This case study aims at describing how transformative agreements (TAs) have affected our profession with new tasks and workflows at two university libraries in Sweden, namely Karolinska Institutet University Library and Södertörn University Library. TAs are one of the mechanisms by which scientific publications are made open access; they involve moving libraries’ contracts with publishers from payment to read toward payment to publish. We will summarize the status and progress of open access in Sweden, in particular the significant growth of TAs over a short time span. We will then focus on describing how TAs have affected our everyday work and what new tasks they have imposed. We will share our experiences and point out things we find challenging, for example, we will explore questions about eligibility, the verification process, publication types and title changes during the contract period. We will also give some recommendations on how we would prefer the workflows surrounding the TAs to be. Finally, we will share our conclusions and comments about the impact of TAs on the publishing landscape and speculate about what will happen next.

Keywords
transformative agreements; TAs; open access; Sweden; Karolinska Institutet; Södertörn University

Facts about our universities and libraries

The universities we work at are located next to each other on the outskirts of Stockholm. They differ in size and subject areas. Karolinska Institutet (KI) is a medical university and Södertörn university is a multidisciplinary university including social sciences, humanities and science. The numbers in Table 1 below are approximate, from the year 2021.

<table>
<thead>
<tr>
<th>Karolinska Institutet</th>
<th>Södertörn University</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTE: 6,300</td>
<td>FTE: 7,600</td>
</tr>
<tr>
<td>Researchers: 2,400</td>
<td>Researchers: 500</td>
</tr>
<tr>
<td>Employees, Library: 90</td>
<td>Employees, Library: 30</td>
</tr>
<tr>
<td>Publications in total: 8,000, with 78% OA</td>
<td>Publications in total: 285, with 67% OA</td>
</tr>
</tbody>
</table>

Table 1. Our universities and libraries in numbers

Background

Sweden has strived for open access for many years. Since 2006, the national library of Sweden (NLS) has worked to advance open access to scholarly output. On a national level, since 2017, the Bibsam consortium requires that any publisher contract renewal must include an open access component. If no acceptable open access component is offered, contract renewal will be limited to one year or cancelled.
The Swedish government set up a national goal that all scientific publications resulting from research financed with public funds should be published immediately as open access by 2021 at the latest. The number of openly available scientific articles is increasing rapidly, but the goal has not yet been reached.

Swedish research funders are also demanding open access, largely because of Plan S. They had the same target as the Swedish government and required that from 2021, scientific publications funded by public grants must be published in open access journals. Transformative agreements (TAs) will be allowed by Plan S until the end of 2024.

To reach the goal of open access in Sweden, the Bibsam consortium has chosen to negotiate TAs with scientific publishers.

Figure 1, from ESAC Market Watch, shows that Sweden has taken the lead in the number of TAs compared with the other countries. The overall information is collected from the Open Access 2020 dataset, but the information on TAs is constantly updated.

Since 2017, the Bibsam consortium has negotiated many new TAs in Sweden and several of the TAs also include fully open access journals. In 2022 there were 25 TAs in total via Bibsam and more will be added during 2023. There are also five agreements with fully open access publishers. The universities in Sweden choose which of these agreements they want to enter into each year. Each institution prepays its share of the national agreement based on its number of publications and the payment also includes a reading fee. In Table 2 you can see the growth of TAs from 2018 until 2022 at our two universities:

<table>
<thead>
<tr>
<th>Year</th>
<th>Karolinska Institutet number of agreements</th>
<th>Södertörn number of agreements</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2019</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>2020</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>2021</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>2022</td>
<td>19</td>
<td>12</td>
</tr>
</tbody>
</table>

Table 2. Growth of TAs at our universities
The different agreements contain a varying number of journals; the total number of journals included at both universities is well over 11,500.

Impact on librarian tasks and workflow

In this case study we have chosen to focus on the practical impact of TAs on our work and excluded the economic impacts of TAs. We have both worked with the administration of e-resources for a long time at our respective universities and since TAs entered the scene, they are now part of our work assignments where we handle the administration, support and the verification process. In the following sections we will describe the tasks and the challenges.

Communication

TAs have changed the publication landscape and one important task for us is to communicate these changes to researchers. We want them to know about the agreements and how they can take part in them. We do this by providing information on our web pages and we talk about them in webinars. It is a challenge to keep the information updated and to disseminate it. We can tell that many more researchers are aware of the opportunities at the time of writing compared to a couple of years ago. For researchers, these agreements mean that they can more easily comply with funder mandates and open access policies on publishing open access. They also do not have to pay the article processing charge (APC) themselves, which means both an administrative gain and less strain on their research budget.

The verification process

Library staff usually need to verify that the corresponding author for an article is affiliated to the university when they have an article accepted or submitted in one of these TAs. In a few agreements we are not involved in the verifying process. In those cases, the publishers usually verify the author through their email address and/or their Ringgold identifier or ORCID iD.

When there is an article ready to verify, we receive a notification from the publisher or from the Bibsam consortium. Many publishers have dashboards where we can sign in to approve or reject articles. These dashboards look very different from publisher to publisher. In some cases when there is no dashboard, we receive spreadsheets with articles to approve or reject. The time frame we are given for the verification varies from a few days up to a couple of weeks. We check that the authors are affiliated to our university either through a file or a database of the employees. We might also need to check whether the journal and publication type is included in the agreement.

From our perspective, it is preferable to have a dashboard since it simplifies and speeds up the verification process. Things we like to see in the dashboard, besides all the necessary information about the article and the corresponding author, are the ability to extract statistical reports, to transfer an article approval to another university, to make notes and to send messages or questions to the publisher if there are concerns with a particular article.

We know that some librarians find the task of verifying an unnecessary and tedious step. We, however, find it useful since it is not that uncommon that we reject articles, usually because the author is not currently affiliated. There might also be a limited amount of money or publications for the agreement, so we want to ensure that everything is in order.
Some publishers have different workflows depending on whether they are dealing with a hybrid journal or a fully open access journal. For instance, with some publishers, we approve articles at submission for fully open access journals but at acceptance for hybrid journals. Therefore, we do not know how many of the pre-approved fully open access articles will actually be published, making it more difficult to keep track of expenditure. We would prefer the process to be the same for all types of journals; simplicity is always preferable.

Eligibility

The requirements for researchers to be eligible are the same for all these TAs:

- the researcher must be the corresponding author of the article
- the corresponding author must be affiliated to the university that has the agreement
- the corresponding author should use the university’s email address when submitting the manuscript and their affiliation to the university should show in the published article
- the research should be predominantly performed at the university where the corresponding author is affiliated
- the corresponding author needs to make sure that the article type is included in the agreement.

In Sweden, we worked for several years without national guidelines regarding eligibility. All these agreements are national and since there might be a limited amount of money in the agreements it is imperative that we make the same judgements.

In March 2021, a working group from several Swedish universities presented practical guidelines for the verification of authors’ organizational affiliation. They recommend these steps in the verifying process:

1. Check if the corresponding author is in the directory of employees and/or which organization the corresponding author has specified in the article. If not in the directory, we continue to the second step.
2. In the second step, there are two possible methods:
   2.1 Contact the corresponding author and ask him/her to verify their affiliation to our university.
   2.2 Contact the publisher and ask for the article’s first page so that we can see the affiliation the author has used in the article.

These guidelines only specify how to check the author’s eligibility, but they do not define who is eligible. The definition of an eligible author is rarely clearly stated in the agreements, resulting in the decision being based on our judgement. For example, should we verify an article from an emeritus professor or a guest researcher?

Another concern with eligibility is where the research has been predominantly conducted. From the libraries’ side we have no way of knowing this, it must be up to the authors to decide. Can we be sure that authors are honest when it comes to which affiliation they choose for an article? For example, when a corresponding author has double affiliations, say at KI and at a university in Australia and they have conducted a research project at the university in Australia along with their colleagues there. They have written an article and have submitted it to a journal which is included in a TA in Sweden. It ends up in the dashboard at KI even though the research seemingly has been conducted elsewhere. In this case the author has chosen KI as their primary affiliation and the library approves the article since the author is affiliated to KI.
It is not always easy to say where the research has been predominantly conducted, there are often collaborations between researchers across universities. In the end it is up to the research group to decide who will be the corresponding author. We suspect that researchers tend to choose a corresponding author who is affiliated to a university where the APC is prepaid.

We have also seen an increasing number of cases where an article has been denied eligibility by the library because the corresponding author is not affiliated to the university and then the author contacts the publisher wanting to change the corresponding author to one that is affiliated to the university.

Another problem is when some journals allow more than one corresponding author for an article. Dashboards only show one corresponding author, who may not belong to the institution at all, so we reject the article. We would prefer it if there was only one corresponding author per article to avoid complications.

The system is not perfect, but we cannot currently see a better way.

**Publication types**

Another concern with TAs is which publication types are included in a particular agreement. Researchers want to be sure that their manuscript will be covered before they submit it to a specific journal. We often cannot tell exactly which publication types are included from reading the agreements, so we need to ask the publisher in many cases. Some publishers include all types of publications, others only include specific types, typically ‘research articles’ or ‘original articles’.

Some publishers have different rules depending on whether the journal is a fully open access journal or a hybrid journal. In some agreements it is up to the library to decide which publication types we want to approve. There is a wide array of article types and different names for them are used by different publishers and journals. One publisher stated that they have 29,000 different publication types across their journals but are working on reducing them.

We wish that it should be clearly indicated which publication types are included. We do not want to pay an APC for commentaries or letters to the editors, but only for articles based on research.

**Title changes in the publishing agreements and contract periods**

The next concern with these agreements is that publishers make changes to the titles included during the contract period. Journals are flipped from hybrid to gold and might no longer be included. Or titles are transferred from one publisher to another and therefore drop out of an agreement and sometimes into another one. This is nothing new per se, journals have always transferred between publishers and fallen in or out of reading agreements. What is problematic is when an author has submitted a manuscript to a journal, thinking this journal is included in agreement X, but by the time the article is accepted the journal has flipped and may no longer be included. We would prefer flipped titles to still be included in the agreements until the contract period ends.

Another similar concern is what happens when contracts are coming to an end and are up for renegotiation. The agreements usually state that articles must be accepted for publication between 1 January XXXX and 31 December XXXX. The problem researchers face is when there is a long turnaround time until the article is accepted and the article risks falling out of the agreement. Some publishers use the submission date instead, which causes similar problems. The researcher must then wait to submit an article until the new contract period has started.
It is a challenge keeping the title lists updated and correct. The changes in the title lists are administered by the NLS; they send out notifications with changes and updates and provide links to new title files on GitHub. Each library must download the files and update their systems for searching for titles included in the agreements. Bibsam has made a deal with the company SciFree which provides a search tool for titles included in the agreements. Many of the libraries in Sweden use this solution but others have developed their own search tools. In the reference list there are links to our respective search tools, the one at KI\(^9\) was developed at KI, the one at Södertörn\(^9\) is the SciFree solution.

**Conclusions and what's next?**

It has been a steep learning curve on this transformative journey. We hope that by sharing our experiences we can give others the opportunity to benefit from them too.

There are some consequences of the TAs that we would like to share as final remarks based on our experiences.

On a national level we have seen an increase in the number of articles published in these agreements. It could be problematic if these journals are favoured compared to other journals that are not included in a TA. If a researcher has the choice of two equivalent journals it is likely that they will choose the one where the APC is already paid for. We have noticed a shift in researchers’ questions from ‘which journal is the best for my article to get published in’ to ‘where could I publish my article without having to pay an APC?’.

A consequence of the strong focus on TAs in Sweden is that hybrid journal publishers are favoured, at the expense of fully open access publishers.

The TAs also benefit larger publishers since they have the option of offering these kinds of agreements. The smaller publishers, often learned societies, usually do not have the same options and are left behind. Bibsam’s goal is to include and support different business models and they strive to enter TAs with smaller publishers as well.

Overall, we can see there is an increase in the number of articles published. This could be an effect of the TAs since there is no financial incentive for the researcher to publish just one article about a research subject. If the researcher could instead publish four articles with different aspects on the subject, it would put the researcher in a better position according to the merit system which is used today.

TAs are supposed to be a temporary solution and in Sweden a working group consisting of researchers, vice-chancellors, research funders and representatives from libraries has been formed, whose object is to develop a strategy ‘Beyond transformative agreements’.\(^10\) Until their investigation and report are complete, and in anticipation of the year 2024 when Plan S will no longer support TAs, Bibsam has decided to enter shorter contracts.

It is impossible to say what will happen after the TAs because there are many possible paths. One way to get away from publishers’ expensive costs is to develop platforms that can deliver high availability and quality control at a lower cost. But for that to happen, the merit system needs to change. We have had the same publishing system for many years, and it takes time to turn a ship around. In the Swedish research policy bill from December 2020,\(^11\) the government writes: ‘A prerequisite for research to lead to the social impact is that the results are made available to other actors in society and business.’ For that to happen, all scientific research must be made freely available. Our mission is clear.

**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**

The authors have declared no competing interests.
References


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