

Will the Open Access Movement be successful?

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The starting point: beginnings only

No doubt that from the point of view of scholars around the world, Open Access (OA) seems to be the obvious solution to the evident problems of scholarly publishing in the present age of commodification. Access to the academic literature would be universally available and hence not restricted to those lucky enough to belong to wealthy institutions that are able to afford all the subscriptions necessary. Furthermore, many believe that only if we have a fully digital, openly accessible archive of the relevant literature, enhanced with overlay functions such as commenting, reviewing and intelligent quality filtering, we will be able to overcome restrictions of the present, paper-based scholarly communication system.

Many initiatives have been launched (e. g. the Berlin Declaration¹), some funding agencies have already reacted by adopting Open Access policies (notably the British Wellcome Trust², but also the German DFG³ or the Austrian FWF⁴), new journal models are being tested to prove that Open Access is a viable economic model (e. g. BioMedCentral⁵), Open Access self-archiving servers flourish around the world (not least in philosophy) and even high politics has reacted (most recently the European Commission⁶). A few years ago, this author boldly predicted that a third phase of (re-)de-commodified scholarly publishing is around the corner after the old de-commodified period and the present age of almost universal commodification (Nentwich 2001). But still, after a decade or so of initiatives (a well-known timeline on Open Access goes back to the 1990s, the Budapest Initiative⁷ dates from 2002), of testing and promoting only a fraction of the available scientific literature is Open Access (a rough estimate is 15 %⁸). It is growing, no doubt, but we are a long way from universal Open Access.

So, will the Open Access Movement be successful? Or, put differently, can it be successful? What are the chances that the incumbents—the big commercial (as well as the non-profit, associational) publishing industry—will

give way to a de-commodified future? Is there a middle-ground where all the players and interests could meet? This paper will contribute to this open debate by analysing recent trends and weighting the arguments put forward (this contribution, however, is not an account of the overwhelming amount of papers published on this issue, but cites them very selectively⁹).

Colourful roads: white, yellow, blue, green, and gold

Since its beginnings, the Open Access movement supported two approaches: academic publications should be made available for free either via digital repositories parallel to the print publication or, alternatively, via (electronic) journals or books that are themselves available for free. The promoters of the Sherpa/ROMEIO project¹⁰ labelled it the green and the golden road to Open Access. Still, there are a few further colours involved: Seen from an Open Access perspective, the so called white publishers are the “bad guys”, as they ask their authors to hand over exclusive copyright and do not allow any form of Open Access archiving; the “yellows” and “blues” allow their authors either to archive the pre-print or the post-print version; the “greens” finally allow both versions to be archived. Some of the “green” publishers do so only on condition that the author pays for it. The “golden” road to Open Access, by contrast, is a different approach: the journal or book itself is accessible for free, and not the reader, but the author side is financing. This can be either the author or his/her institution paying a publication fee (usually between 500 and 2000 € per article) or the publication series itself is supported by a research institution’s current budget, by membership fees of a scholarly association, by a specific grant of a funding agency, or by a patron or sponsor.

In some respect, the green road is more conservative: the present publication system stays more or less the same, the publishers—whether commercial or non-profit—sell their products as usual, but they allow under varying conditions that authors make a digital copy of their paper available for public use. The result is two parallel worlds: the one we got used to over the last decades, namely the journals and books that we buy; and a new one of digital archives in which authors or their institutions publish their research results a second time. Although the latter road seems to be more efficient to make almost all publications available, it has two big disadvantages: first, it needs special attention from the side of the authors, they have to do something actively, OA is not automatic here; second, versioning is a problem: the colours mentioned above indicate that it is not clear which version is go-

ing to be archived, which one of several is the reliable one, which one should one quote. In other words, the parallel world will never be exactly the same as the original one.

The golden road, by contrast, is in a sense more revolutionary, as it tends to replace the old system by a new one and, indeed, some of the newly funded Open Access journals have been explicitly set up to compete with existing non-OA journals. Even some of the commercial publishers test the idea and launched OA journals with an author-pays system; or they offer a hybrid model in which individual articles are bought off to gain OA status while the rest of the published articles remain non-OA. The big advantage of this road—and this is the reason to label it “golden”—that there would be no question about the right version of a “golden” OA article (the latest, the published, and hence the quotable). It is just the one published on the journal’s or book’s website. However, only a tiny minority of all journals and books are made available under this system.

In practice, both roads are being used so far: the ROMEIO database¹¹ shows an increasing proportion of “coloured”, that is non-white publishers, and at the same time we observe that there are quite some OA journals already on the market as documented by the DOAJ database¹².

Funding agencies react to this colourful map by a two-tier approach: they encourage their funded researchers to either deposit their publications in an archive or they promise to pay the author fees owing to the publishers. Some research institutions act likewise with respect to their research staff members—some of them have registered their respective institutional policy in the ROARMAP database¹³.

Open questions

However, most observers are univocal in their assessment: despite all declarations and initiatives, despite all progress, we are far away from a situation in which all papers are available Open Access in some form. In the following I shall discuss some of the most important issues or arguments helping to explain the state of affairs.

Is the Open Access movement strong enough?

Open Access activists are quite visible: a simple Google search for “Open Access” will result in over 49 billion hits. So everyone looking for OA will find them on the web, will get access to the declarations, will be impressed

by the hundreds and thousands of signatories and will discover many big and even high-level conferences devoted to OA. Seen from this perspective, OA seems to be strong. It also seems to be quite successful: when we look at the constant growth of OA journals in the DOAJ database and green publishers in the ROMEIO database, we tend to conclude that “we are almost there”. However, my strong impression is that the activists involved in the movement are only a few, this is not a mass movement, most scholars and academic authors have not heard from it or even thought about repositories. Clearly, there are—as always—distinct differences between the various research areas, but there are enormous dark spots, both on the disciplinary level and regionally. Take the example of Austria. There are almost no institutional repositories, only very few Open Access journals¹⁴, only two signatories of the Berlin declaration¹⁵ and only a handful of actors who have Open Access on their agenda. Not even the big players like the universities and the Academy of Sciences have an explicit OA policy yet. My preliminary conclusion: there is always the chance of a “revolution from above”, but the movement lacks a strong basis, so far. Open Access is no issue among most researchers. Given the fact that Open Access involves quite some distributed activity by every scientific author, this lack of awareness and missing agenda is probably at the root of the modest success of the OA Movement.

Are the incumbents too strong?

No doubt, the big players in the scholarly publishing business (Elsevier, Springer, Sage etc.) are very strong and tenacious (Nentwich 2003, 407 ff). They control an enormous share of the market; hence their market (bargaining) power is much bigger than that of the largest consumer consortia (libraries). Among other effects, this leads to disadvantageous licensing agreements. For instance libraries are not allowed to access the digital versions of journals they have once subscribed to after the end of the subscription period (by contrast, the paper journal is still available for future use, after you cancelled your subscription); they include stipulations that bind the libraries for long periods with the effect that they cannot take advantage of consortia agreements. Taken together, this led to a situation in which the expected advantages of electronic publishing did not pay off for the customers.

Furthermore, *vis-à-vis* their authors, publishers are in an even stronger position and there is no equivalent to consumer law regarding the relationship between the publisher and the author. In most cases uninformed and legally immature authors usually never put into question the general terms and conditions and sign over to the publisher the exclusive copyright. While this

undermines all efforts towards Open Access, this is quite understandable: when an author has successfully completed the peer review process and is offered the publication contract, this is certainly not the time to risk impact points by arguing with a big anonymous enterprise.

While genuine Open Access journals are quite successful (see for instance the BioMedCentral journals to name just one prominent example), it needs a lot of effort and activism to found new such journals and it needs time to become established. Obviously, as long as the new journal has no reputation, as long as it is not recognised by the indexing services, in particular by the “almighty” Thompson Scientific (who runs the ISI Citation Indices¹⁶), authors cannot be blamed for choosing the incumbent’s well established journal.

Cheaper for whom?

As a rule, OA journals are electronic journals and as such, no doubt, production costs are considerably lower than with print journals. Nevertheless, there are costs and publishers, also OA publishers, argue that they are considerable and charge at least 500 € per paper to the author or his/her institution, often six times as much. It all depends on how you look at it. There are many low-budget OA journals that are run by scholarly associations and the enthusiasm of a few. The costs per published paper may be considerably less than 500 €, depending on what quality you expect when it comes to layout, proofreading and language checking—I am not speaking of content quality here: this is, obviously, not negotiable—, depending on the amount of volunteered labour (which is not available at the same level in all fields), and depending on the level of internal support by a scholarly association. In my view, there are convincing arguments that the scholarly world could deliver what is needed for scholarly communication at much lower costs. Many of the entries put forward by those arguing in favour of the present commercial model are not defensible when we look at the genuine needs of the research community. I am not only talking about a profit share of a third of the turnover, but also of marketing etc. By contrast, if you want to preserve the highest formal standards as well as a good share of profit for the publisher, a publishing system that turns from user pays to author pays will not be cheaper. This is how the publishers and their followers argue: you should not count on making the system cheaper altogether. The key issue is the margin of profit. A system run by libraries, scholarly associations, non-profit university presses and the research community would surely be much cheaper, even if you do it as professionally as done by the commercial

publishing houses.

In addition, it is important to differentiate between the target groups: A fully operational OA publishing system will be cheaper *overall* than the present one on condition that it is fully electronic and that the market is less concentrated than hitherto, that is, if there were many new (non-profit) players challenging the few big ones. However, seen from the perspective of the *individual* institution, it is by no means clear whether the OA system would be cheaper or even more expensive. Research institutions whose authors publish a lot may find themselves in a position to pay more for author charges in the future than they did for subscriptions in the past (Bauer 2006). On the other end of the continuum, private research enterprises, e. g. in the biotech or pharmaceutical sector, usually do not publish a lot (but rather patent their results). What they would have to pay in a fully OA environment would be much less; in other words: OA subsidises private research. It seems difficult to estimate how much less the contribution of the private sector would be to the otherwise publicly funded system and even more difficult to say whether this would be less or more as compared to the indirect subsidies now given to the publishing industry.

In any case, the uncertainties about winners and losers, the differing interests between many actors groups involved in scholarly publishing are probably part of the explanation why there is no forceful movement in one direction only.

Do politics play too weak a role?

Politics in the narrow sense is dealing with Open Access only occasionally. Main actors of the recent path have been the European Commission and the OECD¹⁷. The EU, for instance, is going to invest 85 M€ over the next years to support the OA infrastructure¹⁸. This is an important step, but more have to follow in order to keep the infrastructure sustainable beyond the initial funding. States, by contrast, rarely or never formulate an Open Access agenda, despite the enormous sums of public money spent on “buying back” in published form the research results that have been financed by the state in the first place. Some observers even argue that non-acting in this area is a form of indirect subsidy to the publishing industry. However, no competition or subsidies case has been filed yet. Copyright law does not restrict the bargaining power of the publishers. There is only one area in which some states (and the EU) recently started to become active, in an indirect way, by stipulating that research directly financed by public funds has got to be made Open Access. An important amendment to this stipulation would be

that the necessary financial means for author fees be made available because otherwise, the research output would be indeed Open Access, but not properly published in the top journals. This is a first step, but there are still many research funds that do not yet bind the support of a research project to Open Access publishing. Furthermore, there is a lot of research that is only indirectly financed by the state, namely via paying the salaries of the researchers. As far as I can see, only a tiny minority of functionaries in the research administration are already aware of the problem and the possible solution “Open Access”. In this respect, the situation is not much different when compared to the awareness of researchers. Open Access, we have to conclude, is not yet considered a public duty. The issue is not “sexy” in political terms, maybe because Open Access taken seriously would hurt parts of the industry.

So if the national governments are not active, the actors in the field, in particular, the research institutions, the funds, the libraries and archives could step in and formulate institutional policies. Some do so. The ROAR-MAP database lists those who did already. While it may well be that some of those who are active are not aware of that database, the list of OA policies is not yet impressive at all: as of end of July 2007 only 54 policies have been registered worldwide. Taking the example of the academic institutions in the German speaking world, less than ten universities in Germany and Switzerland, none in Austria, and two research funds, among them the Austrian FWF have registered their policies. Seen from the perspective of OA promoters, there is much room for awareness raising activities.

Is there no way out of double windmill situations?

The main issue, as far as I can see, is that there are double windmill situations involved that make it particularly difficult to turn the tide in favour of Open Access. They are all of the same type: You cannot move to Open Access unless first other conditions are fulfilled.

First, a reasonable author will not choose an alternative route to publish his/her papers unless the alternative is equally renowned; otherwise s/he would risk his/her career. However, without the best pieces of the best authors, the journals will not become attractive enough. Only a handful of Nobel Prize winners have actively supported OA journals like BioMedCentral. Policies of scholarly associations and research institutions that accept OA journals as equivalent to traditional journals may be a solution to overcome this lock-in situation. Also the active involvement of those would help who don't need further publications as badly as the newbies at the beginning of

their career.

Second, the libraries and research institutions do not want to cancel the subscriptions of key journals that are not Open Access—although they are very expensive—as long as their customers (the readers) rely on them. Without saving money on the subscription side, there is not enough room for manoeuvre to support authors who have to pay for their article to get published. Here, additional financing for the interim period of transformation seems to be helpful.

Third, the small publishers are in a particularly odd position. Usually they have only a few cash cows, so switching to OA is the equivalent to biting the hand that feeds them. Unless they find other sources of income, they might face hard times in a changing environment that asks for OA as their bargaining power is less strong compared to the big ones and to the library consortia. I believe that the small publishers will either turn into non-profit/small-profit publishers; that is, they turn into service providers. Or they are going to specialise in niche products, special services, sophisticated products that academia cannot provide for itself.

Fourth, even the big publishers face a double windmill: their first option is to keep things as much as they are because the established model with its high profits seems to be unbeatable; however, they feel the pressure from their customers and the public bodies. Turning into “green” publishers seems to undermine their business model and offering expensive hybrid models might not be accepted in the market. But if they do not get an inch, they may lose control altogether because an avalanche may be triggered. In my opinion, it is in their interest to serve their customers and this might mean that they will have to meet their customers halfway. While the original, peer-reviewed final text version will be available in an OA version, the version in a fancy layout with additional editorial comments, a journalistic news section, add-ons like high-resolution pictures, video-streams etc. will have to be paid for. I believe that there is a market for these “luxurious” publication products. However, many publishers, it seems to me, want to stick to the traditional model, just like the music industry did a while ago, rather unsuccessfully.

There are no easy solutions to escape the windmill situations. Therefore, fast transformation from the commodified to the OA system is not to be expected. As exemplified above, only slow evolution and a step-by-step approach seem to be able to overcome these barriers.

Outlook: The odds are not so good after all, but ...

Summarising my above account, one needs to be a big optimist to believe in a swift transformation of the present academic publishing system towards one based on Open Access. Although OA is no panacea, I am convinced that it is the superior system. The main barrier is a lack of coherent agency of the research community. However, coherence is not to be expected across the board. The actors have divergent interests. Therefore, I do not expect the “golden” revolution, but a “green” evolution, that is a slow but steady growing of a parallel infrastructure of institutional and other repositories that will grow together and build a universal, decentral Open Access database. It seems likely that at some point in the not so distant future all publishers will turn “green” and accept this parallel system. Depending on the field and at different times, this basic, community-run database may become in the long run the first point of reference (at least for the majority of researchers) with the present commercial journal databases playing second fiddle. For instance, where there is a big market also outside academia as in the biotech, the pharmaceutical or the legal fields, OA may never be more than a niche; by contrast, in fields that have already an important pre-print culture with large archives or a more inwards oriented communication culture, they may soon become the major point of reference. Fields with an important monograph culture, like philosophy and others may go both ways—but this projection might be a good starting point for discussion now. In any case, it is my conviction that what I would call “cyber-entrepreneurs” are the single most important ingredient in this transformation process. Without them not much will happen. Coming back to my initial question, my answer is yes, there is a chance that the Open Access movement will be successful, but it will be a lengthy and cumbersome process.

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Endnotes

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- 2 http://www.wellcome.ac.uk/doc_WTD002766.html.
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- 6 http://ec.europa.eu/research/science-society/pdf/scientific-publication-study_en.pdf.
- 7 <http://www.soros.org/openaccess/initiatives.shtml>.
- 8 This estimate is based on a personal communication by Stevan Harnad to this author and certainly open for debate.
- 9 See for instance the OA Webliography 2005 at <http://www.escholarlypub.com/cwb/oaw.htm>.
- 10 <http://www.sherpa.ac.uk>.
- 11 <http://www.sherpa.ac.uk/romeo.php>.
- 12 <http://www.doaj.org>.
- 13 <http://www.eprints.org/openaccess/policysignup>.
- 14 Bruno Bauer recently counted eight OA journals and five repositories in Austria (see Bauer 2006).
- 15 The Austrian Research Fund FWF and the Rectors' Conference of the Austrian universities.
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