OPEN ACCESS IN SWEDEN – GOING FROM WHY TO HOW
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The year things turned our way

The year 2012 has been a year of remarkable advancement for the open access (OA) movement worldwide. The research ministers of Great Britain and Denmark have declared that all research funded by the government is to be published open access and the research councils of respective country have coordinated their policies for OA mandates.[1][2] The European Commission has declared that open access publishing is set to be the norm for results from research financed by the upcoming research programme Horizon 2020 as from 2014 and urges the EU member states to adopt national policies for open access.[3] The big SCOAP[3] project of CERN that aims at converting the 7500 yearly publications of 10'000 high-energy physicists to full open access is finally about to launch, after six years of preparations. The Directory of Open Access Journals (DOAJ) is now listing over 8 300 OA journals and large scholarly publishers as Springer and Elsevier are starting up OA journals each and every day. Research funder Wellcome Trust is starting the OA journal eLife[4] and the OA mega-journal PLoS ONE is well-renowned and publishing over 70 articles a day. The journal PeerJ with its innovative author subscription model has also been started up this remarkable year of 2012.[5] In Sweden, the governmental research bill for the next three years contains a commission to the Swedish Research Council to coordinate the conditions for free access to research results and data among the Swedish research funders in cooperation with the Swedish Association for Higher Education (SUHF) and the National Library of Sweden.[6] The Swedish programme for promotion and coordination of open access in Sweden - OpenAccess.se - is finally seeing a promise of having one of its main goals - a national policy on open access - soon to be fulfilled.

Going from why to how

As a conclusion from the recent events above, we can clearly see that the movement for open access now is going from a stage when we had to argue for the virtues of open access into a phase where open access seems as being an inevitable technological and societal imperative. We now have to start thinking about *how* to handle the transition from toll access journals to open access of scholarly publications, rather than *why*. Even if everyone agrees that open access is the final goal of our journey, we still might have quite different opinions on how to get there and how to tackle the obstacles in our way during the transition from the old subscription-based publishing model to the new open access model.

Some of the challenges that we need to address during the upcoming transition are among others: How open and free do we want the publications to be, and at what cost? Which route should we take, and when - green or gold, now or later? How to deal with non-serious publishers tricking researchers into paying for publishing in fake journals with non-existent peer-review? How to make ends meet for small scholarly publishers that want their journals to be open access? And how to finance open access publishing for scholars doing research without funding grants?

How free is open?

At a first glance, the concept of open access seems easy to grasp: Scholarly publications free for all to read on the Internet. But when you start to dig a bit deeper, you realize that openness can come in several flavours. The first degree of openness that has been coined *Gratis OA* means that you remove price barriers and make publications free to read, but only that. You are not entitled to re-distribute or re-use them. Gratis OA is usually what people new to open access thinks is the whole point of it. And of course this is a basic and very important part of open access, but only a part of it. If we for instance look at the OA definition of the Budapest Open Access Initiative (BOAI), we find that it goes much further:

> By "open access" to this literature, we mean its free availability on the public internet, permitting any users to read, *download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose*, without financial, legal, or technical barriers

[1] Research Councils UK, 2012
[2] Styrelsen for Forskning og Innovation, 2012
[3] European Commission, 2012
[4] eLife, 2012
[5] PeerJ, 2012
[6] Utbildningsdepartementet, 2012

other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited. [Emphasis by me.][7]

So if we want to achieve OA according to the BOAI definition, we want the openness to go beyond reading; we also want to be able to re-use the freed publications. This next level of openness has been coined *Libre OA* and means that you remove barriers for re-use of publications on top of the price barrier removed by Gratis OA. To apply Libre OA, Creative Commons CC-licenses are often used, and the most commonly used CC license for Libre OA is the CC-BY license, which best agrees with the BOAI definition of OA above. CC-BY means that you are entitled to re-use a publication in various ways, as long as the author of the original publication is acknowledged.[8]

The reason we want rights to re-use publications is that we want science to advance to the next step in its evolution. One important re-use of publications is to harvest them for indexing and inclusion in databases to be used for text mining. Text mining can then be used to elevate science to the next level, doing statistical meta-studies on vast amounts of previous research results. Free publications are thus a prerequisite for the next generation of research.

But these different degrees of freeness usually come at different costs. For instance, many commercial publishers give authors the right to re-publish their peer-reviewed manuscripts on a public website or in a subject- or institutional repository, but only as Gratis OA for reading. Giving the author Libre OA rights would mean that publications would be spread freely and is seen by the publishers – rightly or not – to risk the economic sustainability of the toll access journal model. If we want Libre OA, we usually have to pay a higher price, submitting the publications to true OA journals where the producer pays the peer-review process to get free publications. Or we have to resort to so called *Hybrid OA*, where single publications in toll access journals are financed with publishing charges to be free to read on the publisher's website. The conclusion is that the more free we want the publications and the sooner we want them freed, the more costly the transition to open access will be.

Going the green way or taking the gold route?

There are principally two ways to get scholarly

publications free on the Internet. The first one, which is called *Green OA* is to self-archive the publications by putting a copy of the peer-reviewed author manuscript in a in a subject repository or an open publication archive that is run by the researcher's organisation. The benefits of Green OA are that there is no need to change the old publishing system based on toll access journals and it comes at a relatively small extra cost for the research institutions. The drawbacks of Green OA are that it seldom gives us Libre OA, the openness often comes after a time-delayed embargo, there is a relatively large amount of work involved for researchers and librarians running and filling repositories, and the model is not economically sustainable for the publishers in the long run when larger portions of the journals freely available on the internet can lead to cancellations.

The second way to get publications free is to make them freely available directly at the publisher's journal website. This is usually seen as the true future of OA publishing and has therefore been coined as *Gold OA*. The *gold* in Gold OA has nothing to do with charging money from the author, since there are many Gold OA journals that are run and supported by learned societies that neither charges the author, nor the reader. The benefits of Gold OA are fairly evident; it is the final peer-reviewed and edited publication that gets freed, there are good possibilities to demand a true Libre OA license on the publication, and the model can be economically sustainable for the publishers in the long run. The drawbacks with Gold OA is that it represents a great change of the present publication system and that the change can generate large extra costs while we have to maintain double systems, both old subscription-based access and producer-pays OA.

Using gratis green to get libre gold

The government in Great Britain this summer decided to follow the recommendations of the so-called *Finch report*[9] and recommend Gold OA over Green OA. This started an intense debate on which way is the right to go and when to choose which model. The critics mean that taking the suggested Gold route too soon will be unnecessary costly and that the same goal could be reached by doing self-archiving for a long time to go. The defenders of the Finch recommendations mean that we need Gold OA to get publications that are Libre OA as soon as possible, and that it will have to come with some extra cost during the transition.

My belief is that we need to go both ways in parallel. We need to start off with Green OA and self-archiving as soon as possible, but at the same time try to change the system and open up funding for Gold OA models. When the portion of publications that are Gratis OA

[7] BOAI10, 2012
[8] Creative Commons, 2012

[9] Finch, 2012

by self-archiving has reached a level where we can start cancelling subscriptions, hopefully publishers have come far enough in their development of Gold OA models to convert the old toll access journals to true OA journals. In short, start massive with Green Gratis OA and successively go over to Gold Libre OA, but don't wait with Gold OA trials and experiments as catalysts of the change to come, while doing the mainstream Green OA.

This strategy is also what Houghton and Swan seems to recommend in their recent paper *Planting the green seeds for a golden harvest*: "Hence, we conclude that the most affordable and cost-effective means of moving towards OA is through Green OA, which can be adopted unilaterally at the funder, institutional, sectorial and national levels at relatively little cost." [10]

What will the year to come bring for open access?

Year 2013 will inevitably be another exciting year for open access, since many of the initiatives from 2012 will have to be implemented during the year. In Great Britain, the planning for the implementation of the recommendations of the Finch report is already going at full pace, with the Government handing out funding for Gold OA publishing and the British universities are planning on how to distribute this funding to publishing fees.

The European Parliament will process the new EU research programme Horizon 2020 which is destined to have "open access publishing as a norm" and have the details of the programme hammered out during the next year. The big EU project OpenAIRE will presumably play an important role in building an infrastructure for the management of the free publications and research data of Horizon 2020.

In Sweden, the suggested Governmental commissions in the 2012 research bill regarding national coordination of open access will have to be decided by the Swedish parliament and set into practice by the Swedish Research Council and the National Library of Sweden.

There is a good chance that the year 2013 will prove itself to be the first year in the open access history when we could stop focusing on the *why* issue and start the open access *how* journey for years to come.

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[10] Houghton and Swan, 2012

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