

NEW MODELS FOR SCHOLARLY COMMUNICATION

Frederick J. Friend, OSI Open Access Advocate, JISC Consultant, Honorary Director Scholarly Communication, University College London ucylfjf@ucl.ac.uk

Open access will bring huge benefits to humankind and my view is that all stakeholders in scholarly communication should collaborate to achieve open access. However, I ask you to note that the word “models” in the title of this presentation is plural rather than singular. Open access is not a single scholarly communication model. It comes in several forms. And these various types of open access may exist alongside some of the existing forms of scholarly communication. Also it is worth noting that while most of the models we are discussing are for scholarly *publishing*, the primary concern of the research community is to *communicate*, that is to communicate research results to their peers, to their pay-masters and to some extent to the public-at-large.

The communication of research results from one research individual or group to another was the “raison d’etre” for the development of scholarly journals in the 17th century. Nobody conducts research in an academic vacuum. Researchers want to tell others about their findings and to learn about work undertaken by their peers. Communication brings feedback and leads to further research, one research article building upon its predecessors. The scholarly journal has performed that function for many years. However, the scholarly journal has never been the *sole* means by which scholars have communicated research results. Personal correspondence, whether by letter or by e-mail, has existed alongside publication in journals, either before publication or after publication. Before publication authors have shared drafts of journal articles. After publication they have sent one another off-prints of articles, often accompanied by comments on the research reported in the article. These informal exchanges have existed alongside reading articles in the journals themselves.

One model for open access is the electronic networking of these informal exchanges. In this sense open access is not a new model for scholarly communication but an old model using new techniques. The new techniques enable the old sharing of drafts of journal articles to take place more rapidly and more efficiently than sending a copy of a typewritten manuscript through the postal service to colleagues in other countries. The new techniques enable the old sharing of published journal articles to take place more rapidly and more efficiently than sending off-prints through the postal service. Essentially what is happening now in an electronic exchange is as important a feature of scholarly communication as what happened in an exchange of paper in previous generations. I put it to you that if this informal exchange is important to authors, it has to be allowed for. Indeed some comments I have seen by authors suggest that they ignore restrictions placed upon them by publisher copyright agreements if those restrictions attempt to stop them from communicating the results of their research. Even though they have signed the copyright agreement, they still go ahead and send copies of their work to whomsoever they please. The tide of scholarly communication cannot be turned back. I do not believe that most publishers wish to turn back the tide of scholarly communication, although their lawyers and their accountants may wish them to try.

One key question for the future is the extent to which these informal exchanges of journal articles will become more formal and replace the existing publishing model for scholarly communication. Technically the means for the complete replacement of the formal scholarly publishing process with a network of sharing is already in place using the Internet and the World Wide Web. However, experience so far suggests that a more likely scenario is for the sharing of research papers over the Internet to increase but not totally to replace formal publication. The best-known example of this scenario is the physics database ArXiv, which has existed alongside the traditional physics journals for many years. Are there lessons to be learned for this type of communication by other subject communities? Although traditions do vary between subject communities, it seems unlikely that the publication imperatives in physics are so unique as not to apply to at least some other disciplines. The key factor in the success of ArXiv is that the database has not been used for any other purpose than immediate accessibility. The other aspects of a publication – particularly quality control and the academic reward functions – have continued to be handled by the traditional journals. These functions have ensured that the traditional journals have continued to flourish despite the toll-free availability of the text of journal articles in ArXiv.

In looking at future models, therefore, it is important to separate the communication function from the functions of quality control and academic reward. The communication function can be handled perfectly well by network access to an author's text, whether the communication is to other authors or to the world at large. In the subscription model publishers have gained their income from that communication function. They have required anybody who wishes to read the author's text to pay a fee, whether a subscription or a document delivery charge. Given the pervasiveness of the Internet and the desire of authors to communicate their research reports, publishers will be fighting a losing battle if they continue to require payment to read many academic journal articles. Politicians are looking for increased use of academic information and will be pressing for selected journal literature to be available to schools as well as to colleges and universities. This kind of mass access to academic journals would be unaffordable under the current site licence subscription models, and politicians are asking: "is the public purse not already paying for the research reported in journal articles?" Likewise research funding agencies are looking for increased value and benefit, and they ask: "why cannot anybody in the world benefit from the research we fund?" The answer to that question is that it can be very easy for research reports to be communicated across the world, and publishers will increasingly appear self-seeking if they try to restrict access to those who can afford to pay.

My belief is that in this Internet world the value publishers provide does not lie in the communication of research papers but in benefits to authors and the academic community. The communication of the text of journal articles from author to reader through the Internet is essentially anarchic, in that the communication is often dis-organised and random, variable in quality and un-regulated. Anybody can post on their web-site a copy of an article they have written without any authentication or quality control. Publishers contribute quality control and an organized system of indexed journal titles. This is a

major benefit to authors and to the academic community, and it enables a reward system to be built upon the structure publishers supply. Whatever we may think about the over-emphasis upon certain core journal titles, or about the way impact factors are used – or rather abused – in assessing research quality, the academic community needs some form of organised quality control. Apart from publishers, the only intermediaries who could provide that function in the Internet world are universities and funding agencies. The institutional repositories being established across the world could in principle provide a quality control system, because they are structured and organised according to professional standards. However, there is no sign that institutional repositories see their role as being anything more than communication, an alternative route for readers to the text of journal articles.

My belief in the added value publishers provide should not be interpreted as a belief in the publishing system as it now operates. The present model is flawed by a fault-line that has developed between payment and service. Authors receive the publication service, libraries pay. Readers also receive a service and again libraries pay. Like a geological fault-line, the separation of publishing service from publishing payment has opened up a rift in the scholarly publishing model, a rift that has led to disputes between publishers and librarians. If librarians are being asked to pay ever increasing sums of money while receiving no extra benefit, it is not surprising that they speak out strongly. Likewise when authors are separated from payment, they cannot judge whether the librarians' protests are justified. How much should a library be expected to pay for the academic reward an author receives from publication in a core journal? How much should a library be expected to pay for quality control over articles submitted by authors? There are no answers to those questions in a publishing model which separates service from payment. One way of testing models for scholarly communication is to ask "who benefits?" Under the present scholarly publishing model authors benefit, publishers benefit, and readers benefit to a limited extent. The stakeholders who receive no benefit from the current system are the funding agencies and the libraries.

Open access publishing restores the connection between payment and service that should underpin a healthy scholarly publishing system. If authors pay for publication from their research grant they can assess whether they are receiving value for money from the publisher in respect of editorial quality and journal prestige. Funding agencies can also make the same assessment of value for money, as they want their authors to publish in high-quality journals with wide exposure of the results of research. This model is not a model for low-quality publication. Because peer review and editorial control are still strong in the open access publishing model, publication is not guaranteed, but when an article is accepted for publication, the author can know that she or he is receiving value for money. Under an open access publishing model authors benefit and funding agencies benefit. But what about publishers and librarians? Publishers can certainly benefit if they provide a good service to authors. Authors and their funding agencies will pay for publication in high-quality journals at a reasonable price. Superficially librarians appear to lose out in a model which may take money from their budgets but do librarians really want to maintain a system that is always in crisis, constantly searching for cancellations, constantly pleading with pay-masters for more cash to buy less, constantly seeing readers

disappointed in their search for information? What price a large library budget against so many problems? An open access publishing model may reduce the library budget but it frees librarians to concentrate upon their true role of assisting readers to find the information they need, and how much more information will be available under an open access publishing model! However, we may discover that the subscription model remains suitable for journals in certain subject areas with low research funding. It seems clear that open access publishing will grow and will probably become the dominant model, but it is unlikely to become the only publishing model.

When all stakeholders can benefit from an open access model, it makes sense for us to co-operate to achieve mutual benefit. Other speakers this afternoon will talk more about partnership and co-operation, and this has to be a better way than continuing the disputes between publishers and librarians with increasing concern amongst the academic community about the current scholarly publishing system. Whenever a major change occurs, like the change from subscription to open access, there are fears and uncertainties, but my message is simply that open access provides better models for scholarly communication, and we need to work through the uncertainties together. The Open Society Institute made clear its wish to co-operate with publishers immediately after the publication of the Budapest Open Access Initiative, and two exploratory meetings have been held with UK publishers under the auspices of OSI, JISC and SPARC Europe. Two UK publishers, Oxford University Press and the Company of Biologists, are converting several journals to open access on a trial basis. Co-operation with publishers is a significant feature of JISC's work on open access. In order to assist more publishers, JISC – the Joint Information Systems Committee in the UK – has issued an invitation to tender for publishers to apply for transition-funding from a subscription to an open access business model. The JISC has also made a significant commitment in order to support UK authors wishing to publish in BioMed Central journals. UK authors still have to pass through the peer review process, and BioMed Central is rejecting a high proportion of articles submitted with JISC funding. I make this point in order to respond to criticism that such public funding of open access leads to the lowering of publication standards. Nothing could be further from the truth.

Likewise the new Public Library of Science Biology journal has the highest editorial standards. It is well-known that PLoS is supported in its early stages by a large grant from a US foundation. This type of funding, like the JISC funding for UK publishers, is equivalent to the funding a commercial publisher might provide from their financial reserves to support a new journal. Everybody involved recognises that such initial funding either from the public purse or from a charitable foundation cannot last, and that the open access business models have to be robust on a long-term basis. The Open Society Institute has been commissioning work on open access business models and is willing to work with publishers to devise a business model for particular journals. Each publishing situation is different in its mix of personal and library subscriptions and in its infrastructure costs, and the co-operation open access advocates offer to publishers can be at a very practical level. We want open access to work, and we want to work with publishers to ensure a good future for all stakeholders in scholarly communication.