
Open Access

Institute of Physics response to a House of Commons Business, Innovation and Skills Committee inquiry

A full list of the Institute's submissions to consultations and inquiries can be viewed at www.iop.org

7 February 2013

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James Davies
Committee Clerk
Business, Innovation and Skills Committee
7 Millbank
House of Commons
London SW1P 3JA

IOP Institute of Physics

Dear Mr Davies,

Open Access

The Institute of Physics (IOP) is a leading scientific society. We are a charitable organisation with a worldwide membership of more than 45,000, working together to advance physics education, research and application. We engage with policymakers and the general public to develop awareness and understanding of the value of physics and, through IOP Publishing, we are world leaders in professional scientific communications.

The IOP welcomes the opportunity to respond to the House of Commons Business, Innovation and Skills Committee's inquiry into open access. Our response to the questions posed in the call for evidence is presented in the attached annex.

If you need any further information on the points raised, please do not hesitate to contact me.

Yours sincerely,



Professor Peter Main
Director, Education and Science

Open Access

The Government's acceptance of the recommendations of the Finch Group Report 'Accessibility, sustainability, excellence: how to expand access to research publications', including its preference for the 'gold' over the 'green' open access model

1. The government largely accepted the recommendations of the Finch report that, over time, the UK should make a transition to open access publication of its publicly-funded research outputs through the implementation of a balanced package of measures that would ensure 'accessibility, sustainability and excellence'. The Finch report, which was endorsed by all stakeholders who participated in its formulation, including RCUK, HEFCE, the Wellcome Trust, research libraries, learned societies and publishers, expressed a strong preference for gold open access over green open access in meeting the requirements for 'accessibility, sustainability and excellence', but recognised that for the foreseeable future the UK would be operating in a mixed economy of subscriptions, licences, gold and green open access and other business models.
2. The government has also stated its preference for gold over green open access, which the IOP, as a learned society and scientific publisher, wholeheartedly welcomes. Our reasons for strongly favouring gold over green open access are outlined below.
3. Green open access is a viable means of expanding access to research outputs but as it makes no contribution to the costs of publication, which are substantial, the length of the embargo period before a paper is made freely accessible is critical to the sustainability of the model; the publisher must have time to earn back its investment before free access is provided. The Finch report recognised this and the government included in its policy, issued in July 2012, a requirement that where funding was not available for the payment of gold 'article publication charges' (APCs) embargoes of up to 12 months be permitted in science, technology, engineering and medicine (STEM) and of up to 24 months in the arts, humanities and social sciences (AHSS), with longer embargoes in exceptional cases. RCUK's written policy and guidance to date has not reflected this requirement and is not in line with the letter nor the spirit of the Finch recommendations, requiring embargoes of just six months in STEM and, for an interim period, 12 months in AHSS.
4. A one-size-fits-all policy on embargo periods does not work, even for STEM disciplines. In physics, we undertook an analysis of downloads of the papers we publish and found a typical half-life of at least four years, i.e. half the downloads occur in that period. In other disciplines, such as mathematics, the half-life is even longer. It is therefore unreasonable for RCUK to impose a single embargo period for all STEM disciplines regardless of the nature of the research. In physics, a six-month embargo would mean that a significant proportion of libraries would find it advantageous to wait for free publication rather than pay a subscription to provide a viable business model for the publisher. Underlying the green model is the

recognition that publishers must exist and if they exist, they must have a business model.

5. We are in agreement with the Finch report in identifying gold open access as the best long-term solution, although it may pose problems in an international environment, particularly in the developing world, where authors may not be able to afford the costs. However, particularly in the short term, there will be a need to support the green model, too. Here there is a need for clarity on green embargo periods, particularly during the transition period. Where a journal offers gold open access but an author does not choose, or is not able, to pay, it is reasonable that the embargo period should be longer than for a journal that does not operate under a gold model. As discussed above, there are issues concerning the embargo periods for different disciplines but it is clear that a journal trying to operate sustainably with a gold model would be undermined if all papers submitted via a green route were made publicly available after just six months, as currently suggested by RCUK. The Minister of State for Universities and Science, David Willetts MP, has accepted the case for variable embargo periods but that position has not yet been taken up by RCUK. The options for authors are clearly set out in the 'decision tree' published by the Publishers Association which BIS has endorsed and RCUK has agreed is a correct interpretation of government policy. This decision tree should be explicitly included in RCUK's revised policy.

Rights of use and re-use in relation to open access research publications, including the implications of Creative Commons 'CC-BY' licences

6. We have some reservations about the blanket requirement by RCUK for the use of the CC-BY licence for all gold open access publishing. Some of our author communities in physics have expressed concern at its suitability in their disciplines and we are aware of many more reservations being expressed by author communities in other disciplines, in particular, the humanities and social sciences. However, we have implemented CC-BY for all our gold open access publishing and are therefore compliant with RCUK's policies in this regard; furthermore, we will work with our author communities to address relevant concerns. We will use a more restrictive licence in relation to green open access, where we need to be able to maintain our subscription income in order to enable green open access after a suitable embargo period.

The costs of article processing charges (APCs) and the implications for research funding and for the taxpayer

7. In September 2012, the government announced £10m which will be allocated to 30 of the UK's most research-intensive universities to enable them to move forward and develop policies to meet the costs of APCs and help ease the transition to the open access model. This investment is in addition to the contribution RCUK will be making to universities to support the payment of APCs associated with open access through block funding grants from 1 April 2013 and beyond.

8. Universities have expressed some resistance to the RCUK expectation that they contribute 20% of the costs towards APCs. But this is not the only extra cost they will face: there will be additional administrative costs associated with the extra financial transactions for each of the thousands of papers published in a typical university as well as the costs relating to the public availability of data associated with the publications. This situation is likely to be exacerbated if, as anticipated, HEFCE

announces requirements for open access publication for articles to be eligible for the post-2014 REF exercise, effectively insisting that publications are open access regardless of whether they are based on research funded directly from the public purse. If no additional funding is provided, universities will have to use their own budgets, i.e. QR income, which is not a sustainable model in the current financial climate.

9. It should be noted that both the Finch report and the government recognised that there will be additional costs to the UK during any transition period, for as long as the UK is ahead of the rest of the world in its adoption of gold open access. While it might reasonably be expected that publishers' subscription and licence charges will fall in line with the growth in gold open access papers from the UK, those prices will fall for libraries in all parts of the world while the UK will carry the full costs of gold open access publication itself.

10. The UK produces only about 6% of the world's academic publications. Consequently, in the case that the UK proceeds to implement the gold open access model unilaterally, there would be only a negligible reduction for libraries in the cost on journals, since 94% of the papers would still use the traditional publishing route. However, the entire cost of UK publications would have to be absorbed within the UK system. Even allowing that this is an extreme scenario, the proposals are likely to result in an increase in the cost of dissemination of tens of millions of pounds. As it stands, the outcome appears to be that researchers and businesses in other countries will be able to obtain free and immediate access to UK papers without a corresponding return in the other direction. Whilst this might lead to an increase in the citation impact of the UK's publications, it is difficult to see how this would in any obvious way directly benefit the UK's economy.

11. This additional cost has to come from somewhere, whether it is from RCUK (which may affect the ring-fenced Science Budget), universities or, preferably, new money from the government to support its policy initiative. As we understand it, the government is of the view that the benefits of implementing gold open access outweigh the estimated cost of about 1% to 2% of the Science Budget. Even so, with budgets under such strain, a situation unlikely to improve due to annual inflationary cost increases, an initiative that in the government's view will reap dividends should surely be financed with new money. In addition, RCUK and some libraries are requesting the full cost of the APCs be set off against journal subscriptions and licences, which is inconsistent with both the Finch recommendations and government policy.

The level of 'gold' open access uptake in the rest of the world versus the UK, and the ability of UK higher education institutions to remain competitive

12. With regards to UK universities remaining competitive, some of the key concerns relate to the implementation of RCUK's policy. There is clearly an issue concerning academic freedom with RCUK prescribing which journals can and cannot be used for publication. It is entirely possible that, in some cases, the most prestigious journals in a research area, often based in other countries, may not satisfy the RCUK requirements. If this were the case, then UK academics would be severely disadvantaged in terms of the dissemination of their work and subsequent citations.

13. It is essential that RCUK's policy is clearly communicated to authors so that they can be confident of the compliance or otherwise of their preferred journal with the policy. This will not be the case without RCUK conforming to government policy on

green embargo periods and therefore a clear understanding between all stakeholders of what is required for compliance. Publishers expect the great majority of journals to be compliant with RCUK's published policy on gold open access. All of the IOP's owned journals will be compliant in offering a gold publication option with the use of a CC-BY licence, and we are working with our learned society partners to help them understand the implications for their journals. Clarification is also required of how RCUK policy will apply to papers written by multiple authors from multiple universities and multiple countries, with research funded by multiple funders. In certain physics research areas, such as particle physics and astronomy, large international collaborations are the norm.

14. The RCUK proposal does not make clear how the policy will be monitored nor the consequences for a researcher whose paper might find a way into a proscribed journal. Will it really be the case that RCUK will police all publications that acknowledge any of the research councils? And will any offender really be prevented from applying for research funds? There is a difference between guidelines and requirements; if these proposals are really rules, then much more information is required about the consequences of breaking them.

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