

HOUSE OF LORDS

Science and Technology Committee

3rd Report of Session 2012–13

The implementation of open access

Report

Ordered to be printed 15 February 2013 and published 22 February 2013

Published by the Authority of the House of Lords

London : The Stationery Office Limited
£price

HL Paper 122

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Committee Staff

Staff who worked on this inquiry include Chris Atkinson (Clerk), James Lawrence (Policy Analyst), Rachel Maze (Policy Analyst), James Tobin (Policy Analyst), and Cerise Burnett-Stuart (Committee Assistant).

Contacts Details

All correspondence should be addressed to the Clerk of the Science and Technology Committee, Committee Office, House of Lords, London SW1A 0PW.

The telephone number for general enquiries is 020 7219 5750.

The Committee’s email address is hlscience@parliament.uk

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Q refers to a question in oral evidence;

Witness names without a question reference refer to written evidence.

SUMMARY

The growth of open access publishing—specifically, making peer-reviewed journal articles available online at no cost to readers—is revolutionising communication of the results of research. The Government commissioned an independent working group to consider how to expand access to publicly-funded research (the Finch Group) and Research Councils UK (RCUK) revised its policy on open access following the report of this group. The revised policy has caused considerable concern in both the publishing and academic communities. Publishers are worried about specific requirements of the policy. Learned societies fear they will lose a valuable income stream which they use to support their respective academic communities. Academics are concerned about the policy taking a “one size fits all” approach, and possible unintended consequences such as lessening the quality of peer review, restricting ability to collaborate and limiting freedom to publish in the best journals. Both communities have expressed frustration that they were not adequately consulted about the policy.

In the light of these concerns, we conducted a short inquiry to consider the plans for implementation of RCUK’s open access policy, with a view to offering recommendations to inform RCUK’s revision of its policy guidance. We have concluded that:

- RCUK must clarify its policy guidance to reflect its incremental approach to compliance in the initial five-year implementation phase of its open access policy;
- RCUK must monitor the effects of its open access policy and its Autumn 2014 review of the policy should consider:
 - (1) whether different disciplines require different embargo periods, licences and primary models of publication, particularly in the light of evidence gathered about readership and citation half-lives;
 - (2) whether the UK, in stating a preference for gold open access, is moving in the same direction as other countries which are mandating open access (but not necessarily gold open access);
 - (3) whether article processing charges have adversely affected the number of international articles published in UK journals;
 - (4) effects on the quality of peer review;
 - (5) impact on the number of collaborations by UK researchers; and
 - (6) effects on learned societies.
- The Government should conduct a full cost-benefit analysis of the policy, in view of their stated preference for gold open access; and
- The Government should review the effectiveness of RCUK’s consultation regarding this significant change in policy.

The Finch Group report emphasised the need for a smooth transition to open access to avoid damaging the “complex ecology” of research communication. We echo this call. The Government and RCUK must take immediate action to address specific concerns about RCUK’s open access policy and maintain a watching brief in case mid-course corrections are required.

The implementation of open access

CHAPTER 1: INTRODUCTION

1. Developments in technology are revolutionising the methods of publishing the results of academic research. Conventional forms of publication include hard copy peer-reviewed papers, monographs and books. In recent years, there has been significant growth in the online publication of scientific papers. This can be in the form of drafts of papers in progress, un-refereed articles published by individuals, commentaries and blogs, and final versions (in substance, and sometimes format) of peer-reviewed journal articles.
2. This inquiry focused on the electronic publication of peer-reviewed journal articles. Increasingly, academic journals are complementing their subscription-based print copies with electronic article access. Publishers take a range of approaches to income generation to cover the costs of reviewing, editing and printing. Some put articles behind a paywall—this means that only those paying a subscription to the journal or prepared to pay a one-off fee can access them. Others allow copies of the article to be deposited (under varying rules on whether pre-review, pre-print or published version may be shared) in subject or institutional repositories (online catalogues of articles), often imposing an embargo period so that readers wishing to see an article soon after its publication would either have to pay a one-off fee or subscribe to the journal. Others make all content available free of charge to the end-user and charge authors (or their institutions) a fee.
3. Open access to journals (making them available at no charge to users) is growing and projected to continue to do so.¹ It offers potential benefits of rapid dissemination and exploitation of new research, but at the same time could de-stabilise the current business models of academic publishing if not carefully managed. The Government are committed to improving access to publicly-funded research, and, in October 2011, they set up an independent working group, under the chairmanship of Professor Dame Janet Finch (the Finch Group) to “examine how most effectively to expand access to the quality-assured published outputs of research”.² The group reported in June 2012. The Government accepted most of the group’s recommendations in their response published in July 2012.³
4. The purpose of this short inquiry was to consider the Research Council UK (RCUK) plan for implementation of the group’s recommendations in the light of concerns raised by both the academic and publishing communities, with a view to making recommendations to support an RCUK review of its open access policy guidance. We have accepted that the Government are committed to the policy reflected in the Finch Group’s recommendations. We have not, therefore, challenged the conclusions of the Finch Group, but confined the scope of this inquiry to considering their implementation.

¹ Report of the Working Group on Expanding Access to Published Research Findings: *Accessibility, sustainability, excellence: how to expand access to research publications*, June 2012.

² Working Group on Expanding Access to Published Research Findings: *Terms of reference*, 2011.

³ Department for Business, Innovation and Skills (BIS): *Government Response to the Finch Group Report: “Accessibility, sustainability, excellence: how to expand access to research publications”*, July 2012.

5. We issued a targeted call for evidence in December 2012, and details of the inquiry were posted on our website. The call for evidence is set out in Appendix 3. Seventy four submissions were received. We held five evidence sessions over the course of two days in January 2013.
6. The membership and interests of the Committee are set out in Appendix 1, and those who submitted written and oral evidence are listed in Appendix 2. We are grateful to all those who assisted us in our work.

CHAPTER 2: FACTUAL BACKGROUND

The Finch Group

7. The Finch Group was set up following discussions between the Universities and Science Minister, Rt Hon David Willetts MP, and representatives of the research, library and publishing communities about the Government's transparency agenda. Mr Willetts was convinced that "research stimulates and fuels innovation and economic growth" and that, as a result, "to maximise UK innovation we need to maximise access to and the use of research findings".⁴ The principle finding of the group was that the UK should "embrace" the move towards open access and "accelerate the process in a measured way", recognising that whilst there were clear benefits from open access it was important not to de-stabilise "what is most valuable in the research communications ecosystem".⁵ The report made recommendations and proposed a number of actions to facilitate this, supporting their general conclusion in favour of a "mixed economy" of gold, green and hybrid open access.⁶

BOX 1

Definitions

Green open access is where a version of a publication is made available free of charge to readers, often through an online repository. Journals typically impose embargo periods on the placing of publications in such repositories to protect their subscription income and to secure a return on their investment. Both subject and institution repositories have been developed, and are particularly popular in certain subjects such as astrophysics.

Gold open access is where published articles are made available immediately and free of charge to readers. In return the author (or their institution) pays an article processing charge⁷ (APC) to the publisher.

Hybrid open access is where a publisher allow authors to publish their paper in journals with subscriptions (and behind pay walls online) in the traditional way, or to pay an APC for it to be made available to readers free-of-charge, online, immediately.

Open access policies and funding

8. In July 2012, RCUK released its updated policy on access to research outputs and associated guidance notes. The policy said: "Peer reviewed research papers which result from research that is wholly or partially funded by the research councils must be published in journals" that allow: "immediate and unrestricted access to the publisher's final version of the paper", or "deposit of accepted manuscripts that include all changes resulting from peer review" in repositories within six months (or 12 months for Arts and Humanities Research Council and Economic and Social Research Council funded research).⁸ RCUK is persuaded that "at the

⁴ BIS press release: *New working group to examine research transparency*, September 2011.

⁵ *Op. cit.* *Accessibility, sustainability, excellence: how to expand access to research publications*.

⁶ *Ibid.*

⁷ Sometimes called an article publication charge.

⁸ RCUK: *Research Councils UK Policy on Access to Research Outputs*, July 2012.

current time, the Gold option provides the best way of delivering immediate, non-restricted access to research papers, which in turn provides potential value to UK research and the broader UK economy". RCUK is not against the green model and supports a "mixed approach to Open Access".⁹ At the same time, the Higher Education Funding Council for England (HEFCE) clarified that its research grant could be used for open access and announced its intention to launch a consultation to develop "a specific requirement that research outputs submitted to a REF [Research Excellence Framework] exercise subsequent to 2014 shall, as far as it may be reasonable to require at the time, be published in an open access form".¹⁰

9. In September 2012, the Department for Innovation, Business and Skills (BIS) announced "pump prime" publication funds for 30 higher education institutions, with the aim of identifying issues that others might encounter.¹¹ In November 2012, RCUK announced that it would introduce a block grant for universities and certain research organisations to cover the cost of APCs, from 1 April 2013. RCUK used direct labour costs on grants received in the period April 2009–March 2012 to apportion the fund by institution. A cut-off point was set so that only institutions eligible for a block grant of £10,000 or more in year five of the funding would receive it.¹² RCUK estimated that 99% of research council funded research papers would be produced in institutions eligible for a block grant.¹³

Reactions

10. Since this time, significant concerns have been expressed by both academic and publishing communities. Researchers are concerned about: limitations on academic freedom to publish;¹⁴ the speed of transition to open access;¹⁵ lack of APC funding for certain institutions;¹⁶ and the decision to favour gold over green open access—which is the preferred model of some other countries.¹⁷ Publishers have expressed concern about lack of clarity over who sets embargo periods where APC funding is not available to publish publicly-funded research immediately,¹⁸ and embargo periods more generally.¹⁹ Learned societies have also expressed concern about the implications of open access for their business models.²⁰

⁹ RCUK.

¹⁰ HEFCE.

¹¹ The Government.

¹² RCUK, RCUK press release: *RCUK announces block grants for universities to aid drives to open access to research outputs*, November 2012. On the assumption that the size of APC fund will grow annually at the same rate.

¹³ *Ibid.*

¹⁴ QQ 19–20.

¹⁵ Q 18.

¹⁶ Open Humanities Press, Royal Astronomical Society, United Kingdom Council of Research Repositories.

¹⁷ Professor Stephen Curry, Professor Stevan Harnad, Professor John Helliwell, Open Humanities Press, Royal Historical Society of the UK, University College London.

¹⁸ Q 41, press release by the Publishers Association: *Finch, Willetts, RCUK, Green OA, and embargoes*, August 2012.

¹⁹ Q 39, *Open letter from the editors of 21 UK history journals*, 10 December 2012.

²⁰ Q 10, Q 42, Association of Learned and Professional Society Publishers (ALPSP), Association for Learning Technology, British Academy, British Psychological Society, Geological Society of London, Institute of Physics, Society of Biology.

CHAPTER 3: KEY ISSUES

Embargo periods

11. The Finch Group report recognised that, for the foreseeable future, there would be a “mixed economy” of green and gold open access. The report emphasised the need for care over embargo periods under the green model if subscription-based journals were to survive the transition to open access.²¹
12. Some witnesses disagreed with embargoes on principle.²² The Government, however, recommended embargo periods of 12 and 24 months (the latter for the humanities and social sciences).²³ RCUK mandates (what Mr Willetts called a “nirvana” of) six and 12 month embargo periods in its open access policy.²⁴
13. RCUK’s policy, in its current form, does not make it clear that, during the initial “five-year implementation phase”, the policy will allow 12 and 24 month embargo periods and that during that period RCUK “will be significantly more relaxed about ... requirements on embargoes”, as Professor Rylance, Chair of RCUK, explained.²⁵ Indeed, as it currently stands, the policy simply refers to six and 12 month embargo periods.²⁶ There is significant confusion about this point.²⁷ For example, SAGE Publications Limited said that “signals from the funding bodies (such as RCUK) ... imply that not even lip service will be paid to the longer embargo periods required by these disciplines”, and the Publishers Association have found that “when questioned on this divergence from Government Policy, RCUK has stated that ‘ambiguity’ is required”.²⁸ Many others perceived RCUK’s policy to be at odds with Government policy in this respect, and this led the Russell Group, for example, to recommend the phased implementation which RCUK have since clarified will be undertaken.²⁹
14. Professor Douglas Kell, RCUK Information Champion, told us that RCUK will not require immediate compliance with the policy and characterised the five-year implementation phase as “a journey” to compliance.³⁰ This is not reflected in the text of the policy which states: “the policy applies to all research papers whose work was funded by RCUK being submitted for publication from 1 April 2013 until further notice”.³¹ **The lack of clarity in RCUK policy and guidance, and the consequent confusion, especially given the imminent start date of 1 April 2013, are unacceptable.**
15. Embargo periods for green open access in the circumstance where a journal offers gold open access but a researcher does not have APC funding have

²¹ *Op. cit.* Accessibility, sustainability, excellence: how to expand access to research publications.

²² Clobridge Consulting, Dr Tom Olijhoek, Public Library of Science (PLOS), Dr Daniel Turner.

²³ *Op. cit.* Government Response to the Finch Group Report.

²⁴ Q 71.

²⁵ QQ 53–54.

²⁶ *Op. cit.* Research Councils UK Policy on Access to Research Outputs.

²⁷ Academy of Social Sciences, British Academy, British Psychological Society, the Publishers Association.

²⁸ SAGE Publications Limited, the Publishers Association.

²⁹ The Russell Group, QQ 53–54.

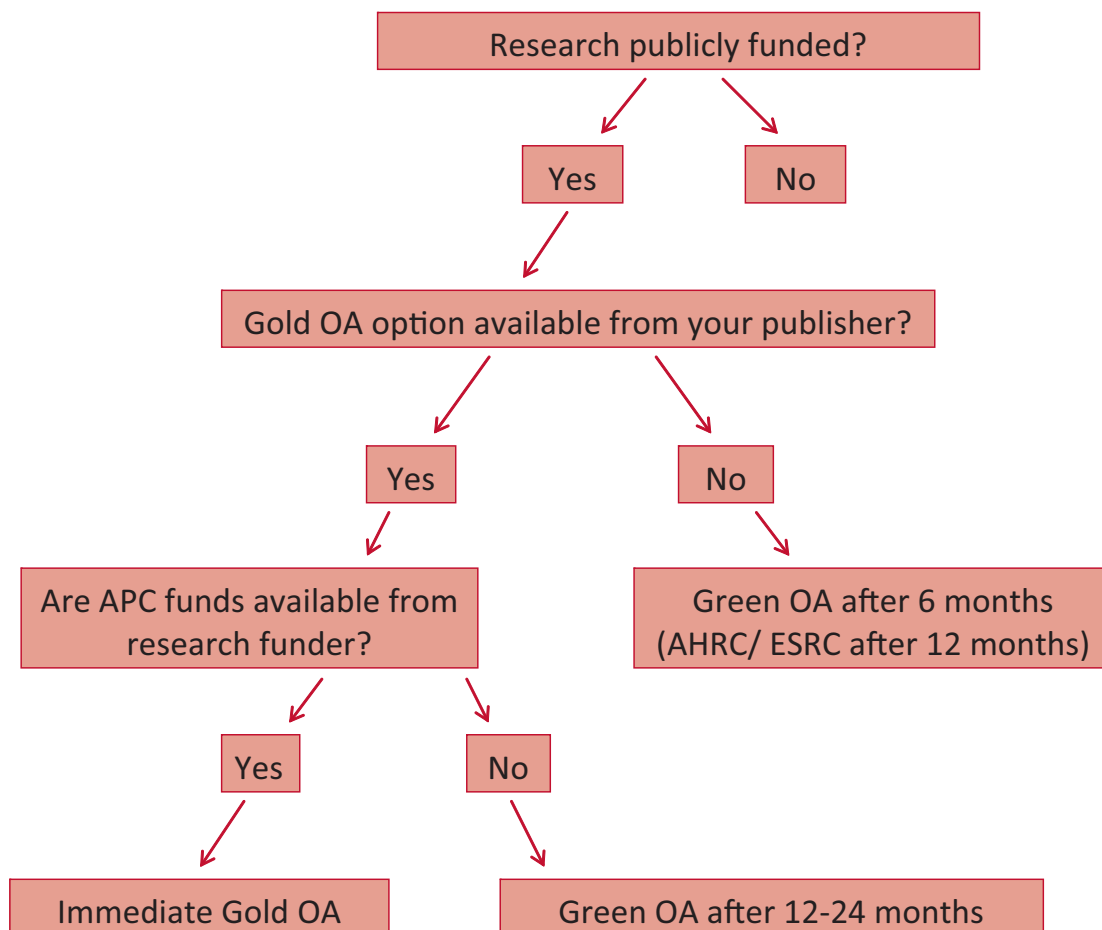
³⁰ Q 66.

³¹ *Op. cit.* Research Councils UK Policy on Access to Research Outputs.

also caused some confusion.³² To clarify the issue, the Publishers Association published a decision tree (see figure 1) which confirmed that, in this circumstance, the article should be published under the green model and deposited in a repository after a 12 to 24 month embargo period.³³ The decision tree has been endorsed by BIS and RCUK.³⁴ This important detail is not mentioned in the RCUK policy and guidance.³⁵

FIGURE 1

Publishers Association decision tree (endorsed by BIS and RCUK)³⁶



16. **We welcome RCUK’s clarification of its stance on the length of embargo periods in evidence to us, and its willingness to be flexible about the implementation of open access. We recommend that RCUK revise section six (implementation and compliance) of its policy guidance notes to include reference to the “five-year implementation phase” and state explicitly that it will take an incremental approach to compliance in this period. Furthermore, the guidance must make reference to the Publishers Association decision tree in order to dispel the widespread confusion about embargo periods.**

³² Institute of Physics, Society of Biology.

³³ The Publishers Association.

³⁴ The Government, the Publishers Association.

³⁵ RCUK: *Guidance for the RCUK Policy on Access to Research Outputs*, July 2012, *op. cit.* *Research Councils UK Policy on Access to Research Outputs*

³⁶ The Publishers Association.

A “one size fits all” approach

17. The RCUK open access policy will have wide-reaching impact because the research councils fund research across a broad range of academic disciplines. RCUK’s prescription of length of embargo periods (discussed above), licensing requirements and stated preference for gold open access have led to considerable opposition from representatives of disciplines who argue that their subjects need to be treated differently. Seven submissions to our inquiry criticised RCUK’s policy for its “one size fits all” approach,³⁷ and many others raised similar concerns.³⁸
18. RCUK will require articles published using APC funding to use the creative commons attribution (CC-BY) licence which allows the redistribution of the author’s work (or derivatives of it) for commercial or non-commercial purposes, provided that the author is credited.³⁹ Some witnesses claimed that the CC-BY licence was not suitable for their own discipline, suggesting that it unnecessarily impinges on the rights of authors,⁴⁰ limits an author’s ability to cite certain source documents,⁴¹ and may cause publishers to increase their APC charges (rendering Finch economic modelling, which did not allow for a licence requirement, inaccurate).⁴² But other witnesses, the Public Library of Science (PLOS) (an open access journal company), for example, argued that this view was based upon a misunderstanding of the licence.⁴³ Professor Rylance suggested that, in the case of the CC-BY licence requirements, it was simpler to begin with one rule but confirmed that RCUK was open to receiving specific evidence about cases where it would not be suitable.⁴⁴ **We recommend that RCUK gather evidence about the suitability of the creative commons attribution (CC-BY) licence for different disciplines.**

BOX 2

Creative commons licence types⁴⁵

Attribution (CC-BY)

Allows the redistribution of an author’s work (or derivatives of it) for commercial or non-commercial purposes, provided that the author is credited.

Attribution-ShareAlike (CC-BY-SA)

Allows the redistribution of an author’s work (or derivatives of it) for commercial or non-commercial purposes, provided that the author is credited and any new creations are licensed under the same terms.

³⁷ Association of Learned and Professional Society Publishers, Economic History Society, Human Relations, Political Studies Association, Royal Historical Society of the UK, SAGE Publications Limited, Society for Research into Higher Education.

³⁸ 1994 Group, Association for Learning Technology, British Academy, British Sociological Association, Emerald Group Publishing Limited, Dr Meera Sabaratnam and Dr Paul Kirby.

³⁹ The creative commons website: www.creativecommons.org.uk.

⁴⁰ British Academy, Society History Society, Zoological Society of London.

⁴¹ Academy of Social Sciences, the Publishers Association, SAGE Publications Limited.

⁴² University of Bristol, the Publishers Association, the Russell Group.

⁴³ PLOS, RCUK, Wellcome Trust.

⁴⁴ Q 67.

⁴⁵ Based on information from the creative commons website: www.creativecommons.org.uk.

Attribution-NoDerivs (CC-BY-ND)

Allows the redistribution of an author's work for commercial or non-commercial purposes, provided the work is presented unmodified and in whole, and that the author is credited.

Attribution-NonCommercial (CC-BY-NC)

Allows the redistribution of an author's work (or derivatives of it) for non-commercial purposes only, provided that the author is credited.

Attribution-NonCommercial-ShareAlike (CC-BY-NC-SA)

Allows the redistribution of an author's work (or derivatives of it) for non-commercial purposes only, provided that the author is credited and any new creations are licensed under the same terms.

Attribution-NonCommercial-NoDerivs (CC-BY-NC-ND)

Allows the redistribution of an author's work for non-commercial purposes only, provided the work is presented unmodified and in whole, and that the author is credited.

19. Some witnesses called for longer embargo periods for certain disciplines in order to protect journal income, necessary because of differences amongst different disciplines in the half life of articles (that is, the length of time an article is regularly read or quoted).⁴⁶ For example, 21 history journals have demanded embargo periods of 36 months.⁴⁷ It is argued that whereas, for some disciplines, embargo periods could be very short with no impact on journal income from subscriptions because of the short period of demand, for others, a period longer than six or 12 months would be required to protect income.⁴⁸ RCUK, however, told us that much of the debate was based on unsubstantiated assertion and there was, at present, insufficient evidence to support variations in arrangements.⁴⁹ RCUK is, nonetheless, committed to a review of open access policy in the fourth quarter of 2014 and it will, as part of the review, take into consideration any evidence about impact on specific disciplines.⁵⁰

First mover risks

20. The Government want the UK to be a "first mover" on open access, but they recognise that there are major risks associated with this.⁵¹ It is possible that the international direction of travel may be towards green open access or some other innovation, but BIS and RCUK have stated a preference for gold open access.⁵² Australia, for example, has already expressed a preference for green open access, as has the National Science Foundation in the United States of America.⁵³ Figure 2 (below) shows current trends in the stated open access policy positions of some European research organisations. This suggests that there is not a clear trend of mandating gold open access in Europe.

⁴⁶ British Academy, British Sociological Association, Geological Society of London, Institute of Physics, Royal Society, Royal Statistical Society.

⁴⁷ Economic History Society, Royal Historical Society of the UK, Society History Society.

⁴⁸ *Ibid.*

⁴⁹ Q 54, Q 67, RCUK.

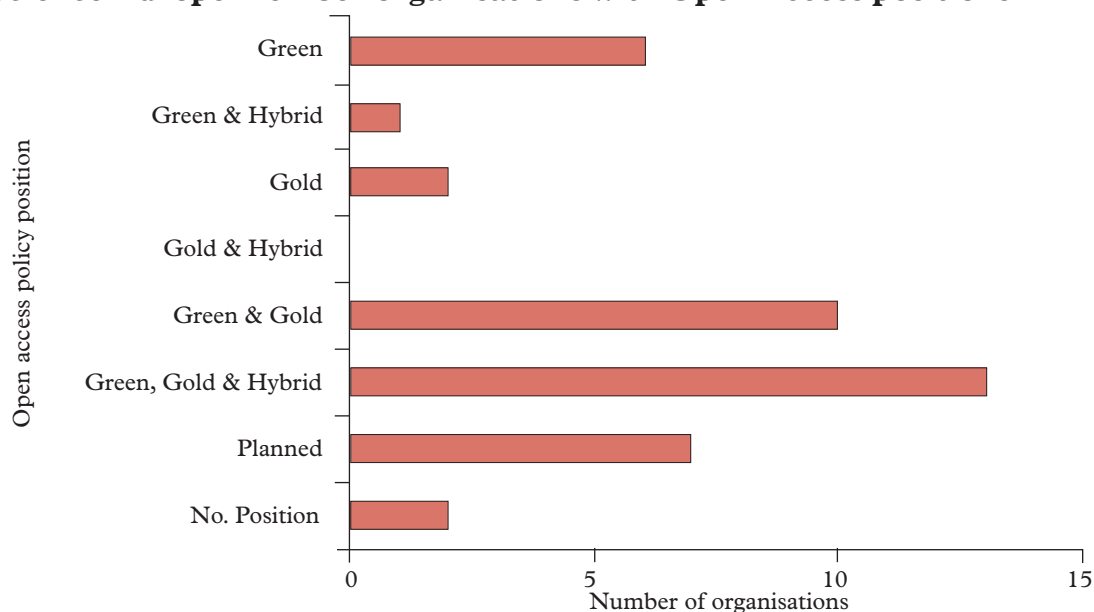
⁵⁰ Q 54, Q 67.

⁵¹ Q 72, The Government.

⁵² The Government, RCUK.

⁵³ University College London, Q 47.

FIGURE 2

Science Europe member organisations with Open Access positions⁵⁴

Green open access is seen by many to have financial and other benefits. The UK has already invested sizeable funds in the associated repository infrastructure.⁵⁵ The potential of the green model, coupled with uncertainty about whether the international community will follow the UK's lead in preferring gold, means that RCUK must closely monitor international developments and respond promptly if it is to avoid “backing a losing horse”. It has agreed to do so.⁵⁶ **We commend RCUK's commitment to monitor international developments in open access—for example, whether gold is adopted by other countries—and willingness to amend its strategy accordingly. The Government must co-ordinate with other countries on open access policies.**

Risk of unintended consequences

21. Some witnesses expressed concern about the possible impact of a shift to a “pay to publish” model, with limited funding, on the quality and standing of UK science.

Limits on publication

22. One set of worries centred on the administration of APC funds by universities. A number of witnesses argued that administrators will be forced to make difficult decisions about allocation of funds if demand exceeds supply, and might encourage academics to publish less or encourage them to publish in journals based on APC rates rather than journal quality. Furthermore, university administrators might have to select articles for publication with limited subject expertise and may choose to favour work by

⁵⁴ This chart is based upon data submitted as supplementary evidence by RCUK, detailing the current access policies of 41 of the 51 Science Europe member organisations. Science Europe is an association of 51 European Research Funding Organisations and Research Performing Organisations, based in Brussels.

See box 1 for definitions of green, gold and hybrid open access. “Planned” refers to organisations which have a plan, or are developing a plan, to implement an open access policy.

⁵⁵ Q 22, London Higher Research Excellence Group.

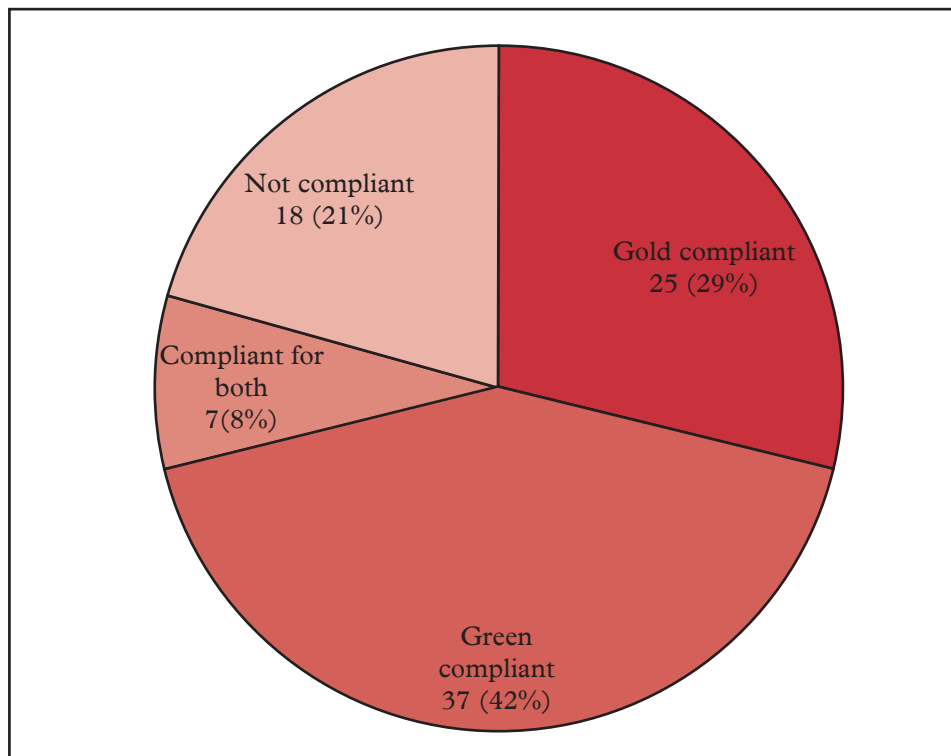
⁵⁶ QQ 56–57.

established researchers to protect university reputations, making it even harder for those at an earlier stage in their academic career to publish.⁵⁷ Mr Willetts dismissed these concerns on the grounds that universities and researchers have a shared goal of “academic endeavour”, and because universities cared about their reputation for nurturing postgraduate researchers.⁵⁸ Nevertheless, recognising the level of the concern, he committed to keeping the issue under review.⁵⁹

23. RCUK tried to allay fears that discipline-leading journals might not be compliant with its open access policy: “the evidence we have at the moment is that that is not going to be a great obstacle, despite people being anxious about it”. RCUK agreed, however, that non-compliance would be highly undesirable and contrary to its ambition for “excellent and [the] best research”.⁶⁰ Figure 3 summarises the compliance status of certain journals with RCUK’s open access policy.

FIGURE 3

Compliance of selected journals with RCUK’s open access policy⁶¹



⁵⁷ Academy of Social Sciences, British Academy, British Psychological Society, British Sociological Association, Economic History Society, Professor Stevan Harnad, International Society for First World War Studies, London Mathematical Society, Royal Astronomical Society, the Royal Society, Royal Statistical Society, Dr Meera Sabaratnam and Dr Paul Kirby, Society for Research into Higher Education, Society of Biology, Zoological Society of London.

⁵⁸ Q 76, Q 81.

⁵⁹ Q 80.

⁶⁰ Q 64.

⁶¹ This figure is based upon data submitted as supplementary evidence by RCUK, detailing the current compliance status of 108 international journals from a range of subject specialities. The data was obtained from the SHERPA/ROMEIO project database (<http://www.sherpa.ac.uk/romeio>) at the Centre for Research Communications at Nottingham University (<http://crc.nottingham.ac.uk>). 21 journals in the sample did not have clear access policies; these have been excluded from the figure. RCUK considered this sample to be representative of the breadth of journals which are of high importance to their community.

Examples of journals not currently compliant with the RCUK policy are Applied and Computational Harmonic Analysis, the American Historical Review, Biomaterials, and the Quarterly Journal of Economics. The Publishers Association, which represents many major journals, was confident that the majority of journals would be compliant with the open access policy requirements by 1 April 2013.⁶² RCUK agreed to assess any evidence of difficulties publishing in discipline-leading journals as a result of its open access policy in the 2014 review.⁶³

Journals

24. Two major concerns were raised relating to UK journals: impact on quality and affordability. Some witnesses suggested that the reputation of UK journals might be damaged due to a perception (unfounded or not) that editors would prefer gold articles in order to remain financially viable.⁶⁴ The Royal Society expressed a concern that quality of peer review might also be affected because of “pressure on high rejection journals (whose publishing costs per article are higher) to change their peer review standards in order to be able to set more competitive APCs”.⁶⁵ Professor Rylance of RCUK argued, however, that journals would wish to protect their reputation for quality and would not risk lowering their standards.⁶⁶ When questioned about the possibility of a “race to the bottom”, Mr Willetts said that the future of peer review rested on whether editorial functions were perceived to add value, and took the view that if these functions were valued, they would endure.⁶⁷
25. Some witnesses feared that the shift to open access might lead to “predatory publishers” setting up journals with low or non-existent quality thresholds.⁶⁸ Professor Kell pointed to a website drawing attention to this type of journal and argued that the market would prevent this becoming an issue.⁶⁹ Professor Rylance added that journals had an interest in maintaining quality, and argued that one consequence of the changing landscape was that new journals could establish a reputation for high quality.⁷⁰
26. Another worry was that international researchers might choose not to publish in UK journals if they could not afford, or were put off by, APC fees.⁷¹ Mr Willetts was very clear that these authors would still be able to publish under the subscription model in the “mixed economy” of green, gold and hybrid open access envisioned for the foreseeable future.⁷² This was another

⁶² The Publishers Association.

⁶³ Q 64.

⁶⁴ British Sociological Association, Dr Meera Sabaratnam and Dr Paul Kirby, Social History Society, Zoological Society of London.

⁶⁵ The Royal Society.

⁶⁶ Q 59.

⁶⁷ Q 76.

⁶⁸ Q 30, Professor Jeffrey Beall.

⁶⁹ Q 59.

⁷⁰ *Ibid.*

⁷¹ Electronic Publishing Trust for Development, Human Relations, Social History Society.

⁷² Q 77.

possible outcome that the Minister agreed RCUK should keep under review.⁷³

Collaborations

27. Some witnesses identified a lack of clarity about who would pay APCs for articles written by UK research council funded researchers working with international contributors, or articles written by authors in different institutions.⁷⁴ Mr Willetts admitted that these details still needed to be worked out.⁷⁵

Learned Societies

28. Learned societies make a valuable contribution to their respective disciplines by funding, for example, conferences, grants, fellowships, outreach work and policy advice.⁷⁶ Much of this work is funded, at least in part, by income from journal ownership or publication and some fear that, if the move to open access is too hasty, this work could be jeopardised.⁷⁷ Whilst the evidence we received from learned societies indicated their support, in principle, for improving access to research, they acknowledged that, given their range in size and present reliance on journal income, they may take longer to adapt to new business models.⁷⁸ **Whilst we would not wish to recommend that the Government should distort the market in this area, we urge the Government to consider how they can support learned societies in this transition. We are pleased that Mr Willetts is meeting representatives from learned societies for this very purpose.**⁷⁹
29. **It is vital that RCUK closely monitors implementation of the Finch Group recommendations to ensure that the move to open access does not damage the UK's international reputation for scholarship—both for outstanding research and globally respected journals. As a minimum, the RCUK review of open access must consider the following:**
- (1) whether different disciplines require different embargo periods, licences and primary models of publication, particularly in the light of evidence gathered about readership and citation half-lives;**

⁷³ *Ibid.*

⁷⁴ Academy of Social Sciences, Institute of Physics, International Society for First World War Studies, London Mathematical Society, the Royal Society, Royal Statistical Society, Society of Biology, Zoological Society of London.

⁷⁵ Q 78.

⁷⁶ Academy of Social Sciences, Association for Learning Technology, British Academy, Economic History Society, Geological Society of London, International Society for First World War Studies, London Mathematical Society, Royal Astronomical Society, Royal Historical Society of the UK, Royal Statistical Society, Society for Research into Higher Education, Society of Biology.

⁷⁷ Q 42, Academy of Social Sciences, British Sociological Association, Royal Statistical Society, Society for Research in Higher Education.

⁷⁸ Q 10, Q 42, ALPSP, Association for Learning Technology, British Academy, British Psychological Society, Geological Society of London, Institute of Physics, Society of Biology.

⁷⁹ Q 74.

- (2) whether the UK, in stating a preference for gold open access, is moving in the same direction as other countries which are mandating open access (but not necessarily gold open access);
- (3) whether article processing charges have adversely affected the number of international articles published in UK journals;
- (4) effects on the quality of peer review;
- (5) impact on the number of collaborations by UK researchers; and
- (6) effects on learned societies.

RCUK must remain vigilant beyond the planned 2014 review. We recommend that it commit, as a minimum, to a further review of the implications of its open access policy in 2016 and an end-stage assessment in 2018.

Cost benefit analysis

30. The funding for APCs has been taken out of the fixed pool of funding for scientific research in the UK. RCUK argued that this is justified, given that dissemination of results is a critical part of research activities.⁸⁰ Furthermore, Mr Willetts is persuaded that open access will offer benefits to researchers, businesses (including small and medium sized enterprises) and the public.⁸¹ *The Green Book*, Her Majesty's Treasury's framework for the appraisal and evaluation of all policies, states that benefits of a particular policy "should be valued unless it is clearly not practicable to do so".⁸² The Finch Group undertook economic modelling about the possible costs of open access, and studies, both by BIS and external organisations, have considered possible costs of the move.⁸³ We were surprised, however, that the Government have not undertaken a full cost-benefit analysis of this policy,⁸⁴ and seem to have based their decision on international trends,⁸⁵ assumed benefits to the public and industry,⁸⁶ and a desire to be a world leader.⁸⁷ **We recommend that the Government undertake a full cost-benefit analysis of the open access policy, particularly given the current economic climate and the consequent pressures on the public purse. This analysis must be updated to reflect actual rather than projected costs during the transition period.**

Consultation

31. Effective consultation and engagement with relevant stakeholders are central to the success of the open access policy given that it is a radical change for some and affects the interests of many.⁸⁸ Unfortunately, RCUK's

⁸⁰ RCUK.

⁸¹ The Government.

⁸² Her Majesty's Treasury: *The Green Book; Appraisal and Evaluation in Central Government*, 2003.

⁸³ *Op. cit. Accessibility, sustainability, excellence: how to expand access to research publications*, supplementary evidence from BIS.

⁸⁴ Supplementary evidence from BIS.

⁸⁵ Q 72.

⁸⁶ The Government.

⁸⁷ Q 72.

⁸⁸ *Op. cit. Accessibility, sustainability, excellence: how to expand access to research publications*.

engagement with academics and publishers in developing its policy appears to have been unsatisfactory. The Association of Learned and Professional Society Publishers, for example, said that the policy was “presented as a ‘done deal’, with no room for consideration of individual subject areas, researchers’ requirements and needs, or indeed the potential harm that could be imposed on the scholarly communications process”.⁸⁹ The International Society for First World War Studies said that “policy-makers, including RCUK, have so far systematically refused to engage with their critics in any sustained and constructive fashion”.⁹⁰ Frustration about consultation was almost universal,⁹¹ but the Publishers Association were the most critical: “RCUK has acted unilaterally and in isolation”.⁹²

32. RCUK has attended various stakeholder meetings in recent months,⁹³ and circulated a draft policy to certain groups before publication in July 2012. It did not, however, hold a public consultation and most of the discussions about the policy have taken place since its release.⁹⁴ Professor Rylance’s primary defence of RCUK’s approach to consultation was that the policy was a draft document for discussion.⁹⁵ It is a matter of some concern that RCUK has since stated that it is only prepared to redraft the accompanying guidance notes, not the policy itself.⁹⁶ We note, however, that, importantly, RCUK is prepared to show more leniency over compliance than its policy implies and intends to review the success of the policy in 2014. Nevertheless, misunderstandings about the policy and perceptions of disenfranchisement are significant causes for concern which need to be addressed.
33. **In the light of the significant confusion and perceptions that RCUK, at worst, “acted unilaterally”, or, at least, consulted inadequately in devising its open access policy, we recommend that BIS undertake a review of how RCUK consulted over this significant change in policy with the scientific and publishing communities, to ensure that lessons are learnt.**

⁸⁹ ALPSP.

⁹⁰ International Society for First World War Studies.

⁹¹ Q 47, ALPSP, British Academy, British Sociological Association, Economic History Society, Institute of Physics, International Society for First World War Studies, Open Humanities Press, Political Studies Association, Reed Elsevier, Sage Publications Limited, Scholarly Publishing and Academic Resources Coalition Europe, Society for Research into Higher Education, Society of Biology.

⁹² The Publishers Association.

⁹³ RCUK.

⁹⁴ *Ibid.*

⁹⁵ Q 66.

⁹⁶ Supplementary evidence from RCUK.

CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS

34. The lack of clarity in RCUK policy and guidance, and the consequent confusion, especially given the imminent start date of 1 April 2013, are unacceptable (paragraph 14).
35. We welcome RCUK's clarification of its stance on the length of embargo periods in evidence to us, and its willingness to be flexible about the implementation of open access. We recommend that RCUK revise section six (implementation and compliance) of its policy guidance notes to include reference to the "five-year implementation phase" and state explicitly that it will take an incremental approach to compliance in this period. Furthermore, the guidance must make reference to the Publishers Association decision tree in order to dispel the widespread confusion about embargo periods (paragraph 16). (**Recommendation 1**)
36. We recommend that RCUK gather evidence about the suitability of the creative commons attribution (CC-BY) licence for different disciplines (paragraph 18). (**Recommendation 2**)
37. We commend RCUK's commitment to monitor international developments in open access—for example, whether gold is adopted by other countries—and willingness to amend its strategy accordingly. The Government must co-ordinate with other countries on open access policies (paragraph 20). (**Recommendation 3**)
38. Whilst we would not wish to recommend that the Government should distort the market in this area, we urge the Government to consider how they can support learned societies in this transition. We are pleased that Mr Willetts is meeting representatives from learned societies for this very purpose (paragraph 28). (**Recommendation 4**)
39. It is vital that RCUK closely monitors implementation of the Finch Group recommendations to ensure that the move to open access does not damage the UK's international reputation for scholarship—both for outstanding research and globally respected journals. As a minimum, the RCUK review of open access must consider the following:
 - (1) whether different disciplines require different embargo periods, licences and primary models of publication, particularly in the light of evidence gathered about readership and citation half-lives;
 - (2) whether the UK, in stating a preference for gold open access, is moving in the same direction as other countries which are mandating open access (but not necessarily gold open access);
 - (3) whether article processing charges have adversely affected the number of international articles published in UK journals;
 - (4) effects on the quality of peer review;
 - (5) impact on the number of collaborations by UK researchers; and
 - (6) effects on learned societies.RCUK must remain vigilant beyond the planned 2014 review. We recommend that it commit, as a minimum, to a further review of the implications of its open access policy in 2016 and an end-stage assessment in 2018 (paragraph 29). (**Recommendation 5**)

40. We recommend that the Government undertake a full cost-benefit analysis of the open access policy, particularly given the current economic climate and the consequent pressures on the public purse. This analysis must be updated to reflect actual rather than projected costs during the transition period (paragraph 30). (**Recommendation 6**)
41. In the light of the significant confusion and perceptions that RCUK, at worst, “acted unilaterally”, or, at least, consulted inadequately in devising its open access policy, we recommend that BIS undertake a review of how RCUK consulted over this significant change in policy with the scientific and publishing communities, to ensure that lessons are learnt (paragraph 33). (**Recommendation 7**)

APPENDIX 1: MEMBERS AND DECLARATIONS OF INTERESTS

Members

Lord Broers
 Lord Cunningham of Felling
 Lord Dixon-Smith
 Baroness Hilton of Eggardon
 Lord Krebs (Chairman)
 Lord O'Neill of Clackmannan
 Lord Patel
 Baroness Perry of Southwark
 Lord Rees of Ludlow
 Earl of Selborne
 Baroness Sharp of Guildford
 Lord Wade of Chorlton
 Lord Willis of Knaresborough
 Lord Winston

Declared Interests

Lord Broers

Fellow, Royal Society
Fellow, Royal Academy of Engineering
Fellow, Churchill College, Cambridge
Honorary Fellow, Institute of Engineering and Technology
Honorary Fellow, Institute of Mechanical Engineers (IMechE)
Honorary Fellow, Institute of Physics
Honorary Fellow, Academy of Medical Sciences
Chairman, Board of Diamond Light Source

Lord Cunningham of Felling

None

Lord Dixon-Smith

None

Baroness Hilton of Eggardon

None

Lord Krebs

Principal, Jesus College, Oxford
Fellow, Royal Society
Fellow, Academy of Medical Sciences
Professor of Zoology, Oxford
Trustee, Nuffield Foundation
Honorary Fellow, Association for Nutrition
Honorary Member, British Ecological Society
Founding Member, Council for the Defence of British Universities
Honorary Fellow, Zoological Society London

Lord O'Neill of Clackmannan

None

Lord Patel

Chancellor, Dundee University
Fellow, Academy of Medical Sciences
Fellow, Royal Society of Edinburgh

Fellow, several Royal Colleges in Medicine

Baroness Perry of Southwark

None

Lord Rees of Ludlow

Member, University of Cambridge

Fellow, Royal Society

Honorary Fellow, British Academy

Honorary Fellow, Royal Academy of Engineering

Honorary Fellow, Academy of Medical Sciences

Honorary Fellow, Institute of Physics

Founding Member, Council for the Defence of British Universities

Earl of Selborne

Fellow, Royal Society

Fellow, Royal Geographical Society

Fellow, Society of Biology

Honorary Fellow, Association for Nutrition

Honorary Associate, Royal College of Veterinary Surgeons

Honorary Fellow, Royal Society for Public Health

Honorary Fellow, Royal Entomological Society

Baroness Sharp of Guildford

None

Lord Wade of Chorlton

None

Lord Willis of Knaresborough

Chair, Association of Medical Research Charities (AMRC)

Council Member, Natural Environment Research Council (NERC)

Lord Winston

Council Member, Engineering and Physical Sciences Research Council

Fellow, Academy of Medical Sciences

Fellow, Royal Academy of Engineering

Professor, Imperial College

Chairman, Genesis Research Trust

Member, UK Stem Cell Foundation Trust

Fellow, Royal College of Physicians

Fellow, Royal College of Obstetricians and Gynaecologists

Fellow, Society of Biology

Home Office Animal Research Licence Holder

A full list of Members' interests can be found in the Register of Lords Interests:

<http://www.publications.parliament.uk/pa/ld/ldreg.htm>

APPENDIX 2: LIST OF WITNESSES

Evidence is published online at www.parliament.uk/hlscience and available for inspection at the Parliamentary Archives (020 7219 5314)

Evidence received by the Committee is listed below in chronological order of oral evidence session and in alphabetical order. Those witnesses marked with * gave both oral evidence and written evidence. Those marked with ** gave oral evidence and did not submit any written evidence. All other witnesses submitted written evidence only.

Oral evidence in chronological order

- * QQ 1–16 Professor Dame Janet Finch, Chair of Working Group on Expanding Access to Published Research Findings
- ** QQ 17–37 Professor Ian Walmsley, Pro-Vice-Chancellor (Research, Academic Services and University Collections), University of Oxford
- ** Professor Matthew Bennett, Vice-Chancellor responsible for Research, Enterprise and Internationalisation, University of Bournemouth
- ** Professor Maggie Dallman, Principal, Faculty of Natural Sciences, Imperial College London
- * QQ 38–51 Steven Hall, Managing Director, Institute of Physics (IOP) Publishing and member, the Finch Group
- * Richard Mollett, Chief Executive, The Publishers Association
- ** Dr Rita Gardner, Director, Royal Geographical Society, Chair, Academy of Social Sciences working group on open access, and member, the Finch Group
- * QQ 52–70 Professor Rick Rylance, Chair of Research Councils UK (RCUK)
- * Professor Douglas Kell, RCUK Information Champion, Research Councils UK (RCUK)
- * David Sweeney, Director (Research, Innovation and Skills), Higher Education Funding Council for England (HEFCE)
- * QQ 71–83 Rt Hon David Willetts MP, Minister of State for Science and Universities, Department for Business, Innovation and Skills (BIS)

Alphabetical list of all witnesses

- 1994 Group
- Academy of Social Sciences
- Association for Learning Technology (ALT)
- Association of Learned and Professional Society Publishers (ALPSP)
- Jeffrey Beall, University of Colorado Denver
- ** Professor Matthew Bennett, University of Bournemouth

- British Academy
- British Heart Foundation (BHF)
- British Medical Journal (BMJ)
- British Psychological Society (BPS)
- British Sociological Association (BSA)
- Abby Clobridge, Clobridge Consulting
- Professor Stephen Curry PhD, Imperial College London
- ** Professor Maggie Dallman, Imperial College London
- * Department for Business, Innovation and Skills (BIS)
- Dr Paola Di Maio, ISTCS.org
- Economic History Society
- Electronic Publishing Trust for Development
- Emerald Group Publishing Limited
- * Professor Dame Janet Finch, Working Group on Expanding Access to Research Publications
- Frederick J. Friend, University College London (UCL)
- ** Dr Rita Gardner, Royal Geographical Society, Academy of Social Sciences working group on open access, the Finch Group
- Geological Society of London (GSL)
- * Steven Hall, Institute of Physics (IOP) Publishing, the Finch Group
- Professor Stevan Harnad, University of Southampton, Université du Québec à Montréal and McGill University
- Hellenic and Roman Societies
- Emeritus Professor John R Helliwell, University of Manchester
- Professor Tony Hey, Microsoft Research
- * Higher Education Funding Council for England (HEFCE)
- Human Relations
- * Institute of Physics (IOP)
- International Society for First World War Studies
- International Society for the Study of Behavioural Development (ISSBD)
- John Innes Centre
- Dr Michael Jubb, Working Group on Expanding Access to Research Publications
- Dr Paul Kirby, University of Sussex
- London Higher Research Excellence Group
- London Mathematical Society
- Dr Peter J. Matthews, National Museum of Ethnology, Japan
- Dr Heather Morrison

Ross Mounce, PhD student, University of Bath
 Dr Tom Olijhoek
 Open Access Scholarly Publishers Association (OASPA)
 Open Book Publishers CIC Limited
 Open Humanities Press (OHP)
 Operational Research Society (ORS)
 Public Library of Science (PLOS)
 Political Studies Association
 * The Publishers Association
 Reed Elsevier
 Regional Studies Association (RSA)
 * Research Councils UK (RCUK)
 Research Libraries UK (RLUK)
 Royal Astronomical Society
 Royal Historical Society
 The Royal Society
 Royal Statistical Society (RSS)
 Russell Group
 Dr Meera Sabaratnam, University of Cambridge
 SAGE Publications Limited
 The Sainsbury Laboratory
 Social History Society
 Society for Research into Higher Education (SRHE)
 Society of Biology
 Socio-Legal Studies Association (SLSA)
 SPARC Europe (Scholarly Publishing and Academic Resources Coalition)
 Dr Michael Taylor, University of Bristol
 Dr Daniel Turner, Sheffield Hallam University
 United Kingdom Council of Research Repositories (UKCoRR)
 Universities UK
 University College London (UCL)
 University of Bristol
 University of East Anglia
 Dr Johannes J M Velterop
 ** Professor Ian Walmsley, University of Oxford
 Wellcome Trust
 Wiley
 Zoological Society of London (ZSL)

APPENDIX 3: CALL FOR EVIDENCE

At a recent meeting, the House of Lords Science and Technology Committee agreed to undertake a short inquiry into open access. We will focus specifically on the implementation of the open access policy adopted by the Government in the light of the report of the working group on expanding access to published research findings chaired by Professor Dame Janet Finch.

We intend to take oral evidence in January 2013. In advance of these sessions, we would like to invite you to submit written evidence. We would specifically ask you to submit your views on the actions taken by Government and RCUK following the publication of the Finch Group's report. In particular, you may wish to address:

- support for Universities in the form of funds to cover article processing charges, and the response of universities and other higher education institutions to these efforts;
- embargo periods for articles published under the green model;
- engagement with publishers, universities, learned societies and other stakeholders in the development of research council open access policies and guidance; and
- challenges and concerns raised by the scientific and publishing communities, and how these have been addressed.

We would be most grateful if you could send your response by **Friday 18 January**. As is our usual practice, this correspondence will be published on the Committee's website.

APPENDIX 4: ABBREVIATIONS AND ACRONYMS

APC	Article Processing Charge
BIS	Department for Business, Innovation and Skills
CC-BY	Creative Commons Attribution Licence
PLOS	Public Library of Science
RCUK	Research Councils UK
REF	Research Excellence Framework

APPENDIX 5: RECENT REPORTS FROM THE HOUSE OF LORDS SCIENCE AND TECHNOLOGY COMMITTEE

Session 2007–08

- 1st Report Air Travel and Health: an Update
- 2nd Report Radioactive Waste Management Update: Government Response
- 3rd Report Air Travel and Health Update: Government Response
- 4th Report Personal Internet Security: Follow-up
- 5th Report Systematics and Taxonomy: Follow-up
- 6th Report Waste Reduction
- 7th Report Waste Reduction: Government Response

Session 2008–09

- 1st Report Systematics and Taxonomy Follow-up: Government Response
- 2nd Report Genomic Medicine
- 3rd Report Pandemic Influenza: Follow-up

Session 2009–10

- 1st Report Nanotechnologies and Food
- 2nd Report Radioactive Waste Management: a further update
- 3rd Report Setting priorities for publicly funded research

Session 2010–12

- 1st Report Public procurement as a tool to stimulate innovation
- 2nd Report Behaviour Change
- 3rd Report Nuclear Research and Development Capabilities
- 4th Report The role and functions of departmental Chief Scientific Advisers
- 5th Report Science and Heritage: a follow-up

Session 2012–13

- 1st Report Sport and exercise science and medicine: building on the Olympic legacy to improve the nation's health
- 2nd Report Higher Education in Science, Technology, Engineering and Mathematics (STEM) subjects