

The 'upside down': exploring offset pricing models and article deposit terms at King Abdullah University of Science and Technology (KAUST)

In the 'normal' world of retail and commerce you pay for an item and receive the item. In the world of academic journals you prepay for a journal which you might later receive and you might then get some money back (depending on what journals you did or did not receive). In the world of offset pricing you prepay, then you pay again, and you sometimes use vouchers; you might get a discount the following year, then you might get money back (or you might not). Are publishers knowingly placing barriers to offset models, and not transparently offsetting the APCs to the subscription cost, in order to raise more income? Where a publisher is operating a hybrid open access model, institutions wish to offset the cost of the university's APCs against their subscription fees, and avoid effectively paying twice.

The new business model of scholarly communication is based on shifting the costs from subscriptions to publishing. Can we get to a mutually beneficial position where the author can deposit the accepted version of the article into the institutional repository without any embargo period if the institute agrees to pay the subscription fee on an ongoing basis? This article will explore how resolving the inherent complexities in offsetting models will save libraries money and also time wasted on tedious and unnecessary administration work. Researchers do not want to know about offsetting agreements nor should they need to know. It is difficult enough to do, and write up, valuable research without having to do further research on offset pricing models.

If libraries can organize as groups at regional or international level, more favourable licensing agreements, including standardized offset pricing model language, can be leveraged which will be advantageous to all parties: publishers, libraries and, most importantly, authors. Publishers need to understand that, while the goal is ultimately to by-pass the necessity for APCs, this approach is an attempt to reimagine the business model, not to put them out of business. While profit margins may be the bottom line for the majority of publishers, it is clear from our University's recent communications with these publishers that the existing publishing model will change, and the questions remaining are by how much and how long it will take to implement the change. This article builds on a breakout session given by the author at the 2018 UKSG Conference.

Keywords

Open access; APCs; scholarly communications; subscriptions; publishing; transformation

The King Abdullah University of Science & Technology (KAUST) is an international graduate research university with approximately 1,000 students, dedicated to advancing science and technology through interdisciplinary research, education and innovation. It seeks to advance scientific research and collaboration, transcending disciplines and boundaries for the benefit of science. Research addresses challenges of global significance in the areas of water, food, energy and the environment.

What's the problem?

Everything was fine when we only had to deal with print journals. You could see them, you could touch them, you knew when they had arrived in your library (or not), and you could



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2 understand the publisher's role in 'making' them. This ultimately enabled the development of scholarly communication, the sharing of pamphlets, papers and scientific journals in the 'traditional' way up to the mid-1990s. Things had started going askew before then, though, when large publishers began to acquire and swallow up smaller publishers and prices rose accordingly. Then, arbitrary systems of quality – metrics invented by publishers to make journals 'valuable' – were introduced and authors needed to publish in those journals or their careers might stall. Of course, journals like *Science* and *Nature* had earned their prestige. They had a legacy of quality going back hundreds of years.

The difference between scientific and other publishing was that the poet/novelist/playwright had a real choice. Although every debut novelist wanted to be published by Penguin or Faber, if accepted only by a 'smaller' house, they could still have a decent career. They might still get nominated for the Booker or Pulitzer Prize. The equivalent was unlikely to happen in scientific publishing for the author who was not able to publish in a 'rated' journal which boosted their h-index and other metrics accordingly. The scientific publishers convinced the academic community that their work needed another 'stamp of quality' not just peer review but the 'container' that the article came in, even if the container was now a one-dimensional container on the internet.

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Soon libraries were buying bundles of journals they did not want in order to make this somehow cost effective. Then the internet, in a worldwide easily usable (working modem assumed) format, appeared, and everything we previously understood and took for granted about the world of print shattered into a million pieces which we have been trying to put back together ever since. The 'Finch Report',¹ to the delight of the vast majority of publishers, consolidated a gold open access (OA) policy for the scholarly communications system. The switch from subscriptions to APCs was effectively a sop to the institutions and will continue to be an unwanted compromise until a more radical reimagining and actual transformation happens. Offsetting is not sustainable but in the absence of real change it can be tolerated.

Where does KAUST fit in?

The general backdrop to our decision on how to move forward is that:

- our University provides: space, utilities, resources, equipment, technologies and information²
- funding agencies provide funds
- researchers provide ideas and skills, reports, raw data and processed data
- publishers provide access, editorial services, indexing, abstracting, metadata and marketing.

'Offsetting is not sustainable but in the absence of real change it can be tolerated'

KAUST is currently pursuing a green OA policy whereby all our researchers are mandated to put their research publications in our repository, and the success level of this policy is extraordinarily high, with a 72% compliance rate in 2017 (1,802 files) and an 81% compliance rate in 2018 to date/at time of writing (670 files). Our policy applies to all University faculty, research scientists, post-doctoral fellows, students and employees who authored or co-authored published scholarly articles while working at or enrolled in the University.

KAUST policy states that each faculty member or researcher will provide an electronic copy of the author's final version of each article no later than the date of its publication at no charge in accordance with the guidelines published from time to time by the Office of the Vice President for Academic Affairs.

In tandem with the above, we have also aligned ourselves to the OA2020 initiative pioneered by the Max Planck Digital Library (MPDL) in Munich.³ However, it is debatable

3 whether full OA, where all articles are freely available to anyone with internet access, can be achieved by 2020 (the target timeframe).

As part of KAUST's journey to full OA we are indebted to the invaluable work done by Jisc in outlining the principle of offsetting pricing systems.⁴

The list below shows the complexity involved in the different models of APCs. At the start of 2017 Jisc Collections⁵ had offsetting agreements in place with the following publishers:

- De Gruyter: hybrid APCs for articles published in one year are offset against institutions' expenditure on subscription and licence fees in the following year
- IOP (Institute of Physics) Publishing: hybrid APCs for articles published in one year are offset against institutions' expenditure on subscription and licence fees in the following year
- SAGE Publishing (including the Royal Society of Medicine and the Institution of Mechanical Engineers): discount on APCs in hybrid titles; requires a code
- Springer: 'flipped' model, where UK subscription spend has created a 'publishing pot' to fund APCs. An additional transition fee covers access to subscribed content
- Taylor & Francis: institutions receive vouchers which offer a significant discount on APCs. The number of vouchers is based on expenditure
- Georg Thieme Verlag: complimentary APCs are included with subscription agreement
- Wiley: institutions are eligible for a tiered credit based on overall level of expenditure. The credit is added to an institutional account, which is drawn down against APCs.

It would not be possible for our Library with its current staff numbers and resources to administer all the models above. We would emphasize that we are not 'happy' with APCs but consider them a necessary evil, merely a stepping-stone on the way to an internationally standardized OA publishing model. Even if we agreed with them as a workable sustainable model, the amount of administrative work and waste of staff time in ensuring that all paper (and Excel spreadsheet) work is correct would make them unmanageable in the long term. The real argument, though, as Liam Earney puts so succinctly, is that 'if an OA model is meant to replace the subscription model, why does expenditure on both APCs and subscriptions continue to rise so inexorably? ... offsetting agreements resemble nothing more than an "advantageous lock-in for status quo publishers"'.⁶

Will we continue to bang our heads against a brick wall?

So, how at KAUST did we manage to get the OA terms we want into our licence agreements? New licence terms were like the Wild West, with arbitrary rules and some institutions clearly getting better deals than others depending on who has the 'stronger hand'. In our experience, offsetting agreements are not usually disclosed. (If one institution is seen getting more favourable terms than another, why would we not all want the same, better terms.) We started negotiating with others to have an institutional level offset model agreed and signed via subscription licences. It is a long, drawn-out, difficult process, usually conducted by e-mail and sometimes in person at Frankfurt or other book fairs, conferences or meetings. The publishers can hold out. In most cases they have the stronger hand. They know in most cases that our researchers and our senior professors need and expect access to their products and they will not jeopardize profits to their shareholders for some concept of the 'greater good' when they know that we will probably realistically accept a 3% increase year on year (if they are that gracious). A long-term vision which can literally take years is necessary and there is no guarantee of ever reaching a conclusion. Along the way there is frustration and ambiguity for all staff involved. While publishers are quite content to have OA and text-and-data-mining guidelines on their websites, these can be changed overnight, and they are reluctant

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- 4 to shorten embargo periods. Publishers need to be convinced that their bottom line will not suffer. We need evidence to support our viewpoint. This is why it is so important that there is 'a collective' to strengthen and support our individual hands. The negotiating experience of Germany and Sweden is an example we can learn from. Cancelling subscriptions with Elsevier has demonstrated that action can be taken and action has resulted in reaction, the publishers talking face to face about changing the publishing model at the forthcoming (December 2018) 14th Berlin OA Conference. The simple OA 'for a better world' argument will not do.

Taking action at KAUST

KAUST sent the letter below to all our major vendors:

Dear ...

KAUST University Library is contacting all its vendors/publishers as we attempt, through a process started last year, to standardize processes in relation to Open Access (OA), Article Processing Charges (APCs) and Text and Data Mining (TDM). Please can you fill in the fields below where relevant/possible?

Following on from last year's discussions we would like to propose the text below (relating to Green Open Access) for inclusion in all future licensing agreements.

The subscriber (KAUST) has adopted an open access policy pursuant to which its affiliated researchers, faculty, students and staff grant to the University a non-exclusive permission to make available their scholarly research articles for the purpose of open dissemination. In connection therewith, and with publisher name and the partner publishers' committed support towards Green Open Access, the parties hereby agree that final versions of articles authored by KAUST affiliated researchers, faculty, students and staff can be deposited in KAUST research repository immediately after acceptance of the work (or 6 months after publication).

We do not believe that the inclusion of the above will compromise publisher name or place it at any commercial disadvantage. Please can you:

a/ indicate acceptance of wording above for inclusion in future license agreements.

b/ propose alternative wording for inclusion on future license agreements

c/ offer alternative proposal

Article Processing Charges:

Do you have a system of APCs? Yes or No. If Yes please can you provide an explanation of:

a/ how your system works

b/ specifically what workflows are involved for the library?

The information above is of great importance to KAUST University Library as we attempt to provide accurate, clear and concise information to our research community around issues of Scholarly Communication.

The response

Just four (of 57 respondents) were prepared to include our terms in their licence. Most publishers still insisted on 12-month embargo periods, three publishers conceded to six months and one publisher accepted no embargo.

As Danny Kingsley, in this series of very pertinent observations, highlights: 'Embargoes are put in place to ensure publisher sustainability. Managing embargoes is not sustainable for libraries. Of all the ways researchers share their work institutional repositories are one of the very few that observe embargoes.'⁷

5 'No persuasive evidence exists that greater public access as provided by the NIH policy has substantially harmed subscription supported STM publishers over the last four years or threatens the sustainability of their journals.'⁸

'We saw no evidence that short embargo periods harm subscription publishers.'⁹

'The evidence fails to justify publishers' demand for longer embargo periods on publicly funded research.'¹⁰

'There is no evidence that permitting researchers to make a copy of their work available in a repository results in journal subscriptions being cancelled. None.'¹¹

The choices available to us

Organizations like ESAC (Efficiency & Standards for Article Charges) have helped us enormously in understanding the different APC models and what is and is not best practice.¹² COAR (Confederation of Open Access Repositories) have also done valuable work in this area (see COAR-UNESCO Statement on OA).¹³

At KAUST we have looked at four models of offsetting, detailed below.

Royal Society of Chemistry (RSC): Gold for Gold

KAUST was given voucher codes to make papers available via OA free of charge. The number of vouchers was calculated by dividing the subscription the RSC receives from KAUST university library by the APC of the RSC. This did not work for us. We found the administration, effectively identifying which journals were eligible for the scheme, and the communication to researchers, to be cumbersome. KAUST was also left with unused vouchers at the end of the year.

American Chemical Society (ACS): ACS AuthorChoice

This was not a good fit either. There were three options, with three different licensing models and three different payment options. While these options may or may not have been straightforward to administer, it was not something we were willing to take on at KAUST. We were trying to reduce our workload.

MIT-Springer Author Rights Agreement

This allows MIT authors to post articles (on author's departmental web pages) after nine months. They may be archived and/or deposited in any repository for non-commercial purposes. This is applicable to articles published in a Springer journal subscribed to in 2009–2017. We explored this but again, due to the extra administrative work necessary, it did not fit KAUST.

Institute of Physics (IOP)

This was the model we looked at in the most detail. The move towards open access by some institutions or countries in advance of others increases costs to those 'early adopters', because they pay for free access to their research for the rest of the world while still paying for access to the rest of the world's research. This model ensures a balance between:

- local offsetting (against an institution's subscription and licence fees)
- global offsetting (global reductions in subscription and licence fees).

As the proportion of hybrid articles grows, the balance of subscription fees moves on a sliding scale from 90% local and 10% global to 10% local and 90% global. IOP rebates a portion of the hybrid APCs spent with IOP over the previous year up to the value of the institution's licence fee. The percentage rebate applied depends on the proportion of OA articles in our subscription titles, as IOP offsets a portion locally (directly to the institution). The remainder is offset globally (via a reduction to all customers). This ensures a fair

6 process and guarantees that no one is paying twice for IOP content, and should avoid 'double dipping'.

The OA workflow for us at KAUST would be:

- Articles from KAUST authors are automatically identified for this arrangement based on the corresponding (submitting) authors' e-mail domain. The authors are notified of possible OA funding.
- Once an article is accepted, a validation e-mail is sent to KAUST to confirm inclusion in the arrangement. This includes an attached PDF of the article.
- KAUST confirms/denies funding for the article by e-mail within three working days. If no response, the article will revert to non-OA.
- If KAUST approves funding, the article is made open access and published, with the charge applied to KAUST's institutional OA account.
- Every quarter IOP invoices KAUST for the relevant amount and includes a list of published articles.
- At the end of the year offset calculations will be done based on the qualifying number of OA articles published.

'We need compelling arguments, and compelling arguments need compelling data'

Ultimately, although we wanted to progress with the IOP model (and we emphasized to faculty that we were not telling them where to publish), we could not get sufficient buy-in from senior faculty and so did not implement the model. It is difficult to convince faculty that the shift from a subscriptions-based model to full OA, in whatever form, can be agreed and implemented. Perhaps we need to present an overall package on how the Library pays for access to research materials? Why change a 'successful' (from their viewpoint) model? If publishing in *Cell* and *Nature* has been always been an ambition, it will be hard to change that for some concept of the 'greater good' of OA. We need compelling arguments, and compelling arguments need compelling data.

What is the future of offset pricing?

All offset models are works in progress. In the future they will not exist; nobody will remember what they are and it will be like waking from a bad dream. This will be a good thing! I envisage publishers will provide a service for a payment which will not be a subscription for access. Exactly what the service or services will be is unclear and may differ for each publisher, but we have to agree (and, off the record, some publishers are starting to agree) that the current business model is unsustainable. We will not have to drown in a sea of invoices while confusing our researchers as to their role in the process. It is time for some alchemy. Let us turn the subscription money into publishing money.

OA2020 Transformation

Last March my library director and I were able to visit the MPDL in Munich. I was unsure whether this would be a conference or a workshop, but it turned out to be a meeting of like-minded institutions, mainly from Europe and the Nordic countries, who aim to convert the majority of today's scholarly journals from subscription to OA publishing. KAUST is a signatory of the Expression of Interest¹⁴ which invites all parties involved in scholarly publishing to collaborate on a swift and efficient transition for the benefit of scholarship and society at large. An example of such collaboration is when in 2014 the Ebola crisis in West Africa was at its peak and certain paywalled papers on the virus were made freely available by some of the larger publishers. While this was a welcome development, the argument for OA for the greater good will not be compelling enough for many. By co-operating at an international level, we can effect change.

'It is time for some alchemy. Let us turn the subscription money into publishing money.'

- 7 The costs behind the desired transformation, as highlighted by the MPDL, are transparent and economically sustainable.

At the meeting we were shown a draft roadmap with four elements which would help us plan for the future:

1. Map your position

What are the necessary policies, infrastructure, procedures and who are the stakeholders? How are the decisions made? Who makes them?

2. Analyze and assess your leveraging power

This is where it gets complicated. It is all about the data and there is a fog of data from Web of Science, Scopus, our repository, OneScience, and others. Before we can constructively proceed, we need to uncover the relevance of OA in KAUST. How many articles do we publish in one year and from which publishers and which journals? Are they behind a paywall, in OA (hybrid journals), in fully OA journals? How much is being paid in APCs for OA publication with a given publisher? How much is being spent on subscriptions? How can we (KAUST) find the necessary information? Do we need a full-time librarian working on this?

We need to know more about our own subscriptions than the publishers do. We need to present to publishers, not the other way round. Ralf Schimmer of the MPDL spoke of 'weaponising our data'. COUNTER statistics, while valuable, are not sufficient in themselves. We need deeper and wider data than those taken from one tool. We need to understand the data in a more meaningful way than ever before and this will take a major commitment of time and other resources. We also have to look objectively at ridiculous practices that we take for granted, for example paying once for journals and paying exorbitant annual fees for platforms that allow us to access the journals we have already paid for.

3. Engage your author communities

How do we convince our authors that all this makes sense? How do we explain to them that we may be cancelling subscriptions to some of the major databases that they have had access to all their professional lives? Will they care about OA? How we approach this follows on from the second point above. It is all about the data. We are not attempting to 'break' publishers. We want the money that is washing about in the scholarly communications system, calculated conservatively at \$10 billion, to be used in a different way which will not 'hurt' publishers and not 'hinder' researchers or research. We will need the data to tell this story.

4. Prepare and execute your transformation plan

In the end it will be all about the money. At some stage subscription and publication funds will have to be merged into a single budget. Mechanisms will have to be established to monitor costs and ensure transparency. There will be transition costs, and budgets will have to be allocated accordingly. None of this will be easy and there are risks relating to buy-in by senior administrators and factors on the way which cannot be foreseen.

Conclusion

What KAUST has learned – that might also be of assistance to similar universities – since starting to explore OA in general and offset pricing in particular:

- review ESAC recommendations
- note joint COAR-UNESCO statement
- collaborate with peers on licence terms
- collect and analyse your data
- endorse OA2020: be part of the transformation.

- 8 If libraries can organize as groups at regional or even international level, more favourable licensing agreements, including standardized offset pricing model language, can be leveraged which will be advantageous to all parties: publishers, libraries and, most importantly, authors. It is incumbent that we familiarize ourselves with the pricing models, in all their complexity, and strive through collective organization to have these models simplified and standardized. Let us turn that subscription money into publishing money!

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 author has declared no competing interests.

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