

DINNER/DISCUSSION SUMMARY

The future of science publication - open access or library serials?

Held at The Royal Society on Wednesday 23rd June, 2004

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- In the Chair:** **Dr Robert Hawley CBE DSc FRSE FEng**
Deputy Chairman, The Foundation for Science and Technology
- Speakers:** **Dr Mark Walport FMedSci**
Director, The Wellcome Trust
- Dr Mark Patterson**
Senior Editor, Public Library of Science
- Sir John Enderby FRS**
Vice-President, The Royal Society
- Mr Robert Campbell**
President, Blackwell Publishing
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The invited speakers put the arguments for and against different models of scientific publishing. On the established model of publishing in journals sold to subscribers the author paid nothing, but had to assign copyright to the publisher. The alternative model required the author to pay, but the paper was then freely available online.

In a polarised debate the advocates of the new approach argued that the results of publicly funded research should be freely available. One compared the commercial publishers to the mediaeval Church, exercising power by controlling access to information. On the other side a defender of the traditional system complained of the use of "smoke and mirrors" in argument, and the funding bodies were urged to listen to both sides of the story and talk to the publishers. Some participants referred to a "journals crisis", the costs of publications being such that university libraries could not buy new titles without cancelling old ones. Others denied that there was any crisis and said that more journals than ever were now available in the libraries.

It was common ground that control over the quality of publications was essential and that quality control came at a certain cost in time and money. Authors wanted to publish in journals with a recognised identity and reputation. Peer review was the main established form of quality control, and it was urged that scientists should

do more to explain to a wider public what it meant. Sense About Science was about to publish the report of a study of peer review (see www.senseaboutscience.org.uk/peerreview/index.htm).

The subscription system was said to create the right environment for quality. Whether quality control would be a problem for an open access or "author pays" system was disputed. Its advocates said that just the same standards of peer review applied, and that open access journals which did not maintain quality would fail. Against this it was argued that they would be biased in favour of accepting papers, when they ought to be biased to reject. If authors paid to be published they would be more inclined to put pressure on the publishers. Profits from subscriptions and advertisements underpinned the editorial freedom of journals.

It was observed that quality control was not just a matter of selection or rejection of papers. The editorial process entailed hours of struggling to make papers intelligible and talking to authors to clarify what they meant. Scientists were generally not very good communicators and wrote papers which were full of flaws. If editorial control and limits on space were relaxed papers would get longer and flabbier.

It was noted that the simple distinction between open access and subscription journals had al-

ready been obscured, in particular as a result of publishers allowing authors to file archive copies of their papers. Archive repositories were being set up in each of the Russell Group universities, the driver being the Research Assessment Exercise. One speaker reported that authors were inclined to add value when archiving their papers, for instance by supplying better quality graphics or data.

Apart from self-archiving there were other compromises between open and subscriber access. One learned society made papers available online for a month, and did not find that this reduced subscriptions. Another approach was to give open access after a certain period, such as a year. There were also aggregated databases selling access to journal material. Indeed, it was suggested that the title of the debate was wrong, in that the issue was no longer about access but rather about whether authors should pay to be published.

A number of speakers were puzzled that commercial publishers were embracing self-archiving and other forms of open access, since this would seem to erode the value of the copyright. Part of the answer was that authors were asked to acknowledge the commercial publication when they deposited an archive copy. Another answer was that making a commodity available free did not necessarily harm sales. In the 1970s television coverage of football matches was blamed for falling gates and restrictions on broadcasting were brought in, but later experience showed that televised sport stimulated live attendance by raising the profile.

There was concern over the long-term effectiveness of archives of scientific publications and over how readability was to be maintained as the technology changed. An increasing role was seen for the British Library, but one speaker was not clear how local libraries would continue to maintain scientific archives under open access. Some participants did not see private depositories as any substitute for public, searchable archives which would encourage the development of data-mining tools, and it was feared that self-archived papers would not be in a format that helped searches. Against that it was said that Google would find papers anywhere.

Views differed on how an author-pays system would affect scientists in developing countries. One speaker saw clear benefits from giving them open access to published papers but wondered about the impact on authors who could not pay to get published. One answer was for the pub-

lishers to waive fees for authors who could not pay, but this was not seen as a sustainable solution because it meant higher costs for other authors. It was also argued that authors who were short of money would have an incentive not to publish in prestige journals. This was because journals which maintained quality by rejecting many of the papers submitted to them had to recover the costs of appraising the papers they rejected, and so were bound to set higher charges than less selective journals. One speaker said that authors in the third world were opposed to the author-pays system because they did not think it gave them equal status.

It was argued that scientists in developing countries had easy access to scientific literature already because the publishers made it available to them at very low cost, in effect conferring a cross-subsidy from the developed world. It was possible to do so because the major costs incurred by the publishers - peer review and editing - were covered by subscriptions in the developed world, and the extra costs of dissemination to developing countries through electronic publishing were small. Another participant argued that the publishers had worked to achieve access to the third world, and that it entailed more than just making space available on a server.

The publishing activities of the learned societies were mentioned in the course of the discussion. One speaker argued that an author-pays arrangement would rob the societies of much of their membership, because many people joined, even if they could not attend meetings, because they wanted free access to the societies' journals. Another view was that open access must be good for science, so it was necessary to consider how the societies could fund themselves without publishing.

Jeff Gill

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