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# Open Access

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Institute of Physics response to a House  
of Lords Science and Technology  
Committee inquiry

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18 January 2013

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Chris Atkinson  
Clerk  
Science and Technology Select Committee  
House of Lords  
London SW1A 0PW

## **IOP** Institute of Physics

Dear Chris,

### **Open Access**

The Institute of Physics 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 Institute welcomes the opportunity to respond to the House of Lords Science and Technology 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

### General issues

1. Both from a scientific and a publishing perspective, the Institute recognises and supports the principle that the results of publicly funded research should be made as widely available as possible. However, we feel strongly that the transition from the current arrangements to an open access (OA) model needs to be carefully managed to ensure sustainability in terms of the publishers' business models and to maintain the quality of the scholarly record.

2. In addition, we are of the firm view that the additional costs of implementing the OA policy must not be met by diverting money away from the Science Budget which, despite being ring-fenced, is being eroded on an annual basis due to inflation. It is imperative that if the government wants the UK's science base to move to the OA model, then it needs to source the requisite additional funding without placing a burden on existing allocations to the research councils and the funding councils, which are already under considerable pressure.

3. The Institute would like to point out that the surplus from publishing made by charities such as the learned societies allows them to support science, business and education in a way which is valued by many stakeholders, including government and the research councils. Indeed, the Finch report clearly recognised the value of the UK's learned societies and, while we cannot expect any preferential treatment over other publishers, we would ask that the transition to OA is not carried out so precipitately as not to allow us to develop a sustainable business model. The Institute, in common with most subject societies and professional bodies, receives no direct public funding for its core programme and without the income from publishing, the majority of our charitable activities would cease.

4. The government largely accepted the Finch recommendations for a balanced package of measures in the transformation to OA. At present, neither RCUK nor HEFCE seem to have taken that message completely on board. It would be of great benefit to all concerned, universities and publishers, if the two funding bodies were able to formulate and implement clear policies consistent with the Finch recommendations.

### **Support for universities in the form of funds to cover article processing charges, and the response of universities and HEIs to these efforts**

5. 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 article processing charges (APCs) and help ease the transition to the OA model. This investment is in addition to the contribution RCUK will be making to institutions to support payment of APCs associated with OA through block funding grants from 1 April 2013 and beyond.

6. Universities are resistant to the RCUK expectation that they contribute 20% of the costs towards APCs. But this is not the only extra cost: there will be additional administrative costs associated with the extra financial transactions for each of the thousands of papers published in a typical institution 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 OA publication for articles to be eligible for the REF, effectively insisting that publications are OA regardless of whether they are funded directly from the public purse. If there is no additional funding provided, universities will have to use their own budgets, i.e. QR income, which is not a sustainable model in the current financial climate.

7. Note that, the planned measures, in the short term at least, will lead to an additional cost because there will be no substantial reduction of library charges for international journals which publish papers from international authors, including the vast majority of science journals.

8. The UK produces only about 6% of the world's academic publications. Consequently, in the case that the UK proceeds to implement the author pays 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 plan appears to be that researchers and businesses in other countries will be able to obtain free and either immediate or very early access to UK papers without a corresponding return in the other direction. This also raises questions as to how publications from the developing world might be accommodated.

9. 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. RCUK and some libraries are requesting the full cost of the APCs be set off against journal subscriptions and licences. Not only is this line apparently inconsistent with government policy, it would also lead to administrative chaos with the need to track the origin of each paper published in every journal.

### **Embargo periods for articles published under the Green model**

10. The green OA route, in which the papers are made freely available after a suitable period of time, is potentially viable but the length of the embargo before free publication is a critical issue. The Finch report and the government made it clear that there was a need for reasonable embargoes for the green model. However, the RCUK's policy remains vague on this issue and it appears that where there is no funding for an APC, RCUK wants the paper to be deposited in a repository after a very short embargo period, which is explicitly six months for scientific articles.

11. A major issue with regards to the green model relates to the nature of the academic field. In physics, we have undertaken an analysis of downloads of the papers we publish and we find a typical half-life of at least four years, i.e. half the downloads occur in that period. In other areas, such as mathematics, the half-life is even longer. It is therefore unreasonable for RCUK to impose a single embargo period for all STEM subjects regardless of the nature of the research. In physics, a six-month period would mean that the vast majority of readers would find it advantageous to wait for free publication rather than pay a subscription to provide a

viable business model for the publisher. Furthermore, underlying the green model is the recognition that publishers must exist and if they exist, they must have a business model.

12. We are in agreement with the Finch report in identifying gold OA, where all authors pay, 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 routes, particularly during the transition period. Where a journal offers gold OA 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 subjects 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.

### **Engagement with publishers, universities, learned societies and other stakeholders in the development of research council Open Access policies and guidance**

13. The Institute was requested to nominate a representative to a working group on the data access implications of OA but, outside that, we have not been consulted at all by RCUK beyond the public consultations.

14. In addition to a lack of constructive engagement by RCUK with its stakeholders, it is also our understanding that RCUK's proposals emerged essentially without consultation with publishers. As a result, a number of vital technical issues have not been addressed. In particular, while everyone recognises the need to improve the access to research findings, neither publishers nor academics should be forced to make rapid change that does not allow a smooth transition to the preferred solution.

15. In addition, it is not at all clear that business funders of research have been significantly engaged with on the key issues particularly on access to data or even publications. The requirements refer to unrestricted access to text and data mining. There are substantial issues surrounding those requirements in terms of the formats used and the type of data stored but a different point is that some funding routes, for example, involving the TSB or joint grants between businesses and universities, may have commercial sensitivity and the business providers may balk at allowing unrestricted access to competitors.

16. To ensure successful implementation there are a significant number of issues to address which can only be resolved by all stakeholders coming together; these include a better understanding of the risks to the quality of UK science and risks to the income of learned societies from a lack of funding and a poor implementation of the policy. There are also substantial technical issues surrounding the CC-BY licence and the format for data availability which cannot be addressed without the main protagonists working closely together.

## **Challenges and concerns raised by the scientific and publishing communities, and how these have been addressed**

17. A number of concerns have been raised with RCUK by both the universities and the publishing companies, many of which have yet to be resolved satisfactorily.

18. It is not clear whose responsibility it will be, RCUK or the authors, to check whether the criteria are satisfied. Depending on how the policy is applied, that might be a high risk for authors. In addition, there might be circumstances, such as the publication of conference proceedings, where authors have no choice of journal; in such cases, would UK participants be expected to insist on their papers being withdrawn? There might be other cases of accidental violation; for example, where co-authors from another country publish in a national journal. The situation is particularly complex for areas such as particle physics and astronomy, where large international collaborations are the norm.

19. In addition, RCUK has not made it clear how its 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 intended to be rules, then much more information is required about the consequences of breaking them. Although RCUK has indicated that it will use a light touch approach, particularly in the early years, the stakes are very high for researchers and the clearer the guidelines can be, the better.

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