

“Young Researchers Demand Open Access”

Interview with Ralf Schimmer and Ulrich Pöschl on new developments



The worldwide publication system for scientific literature can be converted to Open Access without the need for additional funding. It is sufficient to redirect the funds that are now paid to the publishers for subscriptions. This is the heart of the white paper currently being discussed internationally by experts. In December they will meet in Berlin for a conference. The following interview was conducted with the principal author Ralf Schimmer and Open Access pioneer Ulrich Pöschl, Director at the Max Planck Institute for Chemistry.

Mr. Schimmer, around 13 percent of all specialist articles are published by Open Access. The vast majority continue to be issued via the subscription model – in other words, the articles are bought by way of subscription. Is it not too early to question this business model?

Ralf Schimmer: On the contrary – it is exactly the right moment. The growth rates in Open Access are constant. The share increases every year by about one percentage point, which means that the change would

happen by itself anyway. Recently, however, we have had to recognize that skeptics were increasingly speculating that Open Access could well increase the cost of global publishing. We had to confront this fairy tale. Consequently, we have presented an analysis that is novel in its clarity and empirical robustness, including with respect to financing. The article is being discussed around the globe, a number of scientific committees have it on the agenda, and publishers are also concerning themselves with it. A total of some 16,000 downloads confirm the desired impact.

Mr. Pöschl, was it a surprise for you, that – as the study shows – a conversion of existing journals to Open Access is possible with the available funding and that money would even be freed up for new investments?

Ulrich Pöschl: The study confirms that the principle of the conservation of mass and energy applies to the publication industry and to Open Access. All relevant journals are already online, and a conversion to free access does not incur any costs whatsoever. If the big commercial publishing houses achieve high margins of up to 40 percent, there must be room for savings. This has already been proven for many years by successful Open Access publishers. What I found surprising and pleasing in the study was that the changeover, also within and between different institutions and countries, will function well.

You are the rapporteur for Open Access in the circle of Max Planck Directors. How strong is the support?

Pöschl: Our discussions among the Scientific Members of the MPG show a very positive attitude overall, especially in the natural sciences with their large international journal market. In the humanities there are some reservations due to different forms of publications, which we naturally take into consideration. For more than ten years the MPG has been working for the conversion to free access to scientific knowledge, and this continues to be one of our research policy targets.

*As a joint founder of the journal *ATMOSPHERIC CHEMISTRY AND PHYSICS* you have experience*

with Open Access. What has to happen to dispel the worries about quality deficits?

Pöschl: The classical peer review is 100 percent compatible with Open Access. There are many OA journals that operate very successfully with it and enjoy a high reputation, such as PLOS BIOLOGY or ELIFE, a journal that the MPG itself helps to support. Open Access also offers the reviewers better access to relevant sources and – over and beyond this – many chances of making peer review better and more efficient with interactive elements and transparency. In the geological sciences we have been practicing a transparent review process for nearly 15 years with a total now of 15 specialist journals. And all these titles rank among the top journals in their fields – also in comparison with long-established subscription journals.

Mr. Schimmer, you write that the transformation leads to new publication services that correspond with the digital standards of the 21st century. What does that mean?

Schimmer: Besides the core services – i.e. data processing and publishing – it covers such topics as marketing. Here, experiments are currently running as with ELIFE: in this case, the abstracts are converted into video messages from the author, which is very interesting for propagation in social networks. Services like this will be professionalized separately by suppliers that will additionally enter the market.

Pöschl: Here we can see that classical publishers that currently rely on the subscription model acquire such start-ups, as in the pharmaceutical industry, or develop products themselves. This also applies to the area of evaluation, as evidenced by Google, for example.

But Google is not an example of the classical publication world ...

Pöschl: Correct. When it was still a company in a garage, Google could develop the best search algorithm because it had free access to general Internet contents. This free access has not been available so far for scientific publications, where an unbearable oligopoly structure prevails for indexing and statistical citation analysis. It was only in re-

cent years that Google was able to use its market strength to penetrate this closed society and offer, with Google Scholar, an alternative service for compiling publications and citations for every scientist. When Open Access is implemented, there will be enormous progress in the statistical evaluation of specialist articles as we have seen on the general Internet in recent decades, because everyone will be able to develop improved algorithms. One can imagine more meaningful citation rankings, due to qualitative weighting. Semantic methods will determine the context in which an article or author has been cited. That is just one example of how quality assurance and evaluation benefit. Who can best provide these services will be shown in free competition.

That amounts to the meta level of Open Access. Back to publishing: what changes will occur here in the role of publishers and libraries?

Schimmer: As mentioned, classical publishers are also reacting to the signs of the times. In our initiative we don't see them as something that has to be overcome. Quite the opposite, they are invited to participate in the journey. And the libraries have great opportunities for improving their profile in the conditions of Internet-based scientific work.

Here the classical libraries just have to develop their concepts and operational processes further. They will no longer receive the journals by subscription, but will arrange the publication of each individual paper in an Open Access journal. Here they remain basically what has always characterized them: the organizers of the business relationships of their institutions with the publishers.

How articles are paid for

Scientific publishing must satisfy high requirements, including quality assurance. This, as well as the professional processing, costs money, but unlike in the classical subscription model, where the reader pays via the subscription, in Open Access the costs of publication will be charged only once (Article Processing Charge, APC). The study assesses how high these publication costs are on average in Open Access. For Germany, this sum is currently around 1,250 euros per article. The conclusion is that if research organizations and libraries use their available subscription budgets to pay the APC, Open Access will be globally possible without additional funds.

The article appeared in spring – where does it go from here?

Schimmer: The next step must now be to discuss these great challenges in research policy and the way forward with the leading international scientific organizations at the Open Access conference in Berlin in December. On the basis of our analyses we would like to sound out the extent to which the goal of overcoming the subscription model is shared internationally. What is decisive is that many supporters state with one voice: we will now invest the money that previously flowed into subscription in Open Access models. The mechanism of this changeover is simple, as shown in the white paper.

Pöschl: Time is on our side here. In day-to-day research and at conferences I can feel that young researchers in particular increasingly demand and promote Open Access. They want to link their work to their researcher profiles in social networks, and it is no longer acceptable to them to live with the Closed Access of the traditional subscription journals in the otherwise so open world of the Internet.

Interview: Jens Eschert



The study can be downloaded at:
<http://openaccess.mpg.de/2365/en>

Nobel Laureate Speaks at Harnack House

There are many sides to Alvin Roth's personality: He came to economics through his research into game theory – with such success that in 2012 he was awarded the Nobel Prize for Economics. He is a proven theoretician, but with a mission to solve real problems. Max Planck President Martin Stratmann in his introduction at Harnack House stressed that: "Alvin Roth is a truly exceptional researcher and ranks among the most prominent economists of our time. It is an honor to welcome him here among us."

Roth, who researches and teaches at Stanford in his capacity as Professor of Economics, explained the principle of market design: Using game theory as a basis, algorithms have been developed that govern the fair distribution of certain commodities. Roth cited kidney donations as a vivid, as well as impressive, example of how this works. Under normal

circumstances it is rare for patients to receive kidneys from live donors, given that the organs of willing relatives are often medically unsuitable. So with many individuals having the same problem, but being unaware of the existence of others, Roth developed an exchange system that brings them together. Suitable organs are placed by means of "cross donation". This swap system, which is based on a complex algorithm, is functioning successfully in the US, and the number of transplants is rising.

In Germany, on the other hand, this model is not permissible, since individuals are prohibited from donating organs to strangers. Roth also made it clear in his lecture that any form of market design requires social consensus. The number of questions from the audience regarding ethical aspects illustrates the need for discussion on the subject of organ swapping.



Alvin Roth seen here during his Harnack Lecture in the packed Goethe Saal. This annual event is held in memory of the Founding President of the Kaiser Wilhelm Society, Adolf von Harnack.

40,000 Euros To Aid Refugees

Over 3,000 people took part in a sponsored run in Dresden co-organized by Max Planck researchers



"Run & Roll" gets under way in Dresden. Over 3,000 people set out on the 5.7 kilometer course.

Glorious autumn weather prevailed on the Day of German Unity as the crowd, including all ages and nationalities, set out with musical accompaniment on the 5.7 kilometer course. The motto of the event was "Run & Roll – Dresden on the move!" and it attracted not just runners, but even wheelchair users and families with pushchairs. What mattered most was the experience of people of many different origins coming together.

In launching "Run & Roll", the network of organizers, including the MPI of Molecular Cell Biology and Genetics, clearly demonstrated how interna-

tional Dresden has become as a scientific center. The proceeds from entry fees and other donations totaled 40,000 euros, which has been presented to the University Medical Foundation at the University Hospital to help establish a special drop-in clinic for refugees. "We are delighted that so many people in Dresden have responded to our call," said Max Planck Director Tony Hyman.

Other MPIs are also strongly committed to helping refugees. In addition to individual action plans, the MPG is also working with the Fraunhofer Gesellschaft and the Leibniz Association

to launch a joint integration initiative. The MPG has formed a project group with the participation of the MPIs, with a focus on two aspects: Firstly, on immediate measures, such as the provision of additional places for interns and trainees at interested institutes. The group is also investigating the potential for central support for the provision of resources and infrastructure, for example to deliver language courses. Secondly, the MPG is also keen to exploit its scientific competence in the field of "flight, migration and integration." There are also plans for an inter-institute, multi-perspective research project.