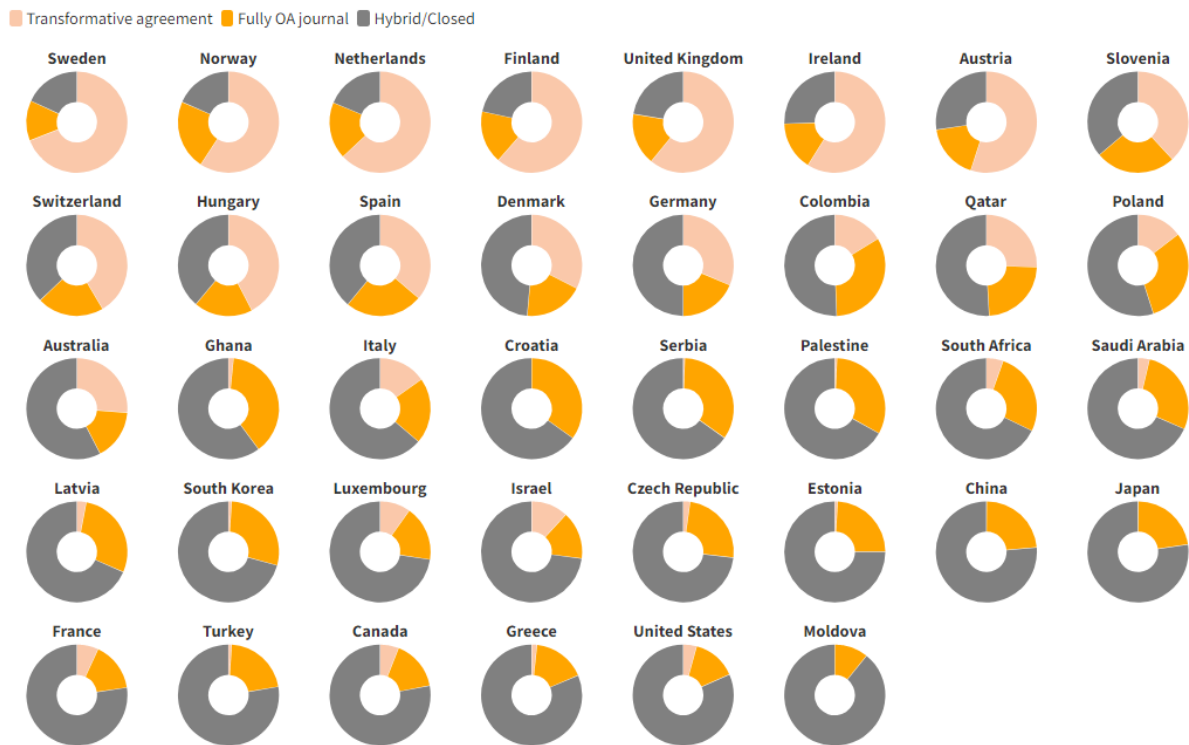

Figure 1 Country overview of publication shares by type. Source: ESAC Market Watch, 20-Jun-2022.

Taken together, TAs globally have enabled well over half a million articles to be published immediately open access without author-facing APCs.
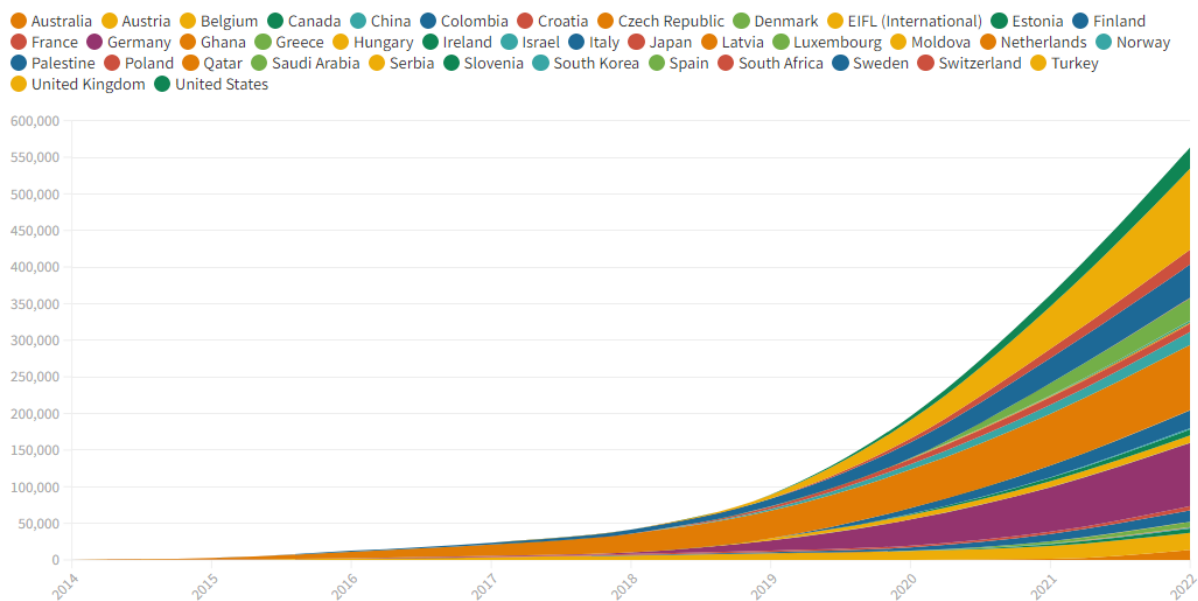
Figure 2 Cumulative sum of articles enabled open access in the past years by transformative agreements listed on the ESAC Registry, worldwide. Source: ESAC Market Watch, 20-Jun-2022.

Transformation driver: Price transparency

Status quo under the subscription paradigm: 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.

Vision: 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.

TA negotiation objective: Articulate the service levels, terms, conditions and pricing of the agreement openly and transparently to enable community benchmarking and cost comparisons.

Observation: As the visibly growing wave of TAs is still far from cresting, libraries must continue to negotiate reading access for content that is published behind subscription paywalls. However, since subscription (reading) fees have, historically, been opaque and hidden from public scrutiny by non-disclosure clauses in license agreements, the issue of price transparency can only partly be addressed in this transitional phase in which reading and open access publishing "co-exist" in one agreement. In many current transformative agreements, costs for open access publishing are articulated transparently on a one-on-one basis (a transparent fee for each article published openly) and a separate forfeit is paid for reading access. One innovative approach for introducing price transparency in this transitional phase can be found in Germany's "publish and read" cost model [22]:

DEAL's transitional "Publish and Read" cost rolls up the costs for both open access publishing services and comprehensive reading access into one fixed, all-inclusive fee paid for each article published by a German (corresponding) author.

This is a significant innovation, as institutional investments in scholarly journals are currently organized around up-front, lump-sum subscription fees that cannot transparently be assessed in terms of cost/service. Under the DEAL model, costs are articulated at the article level so that publishers earn in proportion to the actual services they provide, and institutions pay in proportion to the services their researchers receive—open access publishing services and, to a lesser degree, reading access. The fixed, comprehensive, per-article fee therefore becomes a viable bridge for institutions to redirect their former subscription funds to support their authors with open access publishing services.

Seeking a fair and reasonable cost accord, the per-article fees negotiated by DEAL are grounded in robust analysis of the collective subscription expenditure in Germany and the total number of articles published by authors affiliated with German institutions in a year. The negotiations thus result in a cost-neutral re-orientation of the collective subscription expenditure in Germany. At the same time, since the per-article fees are inclusive of open access publishing, author-facing open access publishing fees, which previously came on top of subscriptions, are eliminated, effectively reducing costs overall on a national scale.

In the meantime, to prepare for a scenario in which library-publisher agreements are based primarily on the provision of open access publishing services to authors, new frameworks and infrastructure are already entering the ecosystem. For example, cOAlition S has sponsored development of Price Transparency Frameworks [23] and a Journal Comparison Service [24]. The goal of these tools is to put the community in a better position to compare and assess open access publishing fees with an eye to stimulating competition and, consequently, downward market pressure on pricing as well as innovation in the services offered by providers.

Transformation driver: Organize institutional investments around open access instead of paywalls

Status quo under the subscription paradigm: 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.
Vision: 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).
TA negotiation objective: Rein in and re-engineer the parallel financial streams of the subscription-paradigm and orient institutional investments in scholarly publishing around open access.

Observation: As described earlier in this paper, reorganizing institutional investments around open access is a fundamental principle of transformative agreements. The importance of this

principle has been underscored with the recent UNESCO Recommendation on Open Science [25], which states:

> Designing, implementing and monitoring funding and investment policies and strategies for science based on the core values and principles of open science. The costs associated with operationalization of open science relate to the support of open science research, publishing, data and coding practices, the development and adoption of open science infrastructures and services, capacity building of all actors and innovative, highly collaborative and participatory approaches to the scientific enterprise.

Transformation driver: A sustainable transition

Status quo under the subscription paradigm: 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.

Vision: Institutional budgets are reorganized to support the open dissemination of research results and scholarly communication services needed by researchers in our digital age.

TA negotiation objective: 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.

Observation: While it is widely accepted that the current global investment in subscriptions is more than enough to sustain a transition of scholarly journal publishing to open access models (a thesis first advanced in the Max Planck Digital Library White Paper [5]), the key challenge is to adjust investments so that they are proportionate to the needs of researchers as authors (open access publishing) as opposed to researchers as readers (reading access).

Where the publishing activity of an institution is such that greater investment is required, the Association of European Research Libraries (LIBER) advises in their recent Urgent Recommendations for Open Access Negotiations with Publishers that engaging "key stakeholders, such as research administrators, university leadership, research councils, funding bodies and ministries of research, in the development of data- and values-based strategies that support their Open Science goals will position the library as a key and trusted partner for the future and secure the library's role as the central point for managing research communication services within their institutions" [26].

Understanding of the financial implications of the open access transition is growing among the highest-level stakeholders in research. In Germany, for example, the German Science and Humanities Council, recently issued new Recommendations on the Transformation of Academic Publishing: Towards Open Access describing the role of libraries [27]:

> II.1.d **Role of the libraries**
> Libraries possess extensive knowledge and often capacities to actively support researchers in their publication activities, too. In the future, this will be a central task for them.

They also play a central role in the **implementation of transparent information budgets** and the **centralisation of funds** and long-term archiving.
As far as the allocation of public funds for publishing activities is concerned, they could be involved in decisions on eligibility for funding.

In this meantime, library consortia have an important role in designing new cost distribution models to help smooth the transition to open access for their library members, making gradual adjustments to their investments over time and make future agreements sustainable for all [28].

Transformation driver: Optimize processes for open access

Status quo 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.
Vision: 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.
TA negotiation objective: 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.

Observations: A clear example of the progress made in optimizing publishing workflows for open access can be found in the work of the ESAC Initiative. The ESAC Initiative was originally established in 2014 with the aim of promoting workflow efficiencies and library-driven standards in the management of central open access publishing agreements that remove the administrative burden of APCs from authors [29]. In the years that followed, libraries continued to gain experience with the new processes related to open access publishing, including author and article identification and verification, funding acknowledgement and metadata, invoicing and reporting and, as a community, released the first set of Workflow Recommendations for Transformative and Open Access Agreements in 2017 [30]. Indicative of the improvements libraries have made in their own workflows, and prompted publishers to make in their workflows, the ESAC community released an enhancement to the Recommendations in 2021, addressing further contractual responsibilities for both libraries and publishers that are necessary to improve workflows as open access becomes the default in scholarly publishing [31].

In addition to library-led standards, it is also easy to observe growth in industry infrastructure and services to make open access publishing more efficient for all stakeholders. These range from the central data exchange hub, OA Switchboard [32], to development in open access management tools such as ChronosHub [33], Oable [34], and ConsortiaManager [35], to metadata infrastructure such as I4OC [36] (https://i4oc.org/), I4OA [37]. (https://i4oa.org/), and Metadata 20/20 https://metadata2020.org/, [38].

Conclusion

The preparatory work for negotiating transformative agreements and the management of OA publishing workflows empower libraries with new insights and responsibilities that were not commonplace in the subscription-based system. Insights into the publishing behavior of authors, trends in scholarly communication, oversight of financial streams, stronger engagement and alignment with university leadership and other relevant stakeholders help libraries to broaden their role and work more closely with the communities they serve. Rather than focusing primarily on building individual collections, TAs help libraries to develop a more service-oriented model, where they collectively build a global collection of open research outputs.

At the same time, TAs do not constitute a new standard in licensing; rather, in this stage of the open access transition, each new transformative agreement establishes benchmarks that others should build on, challenging the old, opaque subscription-based model moving toward a fully open paradigm.

There can be no doubt that transformative agreements are an effective means to rapidly increase open access to research. As demonstrated above, implementing transformative agreements, combined with other approaches, leads to a very rapid transition of an institution or an entire country's research outputs to open access. Thanks to the efforts of the first movers, a world where research outputs are available to read and reuse without any restrictions and where the processes of scholarly publishing are oriented around OA publishing is now clearly within our sights.

Nevertheless, as pointed out in the 20th Anniversary BOAI Recommendations, "OA is not an end in itself, but a means to other ends, above all, to the equity, quality, usability, and sustainability of research" [39]. Only by actively engaging in TAs will the community be in a position to define standards of quality and global equity and ensure that scholarly publishing meets them. Beyond enabling open access, TAs are are vehicle to prepare libraries and other stakeholders for a new paradigm of open scholarship and research communication—one urgently needed to enable science to address the global challenges with which society is confronted.

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References

[1] "New open access funding pilot for Austria", Press Release, IOP Publishing, 5 Feb. 2014. Retrieved from http://ioppublishing.org/news/austria-open-access/. [Accessed: 20-Jun-2022].

[2] L. Earney, "Offsetting and its discontents: challenges and opportunities of open access offsetting agreements", *Insights*, 30(1), 2017. [Online]. Available: https://doi.org/10.1629/uksg.345. [Accessed: 20-Jun-2022].

[3] K. Geschuhn and G. Stone, "It's the workflows, stupid! What is required to make 'offsetting' work for the open access transition". *Insights*, 30(3), 2017. [Online]. Available: https://doi.org/10.1629/uksg.391. [Accessed: 20-Jun-2022].

[4] Evaluation of the Swedish Springer Compact agreement: report, National Library of Sweden/Bibsam Consortium, 2018. [Online]. Available: https://www.kb.se/samverkan-och-utveckling/nytt-fran-kb/nyheter-samverkan-och-utveckling/2018-10-09-evaluation-of-the-swedish-springer-compact-agreement-report-4.html. [Accessed: 20-Jun-2022].

[5] R. Schimmer, K. K. Geschuhn, and A. Vogler, "Disrupting the subscription journals' business model for the necessary large-scale transformation to open access", 2015. [Online]. Available: http://hdl.handle.net/11858/00-001M-0000-0026-C274-7. [Accessed: 20-Jun-2022].

[6] "Transformative Agreements" definition, ESAC Initiative website. [Online]. Available: https://esac-initiative.org/about/transformative-agreements/. [Accessed: 20-Jun-2022].

[7] 14th Berlin Open Access Conference Final Statement. [Online]. Available: https://oa2020.org/b14-conference/final-statement/. [Accessed: 20-Jun-2022].

[8] Open Access 2020 Initiative website. [Online]. Available: https://oa2020.org/. [Accessed: 20-Jun-2022].

[9] Expression of interest in the large-scale implementation of open access to scholarly journals, OA2020 Initiative. [Online]. https://oa2020.org/mission/. [Accessed: 20-Jun-2022].

[10] Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, 2003. [Online]. Available: https://openaccess.mpg.de/Berlin-Declaration. [Accessed: 20-Jun-2022].

[11] Joint Statement of OA2020 and cOAlition S: Research Performing and Research Funding Organizations Working Together to Accelerate the Transition to Open Access, 2019. [Online]. Available: https://www.coalition-s.org/oa2020-and-coalition-s/. [Accessed: 20-Jun-2022].

[12] ESAC Initiative website. [Online]. Available: https://esac-initiative.org/. [Accessed: 20-Jun-2022].

[13] "How transformative is it? A spectrum of transformation drivers leading to an open scholarly publishing paradigm", ESAC Initiative, 2021. [Online]. https://esac-initiative.org/wp-content/uploads/2022/04/ESAC_HowTransformativeIsIt_Apr2022.pdf. [Accessed: 20-Jun-2022].

[14] Framework for Publisher Open Access (Transformational) Agreements – a communiqué for publishers, SANLiC, July 2021. [Online]. Available: https://sanlic.org.za/wp-content/uploads/2021/07/SANLiC_Publisher_Communique_TransformatoinalAgreementsJuly2021open_distribtution.pdf. [Accessed: 20-Jun-2022]

[15] Our role in open access, Jisc. [Online]. Available: https://www.jisc.ac.uk/content/open-access/our-role. [Accessed: 20-Jun-2022].

[16] "Ministro de Ciencias respalda avances del Consorcio Colombia, iniciativa liderada por 60 IES y centros de investigación en Colombia y apoyada también por el MEN y ASCUN", Consorcio Colombia, February 2022. [Online]. Available: https://www.consorciocolombia.co/2022/02/02/ministro-de-ciencias-respalda-avances-

del-consorcio-colombia-iniciativa-liderada-por-60-ies-y-centros-de-investigacion-en-colombia-y-apoyada-tambien-por-el-men-y-ascun/. [Accessed: 20-Jun-2022].

[17] Guidelines for Evaluating Transformative Open Access Agreements, Office of Scholarly Communication, University of California. [Online]. Available: https://osc.universityofcalifornia.edu/uc-publisher-relationships/resources-for-negotiating-with-publishers/guidelines-for-evaluating-transformative-open-access-agreements/. [Accessed: 20-Jun-2022].

[18] "Press seeks Transformative status across its journals in major commitment to Open Access", Cambridge University Press, October 2020. [Online]. Available: https://www.cambridge.org/about-us/news/press-seeks-transformative-status-across-its-journals-major-commitment-open-access/. [Accessed: 20-Jun-2022].

[19] "Cambridge University Press Annual Report 2021", Cambridge University Press, 2021. [Online]. Available: https://www.cambridge.org/about-us/annual-report/press-report-2021/academic. [Accessed: 20-Jun-2022].

[20] "Our transition to Open Access", The Royal Society, May 2021. [Online]. https://royalsociety.org/blog/2021/05/our-transition-to-open-access/. [Accessed: 20-Jun-2022].

[21] "Halfway to Open", The Royal Society, January 2022. [Online]. https://royalsociety.org/blog/2022/01/halfway-to-open/. [Accessed: 20-Jun-2022].

[22] Here's the DEAL: Restructuring financial streams to enable open access, DEAL Operations. [Online]. https://deal-operations.de/en/here-is-the-deal/restructure-costs. [Accessed: 20-Jun-2022].

[23] Plan S Price Transparency Frameworks: guidance & requirements, cOAlition S, March 2022. [Online]. Available: https://www.coalition-s.org/price-and-service-transparency-frameworks/. [Accessed: 20-Jun-2022].

[24] Journal Comparison Service, cOAlition S. [Online]. Available: https://www.coalition-s.org/journal-comparison-service/. [Accessed: 20-Jun-2022]

[25] UNESCO Recommendation on Open Science, 2021. [Online]. Available: https://unesdoc.unesco.org/ark:/48223/pf0000379949.locale=en. [Accessed: 20-Jun-2022]

[26] Four Urgent Recommendations for Open Access Negotiations with Publishers, LIBER, April 2022. [Online]. Available: https://libereurope.eu/article/four-urgent-recommendations-for-open-access-negotiations-with-publishers/. [Accessed: 20-Jun-2022]

[27] Recommendations on the Transformation of Academic Publishing: Towards Open Access, German Science and Humanities Council, January 2022. [Online]. Available: https://doi.org/10.57674/0gtq-b603. [Accessed: 20-Jun-2022].

[28] R. Pinhasi, L. Hölbling and B. Kromp, "Austrian Transition to Open Access: A Collaborative Approach", *Insights* 34 (1): 25, 2021. [Online]. Available: http://doi.org/10.1629/uksg.561 [Accessed: 20-Jun-2022]

[29] About ESAC, ESAC Initiative. [Online]. Available: https://esac-initiative.org/about/about-esac/. [Accessed: 20-Jun-2022]

[30] ESAC Workflow Recommendations for Transformative and Open Access Agreements, ESAC Initiative. [Online]. Available: https://esac-initiative.org/about/oa-workflows/. [Accessed: 20-Jun-2022]

[31] 2021 Update to the ESAC Workflow Recommendations for Transformative and Open Access Agreements, ESAC Initiative. [Online]. Available: https://esac-initiative.org/about/oa-workflows/#update2021. [Accessed: 20-Jun-2022]

[32] OA Switchboard website. [Online]. Available: https://www.oaswitchboard.org/. [Accessed: 20-Jun-2022]

[33] ChronosHub website. [Online]. Available: https://chronoshub.io/. [Accessed: 20-Jun-2022]

[34] Oable website. [Online]. Available: https://oable.org/. [Accessed: 20-Jun-2022]

[35] ConsortiaManager website. [Online]. Available: https://consortiamanager.com/. [Accessed: 20-Jun-2022]

[36] I4OC website. [Online]. Available: https://i4oc.org/. [Accessed: 20-Jun-2022]

[37] I4OA website. [Online]. Available: https://i4oa.org/. [Accessed: 20-Jun-2022]

[38] Metadata 20/20 website. [Online]. Available: https://metadata2020.org/. [Accessed: 20-Jun-2022]

[39] The Budapest Open Access Initiative: 20th Anniversary Recommendations, 2022. [Online]. Available: https://www.budapestopenaccessinitiative.org/boai20/. [Accessed: 20-Jun-2022]