

## LUND UNIVERSITY SUPPORTS PUBLISHING IN OA JOURNALS: AN EXAMINATION

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In the 2009 budget Lund University approved of funding publication fees for Open Access journals with \$163,000 in a central fund managed by the Libraries Head Office, with the intention to encourage and assist publishing in open access journals. This initiative is described in Eriksson & Bjørnshauge, 2009<sup>1</sup>. This is a follow-up to that article and looks at the usage of the funding from January up to late September 2009 and some conclusions drawn from this. It is looking at the central fund from a practical, short-term perspective of what we should do next year.

### Encourage publishing in open access journals through membership.

Lund University has been a member of BioMed Central since 2002 and chose the Prepay Membership Option when that was offered. The Hindawi membership started in November 2008 and the PLoS membership started in March 2009. Each of these has been marketed through the central university and faculty information offices, through library staff and as news on the university web pages. In connection with the PLoS agreement, information about all the agreements and the extra funding were distributed using the channels mentioned above. One of the reasons for putting the fund into these memberships is that we want to avoid the administration costs for researchers and us having to deal with each publication fee separately.

The Hindawi membership is a flat fee arrangement, where after the membership is paid LU-affiliated authors can publish any amount of articles until the agreement expires. The PLoS and BMC memberships are based on the actual number of articles published. The LU-affiliated author indicates his affiliation when submitting an article and the Library Head Office will be invoiced for those articles from the publishers. The BMC model means that we deposit a sum to BMC

first, from which they deduct the cost of each accepted article. The deposited sum should also cover the potential fees of submitted articles. PLoS sends an invoice each quarter covering the accepted articles during that period. These memberships also include a discount on the publication fee. The advantage of the PLoS and BMC models are that there is very little administration costs involved for us, the obvious disadvantage is that the actual cost will be a guess based on an approximation of the number of articles that will be published under these membership arrangements in the coming year. The flat fee membership also has low administration costs and the advantage of being easy to budget, but we have some concerns about how well it scales.

There are 80 articles published under these agreements from the first of January up to the 25<sup>th</sup> of September. The corresponding author has to be affiliated to Lund University if we are to accept the billing so there are more articles published with Lund researchers as co-authors by these publishers. The corresponding authors for the published articles are divided between faculties as follows. Medical faculty 62, Science 8 and Engineering 10. The dominance of the medical faculty reflects the fact that the OA-publishers are strong in the biomedical sciences but it can easily pose an internal problem at a university with 8 faculties when one faculty is so clearly favored by a central fund. For BMC and Hindawi I can make a comparison of the number of publications in 2008. BMC shows a notable increase from 48 published and 62 submitted during the last three quarters in 2008 to 66 published and 82 submitted in first three quarters of 2009. Hindawi have published 5 articles with a Lund University affiliated author as first author during 2008 (the full year) and 6 articles during the first three quarters of 2009.

Number of published articles 1 January – 25<sup>th</sup> September 2009

| Publisher | No. articles 2009           | Cost \$ 2009 | No. articles 2008           |
|-----------|-----------------------------|--------------|-----------------------------|
| Hindawi   | 6                           | 10,318       | 5 (full year)               |
| PLoS      | 8                           | 11,950       | n/a                         |
| BMC       | 66 published (82 Submitted) | 86,793**     | 48 published (62 submitted) |
| Total     | 80 published                | 109,061*     |                             |

\* Average price per article: \$ 1,363 . \*\*Submitted articles to BMC not included (51 articles. Potential cost: \$ 69, 526 with a 20% Membership discount.)

<sup>1</sup><http://www.sciecom.org/ojs/index.php/sciecominfo/article/view/1508/1243>

There are 51 submitted articles to BMC adding a potential cost, if all are accepted, of \$69, 526. PLoS does not inform us on submissions so I have no figure there. Since the number of articles published in PLoS journals is low, 8 so far this year, it should be no more than a couple. Adding up the BMC submitted articles cost to the already paid publication fees for 2009 we will have overdrawn our funding roof. A growing portion of these articles will not be published until next year but the cost will still have to be covered.

### How to continue?

Looking at the possibility to scale this support for gold OA funding I present an example were 15% of Lund University's article output were made OA using the same funding model as the PLoS and BMC memberships.

If Lund University should fund 15% of the annual article production as Gold OA under similar agreements as those with PLoS and BMC, based on the number of journal articles published 2008 and registered in our publication registration service, LUP(4,325) and the average article cost of 2009 (\$1,093), the cost would be as follows.  $15\% = 648$  articles  $\times 1,363 = \$883, 324$ . This would be equivalent to more than 25% of the journal subscription budget for 2009.

It is very unlikely that new money of that order would be made available by the university. It does not seem likely that journal subscription costs will go down in the near future to make a transfer of money possible. Many publishers have frozen the prizes at 2009 levels due to the economic recession but big publishers like Elsevier and Springer are expected to raise their subscription prices with ca 5-6% on average. It is equally unlikely that a transfer of money resulting in a large cut in the journal subscription budget would be accepted by the researchers at the university. Most probably we will not have increased resources to spend on gold OA and in the near future we will not be able to choose a model like BMCs Prepay Membership. BMC recognizes this problem and offers two more controlled prepay options that we will look into.

One is called Capped Membership and this means BMC suspend the Prepay Membership once the total cost of submissions reaches your chosen capped amount so you won't allocate over the original agreed amount. This also offers the opportunity to notify the researchers that there is a cap on the Prepay and it will be suspended once the cap is reached. Once the cap is reached, you can then decide whether or not to deposit again for the months ahead. This removes the need of having to top up due to a surge in submissions or submission exceeding an available balance.

The second model is called Institutional ID Code. In order for a researcher to submit under a membership

they must have an institutional ID code, which only the membership administrator has. A researcher would contact the administrator to obtain the code. This allows the administrator to limit the amount of times it is issued, check affiliation before the submission is made and have more control over the submissions in general.

A model like Hindawi's with a flat-rate annual membership doesn't need much management and gives us control over our budget. On the other hand it is close to the traditional subscription model and we doubt that this model will scale well. Today this is not a problem but in a future with many publishers offering this model the risk will be that the "access to reading" problem might be reversed into an "access to publishing" problem for institutions with low funding, even if at this stage all OA publishers accepts publication without fee if the submitter can claim lack of funds.

Another option to consider would be to manage the funding centrally, but letting the individual researchers spend the money and not engage in any central prepay arrangements. Drawbacks to this would again be more administrative tasks for those who manage the central funds and for the researchers too. Loss of, or lower, membership discounts would also give fewer publications for the money. So far this year the membership discount from BMC amounts to \$20,431 or more than 15 articles at average price. The major advantage would be that our funding support would be "neutral" regarding which OA journals the authors publish in independent of publisher. Today we really favor publishing in journals inside of our memberships compared to other OA journals.

Gold compared to green at Lund University  
When searching for journal articles with publishing year 2009 in our publication registration service (Lund University Publications)<sup>2</sup> the total number is 2,637. This means that 3% of the total number of article publications has been paying their publication fee using the central fund. The total of the publication fees for these 80 articles is \$109,061. The average price per article is \$1,363.

So far 109 journal articles with publication year 2009 have been self-archived in Lund University Publications. 81 of these are affiliated to the medical faculty. The medical faculty has established a workflow for self-archiving where the faculty library does the actual work and the researchers only send their manuscript to the library. For a description of this workflow see Hultman-Özek<sup>3</sup>, 2005. Since the researchers cost in time in this workflow is negligible it is possible to estimate an average cost per article self-

<sup>2</sup> <http://www.lu.se/o.o.i.s/12682>

<sup>3</sup> <http://www.dlib.org/dlib/october05/ozek/10ozek.html>

archived, based on the time spent by the library staff to self-archive the articles. The average time spent per article is 20 minutes (Figure from interview with medical faculty library staff). This includes looking up the self-archiving policy in SHERPA/RoMEO, contacting the author if a post-print manuscript is needed, add a “version page”<sup>4</sup> and create a pdf of the manuscript and upload the article into LUP. The average hourly cost of a librarian at LU is \$40.7 so the cost of self-archiving one article would be \$13.5. The cost of self-archiving 15% of Lund University’s yearly article production (648 articles), using this work-flow, would then be \$8, 748.

From the point-of-view of making as large a portion of Lund University publications open access as possible, supporting self-archiving by using dedicated staff is more cost effective than supporting publishing in open access journals by paying publication fees. Since Sweden’s largest funder, the Swedish Research Council recently has for publications emanating from research that they fund, it is likely that the need for support to self-archiving will increase at Lund and be in focus over the next year(s).

### Conclusions

These are times of experimentation and change in scientific communication and the new modes will develop alongside the traditional ones. The costs associated with the subscription-based system will not decrease in a way that will make a smooth transfer of subscription funds to publication funds possible from a university perspective. New money and creative solutions will be needed during this period of transition. We will still support and promote publishing in open access journals through memberships, DOAJ etc. as we see the different roads to open access complementary.

When we know the size of the fund for next year, a capped membership model as offered by BMC looks like a quite attractive solution, still keeping administration overhead per article down and also giving budget control. The flat fee model is still manageable as it is in limited use. Ear-marking a certain percentage of next year’s funding for “free” spending on any acceptable OA journal (included in DOAJ) and keeping some memberships would remove some of the disadvantages journals outside our membership arrangements have and at the same time “limited” memberships will still give us some discounts and lower administration overhead than a totally free fund. In our opinion it would be a very valuable service if the Open Access Scholarly Publishers Association, OASPA<sup>5</sup> could come up with a common “clearing-house” for publication fee payments including all member publishers under a common model (or optional models) with low administration overhead and budget control for central funds like ours. If that is possible the advantage from our point of view would be less administrative time spent on separate agreements and models and added to that the automatic inclusion of all OA publishers (if OASPA members) using a publication fee model without us having to do anything. If it were possible to avoid separate agreements with each OA publisher and/or having to handle each publication fee separately, more money could be used to actually make articles open access instead of spending them on handling the publication fees.



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<sup>4</sup>[http://www.lub.lu.se/fileadmin/user\\_upload/pdf/Publicera/Foersatsblad\\_artikel\\_LU\\_eng.doc](http://www.lub.lu.se/fileadmin/user_upload/pdf/Publicera/Foersatsblad_artikel_LU_eng.doc)

<sup>5</sup><http://www.oaspa.org/>