



THE ROYAL SOCIETY

Response to the Office of Science and Technology Policy public consultation on Public Access to Federally Funded Research

To:

Office of Science and Technology Policy
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The Royal Society welcomes the opportunity to respond to the OSTP consultation on public access to federally funded research. The issue of open access, in general, of which this consultation is a significant part is of critical importance to the future development of scholarly communication and we believe it is essential to consult as widely as possible before preparing any legislation.

Introduction

The Royal Society is the UK's national academy of science and has been publishing scientific journals since 1665 when *Philosophical Transactions* was founded. *Philosophical Transactions* effectively invented the system of peer review which is now standard practice for all high quality journals. It is now published biweekly and is the world's longest running scientific journal.

The Society publishes seven peer reviewed journals in all:

Philosophical Transactions of the Royal Society A and *Proceedings of the Royal Society A* cover mathematics, the physical sciences and engineering;

Philosophical Transactions of the Royal Society B and *Proceedings of the Royal Society B* cover the biological sciences;

Biology Letters provides rapid publication of short articles on all aspects of biology;

Journal of the Royal Society Interface is a high impact, international journal covering interdisciplinary research at the boundary between the physical and life sciences;

Notes and Records of the Royal Society is dedicated to the history of science.

Royal Society Publishing is committed to the highest editorial standards achievable and the very best service to authors and readers. We are also one of the most open access friendly of all the established science publishers and we believe in the widest possible dissemination of research outputs, provided that this is done in a sustainable manner. We are fully compliant with the open access mandates of the Wellcome Trust, the UK research Councils, the NIH and many other funding agencies. Alongside the traditional subscription model, we provide open access to our journal content in the following ways;

"Delayed" open access

All our current articles over 12 months old (on the B-side) and 24 months old (on the A-side) are freely available to all. This excludes the Digital Journal Archive (1665-2000).

"Green" open access

Authors may deposit a "pre-print" of their article in a repository at any time and they may deposit the final, accepted manuscript version of their article in a repository from 12 months after publication. We also deposit appropriate articles in PubMedCentral (and its UK mirror site) on behalf of our authors in line with our 'Delayed' open access policy.

"Gold" open access

Under our EXiS Open Choice scheme, authors may have their article made freely available to all immediately on publication on payment of an article processing charge. Such articles are covered by a Creative Commons license allowing redistribution and re-use, and we deposit them in PubMedCentral on the author's behalf.

Developing world access

The Royal Society also makes all of its journals available free of charge, on publication, to scientists in the world's poorest nations through programmes run by the World Health Organisation and the UN.

The importance of quality control

Any system which aims for wider dissemination of research results is to be welcomed provided that it recognises the central role of journals as the primary means of quality control in the scholarly communication chain. This quality control is provided primarily by the process of peer review which, though not perfect, has served science very well for the last three and a half centuries. If this crucial quality filter were ever to be dispensed with science would pay a very heavy price. The efficiency of the research process would suffer under the enormous burden of material of widely variable quality through which the hapless researcher would have to trawl laboriously trying to find the best and most relevant articles. So-called post-publication peer review is hardly a workable system judging by the paucity of comments generally posted to articles in journals which currently allow this, e.g. PLoS.

If the central role of peer review is acknowledged – as we believe it must be - it must also be recognised that this comes at a cost. Traditionally, this cost has been borne by publishers from subscription revenues. Under a fully open access system there would be no such revenue and these costs would need to be recovered in other ways. The so-called “Gold” open access system allows for author charges (in the region \$1000 - \$5000 depending on the journal) to be levied and this is a system we believe to be viable provided that funding is made available to researchers, either from their funding body via their project grants, from their institution or a combination of both. Authors based in industry would be likely to recover these charges from corporate funds.

There are many other costs in the publishing system too, even in the paperless world we are likely to evolve towards in the near future. The process of correcting and formatting manuscripts, the preparation of the illustrations, origination, hosting, indexing and linking are all important ways in which publishers add value to the article and enhance its discoverability and usefulness to the researcher. The building and servicing of online submission systems and production tracking tools have enabled much faster publication times and allow authors to find out exactly where their article is at any point in the publication process. Publishers are constantly innovating and providing enhancements to the content they provide such as video podcasts and social media tools. In addition, most publishers provide some sort of facility for the storage and display of supplementary material such as datasets, video files etc. These are all welcomed by authors and readers alike and it is important that publishers remain able to fund them through a sustainable economic model.

Repositories

We also recognise, however, that institutions, universities and research funding bodies have a right to the outputs of the research they fund. Increasingly, they are building repositories to store these outputs and are asking or requiring their researchers to deposit their work in them. We believe it is entirely reasonable for an institution to do this, provided that they respect the terms and embargoes in publishers’ licenses. There is no reason why a university, for example, should not hold a copy of every article written by their staff members and students for archival purposes.

In the case of the “author pre-print” (i.e. the version of the article submitted to the publisher and before any peer review or editing has been carried out), this is entirely the property of the author and the institution and since the publisher has invested no time or effort in it, we see no reason why this version of the article should not be stored or made available by the institution without any restrictions.

The case of the “post-print” or accepted version of the article, the situation is somewhat different. The publisher has invested time and money in the peer review process and therefore has some reasonable claim on what happens to this version. If a post-print is held in a “dark archive” it poses no threat to publishers’ existing economic models. If, however, the institution wishes to make this version available to readers, it should do so in compliance with the publisher’s license terms and it behoves publishers not to set unreasonable limits on when access may be provided (typically 6 or 12 months after publication).

The “final published version” of the article has had the most significant amount of input and investment from the publisher and we believe it should not be stored in a repository, but only made available by the publisher. This version contains detailed mark-up, reference linking and often many other added value features and has been fully indexed by the various systems in the scholarly information chain. It is the “version of record.” It is vital that this version is the one that is cited by the literature and to which any corrections, addenda or retractions are applied. These are all crucial elements in the research communication network and can only be provided in a controlled and systematic way by the publisher.

It is worth noting that the repository community has made it very clear to us that they make strenuous efforts to ensure they comply with publishers’ licenses and operate rapid “take down” policies in the event that a deposited item is found to be in breach of them. This attitude is greatly to be welcomed.

Public access to publicly funded research

We believe that the public should be able to enjoy the fullest possible benefit from the research they have contributed towards through taxation. How this benefit is provided, however, is not merely as straight forward as allowing them to read the research articles it generates. In many cases, the highly technical nature of the material would not be easily assimilated or understood by a non-technical reader. However, providing other scientists with the fullest possible access to research outputs is likely to maximise the benefit of research and this is a goal we support in the ways we have outlined above. In addition, most publishers now engage actively with the media in order to disseminate the key messages from their publications to the public in a meaningful way. We do this very successfully ourselves and we would encourage all publishers to do so too.

To summarise;

1. We support the widest possible dissemination of research outputs provided this is done in a way which does not threaten the long term sustainability of journals and the crucial quality control they provide.
2. We believe that peer review is absolutely critical to the scholarly communication process and must be maintained.
3. We believe that any system of open access must recognise that there are costs in the scholarly publishing process and that these costs must be met.
4. We support the creation and use of repositories provided they respect the terms of publishers’ licenses with their authors.
5. We believe that there must be a universally agreed “version of record” of any published article and that this should be maintained by the publisher.

Contact

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