
RCUK Proposed Policy on Access to Research Outputs

Institute of Physics response to a RCUK
proposal

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

5 April 2012

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Ben Ryan
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IOP Institute of Physics

Dear Ben,

RCUK Proposed Policy on Access to Research Outputs

The Institute of Physics is a leading scientific society promoting physics and bringing physicists together for the benefit of all. It has a worldwide membership of around 40,000 comprising physicists from all sectors, as well as those with an interest in physics. It works to advance physics research, application and education; and engages with policy makers and the public to develop awareness and understanding of physics. Its publishing company, IOP Publishing, is a world leader in professional scientific communications.

The IOP welcomes the opportunity to offer its input in response to the RCUK proposed policy on access to research outputs. The attached annex details our response to the questions listed in the call for evidence.

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

RCUK Proposed Policy on Access to Research Outputs

General

1. The Institute of Physics is surprised at the timing of this consultation. With the government undertaking its own review of open access and associated issues, we would have expected RCUK to offer its proposals in the light of the recommendations of that review, rather than pre-empting them.
2. We understand that these proposals have emerged essentially without consultation with publishers. As a result, a number of vital technical issues have been glossed over or even ignored altogether. 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. Institute of Physics Publishing would be pleased to work with RCUK to find the best way forward.
3. The Institute's position on open access is that it recognises and supports the principle that the results of publicly funded research should be generally available, both from a scientific and a publishing perspective. However, in the latter case, we feel strongly that the transition from the current arrangements to where RCUK would like to be needs to be carefully managed to allow the publishers to maintain a viable business model.
4. The proposed policy states clearly the principle of public access but refers only to publication in journals. In many cases, the results of publicly funded research are revealed in book form; RCUK does not include this "grey" literature in its policy although it does encourage open access "where possible". The reasoning behind this exclusion is not clear in the light of the principles underlying the policy. It is also not clear what open access would mean in this context. Would authors be expected to pay all the publishing costs and the book to be given free, albeit in electronic form, to anyone who requests it, either immediately or after six months?
5. 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. Most societies, including the Institute, receive no direct funding from government. Unless the change in publishing behaviour is managed carefully, there is a substantial risk that the impact of RCUK's proposals would mean that much of this activity could cease within a few years.

International Issues

6. Publishing and science are both international activities. The proposals seem to make no allowances for the fact that most scientific journals have both authors and readers from around the world. This fact has both scientific and financial connotations for the UK if it chooses to proceed unilaterally on a scheme to increase access.

7. The UK produces only about 6% of the world's academic publications. Consequently, in the extreme case that the UK goes alone in, say, insisting on an author pays model, 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 the 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.
8. To look at the same point from a different angle, UK researchers publish in international journals; for example, *Physical Review Letters* is considered to be one of the leading physics journals. UK authors will be expected to pay the processing charge so that their papers are freely available around the world. However, very few of the other authors actually do this so the only way that the same UK researchers can obtain access to the other papers is by their library paying the subscription.
9. Given the international character of science it would not seem to make much sense for any arrangements on open access, etc., to be applied unilaterally. 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.
10. The viable open access model which best achieves the Research Councils' aims is based on the author processing charge. This raises questions as to how publications from the developing world might be accommodated.

Types of Access

11. As a publisher, the Institute could, in the long term, manage with either a policy of gold open access, where the author pays an article processing charge (APC), or green access, in which the papers are made freely available after a suitable period of time.
12. Gold open access, where all authors pay, is possibly the best long-term solution, although it may pose the greatest problems in an international environment. However, there are clearly major funding implications for this approach and, although the proposals allow for the APC to be paid from either direct or indirect research funding, there is no indication either of any extra funds being made available. In the longer term, presumably there ought to be a net transfer from the funding councils to RCUK to allow for the reduced library costs. But, if the UK goes alone, as described above, this reduction will be minimal. We are led to the conclusion, therefore, that the extra costs will come from the existing research budget, which is far from desirable, particularly in the current economic climate.
13. The green route is also potentially viable but the length of the embargo before free publication is a major bone of contention. The issue here concerns the nature of the academic field. It is interesting that the examples provided in support of the six month embargo are taken from the medical area. This area is rapidly moving and the 'shelf life' of the most important papers may indeed be short, although perhaps not quite as short as six months. In physics, we have carried out an analysis of downloads of the papers we publish and we find a typical half-life of at least 4 years, i.e. half the downloads occur in that period. In other subjects, such as mathematics, the half-life is even longer. It is therefore quite illogical to impose a single embargo on period 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.

Academic Issues

14. 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 the field, 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.
15. It is not clear whether RCUK would publish a list of allowed journals or, perhaps more likely, that authors would be expected to check for themselves that 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.
16. 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.
17. Business funders of research will have concerns about the free availability of data. Where the research is entirely funded by RCUK, such accessibility may be considered reasonable but there are other routes of funding, for example involving the TSB or joint grants, where the business providers may feel that data have commercial sensitivity. Unless the policy is made crystal clear in such cases, there is a risk that such funding will be adversely affected.

Text and Data Mining

18. The requirements refer to unrestricted access to text and data mining. There are a number of issues associated with this requirement, some of them technical. A key question is whether the responsibility for the unrestricted access to happen lies with the publisher or with the author. In other words, in order to be acceptable to RCUK, must a publisher offer this service, or is it the responsibility of the academic via, for example, an institutional archive?
19. Although not explicit in the proposals, RCUK should not underestimate the amount of effort it will take academics to maintain an archive of all data, regardless of the likelihood of it being required by external users and without any consideration about the different types of data for different areas of research. In a physics context, there are also serious questions about what constitutes data: are they the final processed results presented in

publications or the raw measurements? The financing and technicalities of the process do not appear to have been well thought through.

20. The Creative Commons licence specified explicitly allows text and data mining for all purposes. Whilst the case for other researchers to have access to data is clear, it is hard to see the reason why other publishers should be free to use the material for commercial gain. In effect, that would appear to allow any company simply to copy journal papers, without undertaking any of the costly process of refereeing, etc., and sell them to libraries at a lower price than the original.
21. Most computer networks rely on elaborate security measures to exclude excessive spam, malware and other more serious threats. For a publisher or a university to leave its system open to any robot miner from any source leads to enormous security risks. No such policy should be implemented without extensive piloting. Perhaps RCUK could demonstrate the principle by opening its own network in the prescribed manner?

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