As pressures mount from global funding mandates and initiatives like Plan S, publishers are seeking sustainable solutions to transition their subscription portfolios to open access. For self-publishing societies with niche portfolios and low publication volumes, traditional transition options such as article processing charge models or transformative agreements are limited or out of reach and often involve significant financial risk. In this article, we focus on one society publisher’s implementation of Subscribe to Open (S2O): an emerging open access model that moves away from article-level charges, instead leveraging existing subscription revenues and infrastructure to achieve seamless and sustainable open access. We outline the advantages of this model for society publishers, the parameters to consider when implementing the model, the initial community response to a successful implementation and some early data highlighting the effect of the S2O model on our journals.

**Keywords**
open access; Subscribe to Open; society publishing; transformative agreements; Plan S; OA

---

**Introduction: getting to Subscribe to Open**

IWA Publishing is a society publisher which is wholly owned by the International Water Association, a membership organization representing water professionals and researchers in over 140 countries. We publish 14 journals directly and co-publish an additional three: two with Elsevier and one Spanish language title with Universitat Politèctica de València. Our journals spread knowledge about clean drinking water, safe sanitation and sound flood management. These are not trivial research areas; globally, three in ten people (2.3 billion) do not have access to basic sanitation, 771 million people lack easy access to clean drinking water, including almost a third of all schools worldwide. IWA wants to spread good research and practice to save lives and improve quality of life for people everywhere. Our goals are immediate and concrete.
As part of our mission, we began actively moving toward open access (OA) in 2015. Although we published our first open access article in 2006, we only published our 100th open access article a decade later. Progress had not been quick. We launched two pure OA journals and flipped two existing journals to open access (Water Reuse for 2017 and Hydrology Research for 2020) at significant cost to the Association. Alongside these efforts, we negotiated read and publish deals in the Netherlands, Austria, the UK and Sweden. As other learned society publishers have observed, it is difficult to convince consortia and institutions to engage in read and publish discussions on a small scale. Negotiations take time and, with limited resources, consortia and libraries often choose to prioritize their discussions with larger publishers.

Even with these changes, only 19% of the articles we published in 2019 were open access. At that point we began looking at Subscribe to Open (S2O) as a way of completing our transition in one decisive move rather than making a hundred small changes. S2O seeks to fully convert existing subscription revenue into ‘S2O subscription’ revenue, thereby allowing journals to become open access without relying on charges to authors. Effectively, libraries continue to pay their subscriptions with the understanding that a journal – or a group of journals – will become open access if enough institutions continue to subscribe each year.

The advantages are clear; S2O relies on existing subscription infrastructure and procurement processes eliminating the need for costly article processing charges (APCs), management software and the associated administrative burden of approving APCs. Costs remain with the institution and remove the burden of payment from the author. For smaller society publishers, it means achieving open access seamlessly through existing infrastructure and partnerships.

We talked with publishers who had already adopted S2O, notably Berghahn Books and Annual Reviews, and they were very generous with their time and insights. That helped us avoid some obvious mistakes. We also spoke with the broader S2O Community of Practice – a group of publishers, funders and librarians invested in S2O as a sustainable alternative to the APC model who shared valuable information and experience. Consultations were held with journal editors and IWA members. We also worked closely with Knowledge Unlatched who specialize in facilitating complex open access transitions. EBSCO additionally provided valuable insights into workflow questions such as renewal timelines, invoicing, etc.

Implementing Subscribe to Open

To begin our S2O initiative, we had to determine a few key parameters.

Deciding on the S2O package

Initially, we considered implementing S2O in stages – first with our flagship journal, Water Science and Technology, and then, depending on the success of this initial trial, moving towards a similar approach with our other journals. When we began to unpick our subscription data, however, it became clear that although 49% of our subscriptions were single journal subscriptions, about 22% of our subscriptions were tied up in package deals, and 29% of our subscriptions were for multiple journals (Figure 1). The common denominator in each of the package deals was our flagship journal. To separate it out from the other journal subscriptions would have meant a significant amount of work and communication. This would have gone against one of S2O’s largest selling points – a seamless transition from regular subscriptions to S2O subscriptions. More importantly, breaking up package deals could easily have triggered cancellations by subscribing institutions.
Our partners, Knowledge Unlatched, played a key role in identifying and communicating with institutional subscribers that had the potential to generate additional revenue, thus protecting against potential free-riders. They identified institutions that were most likely to benefit from access to the complete package of IWA Publishing journals (Figure 2). Typically, these were institutions that already subscribed to the majority of the IWA Publishing portfolio and/or had high usage in non-subscribed journals. Knowledge Unlatched also leveraged their steadily growing customer base of more than 600 libraries that have proven to be invested in transitioning scholarly content to open access. From this group, they identified institutions that might have an interest in IWA Publishing’s content and contacted them accordingly – either directly or through respective sales agents. It is always important to keep a library’s choice in mind, such that the subscribing institution can always decide which channel or sales agent they want to use for the execution of their subscription.
Setting an S2O target and key dates

One of the key components of the S2O model is to set an annual target around which the decision to open up the next year’s journal articles is tied. If an S2O target is met by the end of a particular calendar year, all volumes published in the following calendar year are made open access. In their implementation, Annual Reviews rely on an annual renewal rate threshold. We decided on a revenue target because of its simplicity and because of the general underlying uncertainty around renewals in 2020 due to the global Covid-19 pandemic. We set the 2020 S2O target as the revenue generated by our S2O journals in the previous year (2019) since that was the last year for which we had full calendar-year data, and thus gave the best representation of the full revenue amount. This resulted in our commitment to publish all the 2021 content in our journals open access if our 2020 S2O target was met.

We then selected key dates by which we would achieve or implement specified S2O milestones (Figure 3). The most important date was the date by which we were aiming to achieve 100% of our target revenue and so trigger a decision to make the journals open access in 2021. We initially set this date as 31 December 2020. As many of our renewals were delayed by the turmoil generated by the global Covid-19 pandemic, we pushed this date back to the end of January 2021. By the end of January, we had achieved the majority of our renewals and were within 10% of our revenue target. At this point, the IWA Publishing Board made the decision to proceed with our flip, and this decision was endorsed by the IWA Board. Our expectation was that the shortfall would be made up by ongoing and late renewals and by additional sources of revenue, such as the option for authors to make individual donations to S2O.

Figure 2. Knowledge Unlatched’s upselling model for a complete portfolio flip

Figure 3. Timeline of key Subscribe to Open workflows and dates
We made our journals OA from 1 February 2021, with no APCs for articles submitted after that date and all articles published in the year were made open access with a CC BY licence.

**Incentives for S2O subscribers**

One of the biggest debates in the Subscribe to Open community is whether the model should rely on – and promote – collective action principles as an incentive for participation. Collective action hinges on a group of individuals, or in this case institutions, working together to achieve a common objective. In the case of S2O, the common goal is to make journals open access. Crow et al.¹² argue that institutional self-interest is key and that motivation through collective action should be avoided to mitigate the risk of ‘free-riding’. They argue that S2O subscriptions should not be seen as donative or as a payment towards the greater good but as a regular business product in the same vein as traditional subscriptions. This way, institutions can continue to allocate budget to S2O subscriptions without needing to create new budget lines or seek higher institutional approval. Naim et al.¹³ emphasize the power of collective action for open access models and how groups can work together to ensure the sustainability of the model.

Our approach leverages both institutional self-interest as well as collective action. For our S2O journals, the most recent five years of articles are free for everyone to read. Only subscribing institutions, however, can access our journal archives, a total of about 26,000 articles. We found that granting access to the archives to S2O subscribers only was a key incentive for continued subscription in the Asia-Pacific and some other regions, as it provided a tangible product resulting from the subscription.

We also offered discounts on multi-year deals and on additional journal subscriptions agreed by Knowledge Unlatched. The discount was larger for longer agreements. Institutions subscribing for a single year received a 5% discount on additional subscriptions; institutions subscribing for three years received a 15% discount for additional subscriptions. This meant that an institution with no historical subscriptions would receive a 15% discount on the complete portfolio. Additionally, institutions that agreed to subscribe for three years were offered guaranteed fixed pricing over this period. The added incentive allows institutions to plan their spending and commitments more securely and transparently, especially in times where budget cuts are widespread and can result in drastic reductions.¹⁴

**Community response**

The response from our community of members, editors and authors has been incredibly positive. Authors are particularly grateful for the move to APC-free publishing, with one author hailing the move as the ‘best thing to happen in 2021’.¹⁵ Several of our journal editors have been pushing for open access for many years and so are equally enthusiastic about IWA Publishing ‘making a sensible move to making knowledge more accessible’.¹⁶

The response from the library community is more nuanced. A recent article in the Scholarly Kitchen suggests that some librarians are concerned about the sustainability of the S2O model and that convincing internal stakeholders to support a collective action model may be difficult.¹⁷ Despite this, we have had institutions renew for S2O when they were planning to cancel their normal subscription due to pandemic-related budget cuts. Likewise, with Knowledge Unlatched’s help, we have secured new S2O subscriptions from libraries who see the model as a promising alternative to publications-based agreements that could become unaffordable for large research-intensive universities with limited library budgets.¹⁸ The majority of our cancellations were due to budget cuts and not the transition to Subscribe to Open. Only one governmental institution was unable to renew through Subscribe to Open due to issues in their contracts department.
The response from the publishing community has generally been positive. Several new publishers have joined the Subscribe to Open Community of Practice since our transition and many publishers have reached out for more information about our implementation – part of the motivation for writing this article. At the same time, there remains concern about the sustainability of the model, particularly for publishers with a diverse set of stakeholders that may not have the same views towards open access.19

**Early results: the impact of S2O so far**

A preliminary analysis of the impacts of S2O in the first quarter of 2021 shows an unprecedented increase in usage of our S2O journals (Figure 4). Article downloads in the first quarter of 2021 were 3.5 times higher than in the same period in 2020 and ten times higher than 2019.

![Figure 4. Q1 usage per journal per year 2019-2021](image)

These downloads have come from every country on the planet. Usage has grown in China, India, Brazil, the Philippines, South Africa and Iran. We expected that. It has also increased in the USA, Germany, the UK, Canada, France and Australia. That was more surprising, in a very pleasant way.

![Figure 5. Global usage data. Areas in dark green indicate an increase in usage, areas in light green denote no usage data. Purple dots represent the % increase in usage from Q1 2020 to Q2 2021](image)
S2O is being genuinely transformative in the majority of countries around the world (Figure 5) and doing that for the same price as last year’s subscriptions.

Article submissions have also increased. Our S2O journals received 16% more submissions in Q1 2021 than in the same quarter the year before. It should be noted that submission levels were already slightly higher in 2020, possibly inflated by a ‘pandemic effect’ with researchers confined to their homes and therefore submitting more articles. We had feared that submissions would fall in 2021. The opposite has been the case (Figure 6).

Our journals are compliant with the EU’s Horizon Europe requirements, and we have seen a strong increase in submissions from Europe. Submissions continue to rise across Asia, attracted by the combination of immediate open access and no APCs. We are also seeing a big uptick in submissions from North America. S2O appears to be working for authors.

Figure 6. Submissions per journal

Looking to the future

With the recent endorsement of Subscribe to Open by cOAlition S, we expect to see a growing number of publishers experimenting with S2O and various other collective action-type models. During 2021, MIT Press announced the launch of Direct to Open; a similar initiative for open access book publishing that leverages collaborative library support to publish upcoming book titles as open access. January 2021 marked the official launch of PLOS’s three-year Collective Action Publishing (CAP) pilot for PLOS Biology and PLOS Medicine.

The key to the success of all these emerging collaborative action models is leveraging support in the community, bringing together various stakeholders and raising awareness of the model. It is widely understood that most library budgets, especially those of research-intensive institutions, will be unable to sustain a transition to open access solely via APC-based models. The challenge is to identify the best way to communicate the clear advantages of alternative models such as Subscribe to Open to librarians and funders. There are various components to this:
**Data:** Publishers need to be able to present clear and compelling data to support the S2O model. Unhelpfully, most current data counting and collection models under-estimate usage of open access and free-to-read content. Indeed, a recent spot check analysis on ten of our S2O institutions showed that 2020 COUNTER 5 usage data, which ignores usage for free-to-read articles, was on average 16% lower than comparable COUNTER 4 reports. Similarly, publishers still have difficulties collecting accurate usage data from non-subscribing institutions; data which is essential to recruiting new S2O subscribers and thus more equitably distributing the cost of sustaining the S2O model. We look forward to upcoming developments in this sphere and future partnerships that bridge the gap between IP address identification and usage statistics.

**Transparency:** Trust is essential to the success of any community action model and is of particular importance to librarians. A recent S2O survey commissioned by Annual Reviews on behalf of the Subscribe to Open Community of Practice indicated that transparency was the number one factor that librarians would consider when evaluating an S2O model. PLOS has demonstrated their commitment to transparency with CAP pricing clearly outlined on their website with the promise to redistribute excess funds among participants. EDP Sciences, which has transitioned six journals under an S2O model, published a full transparency report outlining their S2O model, pricing, costs and funding support.

Ultimately, as with any emerging model, the success of S2O will depend on the engagement of various stakeholders in the publishing environment; the S2O Community of Practice is beginning to address this by bringing together publishers, librarians, funders, sales agents and service providers. Through collaborative discussions and outreach, the group seeks to establish shared principles to shape the future of the S2O model and ultimately ensure its long-term sustainability.

**Abbreviations and Acronyms**
A list of the abbreviations and acronyms used in this, and other Insights articles can be accessed here – click on the URL below and then select the ‘full list of industry A&As’ link: http://www.uksg.org/publications#aa.

**Competing interests**
Philip Hess is an employee of Knowledge Unlatched GMBH and, as such, completed paid consultancy work on behalf of IWA Publishing to assist with the Subscribe to Open initiative described in this article. All other authors have no competing interests.

**References**


15. Ben Harris (@b3nharris), “As an independent WASH researcher with zero budget for journal subscriptions this has been one of the best things to happen in 2021 (ok – not much competition but still!). Massive thank you to @IWAPublishing,” Twitter, February 10, 2021, 9:59 a.m.

16. Regina Souter (@regina_IWC), “VERY excited ‘Journal of WASH for Development’ is now free to all readers and authors! I’m proud to be an Editor for a journal making a sensible move to making knowledge more accessible. Congratulations IWA Publishing! lnkd.in/gWqfSbp,” Twitter, February 5, 2021, 8:02 p.m.


