

Proposed US Public Access Policy – a response from the Society of Biology (UK)

1. *About the Society of Biology*

The Society of Biology represents researchers and learned societies across the life sciences. It has both individual members and member societies. Although based in the UK, its member societies own and/or publish journals whose authors and readers span the globe, including a substantial proportion from the USA. Any Public Access Policy adopted in the USA is therefore likely to have a significant effect upon these journals and societies as well. Further details are appended at the end of this submission.

2. *Learned societies and the peer review function*

Any consideration of the optimal cost effectiveness of the scholarly communication system needs to take into account the pivotal role of learned societies. Scholars in most fields say that the peer review carried out by learned societies is crucial in filtering and certifying research outcomes. Any new model for disseminating the papers that have benefited from this process must not undermine its financial sustainability. Learned societies, which are usually not-for-profit and registered charities, provide a public benefit by organizing peer review. They also benefit researchers directly, because most are members of a relevant society, and indirectly, because of the financial and other support they give to academia in the shape of grants, conferences and training courses.

Simply copying content and making it free, without compensation or agreement, from peer reviewed journals, would damage learned societies and the peer review process, by undermining their ability to recoup (by selling access) on the investment they make in this process. Their quality stamps also offer prestige because of competition between the journals and also because of the investment the societies have made and continue to make in developing the subject coverage and editorial policies of their journals, in order to attract the best papers they can. This results in a hierarchy of quality stamps from different journals and societies: some are perceived as carrying higher prestige than others, giving rise to an effective market in where authors can choose to submit and publish their research.

Learned societies and their publishers complete the certification process by rendering the papers they have accepted visible and usable: they invest more resources in the accepted manuscripts by carrying out detailed copy editing, coding, formatting and proof reading. Finally, they need to maintain their own publicly accessible databases of the papers they themselves say they have accepted, in the version they themselves say they have awarded their quality stamp. This is a worthwhile investment that researchers depend upon, and is a *sine qua non* of effective quality certification.

3. *Characteristics of a Public Access Policy that would make it sustainable*

The requirement for sustainability could be made compatible with a Public Access Policy if the means adopted were primarily Open Access publication supported by author-side payments, rather than depositing a copy in a repository without payment to the provider of the peer review service. This would therefore entail a commitment by federal agencies to fund not only the research itself, but also its dissemination,

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either in Open Access journals or traditional subscription-based journals offering a 'hybrid' Open Access option. This is consistent with the view expressed by Dr Mark Walport, Director of the Wellcome Trust in the UK, "Medical research is not complete until the results have been communicated".

If the agencies were enabled and required to invest in paid-for Open Access publishing, learned societies and their publishers would be likely to reciprocate by assisting with or actually performing the deposit of the published papers in designated free-to-view repositories, such as PubMed Central.

Such an approach would have budgetary implications in the medium term, as provision would have to be made for the payment of the author-side charges. However, in the longer term, for journals that could move fully to an author-pays model, some savings would result from the fact that there would no longer be a need to pay for subscriptions to them.

4. *Which version of the paper should be made freely available under the paid-for model?*

If the paper's Open Access publication were funded by author-side payments, the published version of record could be made available both on the publisher's own platform and on any other open repositories, such as institutional repositories or PubMed Central. Enabling researchers to have free access to the published version of record, with all the additional functionality that publishers provide, would help researchers to use the literature efficiently.

5. *How soon would a paper be made freely available under the paid-for model?*

Again, if the paper's Open Access publication were funded by author-side payments, public, free release could be immediately upon publication, both on the publisher's own platform and on any other open repositories, such as institutional repositories or PubMed Central.

6. *Are there sustainable models for public free release in the absence of author-side payment?*

In the absence of payment, some societies and publishers might be able to tolerate some other form of free release, subject to certain important conditions. This alternative model is far less satisfactory, however, for the reasons set out below.

Under this model, free release would usually need to be subject to a release date that was later than the final publication date to limit damage to the journal's subscriber base. No one embargo period could be set across all disciplines, and it would have to be by agreement with the societies and publishers concerned, as they are most fully aware of the download patterns over time, and any subscriber attritions they are already experiencing. Many societies in the life sciences currently set such embargoes at one to two years. They might well find they need to vary this in light of any future effect on subscriptions.

In the absence of payment, in addition to the need for possible embargoes, there would also be a need to accommodate restrictions on the version that may be released: in order for societies and journals to remain sustainable, this might in many cases be an earlier version, such as the author's accepted manuscript (incorporating the changes resulting from peer review but prior to copy editing, coding, formatting and proof reading) or, in some cases, the author's submitted manuscript (prior to any peer review), or even the research report as supplied to the funding body. In any of these cases, the version used would have to carry clear disclaimers indicating that it was not the version of record.

The distinction in what might be sustainably accommodated under the paid-for model compared with the case in the absence of payments is summarized in the following table:

Comparison of two public access models

| | With author-side payment | Without payment |
|---|---|---|
| Version made freely available on open repositories | Published version of record | Possibly earlier version, such as research report, submitted or accepted manuscript, depending on journal involved. |
| Timing of release on open repositories | Immediately upon publication | Subject to embargo, by agreement with societies and publishers (for any version that takes advantage of the peer review services) |
| Method of deposit to PubMed Central | Publisher deposits coded XML automatically, author does nothing | Author deposits manually, uncoded |

7. *Wider considerations: the advantages of the author-pays model*

Budgetary considerations may well make options that do not involve author-side Open Access fees seem attractive, but that is an illusion, because they appropriate the outputs of services for which they do not pay, and so are unsustainable. At the same time they potentially undermine the income that pays for the service.

Payment of author-side Open Access fees, on the other hand, would be more sustainable, and might also address some of the underlying problems in the current model.

Over the last few decades, funding for research has grown enormously and, as a result, so has the volume of research outputs in the shape of papers meriting publication [see references 1, 2]. More or bigger journals have therefore been required. Over the same period, funding for the dissemination of research, largely in the form of library budgets, has not grown by nearly as much. Consequently, libraries have needed to cancel current subscriptions in order to afford the newer or bigger journals they have required. This has reduced the subscription bases of some journals. Since most of the costs of publishing journals are fixed, first-copy costs (peer review, editors' honoraria, copy editing, coding, formatting, proof reading, online hosting etc), publishers' unit costs have increased. Many have therefore needed to increase their subscription prices faster than inflation. This has resulted in a vicious cycle of library cancellations and price increases. Despite creative modification of the subscription model in the shape of multi-site, multi-journal licences, for many journals the subscription model may not be sustainable in the long term, unless library budgets increase in line with research funding, which would be desirable but is presumably unlikely in the current economic climate.

For federally funded research, a careful transition to author-pays Open Access has the potential to provide one possible sustainable solution. (However, it is noted that this would not work in disciplines dominated by research that has no explicit research grant funding, or for authors who have limited access to funds for other reasons.) Under the author-pays model, journals would have to compete for the best authors, as now, but this would become linked to their pricing, creating for the first time an effective market that would link a journal's pricing to the quality of the service it provides.

The major obstacle to a transition to the author-pays Open Access model has been the availability of funds for authors to pay for it. The present opportunity, therefore, is for funding bodies in the world's wealthier countries to set out a policy that provides such funds, with matching authorization for authors to select author-pays Open Access publishing solutions. This would stimulate movement towards a sustainable model that will provide more widespread dissemination, whilst at the same time protecting the vital certifying role that learned societies and their publishers provide. This was the model adopted by the Wellcome Trust in the UK. If this example were followed, it would be an important step towards a sustainable global Open Access system for scholarly communication.

An unfunded deposit-without-payment policy would provide none of these advantages, and would simultaneously undermine scholarly certification and the societies upon which it largely depends.

Contact

Should you have any queries, please contact Society of Biology, 9 Red Lion Court, London, EC4A 3EF, email: policy@societyofbiology.org

References

[1] M Ware 2006 Scientific publishing in transition: an overview of current developments (Figures 2 & 3) p7 http://www.stm-assoc.org/2006_09_01_Scientific_Publishing_in_Transition_White_Paper.pdf

[2] M Ware & M Mabe 2009 The stm report: An overview of scientific and scholarly journals publishing p18 http://www.stm-assoc.org/2009_10_13_MWC_STM_Report.pdf

The Society of Biology

The Society of Biology is a single unified voice for biology in the UK: advising public bodies and influencing policy; advancing education and professional development; supporting biologists, and engaging and encouraging public interest in the life sciences. The Society of Biology is a charity, created by the unification of the Biosciences Federation and the Institute of Biology, and is building on the heritage and reputation of these two organisations to champion the study and development of biology, and provide expert guidance and opinion. The Society represents a diverse membership of over 80,000 - including students, practising scientists and interested non-professionals - as individuals, or through the learned societies and other organisations listed below.

The Society of Biology is pleased for this response to be publicly available and will shortly place a copy on www.societyofbiology.org.

Member Organisations represented by the Society of Biology

Anatomical Society of Great Britain & Ireland
Association for Radiation Research
Association for the Study of Animal Behaviour
Association of Applied Biologists
Association of Clinical Microbiologists
AstraZeneca
Biochemical Society
Breakspear Hospital
British Andrology Society
British Association for Lung Research
British Association for Psychopharmacology
British Bariatric Medical Society
British Biophysical Society
British Crop Production Council
British Ecological Society
British Lichen Society
British Microcirculation Society
British Mycological Society
British Neuroscience Association
British Pharmacological Society
British Phycological Society
British Society for Ecological Medicine
British Society for Immunology
British Society for Matrix Biology
British Society for Medical Mycology
British Society for Neuroendocrinology
British Society for Plant Pathology
British Society for Proteome Research
British Society for Research on Ageing
British Society for Soil Science
British Society of Animal Science
British Toxicology Society
Experimental Psychology Society
Fisheries Society of the British Isles
Freshwater Biological Association
Genetics Society

Heads of University Biological Sciences
Heads of University Centres of Biomedical Science
Institute of Animal Technology
International Biometric Society
Laboratory Animal Science Association
Linnean Society
Marine Biological Association of UK
Nutrition Society
Physiological Society
RNID
Royal Entomological Society
Royal Microscopical Society
Royal Society of Chemistry
Science and Plants in Schools
Scottish Association for Marine Science
Society for Applied Microbiology
Society for Endocrinology
Society for Experimental Biology
Society for General Microbiology
Society for Reproduction and Fertility
Society for the Study of Human Biology
Society of Pharmaceutical Medicine
Syngenta
UK Environmental Mutagen Society
University Bioscience Managers' Association
Zoological Society of London

Supporting Member Organisations

Association of Medical Research Charities
BBSRC
GlaxoSmithKline
Medical Research Council
Pfizer UK
Wellcome Trust