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Open Access

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Business, Innovation and Skills Committee

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The Reports and evidence of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the internet at www.parliament.uk/bis. A list of Reports of the Committee in the present Parliament is at the back of this volume.

The Reports of the Committee, the formal minutes relating to that report, oral evidence taken and some or all written evidence are available in a printed volume. Additional written evidence may be published on the internet only.

Committee staff

The current staff of the Committee are James Davies (Clerk), Amelia Aspden (Second Clerk), Peter Stam (Committee Specialist), Josephine Willows (Committee Specialist), Ian Hook (Senior Committee Assistant), Pam Morris (Committee Assistant), Henry Ayi-Hyde (Committee Support Assistant).

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Glossary

Open access refers to the immediate online availability of academic research, with no access fees (i.e. paywalls or subscription charges) and free of most licensing restrictions (see below for description of some of the available licensing types).

Article Processing/Publication Charge (APC): Publishers may charge an APC which is paid by the author (in practice this is usually the author's institution) to the publisher on acceptance of the article for publication.

Bundling and the Big Deal: Through Big Deals, libraries subscribe to a pre-determined bundle of electronic journals which they have to commit to for several years, rather than on a title by title basis. As publishers' journal portfolios expanded as a result of industry consolidation, Big Deals took up an increasing portion of library budgets. The Big Deal gradually fell out of favour, as it locks libraries into an expensive and inflexible system.

Double dipping: Where the article publication costs for the same article are covered twice, once through a subscription charge and once through an APC, the publisher is said to be "double dipping".

Gold and Green open access: These are the two most common routes to providing open access. Authors that opt for **Gold open access** publish their articles in an open access journal that provides free immediate open access to all of its articles on the publisher's website. The publisher may or may not charge the author an Article Processing Charge (APC) to publish the article.

Authors opting for **Green open access** publish in any subscription journal, and then make their peer-reviewed final draft freely accessible online by **self-archiving or depositing** the article in a **repository** (either institutional or disciplinary) upon acceptance for publication. **Green Open Access can be immediate or embargoed.** 60% of journals allow authors to self-archive their work and make it freely available on publication.¹ Embargoed articles can usually be accessed by sending an automatic request to the author for an e-print of the article.

Hybrid open access journals: are subscription based but also provide a Gold open access option for individual articles for which the author (or the author's institution or funder) pays an APC. Therefore, revenues of hybrid journals are drawn from both subscriptions and APCs.

"Pure" or "fully" Gold open access journals are not subscription based and charge APCs only.

Serials crisis: describes the impact of huge increases in subscription prices for scholarly journals, which have become unaffordable for universities and research organisations, and have resulted in cancellation of subscriptions.

¹ Ev 116 and <http://romeo.jiscinvolve.org/wp/2011/11/24/60-of-journals-allow-immediate-archiving-of-peer-reviewed-articles-but-it-gets-much-much-better/>

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1 Introduction

1. Open access refers to the immediate, online availability of peer reviewed research articles, free at the point of access (i.e. without subscription charges or paywalls). Open access relates to scholarly articles and related outputs. Open data (which is a separate area of Government policy and outside the scope of this inquiry) refers to the availability of the underlying research data itself. At the heart of the open access movement is the principle that publicly funded research should be publicly accessible. Open access expanded rapidly in the late twentieth century with the growth of the internet and digitisation (the transcription of data into a digital form), as it became possible to disseminate research findings more widely, quickly and cheaply.

2. Whilst there is widespread agreement that the transition to open access is essential in order to improve access to knowledge, there is a lack of consensus about the best route to achieve it. To achieve open access at scale in the UK, there will need to be a shift away from the dominant subscription-based business model. Inevitably, this will involve a transitional period and considerable change within the scholarly publishing market.

3. For the UK to transition to open access, an effective, functioning and competitive market in scholarly communications will be vital. The evidence we saw over the course of this inquiry shows that this is currently far from the case, with journal subscription prices rising at rates that are unsustainable for UK universities and other subscribers. There is a significant risk that the Government's current open access policy will inadvertently encourage and prolong the dysfunctional elements of the scholarly publishing market, which are a major barrier to access.

The Finch Report's recommendation for Gold funded by Article Processing Charges

4. The Government has said that it is committed to ensuring that publicly funded research should be accessible free of charge.³ Open access is part of the Department for Business, Innovation and Skills' policy of investment in research, development and innovation, and also part of the Government's wider transparency agenda.

5. In October 2011, BIS commissioned an independent working group chaired by Dame Janet Finch to examine how to expand access to the quality assured published outputs of research, including publicly funded research. The working group reported in June 2012. The Finch Report recommended that in order to expand access, there should be a "mixed model with a range of channels to publication",⁴ which would be a combination of subscriptions, hybrid and fully open access publishing and repositories.

6. The key recommendation was for "a clear policy direction" towards Gold open access funded by article processing charges (APCs) as the "main vehicle" for publication of

3 Department for Business, Innovation and Skills, *Innovation and Research Strategy for Growth*, December 2011, paras 6.6-6.8

4 *The Finch Report*, para 9.31

research.⁵ On the same day that the Government response was issued, Research Councils UK (RCUK) issued its revised open access policy and guidance, setting out its preference for Gold funded by APCs. Neither the Government nor RCUK undertook public consultation before announcing their policies.

7. Gold and Green open access are the two most common routes to providing open access. Authors who opt for Gold open access publish their articles in an open access journal that provides free immediate open access to all of its articles on the publisher's website. The publisher may or may not charge the author an Article Processing Charge (APC) to publish the article.

8. Authors opting for Green open access publish in any subscription journal, and then make their peer-reviewed final draft freely accessible online by self-archiving or depositing the article in a repository (either institutional, such as University College London's repository UCL Discovery,⁶ or disciplinary, such as arXiv,⁷ for research in high energy physics) upon acceptance for publication. Green Open Access can be immediate or embargoed. 60% of journals allow authors to self-archive their work and make it freely available on publication.⁸ Embargoed articles can usually be accessed by sending an automatic request to the author for an e-print of the article.

Our inquiry

9. We announced our inquiry into open access in January 2013, with the following terms of reference:

- 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;
- Rights of use and re-use in relation to open access research publications, including the implications of Creative Commons 'CC-BY' licences;
- The costs of article processing charges (APCs) and the implications for research funding and for the taxpayer; and
- 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.

10. The House of Lords Science and Technology Committee's report *The implementation of open access* (February 2013) considered RCUK's plan for implementation of the Finch

5 *The Finch Report*, para 3

6 Ev w183

7 Ev w187

8 Ev 116 and <http://romeo.jiscinvolve.org/wp/2011/11/24/60-of-journals-allow-immediate-archiving-of-peer-reviewed-articles-but-it-gets-much-much-better/>

Report's recommendations "in the light of concerns raised by both the academic and publishing communities",⁹ and stated:

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.¹⁰

11. The primary difference in focus between our inquiry and that of the House of Lords Science and Technology Committee is that we have conducted a wider examination of the conclusions and recommendations of the Finch Report, as reflected in the Government's open access policy. In the course of our inquiry we received over one hundred written submissions and held two oral evidence sessions with representatives of the publishing industry (both commercial and not for profit); learned societies; RCUK; Higher Education Funding Council for England; a leading economist and academic expert on open access; representatives of the Higher Education sector, and the Government. We would like to place on record our thanks to all those who contributed to this inquiry.

9 House of Lords Science and Technology Committee, *The implementation of open access*, February 2013, para 4

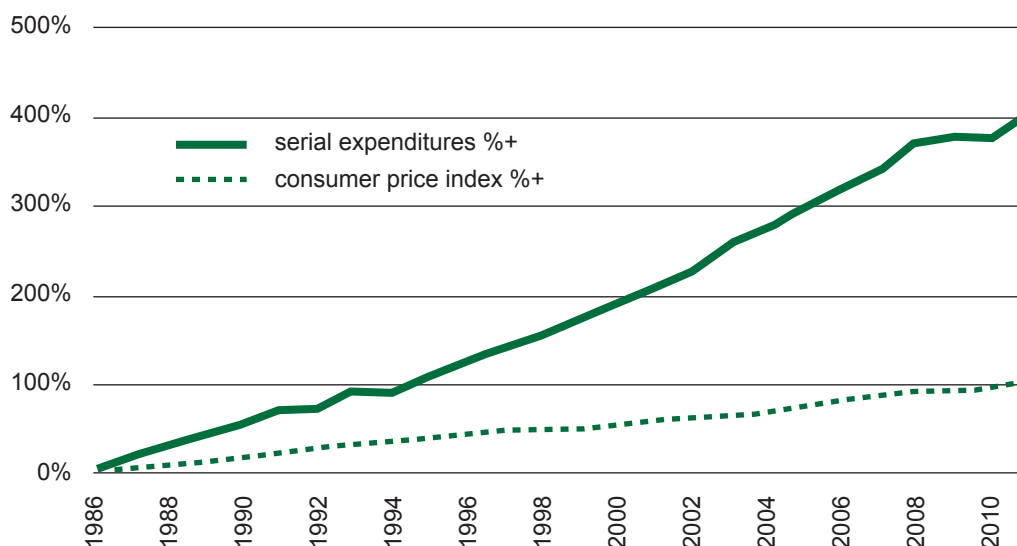
10 *Ibid*

2 Access to academic research

12. In order to understand how a large scale shift to open access in the UK could be managed to deliver the maximum benefits for all stakeholders, it is necessary to understand the underlying economic issues in the scholarly publishing market, and the main barriers to access. Currently, public funds are used three times in the research process: to pay the academics who conduct the research, to pay the salaries of the academics who conduct the peer review process,¹¹ and finally to pay for access to this research through institutional journal subscriptions, which is the dominant business model in the scholarly publishing market.

13. Each year, UK Higher Education libraries alone spend more than £150m purchasing subscriptions to academic journals,¹² yet they still cannot afford to access all the research that academics need.¹³ The massive increase in journal subscription prices over the past few decades (known as the ‘serials crisis’) has forced even the very wealthiest libraries¹⁴ to limit subscriptions as prices become unaffordable. Figure 1 plots relative growth of serials expenditures against the consumer price index over the past 25 years (data compiled by the Association of Research Libraries¹⁵). Serials expenditures have been rising at approximately triple the rate of the consumer price index over this time.

Figure 1: Data from Association of Research Libraries showing relative growth of serials expenditure against the consumer price index



11 Research Information Network's *Activities, costs and funding flows in the scholarly communications system in the UK, 2008*, estimated that the time spend by UK peer reviewers in 2007 represented a cash cost of £165m.

12 Ev w125

13 *Ibid*

14 <http://isites.harvard.edu/icb/icb.do?keyword=k77982&tabgroupid=icb.tabgroup143448>

15 <http://www.arl.org/focus-areas/statistics-assessment>

14. Against this backdrop, the profit margins of the large commercial scholarly publishers continue to increase, far outstripping the profits of the rest of the publishing sector. The House of Commons Science and Technology Committee Report *Scientific Publications: Free for all?* (2004) stated:

There is mounting concern that the financial benefits from the Government's substantial investment in research are being diverted to an excessive degree into the pockets of publishers' shareholders.¹⁶

15. Those concerns were based in part on the market leader Reed Elsevier's then operating profit margin of 34%. By the time of this inquiry, Reed Elsevier's operating profit margin had increased to 37%.¹⁷ Their representative told us that the Competition Commission had reviewed the scholarly publishing market and concluded that "there was vibrant competition" and "a functioning market".¹⁸ This is only a partial description of that review. When the Commission considered the proposed acquisition of publisher Harcourt by Reed Elsevier 2001, the review panel was split. Although two members concluded that there was no public interest issue, one strongly disagreed on the basis that the merger would both result in higher journal prices than would otherwise have been the case, and disincentivise developments in open access.¹⁹ Since then, two of the largest scholarly publishers (Wiley and Blackwell) have merged and journal prices have continued to rise.

16. The Finch Report, the Government and RCUK²⁰ have all argued that universities should negotiate with publishers to bring down subscription costs, particularly in light of an expected increase in payments of APCs. However, non-disclosure clauses attached to subscription contracts, which are widely used by commercial publishers and which prevent subscribers from disclosing the financial terms and conditions of their arrangements with publishers, represent a significant obstacle to these negotiations. One academic described the effect of such clauses:

There is no way I could know I am being charged more or less than another, which means that the power for us to negotiate is driven down. We are given one price that we cannot tell anyone else; we do not know what they are being charged, and the cycle continues.²¹

17. The Minister for Science and Universities, the Rt Hon David Willetts MP told us that although such clauses "leave a nasty taste in the mouth",²² they were not illegal and the Government would not intervene. Other factors preventing healthy competition in the

16 The House of Commons Science and Technology Committee, *Scientific publications: Free for all?* 2004 (hereafter, 'Free for all?') para 2

Note: Free for all? assessed the provision of scientific journals to the academic community and wider public, the market for scientific publications, the effects of trends in journal pricing, and the impact that new publishing trends would have on the scientific process.

17 Q6

18 Q25

19 http://webarchive.nationalarchives.gov.uk/+/http://www.competitioncommission.org.uk/rep_pub/reports/2001/fulltext/457c2.pdf

20 Ev 103

21 Q89

22 Q137

publishing market include the fact that although researchers are the primary users of the products of academic publishing, libraries are the primary purchasers of those products. Users are therefore largely insulated from the product cost and pressure on prices is reduced. We consider these issues further in Chapter 6.

3 The Finch Report: a U–turn in UK Open Access policy

Current open access policy in the UK

18. The Science and Technology Committee’s 2004 Report, *Free for all?* identified both the lack of access to published research findings and the problems in the academic publishing market as issues which needed to be addressed. Its key recommendation was for mandated self-archiving by authors, requiring authors to place their research papers in their university’s repository shortly after publication:

We recommend that the Research Councils and other Government funders mandate their funded researchers to deposit a copy of all their articles in their institution’s repository within one month of publication or a reasonable period to be agreed following publication, as a condition of their research grant.²³

19. *Free for all?* recommended that funders adopt Green mandates, with articles being made available through Green open access (hereafter, ‘Green’) shortly after publication. The committee did not recommend how the author deposit mandate should be enforced and monitored. As a result of both differing mandates and weak monitoring, UK self-archive mandates have to date achieved varying rates of compliance.

20. Despite this, Green has continued to grow. In the decade since *Free for all?* was published, the UK has become a world leader in open access. The proportion of the UK’s total annual research output that was available through open access in 2012 was about 40%, compared to a worldwide average of 20%.²⁴ There are 58 UK funder open access policies, all of which have a primary focus on Green,²⁵ and the largest number of Green mandates in the world, comprising 24 institutional mandates and a further 15 funder mandates.²⁶ The latest data from the UK Open Access Implementation Group shows that 35% of the UK’s total research outputs are freely provided through Green, through an existing network of more than 200 active institutional and disciplinary repositories. In recent years the Government has invested more than £150 million in those repositories.²⁷ By contrast, at present, just 5% of the UK’s total research outputs are currently published through the Gold route.

21. The Finch Report does not include an assessment of the existing open access policies of funders and institutions in the UK, and their relative success. Furthermore, the Finch working group did not commission research into the scholarly communications market, but relied on some of the existing research in this area. Research Libraries UK, a member of the Finch working group, said:

23 *Free for all?* p 102

24 Ev 119

25 Ev 117

26 Ev 119

27 Government Response to the Finch Group Report, July 2012, recommendation ix

Despite the ‘softness’ of these policies we now see approximately 40% of UK articles freely available. This is double the global average of 20%. Relying on the figure for the global average led the Finch Group to conclude that the green route to open access was not successful and created a focus on the gold route.²⁸

22. The Finch Report’s conclusions and recommendations were therefore made without a detailed, up to date assessment of the existing open access policies in the UK, and worldwide, and of their success rates.²⁹ Despite the fact that Green currently provides seven-eighths of the 40% of the UK’s research outputs that are open access,³⁰ the role of repositories was unequivocally demoted in the Finch Report:

The [Green] policies of neither research funders nor universities themselves have yet had a major effect in ensuring that researchers make their publications accessible in institutional repositories ... the infrastructure of subject and institutional repositories should be developed [to] play a valuable role complementary to formal publishing, particularly in providing access to research data and to grey literature, and in digital preservation.³¹

23. We are surprised by this recommendation and by the Government’s acceptance of it, especially given its considerable investment in repositories in recent years. The Government has said that it is “fully accepting [of] the case for Green Open Access as part of the mixed economy”.³² The evidence we received³³ suggests the problem with this is that the case accepted by the Government was based on the Finch Report’s incomplete evaluation of Green open access, which did not consider the available evidence. We received evidence from a large open access publisher which said:

Repositories play a crucial role in the process of enhancing access [...] They provide a pricing signal in the market that “publishing”, in the sense of “making public” can be done very cheaply, forcing Open Access publishers to demonstrate the value that we add.³⁴

24. The major mechanism through which the UK has achieved its world leading status (Green open access) has been given inadequate consideration in the formation of Government and RCUK policies. Neglecting repositories and consigning them to a relatively minor role in open access policy is likely to see repository infrastructure, which has been established through continued public investment, fall behind through lack of investment and monitoring.

25. We are disappointed by the Government’s conclusion that “development of infrastructure for repositories will primarily be a matter for institutions themselves”,³⁵

28 Ev w125

29 *The Finch Report*, paras 3.38–3.47

30 Ev 119

31 *The Finch Report*, recommendation ix

32 Ev 38

33 Ev w125

34 Ev 81

35 Government Response to the Finch Group Report, July 2012, recommendation ix

not least because the Government has spent £225m on repositories in recent years.³⁶ We recommend that the Government takes an active role in working with the Joint Information Systems Committee and the UK Open Access Implementation Group to promote standardisation and compliance across subject and institutional repositories.

Strengthening deposit mandates to increase open access

26. To combat low or variable deposit rates under Green mandates, many funders and institutions internationally have simply strengthened their mandates, with the most successful adopting an immediate deposit mandate that is linked to research performance review and research assessment. The evidence we received shows that authors are much more likely to archive their research papers in their institutional repositories if they are required to do so as a condition of funding compliance and if deposit is linked to institutional performance evaluation, research grant applications and research assessment.³⁷ Where embargoes are imposed on a deposit, institutional repositories have an e-print request option which allows a user seeking access to the research to request an e-copy from the author, who can choose whether or not to grant access.³⁸ The Scholarly Publishing and Academic Resources Coalition (Europe) gave an example of how strengthening deposit mandates works to increase deposit rates, and therefore access:

RCUK revised its original Open Access policy in 2012. The original policy, implemented by all seven Research Councils by 2007, was the most successful funder policy in the world in terms of the amount of OA material it was achieving. (It was not the most successful policy of all: that honour continues to belong to the University of Liège in Belgium (collecting 83% of its annual outputs in its OA repository) and, since the whole Belgian HE system is now adopting the same policy conditions in conjunction with the Belgian national research funder, FNRS, Belgium is expected shortly to overtake the UK as the country leading the world in providing OA.)³⁹

27. In February 2013, the Higher Education Funding Council for England (HEFCE)—which was represented on the Finch working group—announced its proposal to require that research outputs must be open access to be eligible for submission to the post-2014 Research Excellence Framework.⁴⁰ Whether the Green or Gold route is chosen, HEFCE's proposals would require that authors immediately deposit the peer reviewed text in their institutional repository on acceptance for publication in order to be eligible for submission. Articles which have been made open access retrospectively would not be eligible, “as the primary objective of this proposal is to stimulate immediate open-access publication”.⁴¹

36 Government Response to the Finch Group Report, July 2012, recommendation ix

37 Ev 121, Ev 72

38 See Ev 72–5 for further information on different strengths of deposit mandate and their effectiveness, and a full description of the Immediate-Deposit/Optional-Access mandate

39 Ev 121

40 HEFCE has said it plans to consult formally on these proposals later this year.

41 HEFCE, *Open access and submissions to the REF post-2014* (February 2013) para 12 http://www.hefce.ac.uk/media/hefce/content/news/news/2013/open_access_letter.pdf

28. Implementation of HEFCE's proposals in this or a similar form would provide the incentive for authors to use, and for institutions and funders to monitor, the network of existing repositories in the UK, through a strong immediate deposit mandate. HEFCE's proposals would in one way override RCUK's current policy since they apply to all submissions to the Research Excellence Framework. But they would also neatly complement RCUK's policy, since the two policies working in tandem would require that outputs are made available through the Green or Gold routes (subject to the author's choice), and immediately deposited in the author's institutional repository.

29. We strongly support author freedom of choice between Green and Gold open access. If implemented, HEFCE's proposals would ensure that the UK's existing network of repositories was used and monitored effectively. We commend HEFCE for its considered approach to developing its open access policy, and support its proposals for the post 2014 Research Excellence Framework, in particular the immediate deposit mandate as a requirement for eligibility.

30. We recommend that HEFCE implements its proposals, and maintains the strength of its proposed immediate deposit mandate in the appropriate institutional repository as a pre-condition of Research Excellence Framework eligibility.

31. RCUK should build on its original world leading policy by reinstating and strengthening the immediate deposit mandate in its original policy (in line with HEFCE's proposals) and improving the monitoring and enforcement of mandated deposit.

Open Access worldwide

32. There has been a lively debate over whether the Government's preference for Gold means that the UK will become a world leader, with a "first mover advantage",⁴² or whether it is "out on a limb".⁴³ In evidence to us, the Government asserted that "the fear that the UK may be acting alone is unfounded",⁴⁴ and provided a list of 11 examples of Gold open access policies from around the world. However, not one of those was a policy of unilateral adoption of Gold funded by APCs.⁴⁵ In fact, the majority of the examples provided by the Government favoured Green through immediate deposit mandates, or gave authors complete freedom of choice between Green and Gold. Similarly, RCUK provided us with a list of European funder policies, showing whether Gold or Green was permissible, but not showing funder preference.⁴⁶ Only one of the funders listed by RCUK has an express preference for Gold. None of the policies fund APCs from their existing research budgets.

33. Despite the Government's claim that its open access policy and preference for Gold is 'going with the grain'⁴⁷ of worldwide trends, we have received strong evidence that Green is

42 Ev 44

43 Q126

44 Ev 40

45 *Ibid*

46 Ev 104

47 Ev 40

dominant internationally, with the latest data showing that Green accounts for about 75% of all open access worldwide.⁴⁸ The UK produces about 7% of the world's published research articles.⁴⁹ The vast majority of the total global output is accessible only through subscriptions. Therefore, even as the UK invests heavily in Gold by funding APCs, libraries and others must continue to pay subscription charges in order to access the majority of the remaining 93% of the world's research output. As we have seen, the UK currently produces about double the open access output of the rest of the world, and therefore institutions can expect to pay to access the majority of research outputs published worldwide for a long time.

34. The risk of the UK paying twice to fund Gold by paying APCs while having to maintain its subscription outgoings was recognised nearly a decade ago by the House of Commons Science and Technology Committee, which concluded that “the UK would put itself at a financial disadvantage internationally if it were to act alone in mandating publicly-funded researchers to publish in author-pays journals”.⁵⁰ The quantitative evidence we have seen shows that the costs of unilaterally adopting Gold open access during a transitional period (when subscriptions are maintained) are much higher than those of Green open access, and we return to this issue in Chapter 4.

35. Government and RCUK should rigorously monitor global take up of Gold and Green and international developments in open access policy worldwide. This data should be used to inform both the reconvening of representatives of the Finch working group in the Autumn of 2013, and RCUK's review of its open access policy in 2014.

48 Ev 72

49 Ev 54

50 *Free for all?*, p 106

4 The transition to open access: costs and hidden costs

Pure Gold and Hybrid Gold

36. Neither the Finch Report nor the Government nor RCUK make any detailed distinction between hybrid journals and fully open access or “pure” Gold journals.⁵¹ Consequently, publishers operating either type of model are therefore equally eligible to receive APCs paid by UK research funders and research organisations.⁵² We received many submissions arguing that this would have two unintended consequences: allowing “double dipping”⁵³ by hybrid publishers, and promoting artificially high APCs.

37. Due to the Government’s clear preference for Gold funded by APCs, and the fact that RCUK has said it will make available £100m to fund the implementation of this policy⁵⁴, it seems likely that publishers will be incentivised to add a Gold option to their subscription model, and become hybrid as a direct result of the Government’s open access policy. Evidence from Reed Elsevier supported this assumption:

Since 1 April, when the new UK policies were implemented, there has been a differential pattern of open-access publishing. There are many more hybrid open-access journals, in particular, in the landscape now. The Finch group was looking forward to that new landscape. [...]With the Government’s policy that we are all implementing, we will see an increase in the amount of hybrid open-access publishing done at scale.⁵⁵

38. It seems likely that for-profit publishers of hybrid journals with a diversified income comprised of both subscriptions and APCs will seek to maintain that joint revenue stream for as long as possible, especially if in doing so they would be actively complying with Government and funder policies. Clearly, one of the factors that will determine the cost of any move to open access in the UK will be the extent to which subscriptions need to be maintained, while payments of APCs increase. This is referred to in the Finch Report as “stickiness”.⁵⁶ As we have seen, even if the UK reaches total open access by paying for APCs for 100% of research produced in this country, it must continue to pay subscription charges in order to access the vast majority of the rest.

39. The Government and RCUK have reiterated the Finch Report’s conclusion⁵⁷ that HEIs and others must “negotiate hard”⁵⁸ with publishers to drive down subscription charges to

51 See Glossary

52 *The Finch Report*, recommendation ii

53 See Glossary

54 Ev 39

55 Q2

56 *The Finch Report*, p 38

57 *The Finch Report*, p 11

58 Ev 50

reflect the additional funding they are receiving through APCs. RCUK has said it expects publishers to introduce differential pricing to reflect its additional income.⁵⁹ We heard evidence from Reed Elsevier that it operates a strict no double dipping policy, which it operates by “modify[ing] [its] list prices two years in arrears to reflect the number of hybrid open-access articles that are published”.⁶⁰ The evidence we received suggested that this cannot operate as a genuine rebate since the reduction in subscriptions is applied to all subscribers worldwide, regardless of whether they have paid APCs or not.⁶¹ In this way, the Government’s open access policy means that the UK subsidises access to research for the rest of the world.⁶²

40. Our evidence suggested that average APCs charged by pure Gold publishers are considerably lower than those of publishers operating hybrid journals. The major Gold publisher PLOS published 11% of all peer reviewed research articles funded by the Wellcome Trust in 2012, for which the average APC was £1060. This was around two thirds of the average paid by the Wellcome Trust.⁶³ The published accounts⁶⁴ of PLOS reveal it is making a modest operating profit, and its publicly available price list⁶⁵ shows that it has not raised its prices since 2009, in contrast to subscription based publishers. Some submissions to this inquiry argued that lower APCs led to low quality publishing content, but this was contradicted by the evidence from PLOS whose largest journal PLOS ONE published in 2012 more peer-reviewed research papers funded by the Wellcome Trust, MRC, BBSRC and Cancer Research UK than any other journal.⁶⁶

41. RCUK has undertaken to publish data on “how the open access block grants are being used, specifically the numbers of research papers which are being made open access through payment of an APC and the actual APCs being paid to publishers”⁶⁷. We recommend that RCUK also requires data on subscription expenditure from UK HEIs to establish the impact of its policy on subscription purchasing and pricing.

Embargo periods

42. David Willetts, the Minister with responsibility for Open Access policy, explained his assessment of the advantages of Gold funded by APCs over Green as follows:

First of all, it is honest, it is explicit. There is a cost and a value to publishing and we should recognise it [...]It is explicitly recognised and I like that about it. I like the fact of course that you do get the work openly accessible straight away. The hidden cost in green is waiting six months, 12 months, 24 months, whatever it is, until the

59 *Ibid*

60 Q17

61 Ev 75

62 *Ibid*

63 *Ibid*

64 <http://www.plos.org/about/what-is-plos/progress-updates/> (accessed 10 July 2013)

65 <http://www.plos.org/publish/pricing-policy/publication-fees/> (accessed 10 July 2013)

66 Ev 85

67 RCUK Policy on Open Access and Guidance para 3.14 (ii)
<http://www.rcuk.ac.uk/documents/documents/RCUKOpenAccessPolicy.pdf>

layperson outside the academic community can access a piece of work that he or she as a taxpayer has already paid for once. That is the second advantage.⁶⁸

43. Evidence to our inquiry, however, does not back up this point of view and runs counter to the Minister's assessment. A 2011 study showed that 60% of journals allow immediate unembargoed self-archiving of the peer-reviewed version of the article, that is, immediate open access.⁶⁹ Where publishers impose an embargo, would-be readers can send an automatic email to the author requesting an e-copy.⁷⁰

44. The Finch Report observed of embargoes that "the restrictions imposed by publishers seem to have succeeded so far in limiting any potential impact on take-up of subscriptions to their journals".⁷¹ We heard conflicting views on whether short embargo periods pose a risk to publishers,⁷² but there is no available evidence base to indicate that short or even zero embargoes cause cancellation of subscriptions. Evidence from the field of high energy physics shows that despite nearly 100% immediate, unembargoed deposit (Green), subscriptions have not been damaged.⁷³ The €4 million EU funded PEER (Publishing and the Ecology of European Research) project (2012) showed that traffic to journal websites increased when articles were made available through a publicly accessible repository,⁷⁴ possibly because interest grew as articles were disseminated more widely.

45. Several submissions argued that short embargo periods were more harmful to HASS (humanities, arts and social sciences) than STEM (science, technology, engineering and medicine) disciplines. The most frequently deployed argument in HASS subjects is that since these articles have longer citation half-lives (i.e. are referred to over a longer period) a longer embargo is necessary. The Finch Report was persuaded by this distinction, recommending embargoes for HASS subjects of 24 months and for STEM subjects of 12 months. We did not receive any evidence to support this recommendation, which was adopted by the Government and RCUK though their endorsement of the Publishers Association's decision tree.⁷⁵

68 Q117

69 Ev 116 and <http://romeo.jiscinvolve.org/wp/2011/11/24/60-of-journals-allow-immediate-archiving-of-peer-reviewed-articles-but-it-gets-much-much-better/>

70 Ev 70

71 *The Finch Report*, para 5.10

72 Reed Elsevier gave conflicting evidence on this topic, speaking of "crystal-clear consensus" in the subscription-publishing community that short embargoes can undermine the sustainability of journals, whilst also acknowledging "we have not seen clear evidence of an undermining or cancellation of subscriptions at this point." (Q34) Two witnesses representing PLOS and ALPSP respectively used the results of the same survey to support their opposing arguments for and against longer embargo periods. (Q34)

73 Ev w82

74 <http://www.peerproject.eu/>

75 Ev w118

Figure 2: The Publishers Association’s decision tree for policy on access to UK publicly funded research outputs⁷⁶



46. Some of the evidence we received predicted that the open access policies of the Government and RCUK regarding embargoes would incentivise publishers to introduce embargoes or lengthen existing embargo requirements, in order to force UK authors to pay for Gold.⁷⁷ Longer embargoes result in reduced access to published research findings for the UK, and reduced access to the rest of the world. We heard reports of a UK publisher in social sciences switching from a zero embargo policy to require a 24 month embargo, citing its accordance with the recent change to UK open access policy.⁷⁸

47. The Government’s response to this was that the publisher’s interpretation of UK policy was inaccurate, since Government and RCUK policy includes embargoes of up to 12 and 24 months respectively, as a “maximum allowance” rather than “a requirement”.⁷⁹ However, the Government acknowledged that the publisher “was acting within the limits of UK policy” and acknowledged that “any move to extend embargo periods where shorter ones are otherwise sustainable for publishers would be counter to the overall aims of the Government OA policy”.⁸⁰ The Government told us that the Publishers Association would “welcome” being informed of instances where “inappropriate” embargoes were implemented.⁸¹

76 Ev w118

77 Ev 76

78 See Q131 and <http://poynder.blogspot.fi/2013/06/open-access-emeralds-green-starts-to.html>

79 Ev 132

80 Ev 132

81 *Ibid*

48. Since then, the world's second largest journal publisher, Springer, has imposed a 12 month embargo on papers deposited in institutional repositories, where previously unembargoed deposit was permitted.⁸²

49. We note the absence of evidence that short embargo periods harm subscription publishers. We have seen evidence that current UK open access policy risks incentivising publishers to introduce or increase embargo periods. This has serious implications for open access in the UK and the rest of the world. We agree with the Government that lengthened embargoes are counter to its aim to increase access.

*50. The stated policy objective of the Government and RCUK is to increase access to publicly funded research. Long embargoes are a barrier to access. We recommend that the Government and RCUK revise their policies to place an upper limit of 6 month embargoes on STEM subject research and up to 12 month embargoes for HASS subject research, in line with RCUK's original policy published in July 2012.*⁸³

51. Given the importance of ensuring that UK open access policy does not result in reduced access in the UK or worldwide, the Government and RCUK must monitor and evaluate the impact of their open access policy on embargo lengths imposed by UK publishers. The impact on different subject areas must also be carefully monitored. That information must inform future meetings of the Finch Group and RCUK's reviews of open access policy.

Levels of Article Processing Charges

52. The Finch Report's economic modelling of the costs to the UK of moving towards open access used a range of APCs, beginning with a starting point of £1,450, a middle ground scenario of £1,750, and a higher scenario of £2,175. The Finch group arrived at the figure of £1,450, the lowest figure in its modelling, because it was the average APC paid by the Wellcome Trust at the time.⁸⁴

53. We received a considerable volume of evidence to suggest that the prices of APCs used in the Finch Report's modelling were very high. Indeed, BIS's own 'Economic Analysis of the cost of alternative options for open access in the UK' stated that "the Finch Group reported £12m spent nationally in Open Access in 2010 for around 16,000 open access articles",⁸⁵ which works out at an average price per article of only £750. A 2012 study found the global average APC of open access journals to be £571.⁸⁶ The evidence of major open access publisher PLOS gave more detail about Wellcome's average payments for APCs:

One of our concerns, and a concern of many pure open-access publishers, is to ensure that we have an effective, functioning market in article-processing charges. If we do not have a market and we do not have some price sensitivity for authors, there

82 Richard Poynder blogspot: *Open access: Springer tightens rules on self-archiving* (June 2013) http://poynder.blogspot.co.uk/2013_06_01_archive.html

83 Ev 96

84 *The Finch Report*, p 72

85 Ev 54

86 Ev 117

is a concern that prices can run out of control. One example of that is again in our evidence, where the charges we made to the Wellcome Trust in 2012 were actually around about two thirds of the average of what the Wellcome Trust pays. Of course, the Wellcome Trust pays those bills, so it is very easy to spend more money when you are spending someone else's money.⁸⁷

54. While the Finch Report did not attempt to set market levels for APCs, the figures it used in its modelling undoubtedly created a risk that publishers would see these as a benchmark. RCUK explained in its evidence to us that in calculating the total amount of funding that it would make available to support Gold funded by APCs, “the average cost of an APC has been taken from the Finch Report (estimated as £1727 plus VAT)⁸⁸.” The Government confirmed that RCUK’s expected spend of £100m on Gold OA over the next five years was based on the same figure.⁸⁹

55. We have not seen any evidence to suggest that either the Government or RCUK have attempted to establish whether the figures used in the Finch Report’s modelling accurately represented current APC averages. The minutes of the meeting of the Finch working group on 22 February 2012 record that two BIS economists who “provided assistance in economic modelling for the Group”, also “worked on the advice to Ministers once the Group’s report [was] finalised”.⁹⁰ When BIS’s own economic analysis was released in March 2013, the Rt Hon David Willetts MP wrote to the House of Lords Science and Technology Committee:

This analysis was done in mid 2012 prior to the publication of the recommendations of the Finch Group and prior to the announcement of RCUK policy. It was not intended as an evaluation of the policy that has now been adopted but it supports the Government preference for Gold access independently of Finch and RCUK.⁹¹

56. The same economist was involved with the Government’s initial pre-Finch Report analysis of open access, the Finch Report modelling, and the Government’s subsequent acceptance of those recommendations. This draws the independence of the Finch Report and its economic analysis into question. We are of the view that had the Finch working group commissioned entirely independent economic analysis this would have been avoided.

57. We conclude that the Finch Report, the Government and RCUK have failed to assess adequately the existing levels of APCs that are charged by a range of open access journals, both within the UK and worldwide, and instead formed a plan of expenditure based on payments to publishers that, compared to a range of benchmarks including APCs of the largest “pure” Gold publisher, are rather less than competitive.

87 Q3

88 Ev 99

89 Ev 39

90 <http://www.researchinfonet.org/wp-content/uploads/2012/01/Minutes-22-Feb-D1.pdf>

91 Ev 132

58. *We recommend that the Finch working group commissions an independent report on APC pricing, which should include average APC prices of pure Gold journals and hybrid journals, domestically and internationally.*

59. *We strongly support the recommendation of the Science and Technology Committee of the House of Lords that the Government undertake a full cost-benefit analysis of open access policy, including the impact on different subject areas. This analysis must include data to reflect actual rather than projected costs during the transition period.*

Affordability of APCs for authors and UK research organisations

60. A large number of contributors to our inquiry argued that the block grants provided by RCUK to fund APCs would be insufficient to facilitate the transition to APC funded publishing at scale, and would not compensate research organisations for the increased costs of both maintaining subscription purchasing and funding APCs. The Head of Politics at the University of Exeter estimated that block grant funds for a department of 35 full—time academics and many more post-doctoral students would cover only a single APC for the entire department.⁹² We asked the Minister whether this raised concerns around affordability of APCs. He responded:

The University of Exeter runs on a budget of several hundred million pounds. Part of what Exeter does is attract academics who wish to publish research findings. It is reasonable to say that part of the academic and research mission of Exeter is to ensure that good quality research is funded. This argument that I get a bit presents a picture of the relationship between academics and university management that I do not recognise.⁹³

61. Though not entirely clear, this would seem to suggest that the Government’s view is that institutions must look elsewhere in their budgets to find the funds to cover the costs of maintaining subscriptions and paying APCs, which raises serious issues for HEIs. Several representatives of the HE community said that in contrast to Gold, Green was achievable and sustainable for their institutions.⁹⁴ This was supported by recent research which suggested that with APCs at £1500 (i.e. at the lower end of the range used in the Finch Report’s modelling), adopting Gold would cost UK universities 12 times the cost of adopting Green, and for the more research intensive universities, Gold could cost 25 times as much as going Green.⁹⁵ Many submissions referred to the administrative and management costs for universities of processing, distributing and monitoring the block grant for open access. These will need to be monitored.

62. We also received differing views on the total opportunity cost represented by the Government’s open access policy. The Government submitted that this “will only be about

92 Q84

93 Q150

94 Ev 113

95 Swan and Houghton, ‘Going for Gold? The costs and benefits of Gold Open Access for UK research institutions: further economic modelling’ Report to the UK Open Access Implementation Group (<http://repository.jisc.ac.uk/610/>)

one per cent of the science budget of £4.6 billion per annum”.⁹⁶ The Russell Group described this in different terms:

The funding for open access is being taken directly from Research Council budgets, which could otherwise be used to support research, doctoral training and knowledge transfer activities that have a more direct impact on economic growth, jobs and future quality of life. RCUK has earmarked £37 million over two years for Gold open access: £17 million in the first year of policy implementation and £20 million in year two. This is equivalent to the stipends and fees for 964 doctoral students in year one, 1,135 in year two and even more in subsequent years as open access requirements increase. In research terms this is three times more than EPSRC is investing in the UK Catalysis Hub at Harwell, which will have major applications in energy, manufacturing and healthcare. Over a five year period, RCUK has estimated it will need to put over £100 million into Gold open access, similar to the whole of the Government’s recent announcements on capital spending for synthetic biology research.⁹⁷

63. At a time when the budgets of research organisations and HEIs are under great pressure, it is unacceptable that the Government has issued, without public consultation, an open access policy that will require considerable subsidy from research budgets in order to maintain journal subscriptions and cover APCs. Significant public investment has already been made in institutional repositories, of which there are 120 in the UK, and they could represent a more cost-effective and sustainable route to full open access.

64. We are concerned that the expectation appears to be that universities and research organisations will fund the balance of APCs and open access costs from their own reserves. We look to the Government and RCUK to mitigate against the impact on university budgets. The Government must not underestimate the significance of this issue.

The shared ultimate goal of full Gold open access

65. Within the longstanding debate on open access policy, proponents for Green and Gold are often described as being diametrically opposed in their views. In fact, the evidence we have seen demonstrates considerable common ground between the two positions. Professor Stevan Harnad, an advocate of Green, argued that a well managed transition process using strong deposit mandates would:

Induce the transition to Gold open access [...] to allow publishing to evolve toward the obvious, optimal and inevitable outcome: Gold open access at a fair, affordable, sustainable price, with no inflation and no double-dipping.⁹⁸

66. The most comprehensive economic analysis available supports this. A 2012 report commissioned by the UK Open Access Implementation Group assessed the costs and benefits of Gold for UK research institutions and found that in a fully open access world,

96 Ev 39

97 Ev 114

98 Ev 77

the net benefits of Gold would be greater than those of Green. In their article '*Planting the green seeds for a golden harvest*', Dr Alma Swan and Professor John Houghton said:

If open access were adopted worldwide, the net benefits of Gold open access would exceed those of Green open access. However, we are not in an open access world [...] At the institutional level, during a transitional period when subscriptions are maintained, the cost of unilaterally adopting Green open access is much lower than the cost of Gold open access—with Green open access self-archiving costing average institutions sampled around one-fifth the amount that Gold open access might cost, and as little as one-tenth as much for the most research intensive university. Hence, we conclude that the most affordable and cost-effective means of moving towards open access is through Green open access, which can be adopted unilaterally at the funder, institutional, sectoral and national levels at relatively little cost.⁹⁹

67. The key to the success or failure of the UK's open access policy therefore is the management of the transitional stage to full open access. The almost immediate acceptance of the Finch Report's recommendations by the Government and RCUK in the formation of their policies, together with the radical change in policy direction from predominantly Green policies and mandates towards Gold funded by APCs, has resulted in insufficient consideration being given to this transitional period. As discussed earlier, the understanding of how that transition might be most effectively managed for all stakeholders has also been hampered by the Finch Report's failure to evaluate the success of existing UK open access policies and the vital role the Green route will make to that transition.

68. Slowly, the messages from RCUK are changing. There have been more than half a dozen substantive revisions to RCUK policy and guidance since its official issue in July 2012. In January 2013, RCUK said that "at the current time the Gold option provides the best way of delivering immediate, non-restricted access to research papers".¹⁰⁰ By April, its position had changed to "we have a preference [for Gold]... but it is not an absolute preference," and "we should not place all our bets on one particular horse".¹⁰¹ RCUK's current position is that even if APCs are available, either the Green or Gold route is acceptable, with authors or their institutions free to decide.¹⁰² Both routes now count towards RCUK's expected rates of compliance, which before recognised only Gold open access.¹⁰³ The decision tree, originally produced by the Publishers Association and publicly endorsed by both the Government and RCUK, therefore does not represent RCUK's position.¹⁰⁴

99 Houghton, John W. & Swan, Alma (2013) *Planting the green seeds for a golden harvest: Comments and clarifications on "Going for Gold"* *D-Lib Magazine* 19(1/2)<http://www.dlib.org/dlib/january13/houghton/01houghton.html>

100 Ev 96 and para 3.1 of RCUK's evidence to the House of Lords Science and Technology Committee's inquiry into the Implementation of Open Access - <http://www.parliament.uk/documents/lords-committees/science-technology/Openaccess/OpenAccessEvidence.pdf>

101 Q48

102 RCUK guidance, para 3 p4<http://www.rcuk.ac.uk/documents/documents/RCUKOpenAccessPolicy.pdf>

103 RCUK re-revised its policy in April 2013 so that Green or Gold OA now count towards its expected rates of compliance, of 45% in 2013/14, 53% in 2014/15 and 75% in 2017/18

104 See Figure 2

69. The pro-active stance the Government has taken in the formation of open access policy is to be welcomed. However, we are of the view that the Government has failed to communicate effectively that Gold open access is the ultimate goal at the end of a transition phase. Because insufficient attention has been given to the transitional route, the Government has neglected the opportunity to ensure that costs are constrained, and that institutions and research authors are convinced of the merits of open access policy.

70. The Government and RCUK should clarify that Gold open access is the ultimate goal of, rather than the primary route to, their open access policies. We recommend that the Government and RCUK reconsider their preference for Gold open access during the five year transition period, and give due regard to the evidence of the vital role that Green open access and repositories have to play as the UK moves towards full open access.

71. RCUK's current guidance provides that the choice of Green or Gold open access lies with the author and the author's institution, even if the Gold option is available from the publisher. This is incompatible with the Publishers Association's decision tree, and RCUK should therefore withdraw its endorsement of the decision tree as soon as possible, to avoid further confusion within the academic and publishing communities.

5 Achieving a functional market

72. Neither the Finch Report nor the Government assessed the current functioning of the scholarly publishing market in the formation of their policies. Despite the massive profit margins of the large commercial publishers, driven up by public sector expenditure, the Government made it clear to the Finch Group that it was important not to destabilise “what is most valuable in the research communications system”.¹⁰⁵ This was subsequently confirmed as a priority:

It was accepted that publishers, including learned societies, provide a valuable service by both administering a highly respected peer review process and providing the necessary investment for a globally successful UK based research publishing industry. To sustain the advantages of the present publishing arrangements, whilst simultaneously exposing the industry to radical change, requires payment of an APC under Gold OA.¹⁰⁶

73. A recurring theme in this inquiry has been that elements of the scholarly publishing market are dysfunctional. The systematic increase in subscription prices over inflation, the opacity of pricing due to non disclosure agreements, and the APC pricing differences between comparable hybrid and pure Gold open access journals have been set out earlier in this Report. Together, they demonstrate a lack of transparency and competition in the market which is deeply concerning.

74. The evidence we received strongly suggests that implementation of the Government and RCUK policies will make the situation worse. Publishers have been incentivised to add a Gold open access option to their subscription journals. It is highly likely that this will lead to longer embargoes and less access. It could also lead to double payments by UK institutions, which have to maintain their subscription charges while paying APCs as well. The costs of publishing services are increasingly disassociated from the value of the actual services provided. We heard evidence that costs of peer review, formatting, editing and other publisher services are exaggerated by publishers, keeping prices artificially high.

75. We received evidence showing that the development of a functional market is also hampered by the fact that authors are desensitised to the prices of journals in which they publish, because the purchasers (predominantly libraries) are not the consumers of the product. The Government also is desensitised to the costs of its policy, claiming that since APC costs would be carved out of the ring-fenced science budget, “it is not a public expenditure issue”.¹⁰⁷ We disagree. The Government is accountable to the public for where and how public money is spent. Without price sensitivity, and given that the economic modelling for this policy was less than robust, the Government’s expectation that “publishers will need to set their APCs at a level that allows them to effectively compete”¹⁰⁸ seems overly optimistic.

105 <https://www.gov.uk/government/speeches/public-access-to-publicly-funded-research>

106 Ev 41

107 Q121

108 Ev 39

76. Both the House of Commons Science and Technology Committee's 2004 Report, and the Finch Report, highlighted the fact that VAT currently applies to e-journals, but not to print journals. This creates a clear disincentive for online access, and therefore to open access. Despite this anomaly, the Government has asserted that it does not consider it worthwhile to pursue a reduction in VAT rates with the European Union.¹⁰⁹ We disagree, and believe that the Government should be willing to increase its efforts to remove or reduce this barrier.

77. *If RCUK and the Government continue to maintain their preference for Gold, they should amend their policies so that APCs are only paid to publishers of pure Gold rather than hybrid journals. This would eliminate the risk of double dipping by journals, and encourage innovation in the scholarly publishing market.*

78. *The evidence we saw suggested that authors have little price sensitivity when they choose a journal in which to publish.¹¹⁰ We recommend that RCUK amends its policy to allow grant funds to be used for publishing charges, which is by far the most common model internationally. This would re-introduce price pressure by prompting authors to make an informed decision on where to publish. We recommend that the Government endorse genuine price transparency from publishers so that it is clear to subscribers which services and costs are and are not included in the overall subscription price, enabling subscribers to assess the costs and benefits of purchasing.*

79. *We strongly agree with the recommendations of the House of Commons Science and Technology Committee and the Finch Report that the Government should work to introduce a reduced VAT rate for e-journals. Given the emphasis the Government has placed on the benefits of increasing open access, the Government should seek a derogation on this point from the European Commission.*

80. *We further recommend that the Government indicates clearly that non-disclosure clauses should not be included in publishing contracts which involve public funds. In the first instance, this should be achieved through dialogue between Government, publishers and universities. If the use of non-disclosure clauses persists, then the Government should consider referring the matter to the Competition Commission.*

109 Ev 58

110 Ev 83

6 Use and re-use

Licensing

81. The Finch Report recommended that open access policies should minimise restrictions on the rights of use and re-use of content, especially for non commercial purposes, and on the ability to use the latest mechanisms to organise and manipulate content. The Government agreed, and RCUK requires that where an APC is paid, the article must be published under the Creative Commons Attribution Only (CC-BY) licence. Unfortunately for RCUK, research organisations and open access, evidence we received suggested that some publishers have increased their APCs in response to that requirement.¹¹¹

82. We received evidence of widespread concern, uncertainty and confusion about the impact of particular licences, for example CC BY, on author rights and extent of re-use rights. At present, there is insufficient research data on this issue. PLOS stated that 70,000 articles were published under CC-BY by three of the largest open access publishers in 2012, with 200,000 published in the same way over a decade, with no issues arising to date from the licence choice.¹¹²

83. We are aware that the Government has sought further advice on this issue through a series of ministerial ‘roundtables’. That work should have been undertaken and completed before implementation of RCUK’s open access policy on 1 April 2013, as it would have minimised concerns within the academic and publishing communities.

84. We conclude that the Government must keep an open mind on licensing requirements until the findings of the ministerial roundtable are available. The Government should commission independent research on the implications of the most common licences if necessary. We believe that authors should be able to choose the licence that applies to their work, especially during the transitional period while further evidence is gathered. Mandating the use of a particular licence should not be prioritised over immediate online access to findings of publicly funded research, which is at the heart of open access.

85. We recommend that the Government reports the outcomes of its further investigations into licensing to us and communicates them clearly through RCUK as soon as possible in order to assuage concerns of authors and their institutions.

86. RCUK should monitor complaints from authors and/or their institutions about breach of licensing conditions or inappropriate re-use of content, consider these at its review of open access policy, and identify appropriate action if necessary.

Open access, innovation and growth

87. The Government has asserted that open access offers “significant social and economic benefits by spreading knowledge, raising the prestige of UK research and encouraging

111 Ev 115

112 Ev 83

technology transfer”.¹¹³ Research undertaken by Professor John Houghton demonstrates that open access is likely to return a five-fold increase in investment¹¹⁴ and the Government, extrapolating from a separate study by Professor Houghton and Dr Swan on the economic impact of Danish SMEs being unable to access research, has estimated that the cost to the UK economy of the existing arrangements was €525m per year.¹¹⁵

88. It is surprising then, that the only business interest outside the publishing sector represented on the Finch working group was Rolls Royce, and its involvement was limited to the sub group on licensing. Reed Elsevier’s representative on the same sub group recalled:

I can remember a discussion very clearly. There was an intervention by the representative from the Technology Strategy Board, a chap from Rolls-Royce, who thought it was absolutely ludicrous that anyone would suggest that his company’s access to research literature should be subsidised by the taxpayer.¹¹⁶

89. We heard evidence that open access is of more vital importance for SMEs, which on the whole cannot themselves afford to engage researchers or pay for subscriptions. Professor Houghton and Dr Swan said:

People working for innovative SMEs do not go to public libraries for work-related information, as the Finch Report suggests. In [the] real world, people use Web search engines to search for articles. The concept of a scientific journal is not relevant to what they do. Gold open access is thus of limited relevance to these non academic constituencies. Green open access is exactly what the SME sector needs: it needs immediate, article level use without constraints. The BIS innovation agenda is best served by Green open access, which is affordable now.¹¹⁷

90. Consultation with business and industry (outside the publishing sector) during the formation of the Government’s policy was wholly inadequate, despite the Government’s policy objective to drive innovation and growth through its open access policy. We have seen no evidence that Gold is either more useful to, or is preferred by, businesses. The available evidence indicates that Green meets the needs of businesses, at a considerably lower cost.

91. We believe that BIS must review its consultation processes to ensure that lessons are learned from the lack of involvement of a broader range of businesses, particularly SMEs, in the formation of open access policy. It is particularly important to ensure that future policies and initiatives (for example Gateway to Research) take into account the specific needs of the communities they are intended to serve, to ensure optimum functionality and a more efficient use of public funds.

113 BIS’ Innovation and Research Strategy for Growth

114 John Houghton, Bruce Rasmussen and Peter Sheehan. (2010) ‘Economic and Social Returns on Investment in Open Archiving Publicly Funded Research Outputs’ <http://www.arl.org/sparc/publications/papers/vuFRPAA/index.shtml>

115 Q117

116 Q39

117 Ev w93

7 Conclusion

92. The Government's committed and pro-active stance to increasing access to published research findings is admirable, as is its desire to achieve full open access. Gold open access, at scale, is a desirable ultimate goal, and we acknowledge that the recommendations of the Finch Report, and the Government and RCUK's open access policies were formulated with this end in mind.

93. However, almost without exception, our evidence has pointed to gaps in both the qualitative and quantitative evidence underpinning the Finch Report's conclusions and recommendations, most significantly a failure to examine the UK's Green mandates and their efficacy. This has been replicated in the formulation of the Government and RCUK's open access policies and their mistaken focus on the Gold solution as the primary route to achieving open access at scale in the UK. The major mechanism of transition must be Green open access, specifically through strong immediate self-archiving mandates set by funders and institutions, either as a funding condition or tied to research assessment as appropriate.

94. Given the emphasis the Government has placed on the benefits of open access, the Government should seek a derogation in relation to VAT on e-journals as a matter of urgency.

95. The Minister for Universities and Science and members of the Finch working group are due to meet in September 2013 to assess impact and progress of open access policy. RCUK has said it intends to review its policy in 2014, to assess how developments compare to their expectations, and to meet annually after that. As part of those reviews, both Government and RCUK must fully consider and address the conclusions and recommendations set out in this Report.

Conclusions and recommendations

In the report conclusions are shown in **bold**, recommendations are shown in ***bold italics***. In this list, recommendations are shown in *italics*.

Current open access policy in the UK

1. The major mechanism through which the UK has achieved its world leading status (Green open access) has been given inadequate consideration in the formation of Government and RCUK policies. Neglecting repositories and consigning them to a relatively minor role in open access policy is likely to see repository infrastructure, which has been established through continued public investment, fall behind through lack of investment and monitoring. (Paragraph 24)
2. *We are disappointed by the Government's conclusion that "development of infrastructure for repositories will primarily be a matter for institutions themselves", not least because the Government has spent £225m on repositories in recent years. We recommend that the Government takes an active role in working with the Joint Information Systems Committee and the UK Open Access Implementation Group to promote standardisation and compliance across subject and institutional repositories.* (Paragraph 25)

Strengthening deposit mandates to increase open access

3. We strongly support author freedom of choice between Green and Gold open access. If implemented, HEFCE's proposals would ensure that the UK's existing network of repositories was used and monitored effectively. We commend HEFCE for its considered approach to developing its open access policy, and support its proposals for the post 2014 Research Excellence Framework, in particular the immediate deposit mandate as a requirement for eligibility. (Paragraph 29)
4. *We recommend that HEFCE implements its proposals, and maintains the strength of its proposed immediate deposit mandate in the appropriate institutional repository as a pre-condition of Research Excellence Framework eligibility.* (Paragraph 30)
5. *RCUK should build on its original world leading policy by reinstating and strengthening the immediate deposit mandate in its original policy (in line with HEFCE's proposals) and improving the monitoring and enforcement of mandated deposit.* (Paragraph 31)

Open access worldwide

6. *Government and RCUK should rigorously monitor global take up of Gold and Green and international developments in open access policy worldwide. This data should be used to inform both the reconvening of representatives of the Finch working group in the Autumn of 2013, and RCUK's review of its open access policy in 2014.*

(Paragraph 35)

The transition to open access: costs and hidden costs

7. *RCUK has undertaken to publish data on “how the open access block grants are being used, specifically the numbers of research papers which are being made open access through payment of an APC and the actual APCs being paid to publishers”. We recommend that RCUK also requires data on subscription expenditure from UK HEIs to establish the impact of its policy on subscription purchasing and pricing. (Paragraph 41)*

Embargo periods

8. *We note the absence of evidence that short embargo periods harm subscription publishers. We have seen evidence that current UK open access policy risks incentivising publishers to introduce or increase embargo periods. This has serious implications for open access in the UK and the rest of the world. We agree with the Government that lengthened embargoes are counter to its aim to increase access. (Paragraph 49)*
9. *The stated policy objective of the Government and RCUK is to increase access to publicly funded research. Long embargoes are a barrier to access. We recommend that the Government and RCUK revise their policies to place an upper limit of 6 month embargoes on STEM subject research and up to 12 month embargoes for HASS subject research, in line with RCUK’s original policy published in July 2012. (Paragraph 50)*
10. *Given the importance of ensuring that UK open access policy does not result in reduced access in the UK or worldwide, the Government and RCUK must monitor and evaluate the impact of their open access policy on embargo lengths imposed by UK publishers. The impact on different subject areas must also be carefully monitored. That information must inform future meetings of the Finch Group and RCUK’s reviews of open access policy. (Paragraph 51)*

Levels of Article Processing Charges

11. *We conclude that the Finch Report, the Government and RCUK have failed to assess adequately the existing levels of APCs that are charged by a range of open access journals, both within the UK and worldwide, and instead formed a plan of expenditure based on payments to publishers that, compared to a range of benchmarks including APCs of the largest “pure” Gold publisher, are rather less than competitive. (Paragraph 57)*
12. *We recommend that the Finch working group commissions an independent report on APC pricing, which should include average APC prices of pure Gold journals and hybrid journals, domestically and internationally. (Paragraph 58)*
13. *We strongly support the recommendation of the Science and Technology Committee of the House of Lords that the Government undertake a full cost-benefit analysis of open access policy, including the impact on different subject areas. This analysis must*

include data to reflect actual rather than projected costs during the transition period. (Paragraph 59)

Affordability of APCs for authors and UK research organisations

14. At a time when the budgets of research organisations and HEIs are under great pressure, it is unacceptable that the Government has issued, without public consultation, an open access policy that will require considerable subsidy from research budgets in order to maintain journal subscriptions and cover APCs. Significant public investment has already been made in institutional repositories, of which there are 120 in the UK, and they could represent a more cost-effective and sustainable route to full open access. (Paragraph 63)
15. *We are concerned that the expectation appears to be that universities and research organisations will fund the balance of APCs and open access costs from their own reserves. We look to the Government and RCUK to mitigate against the impact on university budgets. The Government must not underestimate the significance of this issue.* (Paragraph 64)

The shared ultimate goal of full Gold open access

16. The pro-active stance the Government has taken in the formation of open access policy is to be welcomed. However, we are of the view that the Government has failed to communicate effectively that Gold open access is the ultimate goal at the end of a transition phase. Because insufficient attention has been given to the transitional route, the Government has neglected the opportunity to ensure that costs are constrained, and that institutions and research authors are convinced of the merits of open access policy. (Paragraph 69)
17. *The Government and RCUK should clarify that Gold open access is the ultimate goal of, rather than the primary route to, their open access policies. We recommend that the Government and RCUK reconsider their preference for Gold open access during the five year transition period, and give due regard to the evidence of the vital role that Green open access and repositories have to play as the UK moves towards full open access.* (Paragraph 70)
18. *RCUK's current guidance provides that the choice of Green or Gold open access lies with the author and the author's institution, even if the Gold option is available from the publisher. This is incompatible with the Publishers Association decision tree, and RCUK should therefore withdraw its endorsement of the decision tree as soon as possible, to avoid further confusion within the academic and publishing communities.* (Paragraph 71)

Achieving a functional market

19. Both the House of Commons Science and Technology Committee's 2004 Report, and the Finch Report, highlighted the fact that VAT currently applies to e-journals, but not to print journals. This creates a clear disincentive for online access, and therefore to open access. Despite this anomaly, the Government has asserted that it

does not consider it worthwhile to pursue a reduction in VAT rates with the European Union. We disagree, and believe that the Government should be willing to increase its efforts to remove or reduce this barrier. (Paragraph 76)

20. *If RCUK and the Government continue to maintain their preference for Gold, they should amend their policies so that APCs are only paid to publishers of pure Gold rather than hybrid journals. This would eliminate the risk of double dipping by journals, and encourage innovation in the scholarly publishing market.* (Paragraph 77)
21. *The evidence we saw suggested that authors have little price sensitivity when they choose a journal in which to publish. We recommend that RCUK amends its policy to allow grant funds to be used for publishing charges, which is by far the most common model internationally. This would re-introduce price pressure by prompting authors to make an informed decision on where to publish. We recommend that the Government endorse genuine price transparency from publishers so that it is clear to subscribers which services and costs are and are not included in the overall subscription price, enabling subscribers to assess the costs and benefits of purchasing.* (Paragraph 78)
22. *We strongly agree with the recommendations of the House of Commons Science and Technology Committee and the Finch Report that the Government should work to introduce a reduced VAT rate for e-journals. Given the emphasis the Government has placed on the benefits of increasing open access, the Government should seek a derogation on this point from the European Commission.* (Paragraph 79)
23. *We further recommend that the Government indicates clearly that non-disclosure clauses should not be included in publishing contracts which involve public funds. In the first instance, this should be achieved through dialogue between Government, publishers and universities. If the use of non-disclosure clauses persists, then the Government should consider referring the matter to the Competition Commission.* (Paragraph 80)

Licensing

24. We conclude that the Government must keep an open mind on licensing requirements until the findings of the ministerial roundtable are available. The Government should commission independent research on the implications of the most common licences if necessary. We believe that authors should be able to choose the licence that applies to their work, especially during the transitional period while further evidence is gathered. Mandating the use of a particular licence should not be prioritised over immediate online access to findings of publicly funded research, which is at the heart of open access. (Paragraph 84)
25. *We recommend that the Government reports the outcomes of its further investigations into licensing to us and communicates them clearly through RCUK as soon as possible in order to assuage concerns of authors and their institutions.* (Paragraph 85)
26. *RCUK should monitor complaints from authors and/or their institutions about breach of licensing conditions or inappropriate re-use of content, consider these at its review of open access policy, and identify appropriate action if necessary.* (Paragraph 86)

Open access, innovation and growth

27. We believe that BIS must review its consultation processes to ensure that lessons are learned from the lack of involvement of a broader range of businesses, particularly SMEs, in the formation of open access policy. It is particularly important to ensure that future policies and initiatives (for example Gateway to Research) take into account the specific needs of the communities they are intended to serve, to ensure optimum functionality and a more efficient use of public funds. (Paragraph 91)

Formal Minutes

Tuesday 3 September 2013

Members present:

Mr Adrian Bailey, in the Chair

Paul Blomfield	Ann McKechin
Caroline Dinéage	Mr Robin Walker

Draft Report (*Open Access*), proposed by the Chair, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 95 read and agreed to.

Resolved, That the Report be the Fifth Report of the Committee to the House.

Ordered, That the Chair make the Report to the House.

Ordered, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

Written evidence was ordered to be reported to the House for printing with the Report in addition to that ordered to be reported for publishing on 14 February and 16 April 2013 in the last Session of Parliament, and 14 May, and 25 June 2013.

[Adjourned till Thursday 12 September at 10.00am

Witnesses

Tuesday 16 April 2013

	<i>Page</i>
Dr Audrey McCulloch , Chief Executive, Association of Learned and Professional Society Publishers, Professor Chris Wickham , Vice-President and Publications Secretary, the British Academy, Dr Cameron Neylon , Advocacy Director, Public Library of Science, and Dr Alicia Wise , Director of Universal Access, Reed Elsevier	Ev 1
Professor Stevan Harnad , Professor of Web Science, University of Southampton, David Sweeney , Director of Research, Innovation and Skills, Higher Education Funding Council for England, Professor Douglas Kell , Information Champion, Research Councils UK, and Dr Alma Swan , Director of Key Perspectives Consultancy, and Director of Advocacy, SPARC Europe	Ev 11
Dr Martin Paul Eve , Lecturer in English Literature, University of Lincoln, Professor Andrew Massey , trustee, Political Studies Association, and Professor of Politics, University of Exeter, Professor Ian Walmsley , Pro-Vice Chancellor for Research, Academic Services and University Collections, University of Oxford, and Professor Sir Ian Diamond , Chair, Research Policy Network, Universities UK, and Principal, University of Aberdeen	Ev 20

Tuesday 14 May 2013

Rt Hon David Willetts MP , Minister for Universities and Science, and Ron Egginton OBE , Head of the Biotechnology and Biological Science Research Council and the Economic and Social Research Council Team, Research Funding Unit, Department for Business, innovation and Skills, and Observer on the Finch working group	Ev 28
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List of printed written evidence

1	Department for Business, Innovation and Skills	Ev 38; Ev 58; Ev 132
2	The Association of Learned and Professional Society Publishers	Ev 58
3	British Academy	Ev 64
4	Dr Martin Paul Eve	Ev 68
5	Professor Stevan Harnad	Ev 70; Ev 124
6	Higher Education Funding Council for England	Ev 78
7	PLOS	Ev 80; Ev 87
8	Political Studies Association of the UK	Ev 88
9	Reed Elsevier	Ev 92
10	Research Councils UK	Ev 96
11	The Russell Group	Ev 113
12	SPARC Europe	Ev 116; Ev 121
13	Universities UK	Ev 130
14	Copy letter from Rt Hon David Willetts MP to Lord Krebs, Chair, House of Lords Science and Technology Committee	Ev 132

List of additional written evidence

(published in Volume II on the Committee's website www.parliament.uk/bis)

1	Academy of Social Sciences	Ev w1
2	African Studies Assn of the UK and SCOLMA	Ev w5
3	Agricultural Economics Society	Ev w9
4	American Philological Association	Ev w10
5	Antiquity Publications Ltd	Ev w11
6	Association for Child and Adolescent Mental Health (ACAMH)	Ev w12
7	Association for Learning Technology	Ev w13
8	Association of Medical Research Charities	Ev w18
9	Authors' Licensing and Collecting Society Ltd	Ev w19
10	Professor Stephen Bailey and Professor John Bell	Ev w21
11	BMJ Group	Ev w22
12	British Academy of Management	Ev w25
13	British Agricultural History Society	Ev w25
14	British Association for American Studies	Ev w26
15	British Association for Slavonic and East European Studies	Ev w27
16	British Educational Leadership, Management and Administration Society	Ev w28
17	British International Studies Association	Ev w29
18	British Library	Ev w34
19	British Ornithologists' Union	Ev w36
20	British Psychological Society	Ev w39
21	British Sociological Association	Ev w41
22	John Bynner, Emeritus Professor of Social Sciences in Education, Institute of Education and Harvey Goldstein, Professor of Social Statistics, University of Bristol	Ev w48
23	Cancer Research UK	Ev w49
24	Peter Carroll	Ev w51
25	The Chartered Institute of Library and Information Professionals	Ev w54
26	The Classical Association, The Institute of Classical Studies, University of London, The Society for the Promotion of Hellenic Studies, The Society for the Promotion of Roman Studies	Ev w55
27	Council for College and University English and the English Association	Ev w57
28	Council of University Classics Departments	Ev w63
29	Creative Commons Corporation and Creative Commons UK	Ev w67
30	Professor Stephen Curry	Ev w69
31	Emerald Group Publishing Limited	Ev w70
32	European Group for Organization Studies	Ev w75
33	The Fisheries Society of the British Isles	Ev w76
34	Frederick J Friend	Ev w77
35	Geological Society of London	Ev w79
36	Professor Abby Ghobadian, Professor Yehuda Baruch and Professor Mustafa Özbilgin	Ev w81
37	Tony Hey	Ev w82

38	Editors of History Journals	Ev w86
39	History UK (HE)	Ev w88
40	Professor John Houghton and Dr Alma Swan	Ev w93
41	Institute of Mathematics and its Applications	Ev w94
42	Institute of Physics	Ev w95
43	Institute of Science and Technology	Ev w97
44	(Editorial Board of the) Journal of Commonwealth Literature	Ev w98
45	(Editorial Board of the) Journal of Southern African Studies	Ev w99
46	London Mathematical Society	Ev w102
47	Dr Heather Morrison	Ev w105
48	Ross Mounce	Ev w107
49	Professor Peter Murray-Rust	Ev w110
50	National Union of Students	Ev w111
51	Open University	Ev w112
52	Physiological Society	Ev w114
53	The Publishers Association	Ev w117
54	Regional Studies Association	Ev w121
55	Remote Sensing and Photogrammetry Society	Ev w122
56	Research Libraries UK	Ev w125
57	Rolls Royce plc	Ev w127
58	Royal Anthropological Institute	Ev w129
59	Royal Astronomical Society	Ev w130
60	Royal Economic Society	Ev w133
61	Royal Entomological Society	Ev w135
62	Royal Geographical Society (with IBG)	Ev w136
63	Royal Historical Society	Ev w141
64	The Royal Society	Ev w143
65	Royal Society of Chemistry	Ev w144
66	Royal Statistical Society	Ev w148
67	SAGE Publications Ltd	Ev w151
68	Social History Society of the UK	Ev w153
69	Society of Biology	Ev w156
70	Society for Research into Higher Education	Ev w159
71	Socio-Legal Studies Association	Ev w164
72	Dr Dan Stowell	Ev w167
73	Tavistock Institute of Human Relations	Ev w168
74	Dr Michael P Taylor	Ev w171
75	Kathryn Toledano	Ev w175
76	Ubiquity Press	Ev w176
77	UK Computing Research Committee	Ev w178
78	United Kingdom Council of Research Repositories	Ev w179
79	University Association for Contemporary European Studies	Ev w182
80	University College London	Ev w183
81	University Council for Modern Languages	Ev w185
82	University of Hertfordshire	Ev w186

83	University of Leeds	Ev w188
84	The Wellcome Trust	Ev w189
85	Wiley	Ev w193
86	Zoological Society of London (ZSL)	Ev w194

List of Reports from the Committee during the current Parliament

The reference number of the Government's response to each Report is printed in brackets after the HC printing number.

Session 2013–14

First Report	Women in the Workplace	HC 342-I/II/III
Second Report/First Joint Report	Scrutiny of Arms Exports and Arms Control (2013): Scrutiny of the Government's UK Strategic Export Controls Annual Report 2011 published in July 2012, the Government's Quarterly Reports from October 2011 to September 2012, and the Government's policies on arms exports and international arms control issues	HC 205
Third Report	The Kay Review of UK Equity Markets and Long-term Decision Making	HC 603
Fourth Report	Consultation on a Statutory Code for Pub Companies	HC 314

Session 2012–13

First Report	The Hargreaves Review of Intellectual Property: Where Next?	HC 367-I/II(HC 579)
Second Report/First Joint Report	Scrutiny of Arms Export Controls (2012): UK Strategic Export Controls Annual Report 2010, Quarterly Reports for 2010 and January to September 2011, the Government's review of arms exports to the Middle East and North Africa, and wider arms control issues	HC 419
Third Report	Post Office Network Transformation	HC 84(HC 678)
Fourth Report	Overseas Students and Net Migration	HC 425(Cm 8557)
Fifth Report	Apprenticeships	HC-I/II/III(HC 899)
Sixth Report	The Insolvency Service	HC 675 (HC 1115)
Seventh Report	Too Little, Too Late: Committee's observations on the Government Response to the Report on Overseas Students and Net Migration	HC 1015(Cm 8622)
Eighth Report	Pre-appointment hearing of the Government's preferred candidate for the post of Groceries Code Adjudicator	HC 1011
Ninth Report	Local Enterprise Partnerships	HC 598

Session 2010–12

First Report	The New Local Enterprise Partnerships: An Initial Assessment	HC 434 (HC 809)
Second Report	Sheffield Forgemasters	HC 484 (HC 843)
Third Report	Government Assistance to Industry	HC 561
Fourth Report / First Joint Report	Scrutiny of Arms Export Controls (2011): UK Strategic Export Controls Annual Report 2009, Quarterly Reports for 2010,licensing policy and review of export control legislation	HC 686

Fifth Report	Government Assistance to Industry: Government Response to the Committee's Third Report of Session 2010–11	HC 1038
Sixth Report	Is Kraft working for Cadbury?	HC 871
Seventh Report	Rebalancing the Economy: Trade and Investment	HC 735 (HC 1545)
Eighth Report	Trade and Investment: China	HC 1421 (HC 1568)
Ninth Report	Time to bring on the referee? The Government's proposed Adjudicator for the Groceries Code	HC 1224-I
Tenth Report	Pub Companies	HC 1369-I/II (<i>Cm 8222</i>)
Eleventh Report	Time to bring on the referee? The Government's proposed Adjudicator for the Groceries Code: Government Response to the Committee's Ninth Report of Session 2010-12	HC 1546
Twelfth Report	Government reform of Higher Education	HC 885-I/II/III (HC 286)
Thirteenth Report	Pre-Appointment Hearing: Appointment of Director of the Office for Fair Access	HC 1811
Fourteenth Report	Debt Management	HC 1649 (HC 301)
Fifteenth Report	Stamp Prices	HC 1841-I/II

Oral evidence

Taken before the Business, Innovation and Skills Committee

on Tuesday 16 April 2013

Members present:

Mr Adrian Bailey (Chair)

Mr Brian Binley
Paul Blomfield
Mike Crockart
Rebecca Harris

Ann McKechin
Mr Robin Walker
Nadhim Zahawi

Examination of Witnesses

Witnesses: **Dr Audrey McCulloch**, Chief Executive, Association of Learned and Professional Society Publishers, **Professor Chris Wickham**, Vice-President and Publications Secretary, the British Academy, **Dr Cameron Neylon**, Advocacy Director, Public Library of Science, and **Dr Alicia Wise**, Director of Universal Access, Reed Elsevier, gave evidence.

Q1 Chair: May I open the meeting and welcome you? Thank you for agreeing to answer our questions today. For voice transcription purposes, I will just start by inviting you to introduce yourselves. Could we start with you, Audrey?

Dr McCulloch: I am Audrey McCulloch, Chief Executive at ALPSP.

Professor Wickham: I am Chris Wickham, a Vice-President of the British Academy, for which I am speaking.

Dr Neylon: I am Cameron Neylon, Advocacy Director at PLOS.

Dr Wise: I am Alicia Wise, Director of Universal Access at Elsevier.

Q2 Chair: Thanks very much. Some of the questions we ask you will be person-specific, although that is not to say that anybody else who has a view cannot comment as well. The reverse is true: some of them will be addressed to everybody, but if you feel that others have said everything that you would like to say, please do not feel obligated to repeat it. Time is short and we have a lot of issues that we want to explore. I will open, and this question, theoretically at least, is to all. Written evidence submitted by the Public Library of Science to this inquiry has said that the average price of article-processing charges across journals was “below the allowances made by RCUK” and “significantly lower than the range suggested by the Finch report”. In contrast, the Association of Learned and Professional Society Publishers said that “in order to just break even, some journals” would need to “at least double their current APCs”. Those appear to be contradictory. What are the key considerations for achieving APC pricing that you think is both competitive and sustainable. Who would like to lead on it?

Dr McCulloch: The reasoning behind what I said in the ALPSP response was based on learned societies looking at individual journal business models and the profit and loss accounts specific to those. A lot of learned societies do not benefit from the economies of scale of the larger publishers. Therefore, to sustain the income that learned societies expect of the publishing

arm, it looks like they would have to increase the APCs that are currently the average at the moment, and potentially double them. They do not want to do that; they are looking at other ways to provide additional income that mean they do not have to do that. There will be a competitive market for APCs, and they recognise that.

Dr Wise: The Finch report estimated that the average cost of APCs would be between £1,500 and £2,000, and according to our analysis that does seem about right. The difference in the evidence may reflect the fact that since 1 April, when the new UK policies were implemented, there has been a differential pattern of open-access publishing. There are many more hybrid open-access journals, in particular, in the landscape now. The Finch group was looking forward to that new landscape.

To answer the specific question, every journal handles a different type of paper; they have different communities, different editorial practices, and they will have different submission levels and rejection rates. That spectrum of variation all feeds into the different article-publishing charges that would be set for a particular title.

Mr Binley: On a point of order, Mr Chairman, may I ask the panel not to use acronyms if it is possible? It is the cult of the high priest, and I have never wished to be one, so I would be grateful if you would not use them more than you need to.

Chair: I have to say there is a glossary there.

Mr Binley: There might be, but I would still rather not use them.

Dr Neylon: In our evidence, we relied on existing data for open-access publishers, and we also stated a view that we believe the current pricing in the subscription market is the result of a systemic market failure. That means that the current pricing, which is based on the systems and mechanisms that have been in place in traditional publishers, reflects a significant range of inefficiencies. Those inefficiencies can be seen when you look at those publishers that have been born open access and have adopted the efficiencies available from operating partly online and not in print, to be

fair, but have also considered business models and systems that operate most effectively.

There is a very wide diversity of open-access publishers, offering a very wide range of services to a very wide range of communities. They range from journals that operate on what you might call a shoestring model, where basically all the time and effort is donated from a small community—the *Journal of Machine Learning Research* is an example of that—through to journals like *PLOS ONE*, which is an extremely large journal—the largest journal in the world in fact—that focuses on science and has a particular selection mechanism that ensures both quality and efficiency.

In the long term, if you look at the pricing for existing open-access publishers and you compare that with the hybrid offerings as traditional publishers are trying to shift into this new mode of action, that means we simply offer prices that are about half what many others are offering. There are series of different pieces of evidence to point to that. There is the Laakso and Björk paper we quote in our work. There is a comparison from a little earlier of society journals run by societies versus society journals run by commercial publishers, where the society journals actually operate much more efficiently. Then there is the work of Jevin West and another of the Eigenfactor group, which has looked at the interaction between price and the prestige of journals on its eigenfactor.org website. I would recommend those as sources of data.

Professor Wickham: I would just like to add from the standpoint of humanities and social science, which is the sector that the British Academy represents, that the prices for article-processing charges tend to be substantially higher for two reasons. One is because turndown rates for article submissions are very high. The figure of 90% is common for major journals, and so, put simply, there is a lot more throughput that has to be administrated, and you have to pay the administrators. There are some journals with particularly high turndown rates where, if you went over to a pure gold model with article-processing charges covering everything, it would go up to about £5,000 per article accepted, if you were going to sustain a model of this kind. Actually, in humanities and social science, gold is going to have very little importance, but I expect we will be coming back to that later.

Q3 Chair: You have touched upon my next question, which can be summarised by the various commentators who have said there is “no law of nature keeping prices of article-processing charges low”—I think that is reinforced by the comments of the panellists—and that we might see mandated open access becoming expensive for higher education institutions and lucrative for many publishers, as we have seen with subscription pricing. Do you think this is actually likely to happen, or do you think that the variation in article-processing charges will reflect the genuine way in which a publisher operates in a particular area?

Professor Wickham: I think they are going to vary between different disciplines and above all between the STEM area—natural science, engineering and

medicine—and humanities and social science. Most humanities and social science journals are actually run pretty much on a shoestring. They are run by learned societies, they tend to be non-profit making, and I do not think the market of APCs is going to have all that much effect on them at all.

Dr Neylon: Again, I would refer to our evidence that one of our concerns, and a concern of many pure open-access publishers, is to ensure that we have an effective, functioning market in article-processing charges. If we do not have a market and we do not have some price sensitivity for authors, there is a concern that prices can run out of control. One example of that is again in our evidence, where the charges we made to the Wellcome Trust in 2012 were actually around about two thirds of the average of what the Wellcome Trust pays. Of course, the Wellcome Trust pays those bills, so it is very easy to spend more money when you are spending someone else’s money.

The other thing I would refer to is, again, if you look at the spread of prices of existing open-access journals, there are a very large number that charge no article-processing charge at all. They receive their money from either other business models or effectively in kind from their community. The majority of those journals are in fact in the humanities and social sciences.

Dr Wise: There is extremely vigorous competition between publishers to attract the best authors. That is true in the subscription publishing world; it is also true in the open-access publishing world. We would expect that vigorous competition to continue to help to shape the market. Certainly, I think there will be some volatility in pricing in the short term as part of the transition period. As I said earlier, many journals are now offering a hybrid open-access option, and so publishers for the first time will be thinking through what their open-access pricing will be in the wake of the Finch report and Government policy.

Q4 Chair: In what areas do you think article-processing charges may escalate for open access?

Dr Neylon: For me, I think the risk is less. Again, we have journals across the range of disciplines, and we have people doing very interesting things right across the range of disciplines. The distinction and the main area of risk is among very high prestige journals—those existing journals that have very high prestige. I worry that if authors are protected from making the choice of spending someone else’s money—that is £20,000 to get the gold star versus getting the same quality in a journal that is perhaps less prestigious, but otherwise offers the same quality of peer review—and if the author is not aware of or conscious of the difference in price, that is where we will have problems.

Professor Wickham: In my sector, which is humanities and social sciences—about half the academic sector—I do not think this risk exists.

Dr Wise: I wanted to pick up the theme of quality that has been introduced. I agree with Cameron that at the very high end of the quality spectrum, it is not yet clear that the existing prices for article-publishing charges will be sustainable. I believe colleagues from

16 April 2013 Dr Audrey McCulloch, Professor Chris Wickham, Dr Cameron Neylon and Dr Alicia Wise

Nature have indicated that to have a sustainable article-publishing charge, they would need to look at much higher figures of around 10,000—I do not know whether those are pounds or dollars. There is a radical difference in the quality assurance provided in those highly selective top-tier journals from those in much lower price journals, where quality standards have been dropped. For example, they have removed the requirement for the authors to demonstrate the novelty of their contribution to the scientific record. One size does not fit all authors or all pieces of science, but I think it is wrong to portray all journals as being of equal quality standards as well.

Dr Neylon: The important distinction to make here is one between prestige, quality and price. If a journal is highly selective and is offering a truly excellent service that provides value for money, I see no problem with authors choosing rationally that this is something that is worth spending that much money on. What we need to do is to ensure that authors are choosing to invest that money in effective communication based on really good information about whether that quality is actually correlated with the price.

Q5 Chair: How would they do that?

Dr Neylon: They will have to understand in a lot more detail the ability of the work to be used and to be spread, how well it is being spread, who is seeing it, who is using it and how it is being cited at the article level. They may well choose—again differently—based on the specific needs of a particular piece of research. It may be much more appropriate to publish in a very high-cost journal, or it may be much more appropriate to get that information into a context that is appropriate for the users of that research. I am thinking particularly of research that is focused on approaches in primary care, where there is very little point in publishing in a very expensive journal versus making sure that work makes it into the hands of the nurses and the primary care practitioners who can actually use it.

Q6 Paul Blomfield: I just want to introduce another area into the discussion of price: the profits of commercial publishers in the field. Alicia, I understand that your company, according to your own business review, for 2011 reported an operating profit of £768 million on a turnover of just over £2.058 billion. That is an extraordinary operating profit level.

Dr Wise: Our parent company, Reed Elsevier, in the 2012 figures reported a 37% profit. It was a revenue stream of £2.06 billion and a profit level of £780 million. Those figures are correct, yes.

Q7 Paul Blomfield: Isn't there some space when we are talking about pricing to look at those sorts of levels of profit from commercial publishers? You are developing a narrative that inevitably APC pricing will just rise. We are actually talking about all sorts of factors, apart from maybe the commercial publishers looking at their business models.

Dr Wise: Our article-publishing charges for open-access publishing range from £330 to £3,300. Our average is in line with that range offered in the Finch

report. Our profit reflects the fact that we are a very efficient business and we drive efficiency gains in all our operations. It is also important to keep in mind that having commercial publishers as part of the spectrum or mix in the scholarly publishing landscape is important to be able to secure investments in products and platform enhancements in the infrastructure to offer high-quality publishing services at scale.

Q8 Paul Blomfield: But it is profits that are almost exclusively drawn from universities that might otherwise use that money for investment in research or other academic activities.

Dr Wise: We have a very diversified revenue stream. We have commercial customers as well as academic, government, hospitals, schools, advertisers and so on. It is a very broad spectrum. We have journal publishing businesses, book publishing businesses, database businesses and conferences. There is a very broad spectrum and mix of products and services that make up that portfolio. We are a digital information solutions provider, not a traditional publisher any longer.

Paul Blomfield: Thank you. I will leave it there.

Q9 Ann McKechin: Dr Neylon, you mentioned the issue about transparency—about how people are not able to determine what sort of price they should pay for publication. A key action of the Finch report was that publishers and learned societies should provide clear information about the balance between the revenues provided in APCs and subscriptions. I would like to ask the panel what their respective organisations are doing to address that.

Dr Neylon: PLOS is a not-for-profit organisation registered in California. Under Californian law, we have to make our accounts publicly available, so those are available. The 2012 accounts should be available some time soon, although I am not sure exactly when. We are in the process of our audit. We also make available our progress updates on a regular basis that describe how much revenue we gain from article-processing charges and other sources. The very significant majority of our revenue comes from article-processing charges; we have no subscription revenue. We are committed to continuing to make that information available, and our pricing information is available online. We have not changed that pricing for three years.

Q10 Ann McKechin: Is that information sufficiently clear to ensure that we do not end up with double-dipping?

Dr Neylon: In our case, there is not really an opportunity for double-dipping because we do not have any subscriptions. The detailed information of how much revenue is coming to a publisher from subscriptions, from article-processing charges, from advertising and from re-print revenue is the kind of level of information that is really required to ensure that you do not get into a situation of double-dipping.

Professor Wickham: To start off with, the academy is a publisher on a smaller scale, but our only journal is actually free. It is free and open access from the

outset. We are collecting data; we have a research project to collect data on learned societies in humanities and social science to find out exactly how the revenue streams work. We can make that data available to this Committee if you like.

Chair: Thanks. If you would, that would be helpful.

Q11 Ann McKechin: Dame Finch said that quite a significant amount would be paid to publishers for gold open access out of existing research funding. Do you believe the Government should do more to ensure price transparency with regard to publishing costs? It does appear that it has been left to higher education institutions to try to work this out. Do you think the Government have a role in trying to make sure there is transparency?

Professor Wickham: All transparency is good.

Q12 Ann McKechin: Do you think Government should have a specific role?

Professor Wickham: Yes.

Q13 Ann McKechin: Is that the view within—

Dr Neylon: The RCUK requirement to provide information and the RCUK commitment to making public the prices paid from funds for article-processing charges is excellent as well.

Q14 Ann McKechin: The Science Minister said that academic journals were increasingly unbundled, eliminating the risk of double-dipping. Dr Wise, do you agree with that?

Dr Wise: For subscription purchasing of access to content, libraries have a range of options for how they choose to subscribe. They can choose collections of content; they can also choose to subscribe title by title. There is a range of practices in existence in the market place. Double-dipping is charging twice for the same content, and certainly in our company we have a strict no double-dipping policy. We charge subscription fees for subscription content however that is purchased, whether in collection or title by title. We charge article-publishing charges for our open-access content.

Q15 Ann McKechin: Do you consider that you are going to be increasingly unbundling your content in the future?

Dr Wise: All our content is available now for libraries on a range of bases. They can choose to subscribe title by title or by collection—whatever suits them best. They make purchasing decisions on what represents the best deal for them.

Q16 Ann McKechin: The Finch report found that “further negotiations between universities and publishers (including learned societies) on the pricing of big deals should take into account the financial implications of the shift to publication in open-access ... journals”. How realistic is this finding given that the procurement policies of universities acting together may not be perhaps at the cutting edge?

Dr Wise: We already operate our no double-dipping policy. We have had hybrid open-access titles for a number of years.

Q17 Ann McKechin: Have any universities come to you and said, “Right, okay; the scenario is changing, and your 37% profit margin is no longer really acceptable to us; we actually want those charges reduced substantially”? Have any done that? Have there been any conversations about that?

Dr Wise: Of course we have had conversations. I find librarians are very professional and robust negotiators. They do a good job and are tough to have across the negotiating table. The way we operate our no-double dipping policy is that we modify our list prices two years in arrears to reflect the number of hybrid open-access articles that are published. For example, our 2013 prices reflect the 2011 uptake of our open-access publishing options.

Q18 Ann McKechin: Does that mean prices are going down in real terms or up?

Dr Wise: The variation in prices for titles fluctuates year on year, and it reflects a variety of things. It can reflect the proportion of open-access content, but also volume.

Q19 Ann McKechin: I asked you whether it is going down in real terms across the board. Are the prices likely to go down in real terms? That is what the Government want to achieve: a real terms reduction in price.

Dr Wise: As I was explaining, our list prices fluctuate year on year. We are reviewing our titles on an annual basis and we adjust them to reflect submissions, open access, etc.

Q20 Ann McKechin: You are not answering my question. Perhaps you could just answer the question.

Dr Wise: For our hybrid titles, we adjust our prices based on the uptake of open access options—

Q21 Ann McKechin: Dr Wise, you have been in this market and you are an expert in this market. Is it your opinion that the price in real terms for the cost of publication in general—realising there can be fluctuations, and I am sure you are more than able to take those into account—is likely to go down the way in the next five years, to stay the same, or go up?

Dr Wise: As open access increases, subscription prices will come down.

Q22 Ann McKechin: Right. So you believe that the price in total that universities are paying is likely to come down.

Dr Wise: No, the total cost of the system does not change depending on whether you have the point of payment on the author’s side or the reader’s side. The total costs of the system are the same but, as you see in the majority of content published through open-access fees, you would see a counter-balancing decrease in subscription prices.

Q23 Ann McKechin: I think the idea of having more transparency is that we actually get it more competitive so the price comes down. Do you not understand that perhaps might be the Government’s priority?

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Dr Wise: It is an extremely competitive market in both subscriptions and for open access.

Q24 Ann McKechin: Can I just ask what share your company has of the commercial market in the UK?

Dr Wise: For Elsevier in the UK, I do not know. Globally, I think we are around 20% of the publishing market.

Q25 Ann McKechin: That is quite a big share, isn't it, in terms of trying to achieve competition?

Dr Wise: I believe the Competition Commission reviewed the scholarly publishing space about 10 years ago and concluded that there was vibrant competition and it was a functioning market.

Q26 Ann McKechin: Does anyone else on the panel have a view on this?

Dr Neylon: Just to repeat what is in our testimony, the PLOS article-processing charges, which make up the vast majority of our revenue, have been kept fixed in cash terms for the past three years. We do not have any particular intention either to raise or drop them in cash terms at the moment. That is obviously a drop in real terms. My personal view is that in the longer term prices will come down. Dr Swan in the next session has done work on looking at what are the likely costs to universities and UK institutions in a pure open-access market. In that environment there are savings to be made. The question is the process of restraining transitional costs as we move towards that market. That is a challenge and there are risks.

Q27 Chair: Just before we move on, can I just pick up the comments made by Dr Wise? I think I have them correct. Basically, if article-processing charges increase, subscription prices would be likely to fall. My first question is: what mechanism is there to ensure that that happens? Secondly, given, as I understand it, article-processing charges are likely to be taxpayer funded, that on the face of it would increase the burden to the taxpayer. If the current method of publication—the subscription charges—was also primarily funded by the taxpayer and fell, in theory, at least, they would balance out. In practice, what do you think is best value for the taxpayer given the profile of your article-publishing charges and your subscription charges?

Dr Wise: The UK taxpayer funds a subscription-publishing regime at about a cost of £150 million per year. I believe that a complete shift to gold open access based on the Finch report estimates would increase the cost in the UK to £220 million per year. This is to reflect the fact that the UK is very research-intensive, and research-intensive countries and institutions bear more of the costs of publishing in an open-access system, where researchers or research authors pay the publishing system costs. The decrease in subscriptions that would come with a change in the proportion of publishing would benefit customers throughout the world. A subscription system is based on small payments from a much broader base of institutions, including the corporate sector. That is a definite shift from the taxpayers' perspective.

Dr Neylon: Just for the record, the Committee should ask Dr Swan the same question, because Dr Swan and Professor Houghton have done a very sophisticated economic analysis of this process. They came to the conclusion that, in a pure open-access world, the UK would save money. The reasons for that are detailed, but they are worth going into.

Q28 Chair: I did not catch all of that. Could you just repeat it?

Dr Neylon: It was just to suggest that Dr Swan in the next panel worked with Professor John Houghton on a very sophisticated analysis of both what the transitional costs would be and what the costs are in a complete open-access world. The problem with the estimates in the Finch report and the £220 million figure are twofold. One is that they over-count the number of research articles, because they include collaborative articles that include authors from other countries. The second is, of course, the question of what the actual average price is.

Chair: I think we have contradictory evidence submitted, and we will be probing them on that, but I am interested in your view.

Professor Wickham: I just wanted to say that if you have an international journal where only a small percentage of the articles are British—even if all the British ones are gold open access—if other countries have not adopted gold open access, the price of the journal is not going to go down that much. That is fairly clear. We would be paying quite a lot but other countries would not, and so the price of the journal would not actually decrease.

Chair: I want to bring in Brian Binley now, who just wants to make a declaration of interest before he asks his question.

Q29 Mr Binley: I am non-executive chairman and founder of a company that works specifically with Reed Elsevier and has done for a very long time, but in the data-building area of your customer base, rather than in this specific area. I think it is only proper, because this place is riddled with traps set for unwary Members of Parliament, that I want to make that clear. The same goes for other publishers who would be affected by this particular measure.

Can I ask a rather simplistic question first of all? The Government have said that the development of infrastructures for subject and institutional repositories will primarily be a matter for institutions themselves. Should publishers, many of which have already invested in repositories, have a role in working with universities to achieve that? Is there a specific need here, and does that need a bit of a kick up the backside? Is it working well?

Dr Wise: Repositories have a very clear role outlined in the Finch report. They saw this as a complement to the formal publishing system. It was seen as a place where data sets could reside, or theses, dissertations and unpublished resources of various kinds. The real exciting opportunity is to interlink the resources in repositories to the formal publications that they relate to and vice versa. We have a variety of collaborative initiatives between publishers, libraries and funding bodies to do this rich interlinking. It would be terrific

to see some focused attention and effort on that here in the UK as well. It would be very exciting.

Dr McCulloch: I just want to make a comment as well. There was a large study undertaken in Europe. It was called the PEER Project, and it investigated the setup and management of institutional repositories, and the interaction of publishers with those repositories. It found that without publishers actively depositing in those repositories, authors had little interest in doing so. For example, publishers sent out nearly 12,000 invitations to authors to deposit articles as part of this project, and only 120 articles actually were deposited. The other 22,000-plus articles came from publishers to make the project work. It did find that there was an awful lot of investment required to standardise how articles were deposited in terms of format, and interaction with publisher systems and the institutions themselves. There is still quite a bit of work to be done there. It is work that can be done; it will just cost.

Q30 Mr Binley: Can I just press that a little further? It seems to me to be a bit of a central question in the whole issue if this is going to be of great benefit to the nation, the publishers and the authors. How do we move that forward in a practical way? Once cost comes into it, particularly in difficult times, businesses will look at their cost base and think, "Hang on. What's really in this for us?" How do we move that along?

Dr Neylon: There are two quite different perspectives on repositories. As an open-access publisher and a publisher that is only an open-access publisher, our business is in ensuring that authors get their work spread as widely as possible so that the highest number of people can see it and it reaches the right people. The repositories are our partners in that. Just coming back briefly to the cost of it, they are also an important part of constraining transitional costs. In terms of the investment, institutions in the UK have already made very significant investment. There has been a large sector investment in that infrastructure, and of course we should be using it effectively, particularly to deal with the transitional issues we will face, with different disciplines wanting to move at different speeds and there being different funding mechanisms in place to support that research.

As an organisation, we are deeply involved in working with JISC. I am a member of the Open Access Implementation Group, representing PLOS. We talk a great deal about how to organise, standardise and mechanise the process of transmission of information backwards and forwards. It is a challenge. It does require resourcing, but a lot of the investment required in the underlying infrastructure is already there. It is really largely a matter of co-ordination. If we can do better at co-ordinating, we could solve a lot of these problems.

A lot of it also comes down to policy questions at institutions. The PEER Project showed that if you send an e-mail to an author and ask them if they would like to put a Word document in this repository they have never heard of, they tend not to do it. That is probably not surprising. However, at the University of Liège, for instance, where the process of having

your work in the institutional repository is part of your performance assessment, the vice-chancellor looks at the repository to see what your outputs are, reads those outputs and judges how good they are at your annual appraisal. It is tightly coupled, and they have a very high percentage of their works in that repository. There is a mixture of policy and infrastructure, but co-ordination is the real thing that we need to get right.

Dr Wise: It does not make incredible sense in economically constrained times to duplicate effort in the way we have just been hearing. This is why evolving repositories to complement the publishing system and the extant platforms for published articles that publishers provide makes sense. Give a home via repositories to data sets, unpublished materials, theses, dissertations. If you help those to be easily discoverable and keep the two interlinked through just a modest investment in some shared standards, you actually make more important resources available to advance science. When I was still an archaeologist, I worked in a data archive. Scholarship can be radically advanced if researchers have access both to the formal published literature and to the data sets that underpin those publications so that they can dive down and query the data sets, and move from the data back to the formal analysis and the synthesis of what they need.

Q31 Mr Binley: Can I pursue that a little bit more and pick up the point you made about authors being a bit wary? I assume that that is because we live in a global business—you live very much in a global business—and the standards differ sizably nation to nation. We know quite a lot about authors' work being lifted without the author getting any recompense for it, particularly from certain Eastern countries. Are authors right to be wary of what this is about? It seems to me that they are part of the secret of moving this whole thing along, and it seems to me that it is going to be difficult if it is seen not to be in their interest to move it along. How do we deal with that conundrum?

Dr Wise: The scholarly publishing system is very international and there are global standards from a technology perspective. You are touching on some important points around authors' choice: the fact that they will drive the pace of change and that they need to feel comfortable with the systems. Some are very passionate, and we in fact have some very passionate researchers who believe profoundly in self-archiving here in the room with us today, but for the majority of researchers, sometimes the resistance to depositing or self-archiving in repositories is that it is an additional administrative burden. They are hugely stretched already doing their research, writing grants, doing their teaching and serving on committees. The idea of spending extra time self-archiving content that they have already published formally may feel like one administrative hassle too far.

Dr Neylon: The concern about research being used or misappropriated is one that is raised repeatedly. It really does not have anything to do with open access in the sense that people can just as easily misappropriate subscription content as they could open-access content. On the concern about UK uptake

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and the UK being the first mover in this space, it is worth noting from the PLOS perspective that our two biggest customers in terms of articles published are the US and then China, followed by Germany and followed by the UK. Therefore, we are actually in a sense behind and taking advantage of Chinese researchers in some ways.

It is interesting to think about how this is moving, but I would concur that the primary burden to the uptake of repositories is administrative effort. As a person who until recently was a researcher, it is very much, “This is just another thing I have to do—another thing I have to fit into my 16-hour day,” and it does not necessarily make it to the top of the list, unless the policies are there to encourage and make the incentives work for the researcher.

Professor Wickham: I was just going to add one thing, which is I agree that the authors’ hostility is largely to the extra administrative burden. I think, though, that what happens to your works out there is something that worries authors all the way across the sector. The fact that between 75% and 80% of authors are very hostile to the most open of the CC-BY licences is a demonstration of that kind of concern. That is in humanities and social science.

Q32 Mr Binley: Can I get those figures again—75% to 80% of authors are wary of this whole thing on that basis?

Professor Wickham: Yes, there has been a study inside natural science and medicine—inside STEM—and there has been a study in humanities and social science. It is between 75% and 80% in both cases.

Mr Binley: That is a big figure.

Professor Wickham: A big figure.

Q33 Mr Binley: And a big problem.

I have one final question, Chairman, if you would allow me. The Higher Education Funding Council for England—notice I did not use the acronym—indicated in its recent call for advice on the open-access requirement for the post-2014 research excellence framework that it may mandate the deposit of research articles by the author in the appropriate institutional repository. Do you support this approach and should Research Councils UK’s open-access policy include the same requirement?

Dr Wise: We very much support the conclusions of the Finch report and are looking forward to working with HEFCE and others to implement Government policy—

Mr Binley: That is the Higher Education Funding Council for England.

Dr Wise: I do beg your pardon. I am failing that test entirely.

The broader point though, just to re-emphasise the duplication of effort that that sort of policy would imply, is that our company handles 1 million articles that are submitted each year. These do not appear magically in our e-mail inboxes. We actively go out to conferences, listen to cutting-edge science, and recruit and attract papers. We support authors in depositing content through quite sophisticated systems. We have professionals—people with PhDs and medical degrees—who are talking with them in

detail about the content that they want to publish and how best to communicate it. Publishing is fundamentally a people business—helping to coordinate and motivate people to communicate effectively. It is perhaps an over-technological vision of the future that you will offer these repository platforms and then they will magically come to be filled with quality content correctly described with metadata and so forth without quite significant professional effort. That is the sort of effort that publishers provide.

Dr Neylon: I would just say that we, as an open-access publisher, are entirely supportive of platforms where we can make material available that people will find in different ways. It is entirely appropriate for institutions to safeguard and ensure the accessibility of the content that they have created for the long term. We are broadly in support of the funding council’s proposals.

We would like to see some emphasis also placed on disciplinary repositories, which do exist and are very widely used in some spaces, but from the perspective of the technological challenges, this is an automated process that happens as a side product of what we do anyway. It is part of the service we offer to authors. Again, I would note that where there are repository mandates of this kind, such as in the US and other places, we see an uptake of our service as a publisher because we include the process of making sure that the research makes it into those disciplinary repositories. We have more work to do on institutional repositories.

Q34 Mr Walker: We have seen a range of different views in the written evidence on embargo periods. I will take a quote from the Public Library of Science—I will not say PLOS, to keep Brian happy. Its written evidence said that “there is no credible evidence that availability of final versions of peer-reviewed manuscripts in repositories causes any damage to subscription business models and no evidence that embargoes of any length reduce any imagined damage”. Would the other panellists care to give any evidence in contradiction to that?

Dr McCulloch: Yes. I have two pieces of evidence. The PEER repository experiment that I referred to earlier appeared to show little evidence of harm. However, the caveat there was that publishers were allowed to set their own embargo periods as befitted their business models, which ranged from six months to up to 24 months. In that sense, it appears there may not be harm if publishers are allowed to set their own embargo periods.

ALPSP and the UK Publishers Association surveyed over 200 librarians internationally, and we asked them a very simple question: if the majority of content is available within six months of publication completely free, would you continue to subscribe? From our results, in the STEM arena, only 56% said they would definitely continue with their existing collections. In the arts, humanities and social sciences, 35% said that they would continue to subscribe to the existing collections. The others would definitely start to cancel some, depending on the journal itself, depending on their faculty’s opinions of the journals and the costs

of the journals—there were lots of different reasons given as to why they would start cancelling. Particularly in the arts and humanities, they felt that with six months there was little reason to wait, and they would get the articles more immediately through other mechanisms.

Professor Wickham: I would just add that I am certainly much more convinced by Audrey's characterisation of the librarians' responses than I am by any other piece of research that has been done. However, there were two problems. One is that six months for arts, humanities and social science is not the current proposal for an embargo period, although RCUK would like to do that in the dim and distant future. What is badly needed is proper research on how it is going to affect individual disciplines and how it is going to affect those with a 12, 24 or 36-month embargo period. In fact, the academy has just offered to HEFCE a proposal for a research project that actually includes this as part of its elements. I am hoping that will go forward.

Dr Wise: To explain the difference in the evidence submitted, the Public Library of Science does not operate titles under a subscription model, so perhaps pays less attention to the evidence in this space than the rest of us must do. The majority of publishers are both open-access and subscription publishers, and there is crystal-clear consensus in the subscription-publishing community that over-short embargoes can undermine the sustainability of journals.

With the Government's policy that we are all implementing, we will see an increase in the amount of hybrid open-access publishing done at scale. For the open-access components of that hybrid publishing, it is clear that the costs are sustainable through the article-publishing charges. For the subscription part of those titles, the costs continue to need to be covered through the subscription model. If the content is freely available too quickly, there will be no need for libraries to continue to pay those subscription costs. While we have not seen clear evidence of an undermining or cancellation of subscriptions at this point, there is evidence, such as that Audrey referred to, that librarians are watching this space very closely and are very mindful of it. We have also seen that where content is deposited at scale, there can be an erosion of transactional revenues—the pay-per-view business model. Those are very modest components of most of our revenue streams, but again it is a potential early-warning sign.

There was, for example, a study recently by Phil Davis, who has looked at the availability of content in repositories, and he has found that there is a diversion of usage from publishers' platforms to those repositories. The reason why it is important to be mindful of that is that usage information is one of the key metrics that librarians review when they are making decisions about what content to subscribe to. I think we are all here because we want to make open access work. We are working to implement the Government's policy, but we are mindful that, for embargoes for green open access, it is best to start in a careful and considered way. We can decrease embargoes over time if that is sustainable, but if we have too short embargoes and damage is done, and

journals or publishers go out of business, it is impossible to increase them over time, so it is starting carefully and adjusting as we learn.

Professor Wickham: I totally agree with what Alicia has just said. There is a great danger that if embargo periods are reduced too fast, major journals will go to the wall and the learned societies, whose revenue is dependent on those major journals, will cease to be able to function. That has very negative effects for the academic ecosystem.

Dr Neylon: I wrote that statement, so I should probably defend it—I am very happy to do so. We have heard a lot of words about consensus that there is a problem and we have heard a lot of statements about fears. There is very little evidence. The PEER Project has been mentioned a couple of times and usage has been mentioned a couple of times. The PEER Project actually showed that, for the content that was in the repository, there was a small but significant increase in traffic to the publisher side. That is actually consistent with a number of studies outside the research space—making material freely available can actually increase traffic to a commercial value-added offering that is providing extra value that people want. That is one piece.

The ALPSP survey is an interesting one for a variety of reasons. If we focus on the results for the UK, what it said was that, in terms of the STEM subjects, only 3% of all UK institutions and none of the Russell Group would definitely cancel with six-month embargoes. Some 19% of arts, humanities and social sciences in the UK and 7% in the Russell Group would definitely cancel. The problem with the way the question was asked is this thing of, "Would you cancel some of your subscriptions?" If you go to a university librarian and ask them just a blank question—"Will you cancel some of your subscriptions this year?"—the answer is yes. I would actually argue that the ALPSP survey shows that the UK is much better placed to do this because the proportion of librarians saying there is definitely a real concern or issue here is smaller than for any other country or global region described in the survey.

The other thing to note is that there is another ALPSP survey from a couple of years before that said embargoes are among the least important issues for librarians in deciding on cancellations. The Phil Davis paper that Alicia mentioned is a really excellent new paper. It has some really interesting new data. I could spend 20 minutes explaining why I do not—

Chair: Please do not. I will invite you to submit further evidence.

Dr Neylon: Absolutely. I am very happy to do that. The other piece of evidence it is really critical we bring to the table here is, of course, that there exist repositories in physics—particularly high-energy physics—and mathematics that have had essentially 99% negative embargoes. The research is available before the journal articles are published, and there is no evidence that the physics journal subscription system has collapsed in that time. My colleague might say that that is physics and it does not necessarily apply, but the same is true in social sciences, with the Social Sciences Research Network and the RePEc repositories. Therefore, we already have examples of

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a number of spaces where a wide variety of content has not made a difference.

At the end of the day, as a publisher, we will all make the argument that we add value—that what we do adds value to the work that the researcher has done, and that added value is worth paying for. It is slightly odd that people are therefore concerned there might be a copy of a Word document somewhere on the web. If a Word document without that added value were a major commercial concern, what that really means is that you are not convinced the price you are charging for the added value is actually something that people are keen to pay for.

Q35 Mr Walker: The view in the 2011 report *Heading for the Open Road* was that permitting embargoes of any length at all is unlikely to provide the long-term incentives for publishers to transition to open access. Do you think the debate about embargoes has a role in providing an incentive?

Dr Wise: In the way the Finch group has set out, green open access and embargoes are used in two very different ways in the group's consensus. Where publishers do not offer a gold open-access option, embargoes of six months or so were envisioned essentially as a stick to beat them with to encourage them. Where publishers have done our part and offered gold open-access options, the Finch group envisioned greater flexibility. Publishers set embargo periods of at least 12 months to recognise that we are making the changes we need to make to move towards an open-access system, but giving a sustainable business model to underpin the content that continues to be paid for through subscriptions in the transition period.

Chair: Can I bring in Paul Blomfield now on licensing?

Q36 Paul Blomfield: Finch was very clear that open-access policies should minimise restrictions on the rights of use and re-use, especially for non-commercial purposes. The Government has gone further and said that where APCs are paid, they would expect to see completely unrestricted access. It does not draw that distinction between commercial and non-commercial use. Do you think the Government is right not to draw that distinction?

Professor Wickham: You have in your submissions a lot of opinions about CC-BY, and I hope I can call it CC-BY because otherwise it is going to go on and on. The great majority say that the most open access licence under the CC-BY—the Creative Commons rules—is unpopular, dangerous and potentially allows the stealing of knowledge. It is actually quite interesting that that is true right across the range. It is not just humanities and social science; it is the science and medicine learned societies as well. I have already said that between 75% and 80% of authors will not choose the most unrestrictive licence.

You also have a small minority of people who often express in quite shrill terms that nobody understands what the rules are of CC-BY and that it offers protection against plagiarism and everything of that kind. I am certainly with the large majority here, partially because I am interested in what the ordinary

academic is concerned with, but also because I am not convinced by the arguments that the minority have put.

It is interesting that the Creative Commons submission that you have seen has actually misrepresented the terms of its own licence. There is a technical detail here that I am very happy to provide at a later stage. Its licence offers much less protection than it claims, and it offers much less protection against what ordinary academics understand plagiarism to be than it claims. The core worry is about unauthorised use and unauthorised misuse of authors' works here. It is a worry that goes all the way across the sector and it is a worry that Finch was not concerned with. It barely dealt with this at all, but is a worry that I think the Government and RCUK have underestimated.

Q37 Paul Blomfield: I appreciate what you are saying and we will take note of it. Very specifically, would you draw any distinctions between commercial and non-commercial use?

Professor Wickham: I think that academics are very leery about the process of commercial re-use, but academics are more concerned about whether their words are maintained in future work. I am a historian; the commercial use that people are going to make of my works is relatively little. I am very worried, though, about the integrity of the sentences I write. The commercial use worries people, but it worries fewer people.

I am actually quite attracted by the CC+ licence that is currently being worked through. I think that is something that Alicia knows about. That will protect against various forms of commercial misuse, but also again will focus on words.

Dr Neylon: I will obviously disagree somewhat with the characterisation of the written evidence. I would agree that the majority raises concerns. The majority also has a number of statements in it that are incorrect.

Professor Wickham: We can argue about that.

Dr Neylon: We can argue about that, but there are a couple of classic ones. One is that the Creative Commons licences are intended for software. It would not take more than 10 minutes to check the Creative Commons history to realise that the Creative Commons licenses were created because the software licenses that were available at the time were not appropriate for non-software items such as written work, including research papers. Of course, the other thing is that there was a great deal of involvement of scholarly publishers in the early development of Creative Commons licences.

On the specific question of commercial versus non-commercial, the Government and the taxpayer invest in research for the creation of a public good. That public good includes an infrastructure or platform for both commercial and non-commercial innovation. If we are concerned about growth and development, both in the specific space of innovative developments in scholarly publishing itself and the re-use of content, and of research more generally, I think it is critically important that commercial use be allowed.

Q38 Paul Blomfield: I can see that argument entirely, but why do you think Finch drew that distinction?

Dr Neylon: Because Finch had to make a compromise between the commercial interests of publishers and the needs of the Government. There are two things that we need to separate quite carefully here. There is the motivation of publishers to argue for non-commercial restrictions. The argument for the incumbent publishers to do that is to protect the current set of exclusive commercial rights that they currently hold. Then there is the concern that has been raised by authors and researchers about the use of their work, which I think is a more principled if, I believe, misguided view of how research should be used.

We need to separate out those two distinctions carefully because the risk is that we conflate these two discussions together. We conflate the concerns about researchers' use of their work and what can be done to ensure good academic practice. There are very real limitations to what licensing and copyright law can achieve in that space. That is part of the problem. People grabbed hold of this licensing thing as the be-all and end-all of enforcing good academic practice. Then there are concerns about business models. It is in the interests of incumbent publishers with a range of commercial revenue streams that are based on the enclosure of content—the marketing of content that cannot be gained from any other source—to define open access in as narrow a way as possible so as to protect each of these revenue streams one at a time as we move towards a situation where we actually allow full access to this content. It is very important that we distinguish between those two issues, because we have to be clear that at the moment authors give up all these rights that we are concerned about. The majority of research authors are already giving all those rights to the publishers in the form of a copyright transfer.

I am very happy to talk about transferring those rights back to authors, and I am very happy to talk about the appropriate balance of rights and services one pays for from publishers, but I do not think we are doing incumbent publishers any favours by allowing them to protect a series of relatively small-scale commercial revenue streams by handing over all the commercial rights to them and giving them exclusive commercial exploitation rights on what is some of the most valuable content we have created.

Chair: Can I just intervene? I recognise this is an important area, but we are time-constrained. If you would be prepared to develop your ideas and concerns on this and put them in evidence to us subsequently, that would be very helpful indeed.

Q39 Paul Blomfield: I would like to explore some of those issues in more detail, but we clearly do not have time.

Let me ask just one other question on licensing that kind of develops out of the point that Chris just made about an effective licensing regime, which is presumably therefore going to be very costly. Finch did not take any account of the costs associated with licensing in economic modelling, and nor has BIS. How likely do you think it is that publishers are likely

to raise APCs as a result of Research Councils opting for mandatory CC-BY?

Dr Wise: We have seen at least two publishers already offering differential prices depending on the choice of licence that the author makes. Certainly that is something we have discussed and considered, but we have not followed suit—we could do at some point in the future. The reason for that is the choice of licence does influence the mix of revenue streams that can be used to underpin the publishing cost and create a sustainable system. I would also add that I was not on the Finch group, but I was on its licensing working group. I can remember a discussion very clearly. There was an intervention by the representative from the Technology Strategy Board, a chap from Rolls-Royce, who thought it was absolutely ludicrous that anyone would suggest that his company's access to research literature should be subsidised by the taxpayer. There was no call in that group for the most unrestrictive licences or the complete cessation of the ability to have a diverse mix of revenue streams based on commercial re-use versus non-commercial re-use. To pick up on the earlier points, it is our authors who are expressing extreme concern about this. We are offering a choice of licences for open-access publishing, and we have been surprised at some of the concerns being expressed. We hear of ethical concerns and unwillingness, perhaps, in the health space to see an author's article used alongside advertising by pharmaceutical companies. There is a lot of complexity here that the Finch group did not have a chance to delve into and that would warrant conversation between stakeholders.

Q40 Paul Blomfield: I appreciate that, but I am concerned not to re-open the previous discussion. I take from what you are saying, Alicia, that publishers are looking at licensing costs as an upward driver in APCs. Is that fair?

Dr Wise: No, I think that is an over-generalisation. I would say that the choice of licence influences the kinds of revenue streams that you can have. Over the transition period we will all need to look very carefully at how to ensure a sustainable business model for each journal. That may be solely reliant on article-publishing charges, but if there is flexibility to continue having commercial revenue streams as well, that could actually be a downward pressure on those charges. There is lots of complexity here in having a balanced portfolio for each journal.

Dr Neylon: I would just say that the main open-access publishers have been using the Creative Commons attribution licence as the default more or less since it became available. Again, we are generally offering lower prices than most hybrids.

Q41 Nadhim Zahawi: Research Councils UK's policy requires the use of the Creative Commons attribution-only licence when its funds are used to pay article-processing charges. What is the impact on the rights of authors if publishers, and ultimately funding bodies, determine which licence applies to their work?

Professor Wickham: I think that Research Councils UK has not taken sufficiently into consideration the needs of certain parts of the sector. I speak again

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particularly for the humanities and social science. The consequences for bioscience of a straightforward CC-BY licence are clear; they can do a number of things in terms of data mining that they would not be able to do easily if they had a highly restrictive licence. That kind of thing does not actually make sense in most humanities and social science disciplines, where you are not even presenting the data in the article. The kind of information that you can get, you can get out of a normal Google search. The openness of the simple CC-BY licence is unnecessary and threatening.

Dr Neylon: On this issue around data, there is a misunderstanding about what text and data mining is. The question around author rights, though, is a really important one, and the question around author choice is a really important one. I would accept that those of us who have advocated these licences have more work to do on explaining why they are the way to ensure the most impact for the research that has been funded out of the public purse.

Again, as with embargoes to a certain extent, in this space there is a lot of concern centred on licensing and a lot of misunderstanding about what licensing can and cannot achieve. Licensing is a great tool for enabling people to use research in ways that we have not yet imagined. It is actually a really blunt instrument to try to delicately control the uses of research to protect what are basically academic and moral rights, and questions of academic practice. There are many things we need to do to focus on that

and get that right, but I do not think licensing is actually the argument we should be having in many cases.

Dr Wise: I suppose I would just add that we are all here because we support the Government's policy and want to see it implemented. There is a much broader spectrum of complex issues around licensing, author choice of licensing and the business model impacts of licensing than the Finch group had time to delve into. This would warrant further conversation and detailed thought, and some flexibility in the intervening period while that conversation takes place.

Q42 Chair: Our final question was going to be about the policy of Research Councils on Creative Commons licensing, but I think we have probably covered most of that. Is there anything you wish to add to it?

Professor Wickham: Not really.

Chair: In that case, that concludes our questioning. May I thank you very much for your contribution and just repeat what I have said to other panels on other occasions? If you feel there is a question we should have asked you, but did not, and you would like to respond to, feel free to submit it in further evidence to us. Again, if we feel there is anything we should have asked but did not, we will write to you, and we will be grateful for a response. Thank you very much for your contribution.

Examination of Witnesses

Witnesses: **Professor Stevan Harnad**, Professor of Web Science, University of Southampton, **David Sweeney**, Director of Research, Innovation and Skills, Higher Education Funding Council for England, **Professor Douglas Kell**, Information Champion, Research Councils UK, and **Dr Alma Swan**, Director of Key Perspectives Consultancy, and Director of Advocacy, SPARC Europe, gave evidence.

Q43 Chair: Good morning. Thank you for agreeing to address us and answer our inquiries. May I just ask you, as with the previous panel, if you could just introduce yourselves for voice transcription purposes?

Professor Harnad: My name is Stevan Harnad, and I am Professor of Web Science at the University of Southampton, and a 20-year battle-scarred veteran of open access.

Q44 Chair: Do you get a green medal or a gold medal for your scars?

Professor Harnad: So far just wounds.

David Sweeney: I am David Sweeney. I am the Director for Research, Innovation and Skills for the Higher Education Funding Council for England.

Professor Kell: I am Douglas Kell. I am the Chief Executive of the Biotechnology and Biological Sciences Research Council. I represent the Research Councils UK as their information champion. In addition, I am for 0.2 of my time a professor at the University of Manchester, so I have an academic perspective as well.

Dr Swan: I am Alma Swan. I am Director of Advocacy for SPARC Europe and Director of Key Perspectives Ltd, which is a consultancy specialising in scholarly communication.

Q45 Chair: Thank you. Again, some of the questions will be person-specific, which means others can feel free to add to or subtract from what has been said by the person originally answering. Also, of course, some questions will be to all, and do not feel that you all have to contribute if you feel that everything you would have said has been said already.

My first question actually is person-specific—it is to David Sweeney on basically the costs of gold and green access, on which we seem to have a professional disagreement. In your oral evidence to the House of Lords Science and Technology Committee, you said that the published work of Professor John Houghton, whom you described as “the premier economist in this area”, did not show that green open access was cheaper than gold. Yet Professor Houghton and Dr Swan have told this inquiry that “green open access is cheaper” and that “adopting gold open access would cost the UK universities we studied 12 times the cost of adopting green open access” and “for the more research-intensive universities, gold could cost 25 times as much as going green”. That appears to be a contradiction. Can you explain?

David Sweeney: No, I do not think it is a contradiction. Indeed, I think it gets to the heart of where we are in the open-access journey in the UK.

There is general acceptance—Dr Swan can speak for her work with Professor Houghton—that in an environment where we reach an entirely open-access world, the gold model may well be the cheapest way of funding the scholarly dissemination system. What that piece of work also indicates, which I did not draw out at the previous hearing, is that the transition costs of a mixed economy can be higher with a focus on gold.

Much of the discussion at the moment is around transition costs, and that is why in our proposals for submission criteria around the research excellence framework we draw no distinction between material that is made open access by either route and, as with Research Councils' open-access policy now, we leave the decision with the author and the university on where to publish. It is about transition and about the far-seeing views of Finch for the ultimate open-access world, which perhaps needs to be moderated by a consideration of the transition costs.

Q46 Chair: Can I ask Dr Swan if she would like to respond to that, since I quoted her?

Dr Swan: Actually David Sweeney has got that right. We modelled several things. In an entirely open-access world, where every country is taking the same steps and we deliver through policy 100% open-access scholarly literature, if that were a gold-based mechanism or a system, it would be cheaper for the UK in the end when we get there. However, it is cheaper for us to transition to an open-access world through the green route, using repositories. The reason for that has been explored quite extensively in the previous session. That is because we need to pay for subscriptions for the journals that UK academics need to read at the same time that we would be paying gold open-access fees if we were to go through the gold route. The green route is a much cheaper one, because the costs in the UK are virtually sunk for the repository system. There is a marginal cost for depositing each article, but it is very much smaller than the cost of paying an article-processing charge for gold open access.

Professor Harnad: I agree completely with David Sweeney and with Dr Swan. I just wanted to add to the last session on double-dipping. It is very pertinent here and it is a very simple thing. Double-dipping means subscriptions plus article-processing fees are higher than the current subscription-only fees. Double-dipping would be if you continued to collect those fees, you do not pay back, and you just take more than what you had before. What Alicia Wise said was, "We will feed it back two years after we have got more gold open-access fees; we will give it back by lowering subscriptions." However, you have to bear in mind from the UK point of view that that payback is to the whole world. The UK produces 6% of research output and, let's say, it also pays for 6% of it. It pays 6% more if it is doing both subscriptions and article-processing fees. You cannot cancel journals if all you have is UK output. If the rest of the world gets back the feedback, it is 6% of 6%, and the UK is subsidising the rest of the world.

Q47 Chair: Could I just come back to David? I am not sure if this is some sort of caveat. You have also said it may well be that we come in two or three years' time to a different view about the economics of open-access policy. Is that a reflection of your not being very confident of your existing assertions? Basically, what do you mean by that?

David Sweeney: It is just a factual statement that we will see many different proposals for different models of open access over the next few years as a result of mandates not only from Research Councils UK and from us through the REF, but from the European Union and from the White House. The whole economics of scholarly publishing will be in some way perturbed by that. Therefore, I expect that Professor Houghton and Dr Swan will be doing further work to re-evaluate that in due course. I was not predicting what would happen.

Chair: It is a bit like a Mexican wave here. Professor Kell.

Professor Kell: Chair, I think it is just helpful to amplify the question of the cost by adding the rider "to whom". The whole recognition of Finch was that there was a variety of actors in this play, many of whom had ostensibly different aims and objectives that were to some degree mutually exclusive. The glory of what the Finch group managed to do was not to give anyone everything they wanted, but to give everyone something that they wanted. To answer the question of what the costs are without discriminating to whom would not quite get us to the right place. Of course, from Research Councils' perspective, we are hoping to increase the quality and availability for a lower cost.

Dr Swan: I would just like to add something here about the costs of the system and to reiterate that I do think things will change over the next few years. We heard in the previous session some anxiety about the article-processing fee or charge and how high it might need to be, especially for journals that have a rejection rate of something like 90%. As we heard, that can be the case in the humanities.

We should be viewing this whole thing as a service to the research community. The research community wants to have two things done for its work. It wants the work to be taken through peer review and, if necessary, it wants another quality-control step, which is editorial work done on the paper. They are two services currently bundled together and called "publishing" for historical reasons. We do not have to think of the future in terms of those two services continuing to be bundled together. We do not have to think of it like that, but we are at the moment. Hence our modelling used a fee or a cost for that bundled-up process.

Actually what we should be doing, particularly in the case of the humanities, is saying we have a cost to the system, which is to take these papers through peer review. That is the first step. Therefore, we should be prepared to think about paying for the real cost of that step, not having the cost of taking 100 papers through the peer review system loaded on the 10% that eventually get published. What I am trying to say is that although we are now constrained in our view about having one charge for publishing, we should not

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be. We are talking about a set of services here, and we should be thinking about a future where they are separated, unbundled and offered where needed. That could bring the cost down considerably.

Professor Harnad: Could I say something more about the unbundling? Besides the peer review costs and the editorial costs—which are really a question mark, because it is not clear how much editing is being done anymore—there are also the access-provision costs that publishers are now assuming, because they are producing paper editions and circulating them, and there is the archiving cost. Those are all things that can, in principle, be unbundled. Then the separate one, which Alma mentioned, is the cost to the author whose article is unlucky enough to be accepted. That is the cost for all of those articles that were rejected. He or she must pay them, and that can be unbundled. That is rather a radical step, though, at this point. We are talking about open access, and the unbundling will follow, rather than precede, open access.

Q48 Chair: Can I just ask a question of Professor Kell? Why is Research Councils' preference for gold open access, given that organisations such as Rolls-Royce, the Russell Group and Universities UK have serious concerns about it and that it is quoted in the *Going for Gold?* report that green is cheaper?

Professor Kell: This follows my earlier comment about the variety of actors in the system. It was the Finch report's recognition that in order to effect a transition of the type we are presently seeing, gold was going to be necessary in many cases, and it was a preference. There was also recognition that there would not be 100% compliance with gold—or green, come to that—and with all the activities going on and the changes in the market place to which David Sweeney effectively alluded, we should not place all our bets on one particular horse. We should, though, express a preference, and the preference followed from the recommendations of the Finch group because of the recognition that there were a variety of actors, such as learned societies, who, if we had an instantaneous move for instance to all green, would essentially be put out of business.

Clearly, everyone has to show some elasticity in these processes, and as the landscape moves we hope folk will transition to a stable and sustainable place that allows open access. Finch, though, concluded—and we conclude with them, and are implementing—a recognition that the way this can be done in a sustainable manner is through gold. This is in a historical context, and you can see the graph in Tony Hey's evidence, in which subscription charges increased over time massively more rapidly than the retail prices index under conditions in which the cost of actually doing the publishing was falling for technical reasons.

Chair: May I now bring in Ann McKechin to address one of the issues that I think you used in your modelling, Dr Swan?

Q49 Ann McKechin: The Government expressed a preference for gold access recently, but actually the international comparators appear to be moving in the opposite direction towards green access. Why do you

think the Government misread the international situation so poorly, given that we are only 6% of the entire world research base? How we co-ordinate and have a dialogue with international partners about how we treat research is clearly an essential part if we are all aiming to try to get net costs down. Why do you think the Government went for that route?

Professor Kell: There are a couple of reasons. I have already outlined that Finch went for them as a recognition that there are going to be changes happening, but if you instantaneously moved in a green direction, it would almost certainly be unsustainable for some important parts of the landscape, such as learned societies.

Q50 Ann McKechin: The Government wanted to be the world leader and wanted other people to follow them, but was there any discussion in the Finch report about actually speaking to international counterparts about what route they were likely to take? There is no point being the world leader if it is very clear that the others are going to go in the completely opposite direction.

Professor Kell: There are a lot of international comparisons. They appear in our own written evidence, so we have set them down so far as we know them. Many of these of course have happened since Finch and some were happening beforehand, and the landscape is very fluid. From where we sit, the UK is actually in the lead. We are very clearly not going to ignore all the things that are happening in the rest of the world. There will be a very important debate at the Global Research Council at the end of May, where these things will be discussed. Of course, there are other things happening, such as Horizon 2020 and so forth.

Professor Harnad: I might well ask a question: in what sense is the UK in the lead?

Q51 Ann McKechin: That is my question: in your view, why did the Government come to that conclusion?

Professor Harnad: I think they allowed themselves to be too strongly influenced by an over-represented publisher contingent in the decision-making process. The concerns of publishers were given more weight than the concerns of the UK research community. That was why it happened.

Dr Swan: Could I just give some data on policies around the world? Part of my job is to monitor that and work with policy makers. The UK is unique in having a policy all of its own that does not align with any of the others. The policies that were in place before our one were all mandated green open access. Some of them had an option for grant money to be used for gold payments and article-processing charges. Many of them were only green mandates, with no specific mention of gold. These are just data that I am giving you here. That is how it was until RCUK came along. Policies that have come out subsequently, including Horizon 2020, are also green mandates.

Q52 Mike Crockart: The focus up till now has been very much on research, academic institutions and

publishers. The area that has not been talked about is SMEs. In written evidence submitted to the House of Lords Science and Technology Committee inquiry, the Minister for Universities and Science said that there is as yet limited empirical evidence of the quantifiable impact of open access on economic growth, which is surely one of the major aims of moving towards open access. Are any of you aware of any such empirical evidence of the impact or likely impact?

David Sweeney: May I say first of all that I think the case for open access is made in principle and globally? The benefits that will then accrue are good, but they are a spin-off from the fact that we all sign up to the principle, in the interests of better research, that research information should be widely disseminated. The only piece of work I know is by Dr Swan and Professor Houghton in Denmark, so I will defer to Alma to comment on that.

Dr Swan: I will just say that in the US one piece of evidence that is commonly used now is about the economic impact of the human genome project, where the data were made freely available. The data are that for every federal dollar invested in that programme, \$141 of economic activity has been generated and tens of thousands of jobs with an average yearly salary of \$63,000. A lot of good benefit has come. That is just in the US, by the way. We do not know what has happened elsewhere; it has not been measured.

We did the study in Denmark for the Danish Ministry for Science, Technology and Innovation, which was concerned about the ability of small Danish research and development-based companies to access the information that they needed to do their work. It was not just about research information; it was about all kinds of information. We surveyed them; we were given a database of about 1,000 companies on the Ministry's list of R and D based start-ups or early functioning companies, up to 10 years old. It sent out invitations to complete our survey and we also followed up with a further 25 personal interviews.

We learned from that that they do need access to basic research information. Academic research is very important to these companies. We could place a value to the Danish economy of them being hampered in their access to that—I will have to put my glasses on and read the data. The typical kinds of companies that I spoke to were in biotechnology, solar cell technology, mobile ticketing, microchip technologies, biomass monitoring, debt-collection software and so forth. You might think that debt collection is done by burly men knocking on the front door, but obviously not these days. The average cost to a Danish company of having a delay to product development due to not being able to access research is 16 million Danish krone a year—there are about 10 Danish krone to the pound. That is the cost to a company, and it would have taken on average 2.2 years longer to develop their products and services if they had not had reasonable access to academic research. Most of them did not have reasonable access to academic research. In fact, 80% of them said they had difficulties in accessing it.

We worked out the cost of access difficulties to the Danish economy to be 540 million Danish krone a year. That is £54 million. Denmark is a small

economy compared with ours, so we will have to extrapolate upwards in our heads as to how that might work out in the UK. It is clear, though, that if small and medium-sized R and D-based enterprises are having difficulties and delays in accessing this information, there is a cost to them, and that is multiplied up by the number of them to be a very considerable cost to the national economy.

I will pick up something that Dr Neylon said, because I want to get the perspective right here. Publicly funded research is done for the benefit of society. These companies are part of society, and the premise of the Danish Government was that these companies create jobs and wealth in the Danish economy. Our R and D-based SMEs should be doing the same here, so we should be very interested in minimising the difficulties that they have.

Professor Harnad: I would just like to supplement that with one more basic concern. SMEs are, of course, important. I do not know how many SMEs benefit from historical research of the sort that was represented in the prior panel, but SMEs figure in this. The real question to ask is not what the evidence is of the economic benefits of open access to the economy, unless you are prepared to ask what the benefit to the economy is of funding research at all. All open access really does is to make sure that the research is accessible to all its potential users so that they can use it, build on it and apply it. Open access simply opens up the access to what you are already funding.

Dr Swan: I have just one very short point: these companies do not care or know what kind of open access they are getting hold of. What they do is they use Google and put a few keywords in—or if they know the name of the author they are after, they put that in—and hopefully happen upon a free copy of an article. They do come up against publisher pay walls. They do not very often pay per view, because they cannot afford it, and they certainly do not buy subscriptions. What they are doing through that Google search, though, is possibly arriving at papers published in gold open-access journals, like the PLOS journal, or they are coming up against free copies of articles that are in repositories.

I will reiterate that, for their purposes, they neither know nor care. They come up against the article. They want the article. They do not care about the journal, the business model of the journal or the publisher. They just want the article, and the repository copy that has been peer reviewed is perfectly adequate for their purposes.

Q53 Mike Crockart: My one small supplementary question to that is: what is your definition of reasonable access? We can have the debate about the technicalities of what that access should look like, but for SMEs what is the technical solution that gives them what they need to get the quick access?

Dr Swan: Some of them said they would sometimes search for five hours to try to find a copy of an article that they needed. They went to all sorts of other troubles to work around this issue, including by employing postgraduate students in the local university so that they could go and look in the library for these articles. The time taken to get to it is the

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most important thing. If you are running a small company and there may be four of you on the books, you do not want to spend half of the day looking for an article. You want the information. The average was nearly an hour spent looking for an article, which is a long time in their view.

Professor Kell: This bears again on the question of gold versus green. We may or may not come back to different kinds of licensing later. If you do not have full and unfettered open access to these kinds of materials, the estimable economic gains that we all seek are unlikely to be easily forthcoming. This is another major reason why Research Councils and Finch expressed that kind of preference.

Chair: Can I bring in Robin? I think some of the issues have been touched on already, but please pick out those that have not been.

Q54 Mr Walker: Dr Swan, you are right to emphasise the importance of the SME sector. You stressed in your written evidence that, although that was very much part of the impetus of the Finch report, you were disappointed to find the interests of this sector, and the opportunity to contribute to innovation and economic growth, had become largely lost. Why do you feel that the interests of business have been lost in this process? What do you think can be done about it?

Dr Swan: I think the thrust of the Finch report was to provide gold open access at a huge cost, which is not what those businesses care about at all. They want quick access to the literature. For them that is freely, and for the country it is best that we do that as cheaply as possible.

Q55 Mr Walker: In terms of representation, the only business that was involved in the writing of the Finch report was Rolls-Royce, and it was involved only in a sub-group.

Dr Swan: I would not call that an SME, of course.

Q56 Mr Walker: Of course, but do you think the membership of the group should have been different to try to get that business interest in?

Dr Swan: Yes, indeed. Companies like Rolls-Royce and even much smaller can afford information services and to have a company library, and usually an information officer to seek out this information, and they will be paying subscriptions for journals. However, the companies in my group in Denmark were much smaller.

David Sweeney: I think we are setting up an unnecessary tension in attributing the motivation of the Finch group to be about gold or green. The reality is that we have a mixed model now. The philosophy that the costs of dissemination should be part of doing the research is really quite easy to sign up to, which is an ultimate solution of gold. Philosophically, the Finch report was sound, and I think the preference for gold ultimately is entirely understandable. That was a statement. We are now moving forward in trying to implement that policy in a way that supports researchers and business, and where it is quite clear that a mixed model is present for the future.

Research Councils is stimulating a necessary response of institutions in a mixed model where there is a substantial gold provision by publishers, and we heard that. That is all part of a joined-up solution, and our challenge collectively is to work out the optimal way of managing the system, a system of which nobody is in overall control and where a large group of people have to work together. The work we have seen from Research Councils in consulting the community, and our work in also doing that, the work we were doing together both in funding and assessment, and the advice we are getting from all over the world, are likely to lead in the implementation of the policy to a satisfactory solution.

Q57 Mr Walker: Is there a concern about the pace of implementation and the way in which it is implemented? If it is completely controlled by suppliers rather than demand, people who want to get access to the information are going to be held back.

David Sweeney: There is a market there. There is a market both in journal subscriptions and a market in the publishers looking for scholarly material. Our aim is to encourage that market to develop. It is to regulate it to an extent, primarily by mandate to persuade those in receipt of grants or those with research that has been assessed that that should be openly available. Once that mandate is in place, the response of publishers, both not-for-profit and commercial, has to meet both the requirements of the mandate and the needs of the community. I think that is reasonable.

Professor Kell: Of course the suppliers are in fact the researchers, and I am very keen on the recognition that what we, as Research Councils UK, and I as a researcher want is to do and buy the best science. The numbers of peer-reviewed papers being published in biomedicine alone are two per minute. In the rest of science, it is probably a total of five per minute. Nobody, of course, can read them. Computers can. If you want to buy the best science, you have to have read everything that is out there. Of course you or the computers cannot read everything out there if you do not have access to it.

A big benefit of open access as a whole—but in practice this does mean gold or at least CC-BY and no restrictions—is that you can then do this kind of text mining that will enable you to discover new knowledge from hordes of literature that any individual scientist would not normally read. In fact, most people's solution to the problem of two papers a minute is to pretend it is not happening and focus on their own little thing. This does not buy you the best science. Science then gets siloed, and we want to break that.

Professor Harnad: I do not know who has to read all those papers at the rate of two papers per minute; I do not know that historians want to read all the papers even in history. Before we even embark on solving problem of being able to read two papers per minute, can we remind ourselves that the reason the open-access movement began was because access was being denied? The question was asked by Mr Crockett: "What is it that's needed?" At the very least, the vanilla, bottom access that is needed is free online

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access to these articles. That is what is needed, and that is what is being denied right now.

You asked about the suppliers. In principle the authors are the suppliers, but I think the suppliers you meant were the publishers. In fact, the agenda for open access is being co-opted by publishers now: “It will be done on our terms and according to our timetable.” David Sweeney has been very modest in not mentioning that the Higher Education Funding Council for England has proposed a solution that moots all this green-gold tension. It is very simple. It is related to what Alma said as well, and it says that if you want your articles to be eligible for REF four years hence, you must immediately deposit them in your institutional repository regardless of whether you decide to pay for gold—

Chair: We are coming on to this.

Professor Harnad: This policy essentially moots many of the questions that you are asking.

Q58 Mr Walker: I have just one more brief one. I mentioned Rolls-Royce earlier. It has said in written evidence to us that it believes that limited budgets for research dissemination are better spent promoting direct interaction between researchers and users of technology—for example at conferences—than on funding article-processing charges to publish it. Do you agree?

David Sweeney: That just reflects that the position of SMEs is rather different from larger companies. Rolls-Royce has valuable partnerships with universities and researchers. In a number of ways, I think that is absolutely fantastic, and to be commended and encouraged. However, that will not solve the broader problem of the engagement of small companies that cannot spend time going to conferences. I think you just have to look at the different range of business interests.

Professor Kell: It is important to recognise the kind of fraction of the research budget we are talking about. We are optimistic that these numbers will go down, but all present modelling has it to be between 1% and 1.5% of our research budget. Research dissemination is a cost of research just as much as buying pipette tip or a mass spectrometer, and we recognise that, but it is actually a very small fraction.

Q59 Mike Crockart: These questions are obviously more directed at Professor Kell. Helpfully for you, the Finch report has said that Research Councils will be able to check compliance with its open-access mandates comprehensively and systematically from this year. It is just a question of how you will do this. When will the results actually become available?

Professor Kell: The guidance that was issued on 8 April includes towards the end of it an outline of the kinds of data that we will be asking higher education institutions to collect. You may not be surprised to imagine that it is the nature of publishers, the average article-processing charge, the names of journals and stuff like this. It is set down in our guidance and there will be a full review in the last quarter of 2014, which is as soon as we think it is reasonable to have enough data to say some sensible things about this, and there

will be independent membership of that committee. That is what we have set out in the current guidance. As well as SHERPA/RoMEO under the University of Nottingham, setting out journal compliance is another thing we will be putting there: understanding what kinds of article-processing charges are being levied by different journals, including other hidden aspects of article-processing charges such as the page charges that some journals also use. We will have access to all the facts to make things transparent. As part of the developing market in which people may decide to publish or otherwise, at least they will be able to be armed with the facts on the type of licensing or service used. We are hoping to collect all this and make it available.

Professor Harnad: May I discuss now the topic I was stopped on? RCUK has accorded all its interests in compliance to gold compliance. It has accorded absolutely no attention or mechanism to green compliance. We know that RCUK has a Finch preference for gold already. I will let you take that on in a second. On the other hand, what I was going to say before was that HEFCE has paid attention to the issue of compliance. It has given the optimal compliance mechanism to green, and I stress that it is for green because although HEFCE does not care whether you go green or gold, it does care whether you deposit immediately, and depositing means green. The publishers are exercising some constraint over it here with their embargo power. They are saying, “Deposit if you like, but you can’t make it open access right away.” I suggest we need a compromise and we should be prepared to swallow that for the time being. If we accept the HEFCE policy of the immediate deposit of everything—green or gold; embargoed or un-embargoed—the UK re-takes the lead in open access that it used to have.

Q60 Mike Crockart: You have been prescient. If I can ask my next question, you will probably be able to answer the two together. I know that you have recently revised your policy and requirement for 45% open-access publishing in 2013–14. You now feel it can be met via green or gold open-access routes rather than via gold only. That will presumably answer Professor Harnad’s point. What prompted the change of policy?

Professor Kell: At one level it was always the case anyway, because words like “requirement” were never used. Words like “preference” were used. The 45% is not a desire; the desire is 100% open access. The 45% is a recognition that it is unlikely to happen anyway. If you actually look at evidence OA 29 by Peter Carroll, you will see the amount of author-depositing compliance, and it is sadly very low. Most of the deposits in green repositories are actually done by publishers, as was said in the previous session. The requirement that is potentially going to be in the research excellence framework will indeed be met by self-depositing in the repositories, which is not in four years but probably in 2020. We will all be looking to see that happen. It is not at all inconsistent with our own requirements, because our own requirements were around making the stuff available. However, we

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do have a preference for making it available in an unfettered manner.

Q61 Mike Crockart: The specifics of the targets—you have a 45% target for 2013–14 and a 53% target for the following year.

Professor Kell: They are not targets. They are recognition that compliance will not be immediate. The Wellcome Trust, which has been quite heavy-handed in encouraging—you might say forcing—its authors to go open access even after seven years only achieved 60% compliance. In a sense, we are living in the real world in which we recognise that, probably for reasons of academic apathy, people simply will not deposit stuff without some serious encouragement. The Higher Education Funding Council for England's stipulations would definitely constitute for working academics considerable encouragement.

Q62 Mike Crockart: I admit we are living in the real world, but equally you have to have a track along which you are trying to get to your ultimate aim. You have set out the 45% for 2013–14 and the 53%. What confidence do you have that you will be able to get to those compliance rates and by what method?

Professor Kell: I am pretty confident we will get to compliance rates far in excess of those, because when you look at the current journals' offerings, very largely they are compliant. We just did a survey of 108 top journals across all the Research Councils' bailiwick, and 97% of them are already compliant. I think we can be optimistic that compliance will increase very swiftly. We will be monitoring it in this first review and there will of course be subsequent reviews. Soon we will know, but I am confident that we can get there, and the evidence is that the journals themselves are becoming compliant by both routes.

Q63 Mike Crockart: Dr Swan, you look as though you are straining.

Dr Swan: Yes. I think it is worth saying that before this time last year we did have almost 40% of UK literature open access. That was 35% by the green route and 5% by the gold route. We were already there. If the previous RCUK policy had been enforced, as Professor Kell terms it, we may have even been higher than that. Certainly, when you see individual universities supporting their open-access policy in a sensible and constant way, you can get the compliance rate up to over 80%. My original research showed that 81% of researchers would comply with the policy perfectly willingly. A further 14% would comply unwillingly and the other 5% would not comply, but we do not worry about the 5%.

Q64 Mike Crockart: So a 53% target by 2015 is a bit unambitious.

Dr Swan: It is not very difficult. A little bit more work on advocating open access in the UK would have got us there anyway, I think, so you should manage it.

David Sweeney: That makes my point. I think there is broad policy agreement, but in implementing the policy you have to look quite clearly at the incentives and the benefits. I actually do not accept that advocacy

would get us there. I think we require mandates to get us there, and it is far easier if those mandates share common features globally as far as possible, which I think we are now very close to achieving, and most certainly nationally, which again I think we have largely achieved. There are details around those. Professor Harnad refers to the price one pays for some stability in the system by allowing embargo periods, and the detail of those has been thrashed out. I think particularly in respect of the humanities there may be further work to do. That really is at a detailed level, though, which is important, but it is far better for us to accept that we have policy agreement—and we are talking about the details of implementation—than, as sometimes is characterised, to fight about the policy itself.

Dr Swan: As this is for the record, may I just say that I agree that a mandate is the basic thing? Advocacy goes on top of that. Advocacy alone does not work.

David Sweeney: We agree.

Q65 Nadhim Zahawi: Very quickly, Professor Kell, we have heard that Research Councils UK's established preference is for gold open access. Why is that not reflected in your policy then?

Professor Kell: With respect, I think it is, so I am probably not quite seeing the basis of the question. We express a preference, but we recognise that there is going to be a mixed economy. That is what the guidance states.

Q66 Nadhim Zahawi: My point is: shouldn't you be more consistent that that is what you want to do?

Professor Kell: We think that stating a preference rather than a mandate in this case is the right strategy. A mixed economy is appropriate for all kinds of reasons, and it is such a fluid landscape that constraining some things unnecessarily is probably not desirable.

Q67 Nadhim Zahawi: Wouldn't it just help you to set more ambitious targets? I think that was what I was hearing.

David Sweeney: I think the RCUK targets are realistic and we should support them.

Q68 Nadhim Zahawi: Is realistic good enough?

David Sweeney: I think the uptake of open access has been slower than we would all have hoped, for reasons that have been rehearsed during the session. To set aspirational targets that prove to be unrealistic would not foster the support of all the various actors in this. Setting realistic targets and working together to achieve those is likely to give the best outcome.

Professor Kell: I sometimes find it helpful to use the counter-factual, which is to imagine a world in which we did have full and unfettered open access. If we decided to go back and invent a system with pay walls and so forth, which is our historical one, clearly the result would be outrage, and we would like the result of going in the direction we are to be joy.

Q69 Chair: Can I just intervene at this point? I understand that all the RCUK's policy papers have said their preference is for gold open access, yet to

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comply with either green or gold is okay. This would seem to slightly contradict your opening assertion that you had no preference.

Professor Kell: We have a stated preference, and that is Finch's preference, so there is no contradiction there. But it is not an absolute preference. There is recognition that it is a complex world and a complex ecosystem. One day it may go all gold, one day it may go all green, and one day it may be a mixed economy that is discipline-specific. It would be hazardous to predict much beyond that in my opinion. I do not think there is any contradiction. The expressing of preference is sending a clear message of changing cultural norms, which is what we are trying to do.

Chair: I am not sure how clear having an absolute preference and having a preference is, but I will bring in Nadhim because he is looking equally puzzled.

Q70 Nadhim Zahawi: It is as clear as mud, I think, Chairman. I think I have heard you correctly, and correct me if I am wrong. You have just said to imagine a world where we have complete open access and then we try to go back to pay walls, and the outrage that that would create from society and people using this valuable data. I think what you said was that we are striving for joy, implying that the outrage now that would come from that nirvana of complete open access would come from the publishers. Is that what you are saying?

Professor Kell: It would hopefully come from a sustainable system in which those who are providing value provide it at the appropriate price, and there will be a market, as has been mentioned several times. There will also be innovative new products as a result of the digital availability of everything. Any one learned society's publishers will be encouraged and are encouraged to keep on developing these, but you can develop them only when you have access to the base material.

Professor Harnad: I am getting confused, so let me try to sort it out, for my mind anyway. Are we talking about nirvana for open access, nirvana for gold open access, or nirvana for gold open access CC-BY? They are not the same thing. I think your question was if the Finch-RCUK decision was to go for gold, why are they not going for gold entirely? The answer is they originally said that they wanted to go for gold. It is very much like what Alicia said. They said that they wanted repositories to be just for data, not for articles: "Leave articles with us." Then there was resistance from many sectors, including from researchers who did not want CC-BY and all that research money spent on gold. Then they backed up and said, "Okay, we prefer gold, but you can go for either gold or green." You are right that that was waffling, but then David Sweeney came in and cleaned it up with something that would make sense of all this, which is to have your preferences for gold or green embargoes or what have you, but you have to deposit immediately anyway. That cleans it up and we do not need to worry about it anymore.

Dr Swan: Can I just say something? Stevan mentioned the outrage on the part of researchers early on in this process about the gold emphasis. I think the outrage was aimed at the fact that there was complete

acceptance by RCUK and Finch that paying for hybrid gold open access was okay. People feel that that is not the case, because of the double-dipping.

Q71 Mr Binley: Do you know what hybrid is?

Nadhim Zahawi: We have a glossary here.

Professor Harnad: A subscription journal makes gold open access accessible to you. They continue to collect subscriptions all over the world, but in addition you, Brian, can pay to make your article gold open access.

Mr Binley: Yes, I understood that is what it means.

Chair: Can I bring in Brian now?

Q72 Mr Binley: I still share his concerns about not being absolutely clear on what we are talking about, but never mind. I have no doubt over the next two years that you will clear that issue up. I do not want to spend too much time on this, but my concern is the impact of the article-processing charge on higher education institutions. It seems to me that Research Councils has a very concentrated policy in this respect. When you look at the number of institutions receiving, I think 80% of it goes to a very limited number. It seems to me there is a view in that allocation that concentration on a few means higher quality. I have never found that in my business life. Is that, therefore, harmful?

Professor Kell: The calculations of the block grant were based on the number of articles published that are attributed to Research Councils-funded research—that is very much not the entirety of it, which is quite an important point—the average article-processing charge then used by the Wellcome Trust and calculated by Finch, which we heard earlier may be rather higher than is the case, and the compliance ratio. The product of that gives you a number, and that is the amount that is divvied up, essentially according to the number of people working on project grants. It just started on 1 April. We are talking to librarians of course and looking at how institutions are implementing these kinds of things. The truth will lie somewhere between they have spent all their money in the first month and they have loads left over at the end of the year. I have heard both versions. More commonly, oddly, especially as the amount of green increases, they may well have some money left over at the end of the year. They do not have to spend all of it on APCs. We have asked them to spend it in as good a manner as possible consistent with our policy.

Q73 Mr Binley: Let me go back to my question. My concern is that the funding could well be detrimental to good research that sits outside the core group of people in receipt of this particular block funding.

Professor Kell: You mean institutions.

Mr Binley: I mean people as well, because it is people who make up institutions. I am saying that this seems a lazy way of doing it.

Professor Kell: I am sorry; I misunderstood the exact question.

Mr Binley: I want a wider, bigger net. In my business, when I look at SMEs, it is very difficult to judge which are going to be the winners and losers in two years' time. It seems that this is a rather crude and

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lazy way of doing it, and we are missing out a lot of people from a very centrally specific block allocation. Am I right in that, and is there a better way of doing it?

Professor Kell: The amount of money that went out as part of the block grant covered 99% of all the funding that we distribute to a variety of institutions. Your 80% is probably around the Russell Group and the 94 Group, but there is another long tail that goes all the way down to the point at which £10,000—

Mr Binley: A very small long tail.

Professor Kell: It is the smallest part of the long tail. This therefore leaves some people who are not in receipt of these kinds of funds specifically and, in extremis, your lone researcher who is nothing to do with the academic world at all, but might have something valuable to publish in an academic journal. An obvious example is PLOS. Fully 10% of the publications in PLOS do not attract an APC at all, despite the fact it is an APC-only organisation, because it looks kindly upon people from developing countries and other circumstances in which payment cannot be made. There are examples like that. It is equally possible for researchers without funds to publish in compliant areas without any APCs at all.

Q74 Mr Binley: Let me cut you short. The University Alliance report in 2011 found that there was no correlation between research excellence and the concentration of research.

Professor Kell: I will pass that to David Sweeney, if I might—that is more his bailiwick.

Q75 Mr Binley: Is this the most efficient way to get the most important research published? It seems to me that it is a rather lazy way. Am I right, or am I being unfair?

David Sweeney: I am not responsible for the policy, but I think you are being unfair. We have a funding policy for research in this country that rewards excellence. Excellence is assessed in different ways by Research Councils and by us, through what will be the research excellence framework, and it comes to basically the same answers. It is perfectly reasonable to assume that rewarding good performance with funding has driven the improvement in the quality of UK research. RCUK has gone out of its way to recognise 99% of the funded research. There are words in its policy about sympathy for particular cases in that 1%. I think it has been eminently fair and reasonable.

I think your question is about the broader issue of performance-based funding. In my view we are adopting the right policy, but it is a broader issue than the one we are discussing today. It remains the policy of the UK funding bodies that excellent research, wherever it is, including the University Alliance, should be supported and funded. We do that, but there is not all that much of it by volume in those places. It also remains our policy that all universities should contribute to the exchange of knowledge with businesses and society generally, and we fund that separately through our innovation-funding scheme. Together I think we are doing our very best for the

country, and we are open to debate about different funding methodologies.

Q76 Mr Binley: But my real concern is that open access really means that. I just wonder how many people cannot get open access because the funding does not allow them to get it because of this charge.

David Sweeney: I am absolutely convinced that, if that proves to be a significant problem, between us we will respond to it, including through talking to the University Alliance, as we both do.

Professor Kell: Having spent time in a smaller institution, it also applies to the subscription model. Smaller places cannot afford to subscribe to the range of journals that larger ones do.

Q77 Paul Blomfield: I wanted to share Brian's concern from a slightly different perspective. There is a debate about what sort of universities we should have. Should we have all research funding concentrated on a few, with others becoming teaching only, or should we recognise excellence across the board? Isn't there a danger that the way you are approaching supporting transition to open access is simply going to drive concentration of research into elite institutions, and in a sense shift that balance by default or by the back door?

Professor Kell: It is going to reflect it rather than drive it, because if you take the line that the cost of disseminating research is a part of the cost of doing it, and that cost is paid by us in proportion to whoever gets our research grants judged by excellence, the funding follows the excellence; it does not necessarily drive it. That is probably not an issue as such.

Professor Harnad: I am getting confused again. Are we talking about open access, gold open access or funding of research? There is an issue of concentration, but since we already know that you can make your research open access either via the green route, which does not cost you a penny, or the gold route, which is the preference of RCUK, what is it specifically that Brian and you are worrying about here?

Q78 Paul Blomfield: The way that funding is supporting the transition by being concentrated on Russell Group and 94 Group institutions.

Professor Harnad: You mean the transition to a 100% gold open-access model, but we are here to talk about open access—period. One way to provide open access is by taking an article that you submit to a subscription journal and depositing it in your repository without paying an extra penny. That provides open access. The eventual transition to the gold open access model is a side issue, but open access is open access; it is not gold open access.

Q79 Mr Binley: Professor, are you absolutely confident that all the stuff of value gets published irrespective of through which institution it comes?

Professor Harnad: I know that everything gets published. What you are asking about is where it gets published. It may not get published in the most prestigious journals.

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Q80 Mr Binley: We are told that in some cases only 10% of stuff gets published. Are we missing out?

Professor Harnad: Is your question whether an author who has done a piece of research and would like to get it published succeeds in getting it published?

Mr Binley: Yes.

Professor Harnad: The answer is yes; 120% get their research published.

Q81 Mr Binley: So you are happy with that.

Professor Harnad: Yes.

Mr Binley: I am perfectly happy. I am being provocative on purpose, because if that is the case I am perfectly happy.

Professor Harnad: But the issue here was not whether it got published but whether it became open access.

Mr Binley: It was for me, because I ask the questions.

Chair: With respect, you let us define what the issues are. That concludes our questioning. Can I thank you for your contributions? You will probably have heard what I said to the previous panel. If you feel that there is a response to a question that we did not ask, please submit it as further written evidence. We may well decide that we want to follow up any issues and write to you, and we would be grateful for your response. Thank you very much.

Examination of Witnesses

Witnesses: **Dr Martin Paul Eve**, Lecturer in English Literature, University of Lincoln, **Professor Andrew Massey**, trustee, Political Studies Association, and Professor of Politics, University of Exeter, **Professor Ian Walmsley**, Pro-Vice Chancellor for Research, Academic Services and University Collections, University of Oxford, and **Professor Sir Ian Diamond**, Chair, Research Policy Network, Universities UK, and Principal, University of Aberdeen, gave evidence.

Q82 Chair: Good morning, and thank you for agreeing to contribute to our inquiry. I will do as I did with the other panellists. For voice transcription purposes, could you introduce yourselves?

Dr Eve: My name is Dr Martin Paul Eve and I am a lecturer in English literature at the University of Lincoln. I have experience running several open-access journals and am starting a project called the Open Library of Humanities. I would like to note that I appear in a personal capacity.

Professor Massey: I am Andrew Massey, head of the department of politics at the University of Exeter. I am also a trustee of the Political Studies Association of the United Kingdom and vice-president of the European Group for Public Administration. I should declare that I also edit two academic journals, but receive no payment.

Chair: I had the privilege of being lectured by a long-time predecessor of yours, Professor Victor Wiseman.

Professor Walmsley: I am Ian Walmsley, pro-vice chancellor for research, academic services and university collections at the University of Oxford. I am also active on a number of editorial boards and in professional society publishing.

Professor Diamond: I am Ian Diamond, principal of the University of Aberdeen and chair of the Research Policy Network of Universities UK.

Q83 Chair: I will reiterate what I have said to previous panels. Some of our questions will be person-specific but others may feel free to add to or subtract from the contribution by the person being questioned. Similarly, some will be addressed to everybody, but please do not feel that you have to add to it if every point you would have made has been made by a previous speaker.

Can I start with a question to Dr Martin Paul Eve? You have already submitted evidence to the inquiry that Finch did not consider alternative funding models for gold open-access routes, including subsidies from

HEIs themselves. Have you any evidence to show that other models can work in practice?

Dr Eve: Not in addition to the fact we have no evidence that the current APC model will hold. I think they are on an equal footing, but one looks more appealing to publishers. The Budapest open access initiative statement, which is now 11 years old, suggests a number of models upon which gold open access can be facilitated. It explicitly makes clear that gold does not refer to a business model, but to making the research available at source open access. In the process of Finch, gold open access appears to have been made synonymous with article-processing charges, which in some disciplines, where the majority of work is unfunded, is deeply problematic, especially if the RCUK policy and HEFCE's potential mandate trigger a full-scale shift.

There are small projects, although I cannot now name one off the top of my head, that have worked on the basis of institutional subsidy. Libraries have run their own small niche open-access journals, but it is untried en masse. But so are APCs, because we have not yet seen whether we can get through the transition period without mass damage.

Q84 Chair: You mention a variety of funding models for open access. You have just touched on one. Are there any others?

Dr Eve: There are. It is one I favour less for problematic ethical conflicts of interest, but advertising is another route that could be made to work. Most of the internet projects subsidise themselves through placing adverts alongside material. Is it not possible that could be investigated? Could we think about ways in which we could get around potential ethical conflicts of interest, so you do not end up with oil companies next to articles criticising oil companies, or vice versa? There are other mechanisms we could explore.

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and Professor Sir Ian Diamond

Q85 Chair: Can I ask a further question, which in theory at least is to everybody? The Russell Group has calculated that funds from RCUK to cover gold open-access costs will fall short of enabling RCUK's compliance rates to be met. To what extent have RCUK's most recent changes to its open-access policy alleviated universities' concerns about the cost of compliance?

Professor Walmsley: That is broadly unchanged. The ability to pay for gold APC is not adequately funded by the RCUK numbers. However, the ability to cover other aspects of the RCUK mandate—that is using some of the block grant to cover green access—is very welcome and will go a long way to helping us meet the RCUK requirements.

Professor Massey: We are next to receive some of that block grant, and we support the comment just made by Professor Walmsley. If I could explain to the Committee how that works at departmental level, I am head of a fairly large department with 35 full-time academics, plus a very large number of post-doctoral students and others. The amount of money that came down to our department would have funded one gold APC. I can either give a fiver each to everybody or set up a very expensive committee that looks at how we could give them that money. It would cost more in real terms to distribute that money than the money itself. We would have liked more consultation on how to do that, but, if we go the green route, that money would go further and we could explore other innovative ways of funding this.

Professor Diamond: It is acknowledged that we are in transition. As Ian Walmsley has said, it is absolutely the case that in the short term funding from RCUK, as it is at the moment, would not fund most research-intensive universities' gold open access. That is why we would welcome in the transition the mixed economy. It is likely that efficiencies will come over time in APCs and we may well move towards a totally gold model, but at the moment the mixed model will enable funding to work.

Q86 Chair: Would it be fair to say that broadly it has been helpful? My next question is: do you think that with revised policy and guidance, there is now sufficient clarity and flexibility on how grants can be used to move to open access?

Professor Walmsley: In terms of how the money is spent, yes, but there are other issues associated with things like licensing, where that clarity and flexibility have not been implemented. That is potentially a source of great difficulty.

Q87 Chair: Can you outline the deficiency?

Professor Walmsley: For example, if you look at the directory of open access journals—I am not suggesting that that is the only way one can do it—it has in it about 8,700 journals. Of those, across all disciplines, about 32% have CC-like licences. They are not all CC-BY; about 1,400 have CC-BY. In a sub-domain like physics and optics—my own area—there are about 20 journals, and about half of those give CC-BY. Of the mainstream journals that are doing that, such as those published by the American Institute

of Physics, the Institute of Physics in the UK and the American Physical Society, there are three out of those, and the rest are published by journals that offer very low APCs but, in our view, very low-quality reviewing. Therefore, if one is not careful, one is taking away the academics' choice of venue of publication, which is critical to maintaining the stature of UK research internationally, and forcing them to go to what I would call, broadly, sub-standard journals because of cost and licensing. It seems to me that that is a very big liability.

Q88 Chair: Do other panellists agree with that?

Dr Eve: I slightly disagree with that. As a researcher my choice and freedom are not as great as might be made out. I publish in the place that is most likely to bolster my reputation through assessment in the REF. I am not sure that is actually a freedom; that is "Pepsi or Coke"? You publish where it will do the most for you, as opposed to where your research will be the most read. The secondary issue seems to me to be dissemination here.

Coming back to Professor Massey's point, I also worry about the green economy. This does not fix the already extant economic problems. At the moment Harvard is saying that it cannot afford to subscribe to every academic journal. That is an investment bank with a university inside it. What happens to lesser institutions at the moment? It is imperative to think about how we get through the transition phase, and green plays an important role there. For me, it is trying to patch up an economic problem by ignoring the economic issues.

Professor Diamond: At our university we have taken the pretty strong view that we will publish in the best places possible and encourage colleagues to do that. The economies around that, for example journal subscriptions—green, gold, whatever—we will manage because it is to the benefit of the university to make that happen. Over the transition period we have to look at the changing business models that will come with journals and, I hope, will lead to reductions in journal subscriptions, which will make possible many of the things people are talking about.

Q89 Nadhim Zahawi: We have touched on a lot of this. RCUK has said it is insufficient to state that it is not providing sufficient funding, rather than acknowledging that the HEI community must play a key role in negotiating with publishers to drive down the costs of subscription and APC costs. How much negotiating power do universities have regarding subscriptions and APC costs?

Professor Diamond: The research libraries network, of which my university and Ian's are members, has done incredibly good work in shared procurement to drive down costs, which has huge potential for efficiencies in library subscriptions. There needs to be continued work, and I believe that the research libraries network is a good place for it to be led from. There needs to be continued work to drive down costs in relation to open access.

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Dr Eve: Can I put a counter-argument that I have encountered in speaking with librarians? Non-disclosure clauses on big deal bundling of journals make it very difficult for libraries to consult with one another about the prices they are being charged. Therefore, getting any kind of solidarity to pressure publishers can become difficult in an environment where information is restricted. For the benefit of those who do not know, publishers sell bundles of journals where the very successful ones that are needed are sold along with others as a condition. You have to subscribe to the whole package, and libraries are prohibited from telling other libraries what prices they pay for each of those bundles. There is no way I could know I am being charged more or less than another, which means that the power for us to negotiate is driven down. We are given one price that we cannot tell anyone else; we do not know what they are being charged, and the cycle continues.

Professor Diamond: Which is why shared procurement, for example advance procurement of universities and colleges in Scotland, which leads the way for the UK on this, together with the new work being led by Universities UK and Professor Nick Petford of University of Northampton on procurement in England leading to this kind of shared procurement, is absolutely critical if there are to be efficiencies in all aspects of higher education, including this one.

Professor Walmsley: These are all correct things that universities and collectives have been doing. One should not lose sight of the fact that the UK publishes only about 6% of the total output of journals, and there is necessarily a risk in first moving here. If the model is not seen to be viable, it is hard to see how publishers would change their views on, say, licensing for such a small part of their activity. It is also worth not putting all publishers in the same box. There are places like *Nature* and *Science* that are going to have very little pressure to change because of their position in the market, whereas professional societies see journal publishing, for instance, as part of a much broader dissemination activity associated with meetings and public engagement. One needs to make a more nuanced statement about publishers.

Q90 Ann McKechin: I have a question on a point Dr Eve raised about the issue of non-disclosure of what libraries and universities are paying for the big bundles. We had before us earlier this morning a representative from Reed Elsevier who made no comment about that whatsoever, which I find extraordinary given what you are saying. Can anyone on the panel tell me whether anyone in the university sector has referred this issue to the Office of Fair Trading as an anti-competitive practice, and, if not, perhaps why not?

Dr Eve: I wish they would.

Q91 Ann McKechin: It is a profoundly anti-competitive practice. I would have thought that if this has been happening in the public sector, in the public interest there should be a referral to the Office of Fair Trading to carry out a full investigation.

Professor Diamond: I just repeat my understanding that the research libraries network is working together to do shared procurement, which overcomes that.

Q92 Nadhim Zahawi: I put my question to Professor Walmsley and Professor Diamond. A recent report by the UK Open Access Implementation Group concluded that the systems and processes currently associated with the payment of APCs could present a significant barrier to the wider adoption of open-access publishing. What are the universities and their representative bodies doing to establish efficient arrangements for payment of APCs as recommended by the Finch report?

Professor Walmsley: I am not familiar with the details of the report you have quoted. Are you talking about driving down the cost of APCs, or how we deal with the procurement?

Q93 Nadhim Zahawi: How onerous are the administrative arrangements for payment?

Professor Walmsley: If we think of the scheme before the current guidelines and how it would have happened, there would have been a standard invoice purchasing order through the regular finance system, so certainly no more onerous than any other sort of payment. Within the current arrangement, as Professor Massey was saying, we now have to have a more burdensome internal process to make sure, first, that we are allocating the funds in an appropriate manner and, secondly, that we have a single point over which they can be paid. It remains to be seen how much additional burden that imposes, but it is clearly not zero.

Professor Diamond: I could not agree more. The bottom line is that one is trying to make one's university efficient, so one needs to put together a way of managing this in an effective and appropriate way. I suspect most universities will maintain a policy of wanting their academics to publish in the very best places and working a bureaucracy around that. The discussions we have had in Aberdeen are clearly important ones, but they have not been ones that have made us say this is a bureaucracy that is going to impact on us in a huge way; it is just something we have to do.

Dr Eve: This is a somewhat contentious point, but "the best places" is a phrase I hear often. I query what that means and whether there is a cycle of tradition here whereby a journal holds prestige because in the past it has published good-quality academic research—I do not want to do that down—but that value is conferred by academic labour in peer review. We could theoretically choose where to do our peer reviews. I remain unsure why we are unable to break this cycle of expensive publishers who have held a monopoly in the past still holding that prestige when it is conferred by academic labour in the first place, and why we have all debated economics when there is a fix, which is to build new infrastructures where we give our labour and are not constrained by the historical accident of publications as they stand. It is contentious and it would require a shift in thinking, but if we thought differently, rather than approaching

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this by saying we must merely preserve what is, we might have an answer that is better than all this financial wrangling.

Professor Massey: We need to make a distinction between STEM subjects, and humanities and social science. There is a very different approach in those different traditions. In STEM, methodology is very important. Quite often, you can move to gold open access—indeed, that has occurred very easily and quickly—at cheaper cost. If you take medicine for example, if there are 40 trials going on round the world looking at anti-microbial resistance, you will want that in there very quickly. You heard a colleague from the British Academy this morning who is an historian. That does not happen there; there are not 40 Pompeii excavations, or however you wish to look at that. Therefore, the guarantee of quality comes from a model where editors and senior academics who run the professional journals seek advice from other people who are expert in that field, usually through peer review although it can be in other ways. That is a guarantee that what you are getting is not only methodologically sound, but of high quality, and is therefore deserving of being published in those kinds of journals. That is quite expensive. In political science, we are looking at other models and trying to find ways of changing our approach, but at the moment it is hard to maintain that level of quality without having lots of people who are expert in the field guaranteeing that quality.

Q94 Nadhim Zahawi: I think what I am hearing is that it is quite nuanced—on one side, which is admirable, Martin wants to shake up the industry; on the other side, you put at risk real quality.

Dr Eve: When we say that peer review is expensive, that is an interesting statement because it means it is expensive to organise on the basis of a rejection-to-acceptance rate. It does not mean that academics are compensated in any way for the labour of doing that, especially in arts and humanities subjects. I am aware that some STEM subjects do give peer reviewers an inadequate degree of compensation for the time it takes to review a paper. I am not paid for the time I put into reviewing papers. When journal publishers say it is expensive, they mean it is expensive to write an e-mail to ask me to do it, which does not tally with the amount they ask for in some circumstances, but I agree there is nuance here that cannot be disregarded.

Professor Walmsley: It is entirely right that modes of publication will change. One wants to be cognisant of the international setting and the pace at which we move. For instance, BIS commissioned a comparative performance of the UK research base a year or so ago looking at our place in international league tables based on rankings through the REF. Those are often based on these very established journals and the primacy of certain ones within each discipline. If we change more rapidly than the rest of the world, we jeopardise that. I certainly would not wish to say we should not change as part of that, but the way in which we do it and the pace at which we do it need to be commensurate with maintaining our world-leading status.

Professor Diamond: I agree with that completely. As the person who said “best” a couple of times, can I just clarify that when I said “the best place to publish”, I did not mean the place where everyone has published for the last 100 years? I believe in change. There are examples in PLOS, which did not exist 10 years ago and where some of the best science is now published.

Q95 Nadhim Zahawi: Professor Walmsley, you mentioned the thinking you are having to go through about the allocation of funding. My understanding is that there is widespread uncertainty about how universities allocate funding. What discussions have taken place in the HEI community to determine how allocation will work in practice?

Professor Walmsley: We have had extensive discussions inside the University of Oxford. We have had connections and contacts with colleagues at other universities and through the Russell Group, but there has been no discussion about how we might do that so that every institution does it the same way, for the obvious reason that every institution is different and has a different amount of money from this block grant. But it has been very much an issue that has occupied a lot of time within the university: to understand how to do that in a way that, as Professor Diamond said, is not burdensome for academics and administration, and is as equitable as we can make it.

Professor Diamond: The person in my university in Professor Walmsley’s role produced a wonderful paper to our senior team that looked at the issues and the principles I have outlined about wanting to give everybody in the university the opportunity to publish anywhere they wanted to, and it was believed that in a transition period with a mix of green and gold, the funding would enable us to do that. At the moment we do not find the bureaucracy difficult.

Q96 Ann McKechnin: RCUK confirmed that its policy covers all research that is wholly or partly funded, including research that also uses commercial or overseas funding, or is undertaken by students. Is that problematic for authors and their institutions? I do not know whether any of you have direct experience of that issue.

Professor Walmsley: At Oxford more than 40% of our papers are published with international colleagues, and there are two challenges: first, it means that we do not have sole decision over where publication happens; and, secondly, if we have a mandate to have open access through a gold route, and if that is available and funding is available and so on, we probably have the prime burden to do that. In a case where it is NIH, we may be able to share that; in other cases we may not.

Professor Massey: I would echo that. UK universities operate in an international context. We are probably among the most internationalised university systems in the world. If you take my own department, probably more than 50% of my colleagues were originally non-UK. We all research through the European Union and elsewhere in joint groups. We have not yet had a problem because the policy, as I

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understand it, is a proposal, and bits of it have been implemented since 1 April, but we will have issues if colleagues, particularly from North America and elsewhere, object to some elements of that practice. A knock-on effect would also be that if you have to be wholly compliant with the REF as outlined in the previous sessions this morning, what happens if you want to employ someone who is an outstanding academic from the United States, say, and is not REF-compliant? Do we say that we do not care and we want this person, which is what we should say, or do we say, “We can’t take them because we want to put them in the REF and get the QR money”? I do not think all that has been thought through at all, and we have certainly not been consulted.

Professor Diamond: That is a very valid point. All universities in my view will go with the former point, but it would be sensible if HEFCE clarified the point. It would take almost a nanosecond to clarify that point, but it would just calm a few fevered brows.

Dr Eve: I know there is a lot of angst among early career researchers on this issue. If RCUK-funded PhDs, such as my own, were subject to these conditions, with the bureaucratic overheads that have already been mentioned, how would we allocate that and how would those funds boil down within a department? You simply would not be able to accrue the number of publications in high-prestige journals to get a job afterwards.

Q97 Ann McKechin: So there is much more work required by RCUK in terms of clarifying how it anticipates these guidelines working.

Professor Diamond: On the first point, clarity around international scholars who have published before coming to the UK would be helpful. As to the point about junior colleagues, from where I sit in the University of Aberdeen, it is in our strong interest to further all their careers. It is also in our strong interest, having invested in bringing them to Aberdeen, to make sure their careers flourish at Aberdeen. Therefore, I can speak for the University of Aberdeen in saying we are not in the business of disadvantaging junior colleagues in the slightest.

Q98 Ann McKechin: Do you think RCUK is willing to engage with you about these issues?

Professor Diamond: I have not the slightest doubt that RCUK would have a conversation.

Ann McKechin: I hope we might have a conversation with it.

Q99 Mr Walker: Doesn’t the preference of both Government and RCUK for gold open access, together with the limited funding for APCs, mean there is a risk, as the Russell Group has suggested, that cost rather than academic relevance defines where people will publish their work in the future?

Professor Massey: That is a danger. May I nuance that slightly? Having had discussions with people in BIS involved in the policy, the distinction between STEM and HSS needs to be made slightly clearer for the reasons we have discussed. I suspect that the implementation, as far as it has gone, would have

gone smoother had a little more consultation taken place earlier. I do not think anyone on this panel would oppose the policy overall. We would like to see it recognise some of the difficulties that have been discussed this morning and on this panel. If we can do that, we can make the implementation a lot smoother. That would recognise that the rest of the world is largely green and is not in a great hurry to go gold.

Dr Eve: It is fantastic that the UK is leading the way on gold and it sends a strong signal that this is what we should do. There are repercussions. The White House responded recently to a petition for federally funding research and is looking into what it should do. This positions us ahead of the crowd and it should be thought of in those terms—not that we are going to be going alone, but that we are sticking and this can work. A Norwegian conference is being convened by the Government in September of this year to see what they can do about this. They are thinking about it. We show it works and we are through.

The problem is whether the issue of APC makes this problematic and how we get through the transition period from moving subscription funds to a supply-side effort. It is theoretically an economic reconfiguration. The problem is the period when we are paying for subscriptions and for APCs, and how we get through that reconfiguration.

Professor Diamond: I was going to make a slightly different point, which was to reflect on your discussion earlier this morning about SMEs. For SMEs, the point about gold is that it enables immediate access to information that may well then help SMEs to drive the economy.

Q100 Mr Walker: Do you think there is a risk in the current policy—as you said, perhaps it is a matter of more consultation with the HSS side—that without that consultation the quality of research is what could suffer most?

Professor Massey: Yes.

Professor Walmsley: The current model is essentially to take money out of the funding of research to dissemination. One may want to know what is the best value for doing that. There are two elements to that. First, can we, by institutional and other repositories, such as archive, PubMed or what have you, achieve the same ends—access as widely as possible to research outputs as quickly as possible? The second is that we are keen to be able to use this to support the economy. It would be good to know what the evidence is that says zero is better than six months and better than 12, in those terms. That is untested and will take time to work through, but that ought to be a piece of work that goes on at the same time so that we understand the costs being paid to go into this dissemination have a real benefit elsewhere. That is something everybody would wish to support.

Professor Diamond: I could not agree more. It is incredibly important. We are not in the position of doing, if you like, randomised control trials on some of these open access areas. We are in an observational study, and it is unbelievably important that we have

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research going on over the next couple of years to understand how best to move forward in this arena.

Professor Massey: I entirely support that. It is very important. To give you an analogy, this morning I came here on a train. As a taxpayer, I have already subsidised the railway system quite considerably for many years, but there is no way I am going to get on a train and not buy a ticket. For open access, there has been a lot of talk about SMEs, the economies and the taxpayer paying for this. Let's look at what it is the taxpayers pay for. Are they paying for the fundamental infrastructure for research, and then they have to pay their ticket on top, or are they paying for everything that comes out free at the point of delivery, like prescriptions in Scotland for example? Are we going to have different structures in different parts of the country for different kinds of research? We have not begun those conversations yet. I do not know the answer to them, but I think they are important conversations we ought to start looking at and, as Professor Diamond says, get the evidence. We do not yet have the evidence to say which is best. We need that evidence, and then we can proceed down whichever path is best for us.

Professor Diamond: In completely agreeing with that, the problem is that we will not get the evidence unless we move forward with open access. It is not a question of waiting for the evidence before taking the policy. In social science terms, we have to undertake the policy and then do the action research at the same time.

Dr Eve: Can I bring to the Committee's attention the OAPEN-UK project, which is looking at the impact of gold open access on the monograph ecosystem and whether they sell in conjunction? It is a JISC project that is collecting exactly the kind of evidence we are saying we need here and is a valuable case study for monitoring how this is going. It would be worth considering that.

While we are on embargoes and the differences between STEM and HSS, as a researcher the embargo periods are over-long to my liking. I work in the field of contemporary fiction, thinking there is value in theorising how this field works as it evolves. At the moment, it can take two years between my submitting an article and it being published, and there is a 12-month embargo on top of that for AHRC work. That means work is three years' old by the time I see it, and that is deeply problematic for those working on contemporary issues. That is not an HSS and STEM problem.

Professor Diamond: I have a lot of sympathy with what Dr Eve said. In the humanities and social sciences, one of the things open access might lead to is improved business models that will shorten the time of publication, because that is a real challenge.

Q101 Paul Blomfield: Can I return to the question of licensing? It has been argued to us that the requirement for a CC-BY licence when an APC has been paid will lead to other countries benefiting from commercial opportunities presented by UK research. Do you think that is fair? Professor Massey, you are nodding.

Professor Massey: I do not know whether it is fair, but it is a fair assessment. I do not think it is necessarily fair to the UK taxpayer. To speak as someone who edits a European journal with very few UK academics being published in every single issue, the view of our European colleagues is that which was best summarised by the Russell Group's written evidence to you, which is that at best the case is not proven. It may be we just need to tweak the licences slightly, but we are not happy as a professional association and discipline that it protects our academics in political studies and elsewhere from plagiarism. I know that was addressed this morning and I will not belabour those points, but I entirely share the perspective of my colleague from the British Academy. I know that political studies shares that.

We are also concerned about replication and the fact that people's work can be used in advertising and charged for without their permission. If you take my colleagues who work in election studies, for example, they could do some work on by-elections that they find is then being used in a wholly partisan way that they would not remotely support. As the colleague from the British Academy said, that would harm their reputation and impartiality. We are not happy that there are safeguards on that particular licence, and we would not be happy to see that continue to be mandated in the way it is.

Dr Eve: Can I just respond on the issue of plagiarism? I strongly disagree with some of the assertions that have been made. The Creative Commons licence strongly states that you must cite the person who wrote the original article and you cannot imply support from the person for your reuse. Plagiarism is a term for the academy to enforce, not a legal term. If somebody were to violate the terms of the licence, you have legal recourse to redress that, and any institution that found a researcher was misusing this material would penalise them, and they would lose their job. I think the risks of plagiarism are heavily underplayed.

The Creative Commons attribution licence can come with significant benefits for the digital preservation of scholarly material. At present, when publishers put out material in a proprietary format, it can be difficult for us to ensure that in 100 years' time that material will still be available to our research community. The Creative Commons Attribution licence allows people to modify the format as computer systems change and accounts for machine translation, so we can ensure continuing access, which is a really valuable point. We want to make sure that born-digital research is safe, and this licence helps us to do that. I entirely agree with the point about commercial use.

Q102 Chair: Earlier I think you made the statement that the risks were underplayed, and you probably meant overplayed. Is that correct?

Dr Eve: I did not quite catch that. What was overplayed?

Nadhim Zahawi: The issue of plagiarism was overplayed.

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Dr Eve: I think that the issues of plagiarism in the Creative Commons licence have been overstated and it does not facilitate plagiarism.

Q103 Paul Blomfield: You also suggested that the licence precludes implying support when citing. That must be incredibly difficult to regulate, to the point where it has no meaning.

Dr Eve: If I want to publish a paper in favour of, say, some very extreme political position and cite one of my colleague's Creative Commons Attribution licence, saying, "Look, this guy says...", and cite in a way that it is accepted he supports me, I cannot say that.

Q104 Paul Blomfield: That is a very extreme example, isn't it?

Dr Eve: It is, but neo-Nazism is the example people have trotted out to try to denigrate the Creative Commons licence. I just cannot see that happening.

Professor Walmsley: First, this conversation shows that the territory of licences is not one that is widely and completely understood by all academic colleagues. This makes it a difficult transition when they are choosing where they wish to publish in trying to bear in mind all of these issues. A second important point is again one of nuance and exploring things as we make changes. I gave the example earlier of the American Institute of Physics, which is a major STEM publisher in the US. A very small fraction of its journals allow CC-BY. That is a very positive sign and shows you it is something that should be explored for all the reasons that have been given, but its impacts in terms of predatory publishing, for example, are not yet well understood, and they would like to move at a pace that allows that to be properly worked out.

Dr Eve: Can I ask my colleagues what they think about the discussion? It is important. Universities are commercial entities in some senses now. Does it pose a problem for us as a group if we restrict our licences to non-commercial premises for universities in the UK?

Chair: We are coming on to this, so perhaps you would not anticipate the questions.

Q105 Paul Blomfield: Professor Massey, I want to press you on the concerns you were raising, because the direction of travel is very much pressing CC-BY licences. If not that then what?

Professor Massey: I have forgotten the exact title of the licence, but it is CC-BY and then two bits added on.¹

Professor Walmsley: The hybrid.

Professor Massey: That is the one.

Paul Blomfield: I am glad you are being confused.

Professor Massey: I had it down in front of me because I thought you might ask that question, but I have mislaid it. As a professional association, we have been in discussions with publishers and looked at ways to do that. The concerns of the academics we

represent and our colleagues are the ones I have just outlined and you have already heard. They are anxious that they retain possession of their own copyright and then reinvest it in the publisher, whoever that publisher may be—it may not be one of the big publishers—and whatever model we move to, which we all agree will be changing quite rapidly, and that they are protected in some way given those fears. As colleagues have said, we are academics and researchers; we do not understand the nuances of the licences and the permissions. That is why we publish, because we then get that protection. If we take where we are now and move to something different, they would like to be reassured that all their fears are met. We think we should have had the conversation before we were pushed towards a particular kind of licence. It was not had; the argument has not been won. It may be we do move to CC-BY, but I do not think it will be CC-BY exactly as it is at the moment because it has the potential for commercial exploitation of a product that someone has produced non-commercially.

Q106 Paul Blomfield: We had a lot of submissions arguing for non-commercial licences to be used instead of CC-BY. Do you think that that would prevent publishers and universities from reusing content? I would welcome a range of views.

Professor Massey: I do not know. We would need to look at it. I have consulted commercial lawyers, not university lawyers, at Exeter. They have said it is not very clear and have made presentations in previous workshops on open access nationally. We would like some clarity and would like to know precisely where we stand on each of these licences. Your question is one that should start the debate from here, rather than my answering it from my perspective.

Professor Walmsley: One wants to distinguish between the research output itself, the journal article, and the intellectual property it contains. If one is considering SMEs, one is talking about the intellectual property, which is managed in a different way prior to publication. There are good mechanisms for handling this. The challenge is how it is reused in the ways Professor Massey and Dr Eve have indicated by, say, other publishers. That is less of an issue for the university per se than for whoever is doing the publishing. That is one where professional societies are particularly concerned and are exploring how that can go. As Professor Massey says, a lot of these things are uncertain and not quite clear and it will take time for the consequences to work out.

Dr Eve: I could not agree more.

Professor Diamond: I agree.

Q107 Paul Blomfield: Returning to the impact on authors in humanities, arts and social sciences because of mandatory CC-BY licensing, are they losing out? It has been argued that they will lose out, and you have made that point. As was argued by an earlier panellist, is it because of the commercial application or because, unlike STEM scholars, they cannot protect their work in other ways through patenting? Can you illuminate that problem for us?

¹ Note by witness: Professor Massey subsequently confirmed that the intended reference was to the CC-BY-NC-ND licence.

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Professor Massey: It is both of those. Patenting is a very important issue. If you take the advances discussed by this Committee with earlier panels as it relates to small and medium-sized employers, access to technology should be very rapid. One of your previous panellists showed the economic advances in her studies, but those are technical issues that are covered by patents. You can have access to the technology, but you would pay a fee through the patent. That kind of protection does not apply in the humanities and social sciences; it is a very different kind of product. I cannot answer your question directly because I do not know the answer, but those are the concerns.

Q108 Paul Blomfield: Are there any other comments on that one?

Professor Walmsley: I support that.

Q109 Paul Blomfield: Can I come to a different question, which is VAT on e-journals? Finch recommended that the Government and the sector should work together to reduce VAT on e-journals to encourage online publication and reduce library costs. The Government are arguing they cannot do that on

the basis of EU rules. Do you think the Government should look again at that issue? We know that EU rules are quite often a pretext for all sorts of inaction.

Professor Diamond: I am not going to comment on EU rules, nor on their pretext. What I would say is that anything that can serve to drive down the costs of journals is going to be of benefit to UK higher education, whether that is VAT or driving down costs through shared procurement or in other ways, which open access can do. Universities are paying far too much for journal subscriptions. If they could be reduced, that money could be used very profitably for both education and research of the highest standard.

Q110 Paul Blomfield: There seems to be general agreement on that.

Dr Eve: There is.

Chair: That concludes our questions. May I thank you and repeat what I said earlier? If you feel there is anything that we should have asked you but did not and you would like to respond to it, please send us further written evidence. Again, we may wish to follow up one or two questions and would be grateful for a response from you if we do so. May I thank you very much for your contribution?

Tuesday 14 May 2013

Members present:

Mr Adrian Bailey (Chair)

Mr Brian Binley
Paul Blomfield
Katy Clark
Caroline Dinéage

Ann McKechin
Mr Robin Walker
Nadhim Zahawi

Examination of Witnesses

Witnesses: **Rt Hon Mr David Willetts MP**, Minister for Universities and Science, and **Ron Egginton OBE**, Head of the Biotechnology and Biological Science Research Council and the Economic and Social Research Council Team, Research Funding Unit, Department for Business, Innovation and Skills, and Observer on the Finch working group, gave evidence.

Q111 Chair: Good morning, Minister and Mr Egginton. Thank you for agreeing to speak to the Committee. If you are comfortable with doing so, we will start a little earlier. I know your time is constrained, and so is mine on this occasion. I welcome you and invite you to introduce yourselves for voice transcription purposes.

Mr Willetts: David Willetts, Member of Parliament for Havant, Minister for Universities and Science.

Ron Egginton: Ron Egginton. I am sponsor for BBSRC and ESRC in BIS, and leading on policy advice to the Minister on this subject.

Chair: Thanks very much. Before I open the questions, Brian Binley wants to make a comment.

Mr Binley: I need to declare an interest: I am the founder and non-exec chairman of a company that supports the business-to-business publishing sector with regard to the collection of data. It is right and proper I should declare that interest.

Q112 Chair: Thank you. I will open with a question to the Minister. In July 2012, the Government formally accepted the key Finch report recommendations that a “clear policy direction” should be set towards gold open access funded by article-processing charges “as the main vehicle for the publication of research”. Subsequent responses seem to have muddled that slightly. Could you just clarify whether the Government’s open access policy direction has changed since then?

Mr Willetts: I stand by those statements that you reported, Mr Chairman. That is our view. It was a response to the excellent work that Janet Finch did in her report. We believe in open access. Of course there is going to be a mixed economy for a long time, but we, like Janet Finch, in the long run have a preference for gold over green, to use the terminology.

Q113 Chair: RCUK’s policy is effectively neutral towards green and gold, and HEFCE has proposed to mandate immediate deposit in institutional repositories for the post-2014 Research Excellence Framework. On the surface it would appear that their approach is slightly different from yours. Could you comment on that?

Mr Willetts: I am slightly surprised about how you characterise the view of the Research Councils. They can speak for themselves. What the Research Councils

have quite correctly done is set aside funding—and we have helped them with this—to pay for gold open access, and that actively promotes it.

Perhaps I should have said—my previous answer was a bit too short—that, although gold and green both have their pros and cons, Finch came out in favour of gold above all, with arguments I accept, because, first, gold achieves the ideal end point of publicly funded research being openly accessible from day one. Secondly, it recognises openly that publication, distribution and communication is part of a legitimate research cost; it does not hide that cost. Thirdly, you can set the conditions for the deposit of the data behind the research—the so-called CC-BY option. Again, I know there is controversy about exactly how that is done, but nevertheless you can require the underlying data to be made accessible, which has some quite significant technical challenges. I see all those three things as big prizes, but we are realists and we are pragmatic; we are not suddenly going to have everything published in gold open access with article-processing charges from day one. We agree with Janet Finch’s recommendations, though, that that is the superior model in the long run.

Q114 Chair: RCUK has revised and re-revised its approach, but you can say that, as far as the Government is concerned, this is the approach that you want to be taken?

Mr Willetts: Yes. When they revised it we ended up with the Publishers Association decision tree, of which I have a copy somewhere in this briefing. We have ended up with a decision tree for the determination of embargo periods, which is the agreed account of policy, and that is what the Government, the Research Councils and the Publishers Association all agree on.

Q115 Chair: A decision tree?

Mr Willetts: The Publishers Association decision tree. It was initially drawn up by the Publishers Association in consultation with BIS and RCUK. It is on their website, it is on the Government website and I find it by far the clearest and most useful summary of how the open access decisions are taken.

Chair: Just before I bring in Katy Clark, I should apologise for the fact that this Hearing coincides with Treasury Questions. One Member, Ann McKechin,

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has had to disappear to do an opening question, but will be back, and Katy will have to disappear to ask her question. Please do not take it as a reflection on the answers or the deliberations here.

Q116 Katy Clark: Dame Janet Finch has said that she did not compose the working group on expanding access to the published research findings. How was the membership decided and by whom?

Mr Willetts: The membership was decided by myself in consultation with the different bodies. Before the group was set up we had had various roundtables in BIS and elsewhere. It was deliberately intended to reflect the wide range of different interests: higher education, Royal Society, other learned societies and publishers. To be frank, back in 2010 and early 2011 I found this massive argument going on, in which the publishers and the research community were basically at loggerheads. I convened one or two meetings in BIS to try to find a way forward and we thought that if all the different interests were properly represented in a group chaired by Janet Finch we might be able to find a way forward, and I think we have succeeded. I think the working group has all the key interests represented.

Q117 Katy Clark: Leading economists in open access policy, like Professor John Houghton and Dr Alma Swan, have told us that the BIS innovation agenda is best served by green open access, which we have already referred to, and that what they call the “expensive solution” proposed by Finch does virtually nothing for the innovative business sector. What evidence from the UK business sector outside of publishing was used to formulate the Government’s open access policy?

Mr Willetts: I know there are some advocates of green. As I say, green is going to be part of how open access is achieved, but I think Finch rightly went for gold. Ron might want to come in on the detailed evidence, but one of the advantages of gold—namely that the research is openly available from day one—is absolutely of great value to SMEs and innovative new companies that do not want to have some important research project behind a paywall for six, 12 or 24 months, all of which are possible with green. My view is that green has a hidden cost. With gold, you publicly recognise that there is some cost for the process of publication and assessment. Green pays that cost by publishers being able to continue having their publication behind a paywall for a certain period. That is a period during which an SME may not be able to access it. I do not know if Ron wants to add to that.

Ron Egginton: Certainly, Minister. The RCUK’s preference, like the Government’s, is very much towards gold over green. However, green is accepted, as the Minister has explained. The reason why they have that preference for gold, in addition to what the Minister has referred to in terms of immediate access, searching and so on, is because it provides immediate access to information in such a way that small companies and others can then utilise the information without restriction and immediately for economic purposes.

The same study you are referring to by Dr Swan, which I believe was the one in Denmark, actually showed that the cost to Denmark was €70 million per year due to the inefficiencies of companies trying to find information to innovate and develop new products. If you scale that up in proportion to GDP in the UK, it amounts to about €525 million per year. In terms of the efficiency with which companies are able to access information, use that information for new products and their own research instead of spending hours trying to find things and then having to pay through various paywalls, this is a major step forward.

Q118 Katy Clark: I think the point they are making is that Rolls-Royce was the only business interest outside the publishing representatives on Finch group. Do you think that is fair? Do you think you were wide enough in terms of those views that you listened to, given that it is being said that what you have come up with is a very expensive solution?

Mr Willetts: It is not an expensive solution. It publicly and transparently reveals that part of the cost of scientific research is the costs of publication and communication. That does not make the policy more expensive; it is just more open about those costs than the other options. The other options hide the costs and hide the way they are reclaimed via the payroll model. I do not agree with that assumption and, as I said, I think it was a broadly-based working group deliberately chosen to represent all the different interests. Janet Finch did an excellent job bringing them to a shared view.

Q119 Caroline Dinéage: On the subject of cost, despite what you say, we have had a lot of evidence about the extremely high cost of many subscriptions and of some article-processing charges. Is the Government’s open access policy aimed at reducing the overall cost of access to published research findings for UK universities and taxpayers?

Mr Willetts: You are right that there are different forms of cost. One form of cost is paying the cost of a publication. The subscription cost of a publication is one way in which you pay for the costs of peer-reviewing, sub-editing and checking research proposals. The other way of doing it in the gold model is through these article-processing charges. We would hope for competitive pressures meaning that publishers are competing for the opportunity of publishing research papers, and that could and should bring down article-processing charges.

Q120 Caroline Dinéage: Elsevier told us that regardless of whether publication of articles was funded by subscription charges or by article-processing charges, the overall cost to universities would not decrease. Why do you think they would have said that?

Mr Willetts: I think it probably would not be right to speculate on their reasons, but we will see. I hope that there will be the emergence of a competitive market in article-processing charges, but our modelling has not assumed that there are some massive changes in the costs of this industry. Our article-processing charges are aimed at broadly reflecting the average

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cost in the system at the moment. I personally think that there is massive technical change hitting this industry that is going to change the cost structure massively, and at the end of the day there will be savings, but we are not taking that for granted.

Q121 Mr Binley: Minister, good morning. Your Department has two important but often conflicting objectives. One is to cut public expenditure and the second is to produce business growth. That is solidified in this particular area of activity, and I wonder what assessment your Department has done, in real terms, of the impact of these particular measures on business-to-business publishing.

Mr Willetts: Business-to-business publishing?

Mr Binley: Yes, indeed, because that is where this impacts.

Mr Willetts: We have produced this economic analysis—

Mr Binley: Yes, but it does not cover this, Minister.

Mr Willetts: I know; it was only a partial assessment. For business publishing, it is simply part of the wider picture. In terms of public expenditure, this is all within the science budget; this is all within the £4.6 billion science budget, so we are holding total public expenditure fixed. We have carved out, and Research Councils have carved out, an element in the overall ring-fenced science budget to pay for the article-processing charges, so it is not a public expenditure issue. For the publishing industry, my personal view is it is hitting massive technical change, and one of the reasons why we got into this whole review was that, rather than just sitting on our hands passively observing this turbulence in the sector, we wanted to steer it to a better outcome. I have clearly not picked up on some specific issue you have in mind.

Q122 Mr Binley: It is a sizeable business sector, it employs quite a lot of people, it is an important sector for British industry worldwide and we need to understand the impact upon that particular industry. I have not heard anything from you that suggests you understand that.

Mr Willetts: I would say that, unlike some of the hotheads who regard academic publishing or publishing for research as an exploitative ramp of rent-seekers, I think there is some genuine added value in the whole process.

Mr Binley: I agree.

Mr Willetts: Some people who just say, “You should require them to publish all the work straightaway without paying for that”, I thought were failing to recognise that academic publishing or research publishing, is, as you rightly say, a British success and does add value. Again, one of the arguments for gold, or some versions of green, is that it recognises that publication adds value and needs to be paid for.

Q123 Mr Binley: Minister, I understand the difficulties you face about a particular sector of a sector, because that is what we are talking about. Can I ask you to look into this and come back to us? Would that be an easier way of dealing with it?

Mr Willetts: Mr Egginton, do you have anything to add now?

Ron Egginton: If I may, yes. If I understand your point correctly, you are concerned about the status or wellbeing of the publishing industry itself.

Q124 Mr Binley: Particularly the business-to-business sector, which is very important in this country.

Ron Egginton: Yes. We understand the publishing industry is an extremely important industry that we highly value. It employs about 10,000 people in the UK, has £1 billion turnover, and has 80% exports— invisible exports. As we have said all the way through on the development of this policy, we do not want to throw the baby out with the bath water. We were quite pleased to see that, in a recent financial analysis done by HSBC in February, it concluded that the effect of our policies was neutral on the industry.

Mr Binley: Will you look at it slightly further because I have evidence or at least information that might suggest that there is a cost here, and it could impact upon a business that has suffered for the past five years quite sizeably? Just look at that, come back to us and reassure us that you have done that assessment and you are clear that that is the case.

Mr Willetts: Yes, certainly.

Q125 Chair: Just before we go on to the next questioner, could I just ask you to amplify? You talked about the profound technological changes taking place in the publishing industry. I would assume that is about internet publication and so on, but could you just briefly outline what changes you think are taking place, how you see them and how that has been factored in to the policy?

Mr Willetts: The shift to publication online means that the old way of protecting and requiring people to pay for your product—they had to go and physically buy a publication—is replaced by putting it behind a paywall online, which can be harder to enforce. That is the first change. The second change is the speed with which, in areas like medical sciences in particular, research is absorbed and goes from being hot to being out of date.

Perhaps the most significant in the long run, but the most technical in the short run, is the third change. There is a prize here of access to all the data sets behind publicly funded research, not just in the UK but in the other leading science nations. I have been at international discussions where, looking around the table, we have recognised that between us we are paying for 75% of the world’s cancer research. Just imagine that every data set behind every piece of cancer research funded by a public agency in the UK, Germany or the US was searchable with a common technical standard. I see linking up the data sets as ultimately the big prize. That again is why I think academic publishing is a genuinely value-added activity. For that you need to agree a set of technical standards and the data has to be available in a certain form. It is not necessarily the case that a cancer expert working away at Addenbrooke’s will also be an expert in exactly how the data for his cancer research project should be made accessible to someone doing another cancer research project in San Francisco. That is the big prize here. Although CC-BY has its detractors and

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it is not perfect, one of the reasons why I particularly like gold open access is the requirement to deposit the underlying data in an accessible form with a shared technical standard. I think that will be transformational in the future.

Q126 Mr Walker: What you are talking about is extremely exciting, but, for that to succeed, we need a degree of international agreement on how these things will be co-ordinated. It does seem that some of the evidence we have taken has suggested that the UK is slightly out on a limb in terms of the position that we are taking for gold open access. We may be showing leadership, which is very respectable and positive, but in order to make sure we are not at a competitive disadvantage, do we not need other countries to join us in embracing that position?

Mr Willetts: You say “out on a limb”; I say “pioneering”. The fact is that you are right. There is a genuine issue about whether it is a first-mover advantage or disadvantage. There are some challenges you face if you are first mover. This is not just my personal view—we obviously talk very closely—there are also some first-mover advantages. You can help shape the debate. The same debate is absolutely happening in the US, it is happening in the EU and, indeed, I hope in the G8 science strand discussion, we will be able to provide a forum for it to be discussed amongst science ministers and learned societies. They are all wrestling with the same trade-offs.

Q127 Chair: I am sorry to delay this further, but there is just a point I would like to pick up. Earlier, in the context of cancer research, you talked about access to open data. The Government has been accused of conflating open data and open access, which are different things. You appear to be doing exactly that in this context.

Mr Willetts: Open access is the research publication. The data is the underlying data records on which the research findings rest. I am putting it very crudely, but imagine there have been 1,000 patients with some particular form of cancer that have been studied for this particular publication. What you need to do, as the data element of this, is clean up. We have reliable data, obviously anonymised, available in a form that is comparable and that an IT system, also analysing 1,000 patients in a German research project carried out in Dusseldorf, can analyse. The aim is that then somebody in the future will be able to machine-search data from hundreds of thousands of cancer patients and aggregate it all. That is what I mean by the data. That is not quite the same as the Cabinet Office public data agenda. It is part of it, but it is specifically the data behind research findings.

Chair: Yes, but it was not clear before.

Q128 Nadhim Zahawi: Several commercial publishers have “no double-dipping” policies, under which subscription list prices are modified in arrears in proportion to the uptake of gold open access. We have heard evidence explaining why this policy does not work since the UK is double-paying for subscriptions and gold open access, and, through the proportionate reduction in subscription prices, would

be effectively subsidising the subscriptions paid by the rest of the world. What is your view on this?

Mr Willetts: There is an issue about double-dipping, but the decision that had to be taken was this: you could go for a pure approach, where you say gold open access is for specific open access journals and you can run a complete journal that is all pure gold open access, at which point you do not have any hybrids and you know exactly where you are. It is a legitimate route that some Western countries are going down, but the evidence is, if you go down that route, it is slower to spread gold open access than if you allow hybrids. Hybrids mean that a journal can have some of the articles that have been paid for with the article-processing charge and others financed in other ways.

Once you allow the hybrid—which has its imperfections, but our evidence is it spreads gold open access more rapidly—you then do indeed have a potential problem of double-dipping. Mr Egginton might like to comment. We do not have any power specifically to ban double-dipping. We do not welcome it and there are some quite ingenious attempts to avoid it, of which the Royal Society of Chemistry Gold for Gold scheme is one that we particularly welcome. If it would be helpful, Mr Egginton will describe that.

Q129 Nadhim Zahawi: Could you say a bit more about that, Mr Egginton?

Ron Egginton: The Royal Society of Chemistry has introduced a scheme whereby they are not discounting the subscription charges for access to their various journals, but they are saying that they will take into account the financial payment of those subscription charges, divide it by something like £1,600, and that will equate to the number of gold open access papers that you can then publish in those journals. It has the advantage of making the customer feel as though they are getting something additional for the payments they are making for subscriptions and, as you quite rightly say, are not being charged twice.

The more that type of thinking can be seen to permeate through the publishing industry, the better. Conversely, the more publishers can take into account what they are receiving in article-processing charges from particular institutions and discount the subscription rates to those institutions, wherever they happen to be—whether in the UK or anywhere else around the world—the better. Then that will mean that they do not feel as though they are paying twice and it will accelerate the process of conversion to gold open access.

Q130 Mr Binley: Can I follow on from that? The evidence submitted by Dr Alma Swan on 8 May to this body raised some serious concerns, which I am sure you will be aware of. Publishers in certain cases were creating new policy, which included embargo of 24 months. Alma Swan said that she said this would happen, and this really is creating problems throughout and making the whole thing more difficult. Recently, a large commercial publisher has amended its online systems so that when a UK author's paper is accepted, the author is asked if he is funded by a

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UK Research Council, and if answering, “Yes”, the author is directed to pay a fee for gold open access. A senior academic wrote on his blog that “the publisher was deliberately and disgracefully misleading the author about the RCUK policy on open access in order to take money from them”. I could go on, but can you convince us otherwise, because if that is the case, this is one of the less helpful pieces of the work that the Government has decided to do?

Mr Willetts: I am trying to find again the decision tree. The decision tree does apply to the publicly funded research, and in certain circumstances, that provides for a paywall under green open access of up to 24 months. I accept that is part of the model, if gold were not available. We recognise that. Again, Mr Egginton may want to add to this, but what we are going through is a big change and there is a range of anxieties about what could happen in the future. We do not have any widespread evidence of what you just reported happening now, but I would happily give this Committee the assurance that we will be monitoring very closely how this plays out. Janet Finch and I will be having a joint meeting on implementation after the summer break. Research Councils are going to review how implementation is going next year. I get a host of anxieties from learned societies worried that they are going to lose their funding or some of these other things. They cannot all be true. Some of them may happen and if they do happen, we will take it very seriously.

Q131 Mr Binley: Let me give you some of the evidence that we have received. We have received recent reports of a major British publisher revising its open access policy to require embargoes of 24 months, where previously it had required immediate un-embargoed deposit in a repository. Indeed, Alma Swan goes on to say that the really awful thing is that their university is in Australia, so “the dire consequences of the UK’s policy are, as we all predicted, damaging OA all over the world. 10 years’ work in getting mandates across the globe with maximum six-month embargoes are undone (embarrassingly) by the UK.” That is pretty heavy criticism.

Mr Willetts: There are circumstances where you can have 24 months’ green open access in certain cases, particularly in some of the humanities and social sciences. However, net, everyone else is telling us that we have got more research findings available earlier, not that we are going backwards. Are you familiar with this particular complaint, Ron?

Ron Egginton: We have not had any particular examples cited to us, by name, of companies who are doing what you are suggesting or saying is happening. However, I think we possibly need to take a step back to who is actually deciding where the article gets published. That is the researcher. The way in which we have reconfigured the industry’s operations in this sense with regard to open access is to put the power in the researcher’s hands to decide where they want to have the article published. If they feel that a particular publisher is acting in a way that is not satisfactory from their point of view, they are perfectly free to take their article to a different publisher.

However, we hear the reference to gold versus green and the relative merits of those two things as though they are two different worlds. The UK policy in one sense provides the best of both worlds, because what we have done is provided the funding for gold open access, where people choose to publish their material immediately, and publishers are willing to do that. At the same time, as the Minister has said, we have listened to what publishers are saying and under those circumstances where the funding is not available we are allowing longer embargo periods than anybody else. We have the best policy in the world, from that point of view.

Q132 Mr Binley: That is not what Alma Swan is saying. She is saying that this is reflecting badly on us in the global situation. Will you at least look at that and come back to us? If that is the case, it is not the reaction you would want, Minister, is it?

Mr Willetts: We certainly will look into this, but perhaps there is another way into this. This is the discussion I had with some other countries. There are some other countries that are saying, “Why have you got options like green open access for 24 months? Everything should just be green after six months.’ This goes back to the underlying issue: whether you think that the process of collating data for revealing data behind your research project, putting the material into a publishing form and communicating it adds value. I believe it does and somehow that service has to be paid for. My view is that these seductive models where everything is green open access after six months do not answer the challenge of how you have a viable, long-term academic publishing industry. They have to be able to earn back something. In the disciplines where the half-life of an article is long, which tends to be more in the humanities and social sciences, we accept, if there is not a gold payment available, that they should be able to have their piece of work behind a paywall for up to 24 months. That is to deliver commercial viability.

Q133 Mr Binley: Can I then finally ask in this respect? This is new policy, you are introducing it and it will have undesired effects that even you, Minister, have not been able to think through, and I recognise your great knowledge in this area. Will you please look at this? Because we do need to have an idea of timetable; we do need to have an idea of impact. Those two compete against each other, so what will your timetable be and what might you do to stop a practice developing that you and I would think undesirable?

Mr Willetts: First, this is a big change going on in the industry. You are absolutely right that we need to monitor it and we will undertake to do so. As I said, I will be having a review meeting with Janet Finch and other experts in the autumn. If it would help this Committee, I would very happily write back to this Committee with a report after that meeting has happened. No policy is perfect, and then we will be able to see where the shoe is pinching.

Q134 Mr Binley: That would be excellent and we would welcome that. I wonder if, in the meantime, Mr

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Egginton would talk to Alma Swan and see where the reality lies in this respect. If you could tell us you have done that, we would be grateful for that, too.

Ron Egginton: I am very happy to do that.

Q135 Chair: Can I just pick up one issue? Recently a large commercial publisher has amended its online system, so that when a UK author's paper is accepted, the author is asked if he or, presumably, she is funded by a UK Research Council. If that person says yes, the author is directed to pay a fee for gold open access. We have evidence: a senior academic wrote on his blog, "The publisher was deliberately and disgracefully misleading the author about the RCUK policy on open access in order to take money from them" because "there is no requirement for researchers to pay for gold open access in such a case". He says, "Sharp practice is too polite a phrase to describe the actions of this publisher". Can you comment on this and convince us that this will not take place in the future?

Mr Willetts: Publishers are entitled—the logic of gold is that there are costs to publication. Sorry, let me try it the other way. There are open access journals where people just turn up and publish their material, and there is no charge anywhere: the author does not have to pay for publication and the reader does not have to pay to read it. That is part of the academic ecosystem now. What you do not get then is the editorial function, the quality control and necessarily the deposit of the data. If I may say so, for us as politicians, it is like the flow of political gossip across the web as against reading something that has above it "the BBC", "*The Daily Telegraph*" or someone where there has been an editorial function that has told us that this is significant, and that someone who we may or may not trust has checked this out.

There is a kind of analogy with academic publishing. Of course, an academic could just go to a place where it is all just put up online, but then you have not necessarily had the peer review; you have not necessarily had a sub-editor who has licked the thing into publishable form; and you have not necessarily had someone who has gone through the data behind it to put it in the form that can be accessed, as we were discussing earlier. These are genuinely added-value functions. Open access recognises that we should pay for those. I do not know the case of this individual. If it is a pure open access journal and everything is just free everywhere, that is fine. In that case, though, you have an online repository; you have not got an editorial function.

Q136 Chair: I am not sure if your response adequately covers the particular case in point, but I think probably the best thing for us to do is to put details of it in writing to you and ask for a more detailed response.

Mr Willetts: Yes, we will check it out.

Q137 Ann McKechin: We have discussed transparency in terms of the negotiation between libraries and publishers. It became clear that there was evidence of commercial publishers regularly using non-disclosure clauses in relation to pricing of

contracts with libraries. Frankly, that erodes the ability of libraries to understand what the real price is in the market and to assist them in driving down the real cost to them. Do you consider that it is acceptable for such non-transparency clauses to be a regular feature in our university sector?

Mr Willetts: Mr Egginton may like to comment. We do not believe that they are illegal. We are not aware of any legal obligation on them to disclose this information. I fully understand that they can leave a nasty taste in the mouth, and that people do not like them. There are some attempts, led by JISC Collections, which Mr Egginton might like to comment on, to provide a national initiative for licensing. As we understand it, though, we do not have a legal power to stop them doing non-disclosure.

Ron Egginton: NESLi2 is a scheme or a process that JISC Collections goes through to negotiate with publishers on their offerings of largely bundled journals to various universities. They do this with the larger publishers on behalf of many institutions in the UK. Through that negotiation process, they do secure some savings to the libraries concerned. However, as the Minister said, non-disclosure clauses are not illegal and, therefore, it is a natural process that some commercial organisations may go through.

Q138 Ann McKechin: Where do you think the clauses came from? Which side of the negotiation do you think non-transparency clauses came from?

Ron Egginton: I presume they came from the publishers' side.

Q139 Ann McKechin: Exactly, they came from the publishers. There was a suggestion in oral evidence from Reed Elsevier that libraries prefer it. They said that libraries give it. We have this issue where a small number of large companies who set non-transparency clauses. It is hardly a good thing, is it?

Ron Egginton: That is another reason why the policy that is now being pursued is going in the direction of changing the nature of the market in that regard. At the moment we have a market that is essentially complementary goods, which are bundled packages of journals being offered. Therefore, there is perhaps less competition in terms of how that offering is made. Whereas, once you move to the gold open access and the choice by the researcher of which journal they want that paper published in you move to a market of substitute goods, which has greater competition. There is a very good paper on this by a chap called Shieber that explains how this process is likely to take effect.

Q140 Ann McKechin: So you would anticipate that, five or 10 years on, the real price universities are paying should actually have decreased?

Ron Egginton: The real price should have decreased for a number of reasons. That is partly because of the increased competition in the process and partly because of the innovation and diversity of suppliers in the market. There are organisations out there. Again, it comes down to what researchers and what academics choose to do. The choice is theirs as to where they spend their cash and where they want their article published. If they so chose, they could now go out

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and choose in one particular case publication through a mechanism that costs \$200 that will publish every paper they produce for the rest of their life at no further cost on a gold open access basis.

Of course, you heard in your previous inquiry from people like PLOS as to how their rates compare competitively to others. The Government has created a set of circumstances in which the market becomes much more fluid and everything is to play for. It is then a question of how the various competing forces result in an outcome. The direction of travel is clear though. The direction of travel is based upon the principle that publicly funded research that is published should be available for free to the public immediately.

Q141 Ann McKechin: And that people would actually know the cost that is paid for it, because in terms of gold access people would know the actual fee paid per article. This is the issue: that currently, under the old system of bundling, people are unclear what relative costs are paid from one university to the next. Accordingly, by its nature it has the appearance of being anti-competitive. There has been a previous referral to the Competition Commission. Your aim is that we reach a position where there is transparency, so would you agree with me that the day of having non-transparency clauses should not be with us five years from now, because there should be no need? If we are having open access as the norm, there should be no need for non-transparency clauses.

Ron Egginton: In response to where we are at the moment in the marketplace, you have to recognise the circumstances that pertain at the present time. Those circumstances that pertain at the present time are determined by the structure of the way the market works at the moment and the way companies respond to that. However, the changes being brought in will cause different behaviours and different requirements to be met. I do not think we are in the position where we can simply say that there needs to be a complete end to non-disclosure clauses now. It is something that is frowned upon perhaps and something that would be more conducive to the libraries and researchers if they could see evidence of what other people were paying for the same material. Undoubtedly they would prefer that to be the case and we would certainly encourage all publishers to be as open as possible, but we cannot step in and regulate something where there is no legal basis to do so.

Q142 Ann McKechin: I am trying to get to the Government's indication of where they would like the industry to act in the future if we are moving to a system that is more transparent, more open and allows greater competition. Non-transparency clauses by their nature tend to be a way of trying to hold on to your business.

Ron Egginton: The Minister has already explained that we are concerned with this at the macro level, in terms of changing the way in which the whole market and the industry operates, from the principle of open access to publicly funded research. Gold open access, for all the reasons that the Minister stated, provides

the best means to get to the solution that you and everybody else is seeking in a reasonable timescale.

Q143 Nadhim Zahawi: Last month RCUK revised its open access guidance and removed a statement that institutions and authors should ensure that a "proper market in article fees" operates. Do you think we should have an effective and functional market in article-processing charges?

Mr Willetts: Yes, I do. The price is quite a complicated and intricate thing, because, for example, if you are a highly selective journal it is partly all the articles that are submitted and handled but are not eventually published. Yes, I think there will be a range of costs and prices that people will face.

Q144 Nadhim Zahawi: Who do you think is responsible for achieving this?

Mr Willetts: Governments can help create a market and, as you have just heard from Mr Egginton, I think we have gone further than any other advanced Western country in trying to get such a market going, not least through this budget that is available for gold open access. Of course, if you are sitting in a university department you are thinking, "How many articles can I pay for publication out of my publication budget?" You have an incentive to negotiate down the article-processing charge.

Q145 Ann McKechin: We heard that some of the profit ratios of the commercial publishers were over 30%. When we have looked at the issue of the average article-processing charges they are considerably higher than those offered by open access publishers. You said recently, in a *Guardian* article on 9 April, that we cannot "afford to harm our world-class publishing industry". At what cost?

Mr Willetts: I believe that competition will drive down these prices, and I also think technical innovation will bring down these prices. However, there are issues like articles that are submitted and not published, and the process of assessing and perhaps rejecting them itself comes with a cost. There are some higher costs associated with publishing. I have to say there is no right approach, but sometimes I get exactly the opposite line of argument. In fact, I tend to get more of the opposite line of argument, which is that our great learned societies all have academic journals, and the academic journals are an important source of income for the learned societies. We are riding so rapidly towards this open, competitive future that the income that our learned societies get from publishing their academic journals is going to fall, and our learned societies are in jeopardy.

By and large, the criticism I get is the opposite one from yours, which is that publishers are going to carry on enjoying large profits. We will see. This is exactly the kind of area where nobody can be sure. We are moving to a more open world; we are trying to shape a market; there are limits to what Governments can do. That is why I am absolutely up for reporting back to this Committee whatever way you suggest so we can see what is happening, but I personally would expect to see prices being competed down.

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Q146 Mr Binley: Just for the record, can I seek your views on the fact that corporate companies have a whole range of publishing sectors and publishing interests? It is very difficult to rate an overall profitability level of a given company to a particular sector of the work they are involved with. We have to be very careful about making those sorts of conclusions from that sort of information when it is not refined enough to be of value. Is that a fair comment?

Mr Willetts: It is a fair comment. Look at the music industry. It is not a perfect analogy, but technical change presents massive challenges for the music industry. If you are sitting as a publisher you are thinking, “Previously we used to be able to sell our IP because you needed to buy a physical copy of what we were doing. What is the future? Are we going through our Napster moment?”

We are trying to help the industry move to a completely different technology, where a lot of publicly funded research will not be behind any kind of paywall, and where I think there will increasingly be automatic ranking systems when the stuff is available online. Soon some agencies will be saying, “These are the top 10 new physics papers over the last month”, and so some functions that are currently done through peer review may themselves be done through automatic ranking. We are just embarking on this route, but I have to say that I think by and large people look to the UK as a country that has got further in thinking about these issues and creating an environment where this will all happen than almost anywhere else.

Q147 Mr Walker: We have heard quite a lot of evidence that mandating immediate deposit in repositories is a good way of making sure transaction costs are manageable during the changeover to open access, and also could help provide flexibility where different disciplines are moving at different speeds towards open access. What can the Government do to make sure that we have the repository infrastructure that we need to make that possible?

Mr Willetts: That is a challenge. In fact, it is one of the areas that Janet Finch touched on but I fully accept we need to do more work on. I am now chairing a Research Sector Transparency Board, which is trying to tackle this issue. It is one where we need to do more work. Again, we have the potential to be a world leader; I do not think anybody else has yet sorted it. Having these types of repositories is very important. It partly involves a new form of librarianship: curating data. Curating data in the electronic world is a new and important set of skills, and I get arguments that we need more people to emerge with that kind of training. There is more to be done, though; it is a challenge.

Q148 Mr Walker: Do you want to expand on that at all?

Ron Egginton: Yes, and I am picking up on what the Minister has just said. You are quite right to flag up repositories as being something to be thought about. There is a great deal going on in terms of repositories. There are hundreds of repositories around the UK;

there are probably thousands of repositories around the world. There are organisations like COAR—the Confederation of Open Access Repositories—which is looking at this from an international perspective. In the UK, some of our Research Councils have repositories: the ESRC has the Research Catalogue, which is its own repository, NERC has a repository and DFID, which is very much following on as part of the Government’s lead on open access, has its own open access repository, D4D.

The issue is not whether we can have any repositories, but, as you are suggesting, how you enable them to all talk together. These international bodies, such as COAR and others, are actually addressing the question of how they ensure that the way in which data is stored and the tools that are available allow that sort of interaction and intercommunication. That is something that is happening at such a rate in terms of the change that is taking place—as the Minister said, the way the technology is moving on—that it is almost a question of allowing that process to continue and just ensuring that those considerations are being taken into account. In their recent consultation exercise on open access, HEFCE has made it quite clear that repositories will form part of their thinking going forward as well. Nobody is suggesting for one moment that there is a world of repositories on one side and there is a world of open access and journals somewhere else. The two things are inextricably linked.

Q149 Mr Walker: Do you accept the premise that repositories can help reduce the transition costs to open access?

Ron Egginton: Yes, they do. They can do, and they are used already by many researchers to deposit their papers in various forms. Again, going back to the gold open access versus green open access issue, one of the reasons why there is a strong preference by the Research Councils and Government for gold open access is because you are then dealing with a known quantity in terms of the paper you are referring to or that you are looking at. It has been through peer review, it has been through all those assessments that the publishers make, and it is a finished product. When you go to a repository it is not absolutely clear as to what version of the paper you are looking at: is it a paper that has been subject to peer review? Is it post-peer review? Is it different from what is in the publisher’s journal? Therefore, the authority of some of those papers is not necessarily the same as what is available on gold open access.

Q150 Mr Walker: I understand that, but we have had some evidence that the cost is a serious issue. Professor Andrew Massey, who is the Head of Politics at the University of Exeter and is running a department of 35 people, said to us that the funding that he gets from RCUK would be enough to basically fund the article-processing charge on one piece of research. Therefore, he had a choice between giving a fiver to each person in his department, which would not go nearly far enough to cover any research costs, or choosing one research between all of them. Do you not think that this shows there is a real question of

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affordability when it comes to article-processing charges?

Mr Willetts: You mentioned the University of Exeter. The University of Nottingham has operated a publication fund for a while and ended up estimating it pays £1,250 per article, which is a bit less. The underlying point here that comes up from time to time is that the University of Exeter runs on a budget of several hundred million pounds. Part of what Exeter does is attract academics who wish to publish research findings. It is reasonable to say that part of the academic and research mission of Exeter is to ensure that good quality research is funded. This argument that I get a bit presents a picture of the relationship between academics and university management that I do not recognise.

Exeter is your example, not mine, but if you were in a situation where there was a university where people knew if you go to their politics department they will not publish you and they will only publish one thing, the ability of the University of Exeter to maintain a high quality, research-active politics department would decline pretty dramatically, I would have thought. My view is this is just being open that communication of research funds is part of what academics do. It is like saying the University will not have any travel grants or whatever. This is just part of how you do the job. Again, we will monitor it, but I think in reality it would be a very odd world in which universities thought it was rational not to pay for their academics' work to be published.

Ron Egginton: I just wanted to add one further point in relation to that question, if I may. There is something now called the San Francisco Declaration on Research Assessment, which is actually putting the emphasis on the way in which individual papers are viewed, cited and so on, rather than the weighting that is given to a particular journal. Again, that is another move in the same sort of direction. Once you then get to the point where the judgment being made by fellow academics and by others is on how that particular paper is viewed, rather than how the journal in which it is published is viewed, that will again exert further pressure for change in the marketplace.

Q151 Chair: Just before we move on, why do you think RCUK has moved away from its initial commitment to gold open access in its revisions? Could these issues that we have just outlined be reason for it?

Mr Willetts: I have obviously had discussions with RCUK. We have ended up in a shared position around that decision tree set by the Publishers Association. There was a time when they were looking at a shorter maximum embargo period under green, and I think there was a concern expressed, particularly by the humanities and social sciences, that that would be too short. I think we have ended up in an agreed position. The Research Councils can speak for themselves, but we now have a good balance between a funded gold model, which is not sufficiently funded to pay for everything, and a credible green model that recognises that you need, behind a paywall, to have sufficient time to earn back some of the costs of publishing.

Q152 Chair: Can we just move on to the very arcane area of licensing. The mandating of Creative Commons Attribution Only licences has caused considerable consternation amongst the academic community. They fear that the author's rights will be compromised. If the Government's priority is to ensure free online access to peer-reviewed research, should this decision not be left to the authors?

Mr Willetts: I am going to turn to Mr Egginton on this, but this is all consistent with what we have set out in our response to Hargreaves and elsewhere. There is actually a big prize behind this that, as part of gold access, we want the data behind your research to be available. I realise that in the humanities there are sometimes complicated issues around copyright and suchlike, and there are different forms of CC, but CC-BY is our judgment about the best way of ensuring access to the research behind it. Is there anything you want to add to that, Ron?

Ron Egginton: I think that is absolutely right, Minister, in the sense that the CC-BY licence is the one that the Research Councils require academics to use if they are paying an article-processing charge. That is exactly the same policy that is being adopted by the Wellcome Trust as well. They also require any research that is being funded by them and being published on a gold open access basis to be on a CC-BY basis. Some publishers are actually already putting a clarification on their websites that if you have been funded by Research Councils or the Wellcome Trust then the licence that applies to you in payment of an article-processing charge is a CC-BY licence. Others are giving people options. It is not quite clear that those options should apply. In fact they should not apply if the funding has come from the Research Councils or the Wellcome Trust, since, from 1 April, if an article-processing charge is paid you are required to publish on a CC-BY basis.

Mr Willetts: I will happily come back to the Committee. As I understand the sensitivity, what has been put to me is if, for example, your article of literary criticism includes a long extract from a poem, and the poem is a copyright possession of someone else, on what basis can you have this extract from the poem available for everyone else within the underlying repository? That has been raised with us. As I say, the Research Councils are aware of this and they think that they can reach a sensible way forward on this third party material issue. This is exactly the type of wrinkle or implementation question that we and the Research Councils are open-minded on.

Q153 Chair: That goes some way to what I was going to come back on. You have explained the situation as it is; what I do not really understand is the rationale for taking the position that they are, as opposed to the one that the academic community would prefer.

Mr Willetts: The rationale is absolutely clear, and I think there is a significant amount of academic support for our approach. It goes right back to my earlier cancer research example. Part of what we are paying for is the underlying data to be available. That is a really important principle that is very strongly

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supported by many people in the academic community.

Q154 Chair: Can I just move on to VAT on e-journals? It would appear that it is somewhat illogical to have VAT on e-journals when there is not on other publications. Given the Government's commitment to open access, should this not be reconsidered?

Mr Willetts: I have a piece of text prepared for me by the Treasury.

Chair: I thought it might be.

Mr Willetts: It begins: "VAT is a matter for the Chancellor", and carries on—I feel like a hostage reading out a text for the video. Actually, to be fair to the Treasury, the point is that, as I understand it—and I am sorry, this is a Treasury matter—there is no scope within the existing EU VAT legislation to introduce a zero or reduced rate for e-books or e-journals. The UK has a number of zero rates, which are exemptions that the Government is committed to retaining. Reopening the debate on rates with other Member States would be most unlikely to succeed and sets a precedent for changing the VAT rates for a whole range of other products.

This is the only Janet Finch recommendation that we have not pursued and the Treasury has very good arguments for not wishing to open up a VAT exemption issue.

Q155 Chair: I do feel perhaps we should have a Treasury Minister here to explain that. Just as you

anticipated our question on this issue, we anticipated your response. Could I now ask you what representations have you made to the Treasury on this?

Mr Willetts: I have had this conversation or some kind of exchange—I think David Gauke is the relevant Minister. As I said, I actually think that this is their responsibility and BIS did consult HMT on the feasibility of VAT reduction or exemption. It is not permitted under current EU VAT rules and we would have to have a specific negotiation with the EU on VAT exemptions. I think the Treasury's wariness about this is very understandable.

Q156 Chair: I think I would like to see the detailed explanation of why this is not so. Is it possible to get it, so that we can examine it?

Mr Willetts: Yes, we will liaise with the Treasury and I will happily send perhaps a joint note from us or the Treasury—whichever way—on this particular point explaining their position. I am happy to do that.

Q157 Chair: Thank you, Minister, and Mr Egginton. Just before you go, Minister, can I remind you that your party ran a slogan, "Vote blue, go green"? Can I take it now that that slogan has changed to "Vote blue, go gold"?

Mr Willetts: Yes, excellent. Thank you, Mr Chairman. Hear, hear.

Chair: Thank you.

Written evidence

Written evidence submitted by the Department for Business, Innovation and Skills

I am writing in response to your announcement on 18 January 2013 of your Committee's Inquiry on Open Access.

I wrote on the 18 January 2013 to Lord Krebs in response to his letter concerning the House of Lords Science and Technology Committee's inquiry. I have attached this letter as an annex as it is of direct relevance to your inquiry.

I understand that the specific issues of interest to your own Committee are as follows:

- 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;
- Rights of use and re-use in relation to open access research publications, including the implications of Creative Commons "CC-BY" licences;
- The costs of article processing charges (APCs) and the implications for research funding and for the taxpayer; and
- 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.

I have addressed these issues here in turn.

GOVERNMENT'S ACCEPTANCE OF THE RECOMMENDATIONS OF THE FINCH GROUP REPORT

Government moved quickly to respond to the Finch Report to ensure that the momentum created by the constructive Finch Group process was not lost and, as importantly, to proactively influence thinking in Europe and elsewhere around the world.

In keeping with the over arching transparency agenda, Government had a preference for easier taxpayer access to publicly funded published research as set out in BIS' "Innovation and Research Strategy" (December 2011). Therefore, Government accepted all of the Finch Group's recommendations, aside from the requested exemption from VAT for digital publications (which is determined by EU policy). This positive response was set out in my open letter to Dame Janet Finch (see Annex A).¹

Whilst fully accepting the case for Green OA as part of the "mixed-economy" described by the Finch Group, the Government's preference is for Gold OA, which is now being introduced by RCUK. Gold OA is considered to be an honest and explicit recognition of the cost to publishers and Learned Societies of the value they add to the translation of knowledge including through peer review and wider services to research and scientific communities.

Gold OA enables information to be made immediately accessible. Under Green OA information is denied to users during embargo periods of months or even years. CC- BY licence conditions allows for the greatest possible greatest utilisation of research.

RIGHTS OF USE AND RE-USE INCLUDING THE IMPLICATIONS OF CREATIVE COMMONS (CC-BY) LICENCES

Creative Commons copyright licences provide a simple, standardized way to grant copyright permissions to creative works. Of all the CC licences, the CC-BY licence provides the greatest freedom to users to search, download and re-use the information. RCUK have expressed a firm requirement for CC-BY licence conditions to apply where there has been payment of an Article Processing Charge (APC) for publication on a Gold OA basis. The Government supports RCUK's requirement as we believe the CC-BY license provides the greatest potential for users. It opens up the prospect of new value added services being created by publishers and others for the benefit of end users including the public, SMEs and other business users. We will improve global access to the UK's research base and the productivity of the research process.

THE COSTS OF ARTICLE PROCESSING CHARGES (APCs)

Article Processing Charges (APCs) arise only in the case of Gold OA. They are paid up-front to the publisher or Learned Society for the services they provide. The cost of facilitating the peer review process and sustaining the infrastructure needed for publication of the final version of record by publishers or Learned Societies that opt for the Green OA approach are recovered through the subscription charges or access fees they charge during the embargo period.

Government recognises that the publication of research is a legitimate cost and forms an integral part of the research process. Nevertheless, Government also considers the research publications market too complicated

¹ A full set of relevant web links can be found at <https://www.gov.uk/government/news/government-to-open-up-publicly-funded-research>

and dynamic for Government to attempt to set the price of an APC. The market will decide and the market is changing.

The price of APCs will be determined by a number of factors including the quality of the service or product (from the publisher), the brand value of the journal publication, the segment of the research publications market being targeted by the publisher, the perceived value added by the publisher, the publications policy or strategy of the HEI concerned and the wishes of the customer (the researcher). There is evidence emerging in the literature that the move to Gold OA and the payment of APCs promote change in the research publications market and increase the level of competition amongst providers.²

In choosing their research publication channel, HEIs/researchers will be expected to strive to comply with RCUK's stated OA policy objectives (such as using Gold OA or Green OA with embargo periods of no more than six–12 months).³ However RCUK and Government recognise that we are on a journey. The policy framework for this transitional process is as published by Government in response to the Finch Report and illustrated in the decision tree on the Publishers Association website.⁴ Researchers and HEIs will be expected to publish in journals that comply with RCUK's policy but they will remain free to choose which publication serves their interests and requirements best. Where a researcher is unable to find a journal that complies with RCUK's policy publication on a non-compliant basis will be possible. Publishers will need to set their APCs at a level that allows them to effectively compete.

RCUK have estimated that perhaps only 45% of the papers resulting from their funded research will be published by HEIs and their researchers on a Gold OA basis in 2013–14. Based on an average APC of £1,727 excluding VAT (as estimated in the Finch Report), and providing funding at 80% of full economic cost for a population (based on 2010/11 figures) of around 26,000 research papers published by HEIs from RCUK funded research, RCUK are allocating £17 million for block allocation to HEIs in 2013–14. This will rise to £20 million in 2014–15. Block funding will be in proportion to known labour effort expended on research projects by individual HEIs. Thirty HEIs have already been allocated a share of an initial £10 million made available through RCUK this financial year (2012–13) to pump prime preparations for setting up Publication Funds. RCUK are now sharing any best practices.

Subject to how the market develops and the outcome of the next Spending review, RCUK expect to spend a total of some £100 million on Gold OA over the first five transitional years. In addition to these funds HEFCE have stated that HEIs will be free to use part of their QR funding (which totals about £1.9 billion per annum) to supplement RCUK's contribution to HEI Publication Funds. Hence, funders expect to be able to satisfy the level of demand for Gold OA.

There is an opportunity cost to the provision of these Publication Funds. They will use money that would otherwise be spent on research. However, independent estimates by Finch, Wellcome and BIS show that the cost of Gold OA, that is the total opportunity cost, will only be about one% of the science budget of £4.6 billion per annum.

All figures included here can only be estimates. It is not certain as to precisely how the OA market will develop both in terms of demand for and supply of Gold OA.

LEVEL OF GOLD OPEN ACCESS UPTAKE IN THE REST OF THE WORLD AND THE GLOBAL COMPETITIVENESS OF UK HIGHER EDUCATION INSTITUTIONS

The UK research base already does punch above its weight—with one percent of the global population, the UK produces about seven% of the world's published research articles and receives some 11% of global citations. The UK's share of the world's top one% of most highly cited papers, an indicator of the quality of research, was 13.8% in 2010, second only to the US.⁵ A move to OA and particularly an OA policy with a strong preference for Gold OA should strengthen the UK's position even further.

Publication of research articles on an OA basis increases the prospect of other researchers as well as business and public users gaining access to the published article. Citations for UK research papers will therefore increase. Gold OA ensures immediate access, further increasing the prospect of UK based research being cited and exploited. A move to OA and particularly Gold OA will enhance, not detract from, the importance of UK research around the world.

The number of OA articles in 2000 has been estimated to have been only 20,000, but over the past decade the position has been rapidly changing. BIS' own economic analysis (at Appendix 2) showed that the OA market was already growing prior to the UK's reforms. Government's OA policy and RCUK's implementation of it will provide an additional “nudge” to the process. As well as expanding access to published research this

² See ‘Why Open Access is better for scholarly societies’, The Occasional Pamphlet, by Stuart Scieber, January 29 2013. <http://blogs.law.harvard.edu/pamphlet/2013/01/29/why-open-access-is-better-for-scholarly-societies/>

³ As a general rule, Six months embargo periods would usually apply to science and technology subjects and longer embargo periods to research funded by ESRC and AHRC.

⁴ See http://www.publishers.org.uk/index.php?option=com_content&view=article&id=2299:finch-willetts-rcuk-green-oa-and-embargo&catid=503:pa-press-releases-and-comments&Itemid=1618

⁵ Elsevier's ‘International Comparative Performance of the UK Research Base 2011’ see <http://academicexecutives.elsevier.com/international-comparative-performance-uk-research-base-2011>

“nudge” should incentivise the UK’s research community and publishing industry, including the UK’s Learned Societies, to position themselves to exploit the global opportunities that lie ahead.

A recent study of global trends by Mikael Laakso and Bo-Christer Bjork⁶ has shown that in 2011 the number of scientific articles published by 6,713 full immediate OA journals (equivalent to Gold OA) had grown to 340,000 from 288,000 in 2010. Of these, around 49% required Article Processing Charges (APCs). This research suggests that 17% of the 1.66 million articles published globally during 2011 were OA. Within this 17%, 11% were immediately available (Gold OA) and six% made publicly available within 12 months of publication (Green OA).

The UK appears to be both leading a global trend but also going with the grain of the academic community and increasingly the publishing world. Other countries are increasingly moving to OA policies. Europe accounts for around 37% of global OA articles and North America for about 19%, but Asia is also responsible for 25% of global OA, and the proportion of Gold OA is growing as stated above. As I said to Lord Krebs, the fear that the UK may be acting alone is unfounded. There are the following international developments:-

- The European Research Council has operated an OA policy since 2006 for its awards.
- OA will be a key feature of Horizon 2020 and will apply to all funding.
- The European Commission has issued a recommendation to Member States on improving their OA policies and practices. This allows for both Gold and Green OA.⁷
- Science Europe is supporting the development of coordinated policies across Europe with a clear aim ultimately to replace a reader-paid publication system with an author- or institution-paid one.⁸
- Deutsche Forschungsgemeinschaft (DFG)⁹ introduced its current OA policy in 2006. DFG expects the publications issued from research it has funded to be made available in OA within six to 12 months. Costs to cover APCs are eligible as research costs within the grant.¹⁰
- FWF, the Austrian research funding agency, has had an OA policy since 2004 for sciences and humanities, and commits to the payment of APCs as a research cost.¹¹ In 2011, FWF spent around €1.5 million on APCs, for both Gold and hybrid journals.¹² FWF policy states that publications should be available via OA after six months.
- In the USA, NIH has recently announced new measures to enforce its OA mandate, which requires all peer reviewed research papers to be archived in PubMedCentral within 12 months at the latest.¹³ A bill is proposing to expand this to all Federally funded research.¹⁴
- Fast growing nations such as India and China also have OA on their agenda. The focus of discussion is on shortening embargo periods to a maximum of 12 months and enabling maximum use and re-use of published research as in repositories (COAR, the repository directory, currently lists 33 repositories for China and 52 for India).
- Several countries in South America have implemented legislation supporting OA.¹⁵
- The newly formed Global Research Council has made OA its main agenda item for their meeting in May. The aim is to develop and agree an action plan for implementing OA¹⁶
- The Australian Research Council recently announced its OA policy and cites coming in line with other international funding agencies, such as the UK, as a key objective.¹⁷

It will be evident that the UK is not alone and is managing the process of change. RCUK are now working closely with HEIs to ensure that they are able to adjust flexibly to this new OA research publishing regime. I have already arranged to hold a meeting with stakeholders on 12 February to hear about what they feel is going well and to discuss any residual concerns that they may have. There will be a progress meeting with Janet Finch’s Group by the autumn to gauge how the more detailed implementation arrangements, being led by RCUK, are progressing. In addition, RCUK have promised to hold a review in 2014 to assess how developments during the first part of the five year transitional period compare to their expectations.

⁶ See <http://www.biomedcentral.com/1741-7015/10/124> This is an Open Access paper published on 22 October 2012 “Anatomy of open access publishing: a study of longitudinal development and internal structure.”

⁷ http://ec.europa.eu/research/science-society/document_library/pdf_06/recommendation-access-and-preservation-scientific-information_en.pdf

⁸ http://www.eurohorcs.org/SiteCollectionDocuments/ESF_Road%20Map_long_0907.pdf and http://www.scienceurope.org/uploads/GRC/Open%20Access/1_Georg%20Botz.pdf

⁹ The DFG is the self-governing organisation for science and research in Germany. It serves all branches of science and the humanities. In organisational terms, the DFG is an association under private law. Its membership consists of German research universities, non-university research institutions, scientific associations and the Academies of Science and the Humanities. See http://www.dfg.de/en/dfg_profile/mission/who_we_are/index.html

¹⁰ http://www.dfg.de/formulare/2_012e/2_012e.pdf, section 13

¹¹ http://www.fwf.ac.at/en/public_relations/oai/index.html

¹² Science Europe Working Group on Open Access survey

¹³ (<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-12-160.html>)

¹⁴ (<http://thomas.loc.gov/cgi-bin/query/z?c1112:H.R.4004:>)

¹⁵ (<http://www.unesco.org/new/en/communication-and-information/portals-and-platforms/goap/access-by-region/>)

¹⁶ (<http://www.globalresearchcouncil.org/meetings#berlin>)

¹⁷ http://www.arc.gov.au/applicants/open_access.htm

I look forward to further discussing these points with you and your Committee.

*The Rt Hon David Willetts MP
Minister for Universities and Science*

8 February 2013

APPENDIX 1

LETTER TO LORD KREBS, CHAIR, SCIENCE AND TECHNOLOGY SELECT COMMITTEE, HOUSE OF LORDS

Dear Lord Krebs,

OPEN ACCESS

I am writing in response to your letter of 24 December in which you set out your Committee's plans to hold a short inquiry on the subject of Open Access (OA). I welcome the timely initiative that you have taken to discuss this important issue as it enters the implementation of policy phase and will be pleased to accept your invitation to give oral evidence on Tuesday 29 January. I trust that you will accept this letter as the written response that you requested by Friday 18 January.

In your letter you have asked me to address four key areas:

- Support for universities in the form of funds to cover Article Processing Charges (APCs) and the response of universities and other HEIs to these efforts;
- Agreeing embargo periods for articles published under the Green model;
- Engagement with publishers, universities, learned societies and other stakeholders in the development of Research Council OA implementation policies; and
- Challenges and concerns raised to date by stakeholders and how these have been addressed.

I understand that your Hearing on 15 January with Dame Janet Finch afforded you an excellent introduction to the subject. The Finch Group was brought together by BIS as an independent group. Janet Finch has thus provided a comprehensive explanation of the process that the Finch Group went through to arrive at its recommendations. Hence, in this written evidence BIS has focused on these four issues in turn.

SUPPORT FOR UNIVERSITIES AND HEIS

The Government recognised in its response of the 16 July 2012 to the Finch Report (see Annex A) that a Government preference for a Gold OA policy, with the merit of providing free, immediate and unrestricted access and use of published research by the reader, would not come at zero cost. It was accepted that publishers, including Learned Societies, provide a valuable service by both administering a highly respected peer review process and providing the necessary investment and infrastructure for a globally successful UK based research publishing industry. To sustain the advantages of the present publishing arrangements, whilst simultaneously exposing the industry to radical change, requires payment of an Article Processing Charge (APC) under Gold OA. Open Access (OA) needs to be paid for in some way, and given the Government's policy of a strong preference for Gold OA and permitting Green OA (which places the financial burden on users), the Government has facilitated funding for the implementation of Gold OA in two stages.

In the first stage, designed to quickly pump prime the creation of Publication Funds and to identify any "teething problems" with their formation for subsequent more long-standing and systematic arrangements, an initial one-off sum of £10 million was allocated to support "Gold OA"¹⁸ publication of research. This was announced on 7 September 2012 (see <http://news.bis.gov.uk/Press-Releases/Government-invests-10-million-to-help-universities-move-to-open-access-67fac.aspx>). It is providing initial funding for the group of HEIs selected by the Research Councils, as listed at Annex B, allowing them to make preparations for the introduction of OA and to identify issues that will need to be addressed by RCUK in their implementation guidance such that the wider group of HEIs benefit from their experience.

The funding has provided some limited, but immediate, support to enable research intensive HEI's to begin to plan for and implement Gold OA in preparation for the change that will take effect from 1 April 2013.

The initial £10 million was intended to be a pre-cursor to a more substantive, systemic and on going funding allocation to be made by Research Councils to HEIs in support of the Government's (and RCUK's) policy preference for Gold OA. Such financial support will enable Publication Funds to be created at all affected HEIs to allow them to administer their allocated funds and determine how best to meet the APCs to secure free to user Gold OA publication.

As a result of an initiative by RCUK, this more substantive approach has now taken the form of a block funding allocation to over 100 individual institutions for the period beyond April 2013. The details of which they announced on 8 November 2012, as explained in RCUK's summary progress note at Annex C (see

¹⁸ Gold OA entails the payment of an Article Processing Charge (APC) to the publisher to ensure that the research is published immediately on a completely free basis to the end user and without restriction.

<http://www.rcuk.ac.uk/media/news/2012news/Pages/121108.aspx>). HEFCE also intend to consult widely on how research outputs submitted to any REF subsequent to 2014 will be available by OA. HEFCE propose to allow HEIs to use their QR funding, to the extent deemed appropriate by the HEI, to supplement RCUK's direct contribution thereby supplementing the financial resources available to HEIs for their Publication Funds.

The value of APC awards for years 2013–14 and 2014–15 were announced as being £17 million and £20 million respectively. Funding for financial years 2015–16, 2016–17 and 2017–18 could not be indicated at this stage, because of Treasury's constraint on the commitment of funds for the next Spending Review period; but also, the level of funding required will be partly dependent on developments in the research publications market, which will be subject to change.

We recognise that this re-engineering of free access to published research will take time. RCUK anticipate a five year transition period during which time the level of take up for Gold OA might be expected to rise from an estimated 45% to 75%. Research Councils have estimated that the total allocation that they are prepared to make for APCs over the five year period could be in excess of £100 million. This further demonstrates the strength of their and the Government's commitment to what is a radical re-engineering of the research publications market designed to improve access to research findings, stimulate innovation and contribute to economic growth. RCUK propose to review implementation of the policy in 2014 to make any appropriate mid-course corrections within the Government's overall strategic policy.

RCUK's announcement that their level of funding for Gold OA was designed to cover the cost of some 45% of Research Council funded published research in 2013–14 was based on their realistic estimate of the rate of change and initial level of demand from authors for Gold OA. However, RCUK's implementation policy statement immediately raised questions in the minds of publishers and Learned Societies as to what embargo period would apply for Green OA for the balance of up to 55% of research publicly funded by Research Councils? A short period of uncertainty followed. Your inquiry affords me, and RCUK, an opportunity to clarify the settled position which was in the process of being resolved.

EMBARGO PERIODS FOR ARTICLES PUBLISHED UNDER THE GREEN OA MODEL

The Government's over-arching policy position on embargo periods for Green OA was clearly stated in response to the Finch Report. As stated in the published response, included as Annex A to this letter, the Government stated that:

“The Government has listened carefully to what publishers, learned societies and the Finch Group collectively have had to say on this issue. We prefer the “gold” over the “green” model, especially where the research is taxpayer funded so the Government agrees with the sentiment expressed in the Finch Report. Embargo periods allowed by funding bodies for publishers should be short where publishers have chosen not to take up the preferred option of their receiving an Article Processing Charge (which provides payment in full for immediate publication by the “gold OA” route). Where APC funds are not available to the publisher or learned society, for the publication of publicly-funded research, then publishers could reasonably insist on a longer more equitable embargo period. This could be up to 12 months for science, technology and engineering publications and longer for publications in those disciplines which require more time to secure payback. Even so, publications with embargo periods longer than two years may find it difficult to argue that they are also serving the public interest. “

The Government stands by this policy statement as published on Gov. Uk (see <https://www.gov.uk/government/news/government-to-open-up-publicly-funded-research>)which also includes reference to the Decision Tree published on the Publishers Association website, with endorsement by BIS and RCUK in August 2012 (included in this response as Annex D).

RCUK accept, as stated clearly in their own policy statement (see <http://www.rcuk.ac.uk/research/Pages/outputs.aspx>) that Green OA is a legitimate second best alternative to Gold OA. RCUK also believe that implementation of their published OA policy should be consistent with the Government's over arching OA policy position. In implementing their OA policy RCUK have been understandably concerned to ensure that every effort should first be made by researchers to operate within RCUK's required publishing arrangements. This entails a preference for Gold OA and the use of short embargo periods¹⁹ where Green OA is being offered by publishers and Learned Societies. In some circumstances, publication on the basis of either of these two options may not be feasible. RCUK recognises that we are on a journey. Some researchers, particularly in certain arts and humanity disciplines, may only find it possible to publish in journals that because of the traditions of the discipline or its business model, or the availability of funding for Gold OA, may need a longer embargo period. RCUK recognises that the Government's policy on embargo periods allows some discretion for this.

¹⁹ Generally this will mean six months for research funded in science and technology related disciplines and twelve months for those in the arts and humanities.

Government and RCUK will, for good reason, not want to weaken the Government's policy preference for Gold OA, which is closely associated with CC-BY licensing²⁰ conditions, or the alternative of Green OA with embargo periods of either six or twelve months depending upon the research discipline/journal, but where either option is judged by the HEI to not be feasible in the case of a particular research paper, the decision tree published in August 2012 by the Publishers Association and endorsed by BIS will apply. Furthermore, there may even be some cases where a longer embargo period than the 24 months indicated on the Publishers Association's site may be needed and again the Government's stated policy position above allows for this, but, such cases should be the exception rather than the rule. BIS' understanding of the type of agreements on embargo periods being reached by the World Bank with publishers, on an individual journal basis, would reflect this expectation as well.

ENGAGEMENT WITH PUBLISHERS, UNIVERSITIES, LEARNED SOCIETIES AND OTHER STAKEHOLDERS IN THE DEVELOPMENT OF THE RESEARCH COUNCIL OA IMPLEMENTATION POLICIES

RCUK are leading on the development of their implementation policies for OA although BIS officials have engaged with them throughout. Further details are outlined in Annex C.

In addition to the RCUK-led implementation discussions, I am holding my own meeting with stakeholders. We have sought throughout to work with the publishing and research communities on our approach to open access, and success depends on all relevant parties believing the overall approach is workable. The Government's Open Access policy for published research is simple in concept—namely that taxpayers should have access to the research findings they have funded and in a reasonable timescale, but it is undoubtedly complicated to implement. RCUK fully appreciate the fact that this is a journey not an event. The guidance they are providing will need to take account of issues as they arise. All participants in the process will need to accept that compromises will be needed from all sides.

CHALLENGES AND CONCERNS RAISED BY STAKEHOLDERS AND HOW THESE HAVE BEEN ADDRESSED

The development and implementation of a radically different OA policy intended to create benefits for all users (researchers, business including SMEs and the public) is a complicated and challenging task. The Finch Group, on which the full range of stakeholders were represented, cultivated an atmosphere of co-operation, sometimes out of initially conflicting positions. By creating a willingness to compromise, the Finch Group was able to produce a set of recommendations which (with the exception of the treatment of VAT for electronic publications which is an EU matter) the Government felt able to accept in full as stated at Annex A.

At the time of the Finch Group's deliberations there was a tension between funders and publishers on the treatment or duration of embargo periods under the Green OA model. It was for this reason that the Government's over-arching strategic policy position for Green OA embargo periods was adopted, which accommodates a range of circumstances whilst making the direction of travel clear. RCUK have pointed out that this will involve a significant transition period of some five years.

Other concerns have included the argument that the cost of Gold OA reduces research budgets. Government recognised this opportunity cost when formulating its policy position and its preference for Gold OA and still believes that the potential benefits that Gold OA affords (under the CC-BY licence conditions directly associated with it) outweighs the opportunity cost of about one% of the research budget. There is also positive evidence of universities now moving on to arrange the detailed planning for the new arrangements (see for example <http://www.openaccess.cam.ac.uk>).

There is as yet limited empirical evidence of the quantifiable impact of Open Access on economic growth. Even so, the economic impact could be significant. Battelle's recent report²¹ showed that between 1988 and 2010 genome sequencing projects, associated research and industry activity, both directly and indirectly, generated an economic (output) impact of \$796 billion and created 3.8 million job-years of employment (310,000 jobs in 2010), with personal income exceeding \$244 billion. It has been suggested that the economic success of the Human Genome Programme was partly attributable to the adoption of open access for the public programme of research.²²

Concerns have also been raised that overseas based publications may choose to not adopt a similar OA policy to the UK Government. The concern is that if some leading overseas based journals do not choose to comply with the UK's OA policy, UK researchers could, as a result, be denied publication in them with implications for the perceived credibility and importance of UK research. Whilst it is possible to have some sympathy with this concern, the Government needs to balance it against the wider policy objective to make

²⁰ CC-BY is the licence condition associated with the payment of an Article Processing Charge (APC) for publication on a Gold Open Access basis. Gold OA has the advantage of providing unrestricted search and use of the published information by the user. Wellcome and RCUK are proposing to use CC-BY when their research funds are used to pay APCs. See http://www.wellcome.ac.uk/stellent/groups/corporatesite/@policy_communications/documents/web_document/WTVM055715.pdf

²¹ See <http://www.genome.gov/27544383> and http://www.battelle.org/docs/default-document-library/economic_impact_of_the_human_genome_project.pdf?sfvrsn=2 The federal government invested \$3.8 billion in the HGP from 1990–2003 (\$5.6 billion in 2010 dollars) giving a return on investment (ROI) to the U.S. economy of 141 to 1. <http://www.newstatesman.com/blogs/economics/2012/04/open-access-science-helps-us-all>

²² See <http://www.newstatesman.com/blogs/economics/2012/04/open-access-science-helps-us-all>

publicly funded published research available in reasonable time, and preferably immediately, to UK taxpayers. Furthermore, publishers that specialise in OA journals appear to be increasingly attracting researchers and establishing their international credibility. There is also evidence of the global growth of Open Access (OA) for scholarly publications.

A most recent study of global trends has been by Mikael Laakso and Bo-Christer Bjork.²³ This most current analysis of globally published scientific articles indicates that in 2011 some 340,000 scientific articles were published by 6,713 full immediate OA journals, of which some 49% required Article Processing Charges. Hence, OA represents some 17% of the 1.66 million articles published during 2011 according to Scopus, considered to be one of the most comprehensive article-level indexes of scholarly articles. Within this 17%, some 11% were immediately available (“Gold OA”) and the balance of 6% publicly available within 12 months of publication (“Green OA”). Hence, the UK is not as isolated as some have argued. The UK appears to be leading but going with the grain of the academic community and increasingly the publishing world. The number of OA published scholarly articles has grown, according to the same analysis, from a base of only some 20,000 OA scientific articles a decade ago. This is attributed to the growth of commercial publishers becoming key players in Open Access.

Biomedicine is estimated to have experienced a particularly rapid 16-fold growth in OA published articles between 2000 and 2011 but in terms of disciplines overall, the social sciences, arts and humanities (at about 56,000 OA articles in 2011) exceeds the number of OA publications in chemistry, chemical engineering, physics and astronomy combined (although it needs to be noted that there is supporting infrastructure for parallel forms of publication in some of these disciplines, such as physics).

Some Learned Societies have also expressed a lack of trust in HEIs to administer, in an equitable manner, the Publication Funds that they will receive from RCUK (and HEFCE). They are concerned that choices may be dominated by the interests of certain departments or researchers. This is an issue for HEIs to respond to, but the Government has seen no evidence to suggest that HEIs will act irresponsibly. It is important for them to have autonomy and flexibility in such decisions so that they may use their funding²⁴ most efficiently and in a way that best suits their publication priorities and have the capacity to stimulate further competition and innovation in the research publications market. The most efficient and competitive publishers will rise to this challenge and new entrants may also appear.

There is also the concern amongst HEIs and some publishers that rather than securing a first mover advantage the UK stands to lose out to the “free-rider” problem, meaning that the UK pays and others benefit. The Government is fully aware of this risk, but as for all first movers it is a risk that has to be accepted. In the worst case, the UK will still benefit from ensuring that eventually 75% of all Research Council funded published research will be immediately available for free to users. This in itself is a prize worth having. In addition to which, in the same manner that the UK is communicating *globally* the fruits of its research through the recently released beta test version of the Gateway to Research (see <http://www.rcuk.ac.uk/research/Pages/gtr.aspx>), access to UK research will demonstrate the strength of the UK research base and further encourage international collaboration with the UK and inward investment to our long-term advantage. It is also expected to be to the advantage of UK based researchers in terms of their citation rates, increasing their global recognition.

We are not being complacent about the “first-mover” initiative we have taken and the risk of doing so. Discussions have taken place with the EU and the Commission which has now stated that it will expect all research published under Horizon 2020 to be on an OA basis. The UK have impressed on them the relative merits of Gold OA. The Commission will make open access to scientific publications a general principle of Horizon 2020, the EU’s Research & Innovation funding programme for 2014–20. As announced in July 2012, immediately following publication of the UK’s OA policy, as of 2014, all articles produced with funding from Horizon 2020 will have to be accessible on an Open Access basis:

- articles will either immediately be made accessible online by the publisher (“Gold” open access)—up-front publication costs can be eligible for reimbursement by the European Commission; or
- researchers will make their articles available through an open access repository no later than six months (12 months for articles in the fields of social sciences and humanities) after publication (“Green” open access).

For Green OA under the Commission’s requirements, it is not yet clear how consistently repositories would be used and what version of the paper would be published on them, that is whether it would be the finally published paper in pdf format or the author’s manuscript copy (that remains the author’s copyright and which can be deposited immediately on ArXiv, Institutional repositories or EuroPubMed now without any restriction.)

The Commission has also recommended that Member States take a similar approach to the results of research funded under their own domestic programmes. The goal is for 60% of European publicly-funded research articles to be available under Open Access by 2016. That coincides with the level of penetration assumed by RCUK for the UK in 2015–16.

²³ See <http://www.biomedcentral.com/1741-7015/10/124> This is an Open Access paper published on 22 October 2012 “Anatomy of open access publishing: a study of longitudinal development and internal structure.”

²⁴ Including funds from Research Councils, HEFCE and their own and other sources together making up the ‘Publication Funds’ now being created within HEIs.

(see http://europa.eu/rapid/press-release_IP-12-790_en.htm).

The EU policy position, which is a recommendation and not a legislative proposal, includes the UK's preferred Gold OA. For Green OA the Commission is consistent with RCUK's policy objective. Even so we will maintain with the Commission particularly during the transitional five year period, that where there is no funding available to pay APCs for Gold OA the required embargo periods for Green OA should be 12/24 months as allowed for by the UK not six–12 months as currently being required by the Commission.

Similarly, attitudes towards the adoption of OA are becoming more favourable in the US. The National Institute of Health (NIH) has recently declared that it will withhold grant awards if research is not published in compliance with its existing OA policy which requires OA publication on Pub Med Central <http://www.ncbi.nlm.nih.gov/pmc> within 12 months (see <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-13-016.html>).

The UK Medical Research Council and the Wellcome Trust have operated a similar repository arrangement for medical research since 2007 requiring publication within six months. In July 2011, the European Research Council became the third European funder to join UKPMC, following Telethon Italy and the Austrian Research Fund. As a result of this participation, the 18 existing UK and European funders agreed that the UKPMC service should be rebranded as Europe PMC which took place on 1 November 2012 further reinforcing the UK Government's policies on transparency and open access. Information on Europe PMC can be found at the new website www.europepmc.org, details of the NIHR's OA policy is available at http://www.nihr.ac.uk/research/Pages/Research_Open_Access_Policy_Statement.aspx

Europe appears to account for some 37% of global OA articles and N. America for about 19%, but Asia is also responsible for some 25% of global OA, and as stated above the use of OA is increasing and the proportion of Gold OA growing with it. Hence, the fear that the UK may be acting alone is probably unfounded.

The publishers and Learned Societies are a highly valued part of the fabric of the UK's world class research base. Their willingness to collaborate through the Finch Group and to compromise on some of their aspirations (by accepting, for example, the need to offer CC-BY conditions as part of the Gold OA APC transaction) whilst signalling through their public library initiative their desire to contribute to the public good suggests that there is a real prospect of the UK implementing an OA policy, based on the appropriate use of Gold and Green, in a way that allows all stakeholders to prosper.

The Public Library initiative (PLI), proposed by the Publishers Association during the course of the Finch Group's deliberations is an example of how the publishers and Learned Societies contribute to the public good. The PLI represents a valuable concession by publishers to facilitate free walk-in access to all of their research publications in public libraries. This would apply to globally sourced research and not just the 6% of global research that is sourced from the UK (see Annex E). The Government now looks forward to this PA initiative being implemented in 2013.

I look forward to discussing the issue with you on 29th January.

THE RT HON DAVID WILLETTS MP

Annex A

LETTER TO DAME JANET FINCH ON THE GOVERNMENT RESPONSE TO THE FINCH GROUP REPORT: "ACCESSIBILITY, SUSTAINABILITY, EXCELLENCE: HOW TO EXPAND ACCESS TO RESEARCH PUBLICATIONS"

Dear Janet,

Please find enclosed the Government's response to your excellent report on open access to published research.

We are firmly committed to improving access so the Government accepts the proposals in your report, except for one specific point on VAT. Reference was made to the issue of VAT being applied to e-journals but not printed books and journals. Consideration has been given to this, but, in consultation with Treasury it has become evident that current VAT rules agreed at EU level preclude a reduced or zero rate for e-journals. The enclosed note sets out our response in more detail.

I welcome the OA policies being announced by funding bodies. I also welcome the publishers' proposed initiatives for improving access for SMEs and for the public libraries.

You have suggested that your Group should reconvene in a year's time to reflect on progress. That is an excellent idea. I would be pleased to join you for that meeting to review progress made with implementing your excellent report.

Thank you for all you have done to help us open up our world-class research base to more people, which will no doubt benefit all of the UK. Please pass on my thanks to the other members of your group and Michael Jubb (Director RIN) who supported you.

David Willetts

GOVERNMENT RESPONSE TO THE FINCH GROUP REPORT: “ACCESSIBILITY, SUSTAINABILITY, EXCELLENCE: HOW TO EXPAND ACCESS TO RESEARCH PUBLICATIONS”

We are grateful to the Finch group for their constructive investigation and we welcome the report. We wish to extend open access to research and so accept all the conclusions in the report (except for one involving tax which will be considered further).

Taking each of the Group’s recommendations in turn:-

- (i) *a clear policy direction should be set towards support for publication in open access or hybrid journals, funded by APCs, as the main vehicle for the publication of research, especially when it is publicly funded;*
- (ii) *the Research Councils and other public sector bodies funding research in the UK should establish more effective and flexible arrangements to meet the costs of publishing in open access and hybrid journals;*

The Government agrees with both of these recommendations. We recognise that whilst Open Access (OA) means free access to the user and full right of search, it does not follow that OA has no cost. Support for publicly funded research institutions will be needed to pay the cost of APCs this funding will come out of existing research funds.

Funding bodies are now in the process of publishing their respective policy positions on OA, which will include provision for the funding of APCs. Details of the precise funding mechanisms will be included in their respective announcements though they are also co-operating with each other to ensure a co-ordinated approach.

RCUK currently provides support for APCs through both direct and indirect costs as part of grant funding. They will now put in place a simpler, more flexible and transparent mechanism that will allow institutions to set up publication funds to cover such charges. The most suitable payment mechanism is currently under discussion and includes options such as direct cost within a grant application (either open to applicants to make a case or through a formula) or as a block grant to universities.

In all cases universities upon receipt of funding should transfer these charges to their institutional publication fund. A university can then use these funds to pay for APCs for any article resulting from research council funding. Research Councils will monitor compliance with its policies at grant level through its outputs systems. Once Research Councils have established the payment mechanism, operational details will be set in discussions with the academic community.

- (iii) *support for open access publication should be accompanied by policies to minimise restrictions on the rights of use and re-use, especially for non-commercial purposes, and on the ability to use the latest tools and services to organise and manipulate text and other content;*

The Government welcomes this recommendation which is consistent with our aspirations for implementation of the Hargreaves recommendations. Where APCs are paid to publishers, the Government would expect to see unrestricted access and use of the subject content and the details of how this should be best achieved will be addressed in the detailed policy statements to be published by funding bodies.

In relation to Hargreaves, the Government believes any exception on copyright—on which decisions are yet to be taken—must be compatible with the broad approach of the Finch report.

- (iv) *during the period of transition to open access publishing worldwide, in order to maximise access in the HE and health sectors to journals and articles produced by authors in the UK and from across the world that are not accessible on open access terms, funds should be found to extend and rationalise current licences to cover all the institutions in those sectors;*

The Government understands and supports the objectives behind this recommendation. The extent to which funds can be made available for this purpose will be a matter for the independent funding bodies.

- (v) *the current discussions on how to implement the proposal for walk-in access to the majority of journals to be provided in public libraries across the UK should be pursued with vigour, along with an effective publicity and marketing campaign;*

The Government welcomes this imaginative and valuable initiative by the publishing industry. We encourage the working group that has already been set-up to address it, which includes public library representation, to press ahead and implement the proposed two-year pilot scheme at the earliest opportunity. We hope it will become a permanent feature of the UK’s public library service.

- (vi) *representative bodies for key sectors including central and local Government, voluntary organisations, and business should work together with publishers, learned societies, libraries and others with relevant expertise to consider the terms and costs of licences to provide access to a broad range of relevant content for the benefit of consortia of organisations within their sectors; and how such licences might be funded;*
- (vii) *future discussions and negotiations between universities and publishers (including learned societies) on the pricing of big deals and other subscriptions should take into account the financial implications of the shift to publication in open access and hybrid journals, of extensions to licensing, and the resultant changes in revenues provided to publishers;*

The Government encourage the various stakeholders to pursue these two recommendations. We look to JISC to contribute its long-standing experience in this field to help in such negotiations and particularly with regard to implementing at the earliest opportunity the proposed extension of licensing to high-technology Small and Medium Sized Enterprises (SMEs).

- (viii) *universities, funders, publishers, and learned societies should continue to work together to promote further experimentation in open access publishing for scholarly monographs;*

The Government welcomes this recommendation.

- (ix) *the infrastructure of subject and institutional repositories should be developed so that they play a valuable role complementary to formal publishing, particularly in providing access to research data and to grey literature, and in digital preservation.*

The UK Research Councils have already invested in a number of successful repositories. Notable examples include the Economic and Social Research Council's Research Catalogue (see <http://www.esrc.ac.uk/impacts-and-findings/research-catalogue/index.aspx>) and UKPubMed which has been funded by the Medical Research Council (MRC) and the Biotechnology and Biological Sciences Research Council (BBSRC), the Chief Scientist Office, part of the Scottish Government Health and Social Care Directorates and other funding bodies (see <http://ukpmc.ac.uk/About>). Indeed, in 2010 just over 40% of the articles published that year, or almost 70,000 articles in real numbers, were Open Access (OA) see <http://ukpmc.blogspot.co.uk/2012/05/increasing-proportion-of-ukpmc-articles.html>.

The Government has recently provided £150 million for the development of e-infrastructure that should benefit these OA objectives. It has also committed £75 million to the development of the ELIXIR project at the European Bioinformatics Institute, Hinxton, to create a world-leading repository in bioinformatics but, generally, the development of infrastructure for subject and institutional repositories will primarily be a matter for institutions themselves. Even so, the Government wish to ensure that the UK secures the greatest added value from such developments. The "Gateway to Research" being developed by RCUK will provide an additional tool to sign and facilitate public access to the full body of research funded by the UK Research Councils by late 2013.

- (x) *funders' limitations on the length of embargo periods, and on any other restrictions on access to content not published on open access terms, should be considered carefully, to avoid undue risk to valuable journals that are not funded in the main by APCs. Rules should be kept under review in the light of the available evidence as to their likely impact on such journals.*

The Government has listened carefully to what publishers, learned societies and the Finch Group collectively have had to say on this issue. We prefer the "gold" over the "green" model, especially where the research is taxpayer funded so the Government agrees with the sentiment expressed in the Finch Report. Embargo periods allowed by funding bodies for publishers should be short where publishers have chosen not to take up the preferred option of their receiving an Article Processing Charge (which provides payment in full for immediate publication by the "gold OA" route). Where APC funds are not available to the publisher or learned society, for the publication of publicly-funded research, then publishers could reasonably insist on a longer more equitable embargo period. This could be up to 12 months for science, technology and engineering publications and longer for publications in those disciplines which require more time to secure payback. Even so, publications with embargo periods longer than two years may find it difficult to argue that they are also serving the public interest.

BIS 16 July 2012

Annex B

RCUK ALLOCATION OF THE £10 MILLION FOR THE INITIAL INTRODUCTION OF "GOLD OA"

1. RCUK's policy on Access to Research Outputs is available at:

www.rcuk.ac.uk/research/Pages/outputs.aspx

2. The institutions that will receive the additional funding are:

Cardiff University
 Durham University
 Imperial College London
 King's College London
 Loughborough University
 Newcastle University
 Queen Mary, University of London
 Queen's University of Belfast
 The University of Manchester
 University College London
 University of Aberdeen
 University of Birmingham
 University of Bristol

University of Cambridge
University of Dundee
University of Edinburgh
University of Exeter
University of Glasgow
University of Leeds
University of Leicester
University of Liverpool
University of Nottingham
University of Oxford
University of Reading
University of Sheffield
University of Southampton
University of St Andrews
University of Strathclyde
University of Warwick
University of York

Annex C

UPDATE ON IMPLEMENTATION OF RCUK POLICY ON OPEN ACCESS, DECEMBER 2012.

THE RCUK POLICY ON OPEN ACCESS

The RCUK Policy on Open Access applies to peer-reviewed research papers that would normally be published in journals or conference proceedings, and which result from research acknowledges funding from the Research Councils. It does not apply to other forms of scholarly output, such as books or monographs. The policy builds on individual councils' policies on open access which have been in place since 2005/6.

Peer-reviewed research papers submitted for publication from 1 April 2013:

- be published in journals which are compliant with Research Council policy on Open Access, and;
- Must include details of the funding that supported the research, and a statement on how the underlying research materials such as data, samples or models can be accessed.

To be compliant with the policy, Journals must offer either a “Gold” Open Access option, which results in immediate and unrestricted access to the published version of a paper via the journal’s web site; or a “Green” option, allowing deposit of the authors final peer-reviewed manuscript in an institutional or subject-specific repository, with a maximum embargo period on access of six months (or 12 months for AHRC & ESRC funded research). In addition, the policy requires publishers to use the Creative Commons “Attribution” licence (CC-BY), when an Article Processing Charge (APC) is levied.

Summary of the main RCUK actions since publication of the Finch Report (June 2012):

- 16 July: Revised RCUK Policy on Open Access launched, alongside the Government response to the Finch report, to come into force on 1 April 2013.
- 7 September: Announcement of additional £10 Million provided by BIS to pump-prime activities in Open Access during FY 2012–13.
- 8 November: Announcement of RCUK funding mechanism to support payment of Article Processing Charges for “Gold” OA, and the length of the transition period.
- 13 November: RCUK workshop for key HEIs on implementation of RCUK OA policy.
- 6 December: Russell Group convened meeting with publishers, learned societies and RCUK to discuss the RCUK OA policy.

REACTION TO THE RCUK OA POLICY

- Much of the reaction to the revised policy has been supportive and the main concerns are not with the policy as such but its implementation and the speed of the transition to a new “normal” of Open Access.

Some learned societies in the Humanities, Arts and Social Sciences (HASS) have expressed concerns about making the Gold OA model work for their journals, because of specific issues over the small number of authors and the longer average article length, in relation to the number of subscribers, which would result in what are considered to be unsustainably large APCs. There is also considerable concern in the HASS community that HEIs will spend the RCUK block grant disproportionately on articles in the natural sciences. RCUK has no evidence that this will be the case. Whether it is will be part of the review in 2014.

In addition, there have been objections from some in the HASS community to the requirement to use the CC-BY licence for papers published using the Gold OA model. Some of the issues (for example, use of 3rd party material in papers) need further exploration. However, much of the discussion seems to be based on misinterpretation and misrepresentation of what the CC-BY licence will and will not allow. RCUK has concerns

that some communities are proposing to use the CC-BY-NC licence, which by disallowing commercial re-use, will impose barriers to the full re-use of published papers, and stifle innovation within scholarly publishing.

Some of the feedback from HEI community gives the impression that they are expecting RCUK to provide all the solutions, rather than recognising that HEIs have a key role to play. For example, by just stating that RCUK is not providing sufficient funding, rather than acknowledging that the HEI community must play a key role in negotiating with publishers to drive down subscription and APC costs to enable the available funding to go further.

There is also a continuing and vocal campaign by a number of OA “pioneers” who consider that RCUK and Finch have made a major mistake in supporting the Gold approach to OA, in preference to Green. Their concerns are based around cost (Gold is using money that could be spent on research) and, from their perspective, the lack of any demonstrated requirement for re-use requiring a CC-BY licence. The RCUK position is that disseminating research is just as much a cost of research as is hiring researchers, buying consumables, and so on.

FUNDING FOR GOLD OPEN ACCESS

The total amount of funding that RCUK will put into supporting Gold open access is based on estimates of the numbers of publications arising from all Research Council funded research activities. Publications data from 2010 & 2011 indicate that some 26,000 peer-reviewed research papers per year arise from Research Council funded research, of which approximately 90% are produced within the HEI sector and 10% from Research Council institutes. The average cost of an APC has been taken from the Finch report (estimated as £1,727 plus VAT). The total value of the RCUK APC fund for supporting the HEI sector has therefore been set as follows:

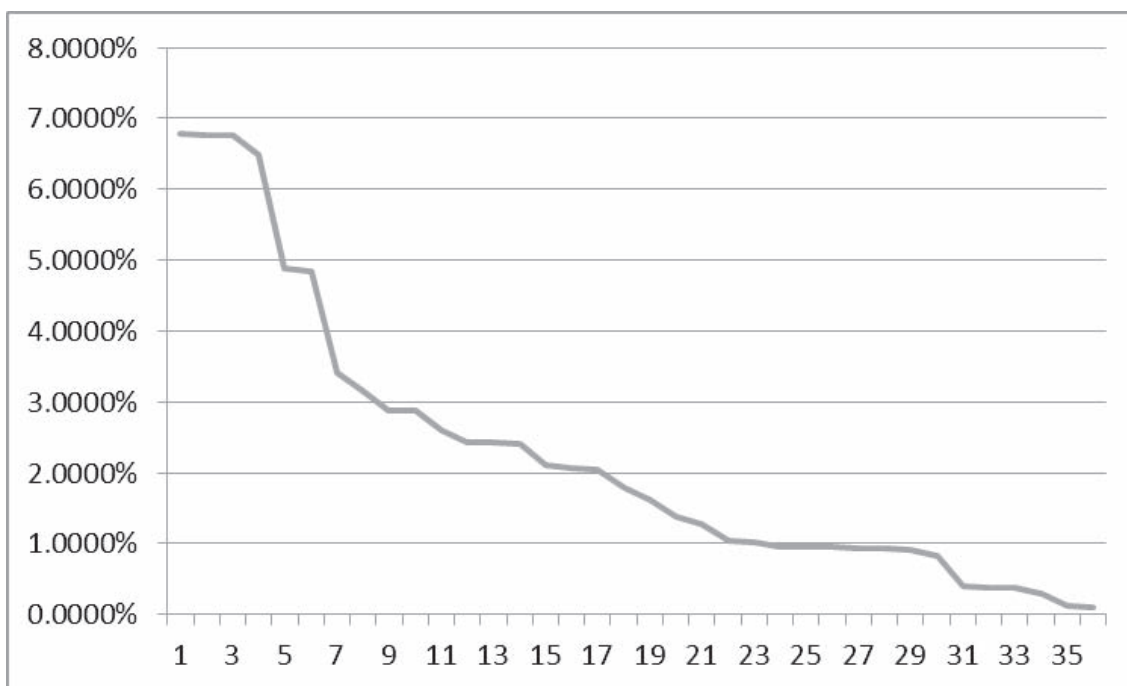
<i>Year</i>	<i>2013–14</i>	<i>2014–15</i>	<i>2015–16</i>	<i>2016–17</i>	<i>2017–18</i>
Value of RCUK APC fund	£17M	£20M	£TBD	£TBD	£TBD
Estimated % papers block grant will fund as Gold OA	45%	53%	60%	67%	75%

The value of APC awards from 2015–16 onwards are indicative only, and will depend on the outcome of the next Spending Review, and any changes in funding resulting in the review of the policy planned for 2014.

This increase in funding over a five-year transition is a reflection of the time that will be needed for researchers, institutions and publishers to transition into a “Gold” OA model, as well as to allow existing publication funding already provided through direct and indirect costs as part of grant funding to be fully utilised. RCUK estimates that the steady-state will be that some three-quarters of research council funded research will be published using the “Gold” OA route and a quarter using “Green”. However, we will review this figure during the transition phase as we gather further publication data.

Universities will receive block grants in proportion to the amount of direct labour costs (“directly-incurred” and “directly-allocated”) awarded on grants provided it is above a threshold total of £10,000, that they have received over the three years from April 2009 to March 2012. Direct labour costs have been used as a proxy of research effort leading to the generation of publications, independent of the effects of equipment and infrastructure costs, and overheads. The 36 institutions from the Russell and 1994 groups of research intensive HEIs will receive just over 80% of RCUK’s APC funding. Seventy-one other institutions share the remaining funding. In addition, the top 30 HEIs (in terms of total funding from the research and funding councils) have shared in the distribution of the £10M made available by BIS to help kick-start OA developments (to be spent by 31 March 2013).

SHARE OF THE RCUK FUNDING ALLOCATED TO THE 36 RUSSELL/1994 GROUP HEIS



RCUK ACTIVITIES TO SUPPORT POLICY IMPLEMENTATION

- Facilitating a project within the HEI sector to develop common processes and procedures, and to share best practice to support implementation of the RCUK policy. RCUK will provide funding to support a project manager and discussions are underway with a number of organisations about hosting the project office.
- In conjunction with the Wellcome Trust, commissioning the SHERPA-RoMEO group at Nottingham University to develop a support service to provide easily accessible and understandable advice on how journals provide compliance with the RCUK and WT policies.
- In conjunction with the Wellcome Trust, we have written to the top-60 publishers of Trust and RCUK funded research to inform them of the changes in policy and to ask how they plan to comply with policy. This process has resulted in constructive dialogue with the major publishers, and with publisher trade bodies (STM, ALPSP, PA & OASPA). Meetings with the trade bodies are continuing on a regular basis.
- RCUK will be holding a series of bilateral meetings with key stakeholders between now and mid-February, to discuss details of implementation of the policy. These include a meeting with the Russell Group, with a range of Learned Societies and with publishers—in The Arts, Humanities & Social Sciences; Biomedical sciences; and “other” Science & Technology. We expect to recognise the outcomes of these meetings in the final guidance document to be published in late February. We are aware that the implementation issues are significant.
- It is planned to issue updated guidance on implementation of the policy in mid-February, following this process—current guidance is on the RCUK website. We recognise that the funding we are providing to HEIs to implement the policy is based on a number of estimates. We will therefore undertake a review of the policy and its implementation in 2014. We are making it clear that if there is real evidence that the policy is not working, is producing unintended consequences, or that the level of funding we are making available to support it is insufficient, we will take this evidence very seriously as part of the review. However, at present we are of course unable to make any commitments beyond the current SR period.

SUSTAINABILITY

A common criticism is that the Research Councils are diverting money that would otherwise be spent on research into paying additional money to publishers in Gold APCs. The Finch Report recommended that “Gold” is the only long-term sustainable solution for publishers. However, RCUK considers that sustainability cuts two ways. The model also needs to be sustainable for funders and institutions. RCUK will make the data they collect on APC fees paid through their block-grant mechanism publicly available. We expect HEIs, JISC Collections and others (eg RLUK) to negotiate hard with publishers to drive down subscription charges to reflect the additional funding that they are receiving to support the payment of APCs. Ideally, we would expect publishers to introduce differential pricing in the UK market to reflect additional income they are earning through APCs.

COMPLIANCE MONITORING

The Research Councils recognise that implementation of its policy on Open Access will require a major change in the way researchers, institutions and publishers manage the process of publishing the results of the research that we fund. The Research Councils are also asking that this cultural shift takes place over a relatively short period of five years. For these reasons, the Research Councils see this transition to full Open Access as a journey and not as a single event.

During the transition period we expect researchers and their institutions to follow the spirit of the policy and strive to achieve full compliance. As the available funding for Gold Open Access increases during the transition phase, so will our expectations of compliance. At the end of the transition period we will expect researchers and institutions to be fully compliant with the policy, and for 100% of research papers then arising from the research we fund to be published in journals which are compliant with our policy on Open Access.

In the early years, rather than wielding a big “compliance stick”, we want to work with the HEI sector to focus on changing the way researchers publish their research, to help facilitate a sustainable transition to a new “normal” of Open Access.

RCUK

17 December 2012

Annex D

DECISION TREE FOR THE DETERMINATION OF EMBARGO PERIODS

This flow diagram below was drawn up by the Publishers Association in consultation with BIS and RCUK and is on the Publishers’ Association website and available from the Gov.UK website.

<http://www.bis.gov.uk/news/topstories/2012/Jul/government-to-open-up-publicly-funded-research> and also directly on the Publishers Association site at:

http://www.publishers.org.uk/index.php?option=com_content&view=article&id=2299:finch-willetts-rcuk-green-oa-and-embargoes&catid=503:pa-press-releases-and-comments&Itemid=1618



Annex E

JOURNAL PUBLISHERS CONSIDER FREE WALK-IN ACCESS VIA PUBLIC LIBRARIES

2 May 2012

Scholarly journal publishers collectively are exploring fee-waived walk-in access via the public library network, as part of a package of proposals under discussion in the Finch Working Group on extending access for UK researchers to global published research findings. A number of technical and licensing issues are still under review by a specialist publisher-library group, such as authentication, copying rights, and network

security, but the expectation is that these matters can be resolved within an effective and sustainable overall package of recommendations from the Finch process. The repertoire available would be assembled and licensed on an opt-in basis, probably via the Publishers Licensing Society.

David Willetts MP, Minister for Universities and Science, speaking at the AGM of The Publishers Association said: “Open access is the way forward and this proposed PA initiative would be a very useful way of extending public access to the majority of articles currently only available to public libraries through subscription. If agreement can be reached on the PA’s related conditions, it would be good for our libraries too.”

Steven Hall, Managing Director of Institute of Physics Publishing said: “This is an important initiative to improve access beyond the research libraries and institutions with direct subscriptions. It must be seen however as an element in a balanced package in which evolving effective funding mechanisms to support gold open access and agreeing acceptable embargo periods for green open access mandates will be the critical issues, alongside extending existing licensing arrangements sector-by-sector through separate negotiations.”

Graham Taylor, Director of Academic Publishing at The Publishers Association said: “We expect this significant initiative will be a welcome new means of extending access to journal articles for SMEs, entrepreneurs and citizen scholars who might not have ready access to a research library. The repertoire of primary global research has hitherto not been available via the public library network.”

NOTES FOR EDITORS

1. Finch is expected to report in June. The independent Working Group on Expanding Access to Published Research Findings chaired by Dame Janet Finch was established with DBIS support to investigate how access to global research outputs could be extended for the benefit of UK researchers. The WG has been operating since September 2011 and includes representatives from research libraries, learned societies, the funding councils, the research community, the universities and society, commercial and open access publishers.

2. This initiative is confined to primary research journals only. It does not extend to textbooks, research monographs (books), or aggregated databases already available to public libraries, nor would this offer extend to the consumer trade sector in any way.

3. For further information, contact Graham Taylor (gtaylor@publishers.org.uk This e-mail address is being protected from spambots. You need JavaScript enabled to view it) or Gemma Hersh (ghersh@publishers.org.uk This e-mail address is being protected from spambots. You need JavaScript enabled to view it) at The Publishers Association, or Emma Griffiths at BIS (emma.griffiths@bis.gsi.gov.uk This e-mail address is being protected from spambots. You need JavaScript enabled to view it)

THE PUBLISHERS ASSOCIATION

The Publishers Association (PA) is the leading trade organisation serving book, journal and electronic publishers in the UK. Membership is comprised of 120 companies from across the trade, academic and education sectors. Its core service is representation and lobbying, around copyright, rights and other matters relevant to members, who represent roughly 80% of the industry by turnover. www.publishers.org.uk

APPENDIX 2

ECONOMIC ANALYSIS OF COST OF ALTERNATIVE OPTIONS FOR OPEN ACCESS IN THE UK

SUMMARY OF MODELLING ASSUMPTIONS AND FINDINGS

Background

This analysis was carried out by BIS to provide an impartial assessment of the potential cost of open access (OA) policies and to inform policy advice for BIS’ response to the recommendations of the Finch Group.

The analysis was undertaken prior to the recommendations of the Finch Group and the RCUK policy announcements.

The analysis is therefore not an evaluation of the policy subsequently adopted by RCUK but an assessment of:

1. The state of open access to scholarly research in the UK (as per information in the Summer of 2011, when the analysis presented in this paper commenced).
2. Two alternative methods for increasing the take up of open access in the UK evaluated on the basis of their cost effectiveness with respect to the current state of OA.

This analysis considers the costs of open access, but not the economic and other benefits that would occur as a result of increase access to scholarly research. Nevertheless, open access holds potential for enabling *open innovation* and speeding up the rate of technical progress that underpins sustainable long term growth. To support open innovation, the Government has a role in facilitating knowledge flows between the market and non-market sector. As explained in the BIS Innovation and Research Strategy for Growth (2011), the

Government can provide an infrastructure that allows users to exploit the findings of research more swiftly and a suitable open access policy is instrumental in this role.

Evidence on the quantity and quality of open access to scholarly research in the world and in the UK is incipient and scarce. For this reason all analyses on this matter rely on certain necessary assumptions. For the projections in this paper, the starting point is the year 2011, which is derived by applying to publication counts prevailing in 2010 the observed growth rate during 2005–10 and assuming that this growth is approximately constant thereafter. This assumption of constant growth ensures that all changes in cost observed are due to the difference in growth rates of OA and non-OA publications in the UK and elsewhere. Both for simplicity and due to a lack of reliable information, the estimates are not adjusted to account for future price inflation either nationally or in the market for scholarly research.

The analysis compared alternative possibilities for expanding access without reference to a preferred policy option. The comparative analysis is therefore based on projections, not predictions. Unlike a prediction, a projection estimates the possible evolution of open access in the UK and elsewhere on the basis of some stated assumptions. Because not enough is known about the way in which open access expands, BIS assumed the simplest model possible: constant growth departing from a known initial condition, the year 2010. In addition, assumptions on the unit costs of open access were made using actual information available at the time so as to approximate the total national costs of the projected open access policies. All assumptions are clearly stated below but they need not hold in an uncertain future. These projections are valid for the purposes of comparing alternative options because the same assumptions apply to all the alternatives, but should not be regarded as reliable predictions of the future evolution of open access. They do, however, represent the best comparative projections BIS could produce given the information available in the summer of 2011.

Following from the Finch Group's *working definition*, open access is the ability to download, read and print electronically-published refereed journal-articles, leaving aside research content that is accessible in other formats. Text mining is an *additional* service that may or may not be offered together with downloading, viewing and printing. The presence of the additional service of text mining increases the cost of open access.²⁵

In the UK and elsewhere open access (even without text mining) is available only for a subset of published articles. Even so, open access is expanding worldwide at a fast pace.²⁶ There are many reasons why the findings of research are not immediately available upon publication. The Finch report gives a detailed account of the multiple interests and pressures that come together in the market for scholarly publishing.

THE MARKET FOR SCHOLARLY PUBLISHING

BIS economic analysis of options considers only *pricing in the market for scholarly publishing*: whether a price should be paid for accessing a refereed journal article online and if a price was justified what determines the level at which this price is set in the market for scholarly publishing. It is worth bearing in mind that in any market price setters may well set a price of zero for access, and the evidence on scholarly publishing is that some open access publishers indeed do. Because the market for scholarly publishing is not price-regulated, BIS took existing business models and price schedules as given in order to calculate the nation-wide cost of alternative policy options.

The main reason why any supplier charges a price is to recoup costs of production. This is no different in scholarly publishing. *A refereed journal article is a bundled commodity made up of three elements*: a research manuscript, a referee process over the manuscript and the publisher's certification that the referee process has taken place. The costs of the manuscript are borne by researchers and their funders. The costs of refereeing are shared between researchers (and their funders) and publishers who organise the refereeing. The costs of certification, that is formatting the article to the journal specification, are largely borne by publishers.²⁷ Payments for open access, called Article Processing Charges (APCs), are for recouping the cost of certification, uploading and maintaining the electronic version of the refereed journal article—all of which fall on *the publisher who is thus the price-setter for APCs*.

This analysis is not concerned with determining a clearing price for APCs, which, even if possible, would effectively imply regulating the market for scholarly publishing, which in turn is a global not domestic market. APCs can be expected to respond to business models and needs domestically in the UK and worldwide and possibly vary by research discipline and by the perceived standing or status of the journal's within any given research discipline. For the purpose of projecting the economic value of alternative policies, certain *average* APC prices have been assumed at levels explained below.

Property rights over the bundled commodity "refereed journal article" are also different for its components and this matters for open access policy options. Leaving referees aside, the manuscript belongs to the author(s), but the journal referee certification belongs to the publisher. This means there are at least two non-exclusive routes for accessing the findings of scholarly research:

²⁵ JISC (2012) The value and benefits from text mining

²⁶ Laakso & Bjork (2012) Anatomy of open access publishing: a study of the longitudinal development and internal structure. BMC Medicine

²⁷ PEER Economics Report 2011, Centro ASK—Universita Bocconi. JISC (2009) Economic Implications of alternative scholarly publishing models: exploring the costs and benefits

1. the author exercises her property rights and deposits the manuscript (not the refereed article²⁸) in an open electronic repository or digital library for free—known in this analysis as *GREEN access*
2. the publisher exercises its property rights and charges a price (that could be zero) for making the refereed journal article immediately accessible on publication. Two common options for the publishers to collect revenue for access are:
 - users pay a journal subscription for accessing articles that are otherwise embargoed for some period of time;²⁹ and
 - authors pay an article processing charge (APC) for the publisher to make the article available to any user immediately on publication- known as *GOLD access*.

Note that even if hypothetically the whole of the UK's refereed journal articles were available in open access, under gold or green, UK publications would still account for only 6% of the World output of refereed journal articles, based on figures for 2010. To access publications from the rest of the world which are not available in open access, the UK must pay the price set by publishers, most commonly in the form of subscriptions

THE STATE OF OPEN ACCESS IN BRITAIN AND THE WORLD

The proportion of OA-articles in the World was estimated to be around 10% in 2010 (Laakso 2011³⁰) and growing at annualised rates of 20% in the previous five years. If this rate of growth was sustained until 2020, open access would reach 42% world wide by that year.

In 2010 UK researchers published 123,600 articles, attracting a 6% share of World publications (1,936,000). Under BIS assumptions,³¹ the UK published 7% of world open access in 2010, which accounted for 11% of UK publications.

In Figure 1 growth rates are *assumed constant* to show that if trends prevailing prior to 2010 were sustained, 51% of all UK publications would be open access by 2020. Using this evolution of publications as the baseline it is possible to calculate the costs of maintaining the baseline trend.

There are two components of the total national cost of maintaining the baseline evolution: the costs of maintaining open access and the costs of subscribing to world articles that are not open access.

- The costs of maintaining open access: BIS estimates that for the circa 16,000 open access articles published in 2011, on average UK researchers paid approximately £750 per article.³² If this unit cost was constant over time, the gross nominal cost of maintaining organically growing open access trends would raise to £25 million in 2015 and £63 million in 2020.
- The cost of accessing articles that are not open access: Subscription costs are projected to fall because open access worldwide is growing faster than total publication counts. This means that a larger proportion of world articles is available under open access over time and thus subscriptions should not have to be paid for those. If open access were to grow constantly as projected and assumed subscription rates per article³³ were constant, then the total costs of subscriptions would fall from £143 million in 2011 to £133 million in 2020.

Combining the two above factors into a single net effect, in the baseline scenario, if 2011 trends were maintained, the total UK APC and subscription cost of accessing scholarly research would rise from £155 million in 2011 to £175 million in 2015 and £196 million in 2020.

Adding all estimated expenses from 2011 to 2020 leads to a total cumulative cost of £1.8 billion over 10 years. A full breakdown of this and other calculations presented below is provided in Table 1.

EXPANDING ACCESS WITH GOLD OPEN ACCESS

The current state of open access does not guarantee that all open access is text mineable and fully accessible on publication, as dictated by gold open access. One way of expanding access to scholarly research in the UK is to improve the accessibility of the organically growing open access publications so that articles projected to be open access under the current state are gold accessible.

²⁸ Green access does not always guarantee a referee process has taken place; hence the “quality” of the accessible article has not always been certified.

²⁹ Confusingly, the subscription option is sometimes referred to as Green OA. For the avoidance of doubt in this analysis point 1) refers to Green OA and the first bullet under point 2) refers to subscriptions.

³⁰ Laakso et al (2001) The development of open access journal publishing from 1993 to 2009. PLoS One.

³¹ This assumption states that the UK share of world open access is equal to the UK share of journals registered in the Directory of Open Access Journals (DOAJ). There were 533 UK journals in the total of 7600 registered in DOAJ in 2010, giving an assumed 7% share of UK of world OA-articles

³² Finch Group reported £12m spent nationally in Open Access in 2010 for around 16,000 open access articles.

³³ Subscriptions are paid per journal not per article but BIS projections are based on article counts. Finch Group reported that £150m were paid in subscriptions in 2010 and Elsevier reported 18,000 journals in their database. Assuming an approximate 100 articles per journal per year gives an average price of £80 per article paid in subscriptions in the UK in 2010. This price is assumed constant so as to illustrate the potential for open access to lower subscription cost. BIS had no basis to argue whether average subscription rates were to go up or down over time.

Following the relevant literature (Ambruster, 2010)³⁴ and the experience of the Wellcome Trust, the average APC per article in gold open access was assumed to be £2,000 per article.

- The costs of granting gold access to baseline open access: If current trends were constant over time, provision for charges for APC to guarantee gold access for the organically growing open access in the UK would have required £32 million hypothetically³⁵ in 2011 to provide 13% of all UK articles in Gold open access. Under constant growth assumptions, this cost would be projected to rise to £67 million in 2015 and £167 million in 2020. These magnitudes compare to current spending estimates of £12 million, £25 million and £63 million respectively in each of those years.
- The costs of accessing articles that are not open access would be the same as in the baseline because the proportions of open and non-open access are the same.

The *additional costs of Gold* over baseline are £42 million in 2015 and £104 million in 2020. This is the additional funding required, under the assumptions made in this paper, to guarantee fully minable open access to 51% of all (projected) publications attributable to the UK in 2020.

Adding together the estimated yearly costs of gold access plus subscriptions obtains a cumulative total bill of £2.3 billion over the 10 years from 2011 to 2020, which is £500 million in excess of the 10 year baseline projection presented above. Year-on-year projections are presented in Table 1.

EXPANDING ACCESS THROUGH RESEARCH COUNCILS

An alternative to granting gold access to organically growing open access is to add to the organically growing level by expanding the coverage of open access. The aspiration of having all articles attributable to Research Councils' funding in gold access has the potential for expanding the coverage of open access beyond the current state in the UK. The benefit of this Research Councils' gold option over the gold estimate above is that it implies more articles available in open access than is organically available currently. The average APC is maintained at £2,000 per article so that differences in the total costs are due to coverage not to price differences.

Publications attributable to Research Councils account for over a quarter of the UK total, numbering 32,000 in 2010. This is nearly double the estimate of open access in the current state at 16,000. As a result, if all publications attributable to Research Councils were available in gold open access, this would take proportions of all UK publications available in OA to 43% in 2015 and 64% in 2020 (see Figure 2). Associated costs can be projected as follows:

- The cost of granting gold open access to all publications attributable to Research Councils: making all articles attributable to Research Councils available in gold access at an average of £2,000 per article would cost a hypothetical³⁶ £66 million in APCs 2011, rising to £74 million in 2015 and £86 million in 2020.
- The cost of accessing articles that are not open access. Assuming the same subscription rate per article as in the baseline³⁷ and given that more articles than in the baseline are now available in open access, subscription costs would fall from a hypothetical £140 million in 2011 to £132 million in 2020.

Combining the two factors above, Table 1 shows that the total net cumulative nominal costs of a Research Councils' gold access projection from 2011 to 2020 adds to £2.2 billion over 10 years to deliver 64% of UK publications in open access. This is an additional £400 million over 10 years, above the baseline whereby it costs £1.8 billion to deliver only 51% of publications in open access by 2020.

COMPARATIVE ANALYSIS

Disregarding the impossibility of reaching full compliance with either UK Gold access or Research Councils' gold access as a one-off move in 2011, BIS's estimates suggest that, on the basis of a linear growth model, the Research Councils' gold option has the potential of delivering better value for public money than the alternative. This is because the Research Councils' policy would deliver a step change in the level of open access, and thus be more expensive in the early years, but over time Research Councils' publications grow more slowly than organically growing open access. The option of paying (even for a step change initially) for the slower growing publication stream bears lower deadweight cost because the faster growing open access publication stream occurs anyhow in the baseline scenario and would be financed from outside the policy.

Figure 3 demonstrates why Research Councils' proposal has lower cumulative cost. The funder would be paying for Gold access for the Research Councils' gold line, thereby increasing the total open access in the

³⁴ Ambruster C (2010) Implementing Open Access Policy: First Case Studies. (SSRN)

³⁵ It would be unfeasible to jump from the current situation to all open access articles in gold in one year, hence these hypothetical calculations for 2011 are not feasible in practice but they are a necessary initial condition for the projections.

³⁶ It is unfeasible to jump to full gold access to all Research Councils publications in a single year; 2011 is therefore an indicative initial condition for the projection.

³⁷ Subscriptions are paid per journal not per article but BIS projections are based on article counts. Finch Group reported that £150m were paid in subscriptions in 2010 and Elsevier reported 18,000 journals in their database. Assuming an approximate 100 articles per journal per year gives an average price of £80 per article paid in subscriptions in the UK in 2010. This price is assumed constant so as to illustrate the potential for open access to lower subscription cost. BIS had no basis to argue whether average subscription rates were to go up or down over time.

first few years, but after 2018 organically growing open access (non-Gold) would take over in publication counts. The top line with triangles shows the total number of publications in some kind of open access being higher (64%) than the organically growing open access in the current state (51%) by 2020.

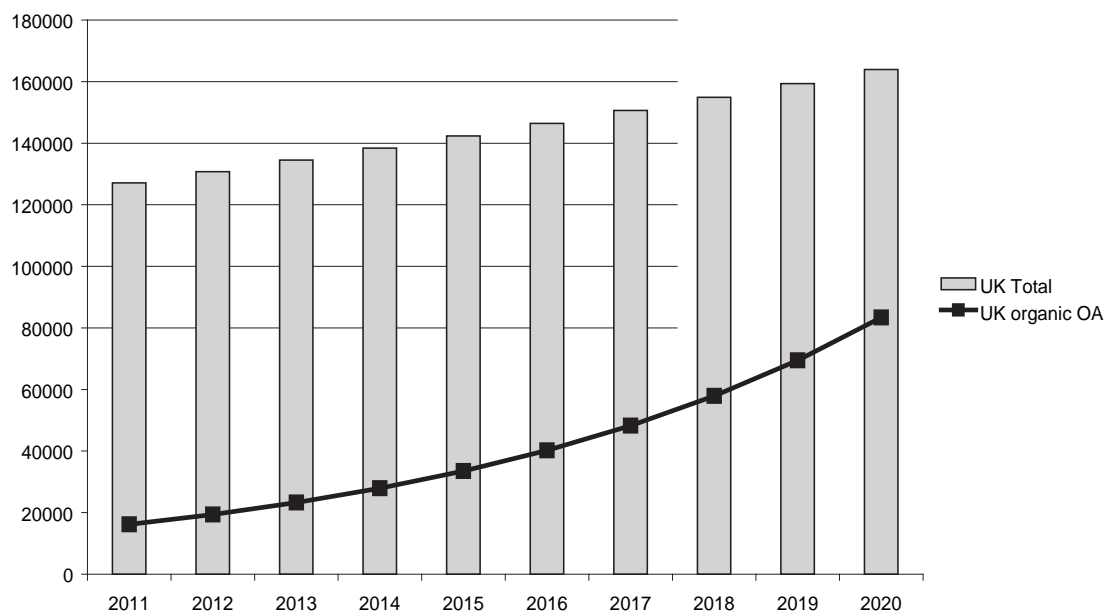
In terms of annual cost, for comparison, the total gross nominal cost of the Research Councils' gold (APC and subscriptions) under BIS assumptions would rise from £206 million in 2011 to £222 million in 2015 and fall to £218 million in 2020 caused by the compensating effects of higher open access and lower subscription costs. By comparison the current state of open access indicates UK spends £155m in 2011, rising to £175 million in 2015 and £196 million in 2020. The *additional* cost of Research Councils' gold starts at a hypothetical £51 million above baseline in 2011 but falls year-on-year, reaching £22 million in 2020 (full estimates in Table 1).

Table 1
ECONOMIC ANALYSIS OF OPEN ACCESS OPTIONS (£M)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Cum
ALL GROSS NOMINAL CURRENT £M											
<i>Current State of Open Access in UK</i>											
APC	12	15	17	21	25	30	37	44	52	63	316
Subscription	143	145	148	149	150	150	148	145	141	133	1452
Total	155	160	165	170	175	180	185	189	193	196	1768
OA/UK Coverage	11%				24%					51%	
<i>Gold Access to organically growing OA in UK</i>											
APC	32	39	47	56	67	80	96	116	139	167	839
Subscription	143	145	148	149	150	150	148	145	141	133	1452
Total	175	184	194	205	217	230	245	261	280	300	2291
OA/UK Coverage	11%				24%					51%	
<i>Gold access to all Research Councils' publications</i>											
APC	66	68	70	72	74	76	79	81	84	86	756
Subscription	140	143	145	147	148	148	146	143	139	132	1431
Total	206	211	215	219	222	224	225	225	222	218	2187
OA/UK Coverage	35%				43%					64%	

Figure 1

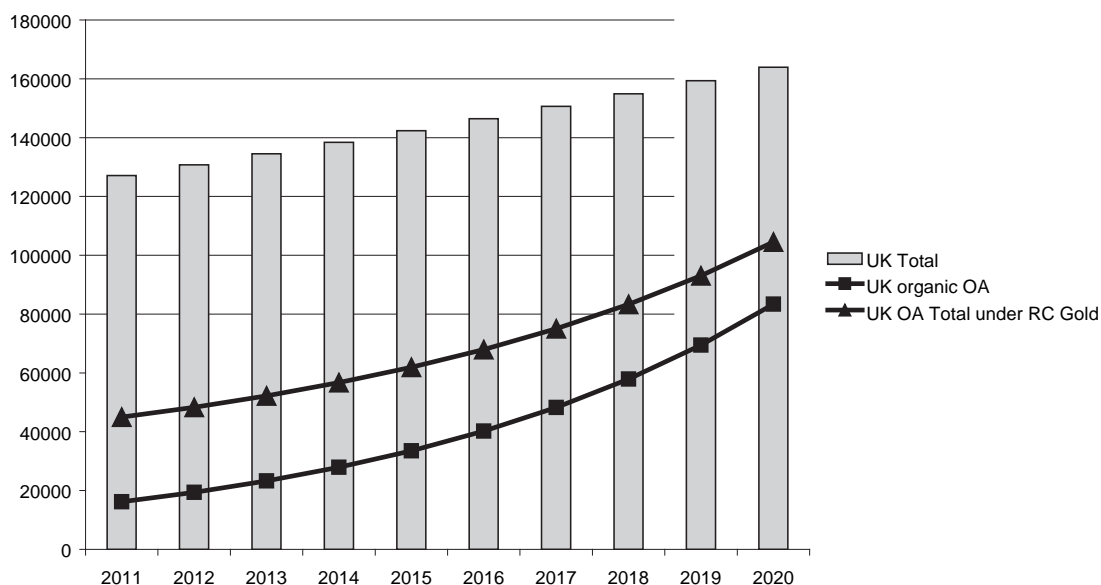
UK refereed publications in OA and total



Projected refereed publications under constant growth. UK total and organic open access.

Figure 2

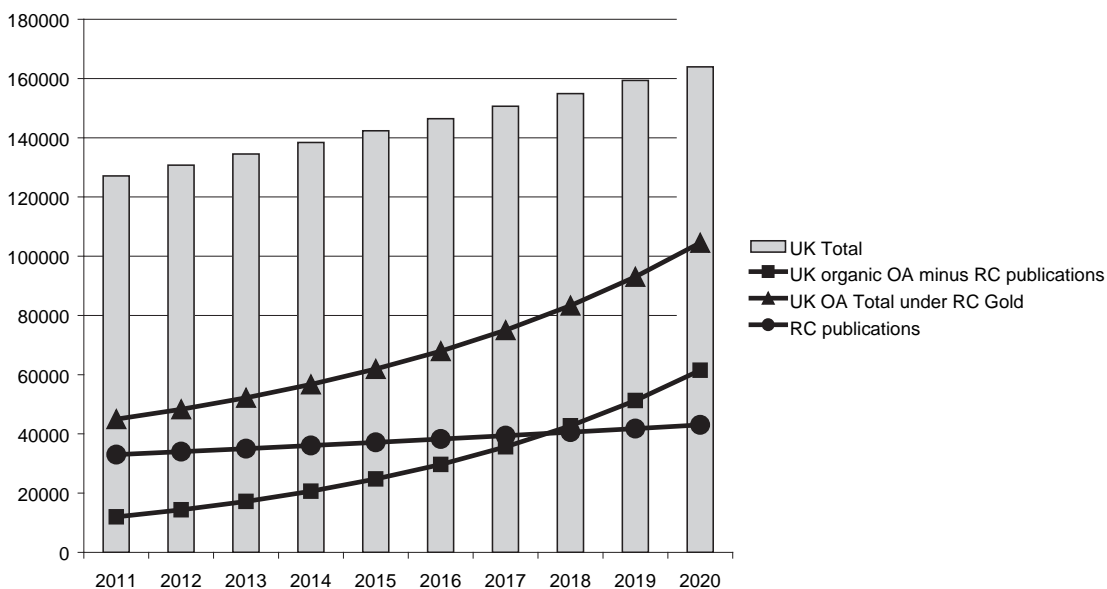
UK refereed publications in OA and total



The potential impact of Research Councils' gold option for increasing overall OA. Projected publications under constant growth: UK total publications, UK OA organic if no RC gold is implemented and UK total (organic plus RC publications) if RC gold is implemented.

Figure 3

UK refereed publications in OA and total



Research Councils gold potential. Pay for gold access to RC publications line (circles), allow for organic OA to overtake (squares) to add to a higher total than organic OA alone would achieve (triangles). RC publications would all be gold, and other publications may be gold or green but OA...

Knowledge & Innovation Analysis Team;
Department for Business, Innovation and Skills;

31 January 2013

Supplementary written evidence submitted by the Department for Business, Innovation and Skills

VAT ON E-JOURNALS, FINCH REPORT

QUESTION

As the Committee is aware, BIS commissioned a report on expanding access to published results of research findings (the *Finch Report*, June 2012) which found:

“Many universities are also increasingly conscious of the impact that the VAT regime has on their decisions as to the nature and scope of their collections. For while books and journals in print do not attract VAT, e-books and journals do; and universities have only limited scope to reclaim the VAT that they incur on their purchases. This represents a significant barrier against moving towards e-only provision, despite the increases in efficiency that would result, together with lowering of costs, for both publishers and libraries.” (paragraph 6.21)

The Report recommended that government and universities should “work together to find ways to reduce the VAT burden on e-journals”.

The Government response (July 2012) rejected that recommendation, stating: “We are firmly committed to improving access so the Government accepts the proposals in your report, except for one specific point on VAT. Reference was made to the issue of VAT being applied to e-journals but not printed books and journals. Consideration has been given to this, but, in consultation with Treasury it has become evident that current VAT rules agreed at EU level preclude a reduced or zero rate for e-journals.”

An official within the BIS Select Committee raised the following point. “Given that the government is strongly in favour of expanding open access, its position on this is slightly surprising. Would you be able to find out who prepared this part of the government response, and put me in contact so that I can establish what, if anything is being done to persuade the Commission to consider a derogation from the VAT directive, please?”

ANSWER

As the Government response to recommendation (xiii) of the Finch Report stated, BIS consulted with HMT on the feasibility of VAT reduction or exemption for e-journals. There is no scope with the existing EU VAT legislation to introduce a zero or reduced rate for e-books or e-journals. The UK has a number of zero rates, for example on food and children’s clothing, which are exceptions to the EU VAT regime, and which the Government is committed to retaining. Reopening the debate on rates with other Member States would be most unlikely to succeed and set a precedent for changing the VAT rates for a whole range of other products. The Government therefore did not consider it worthwhile pursuing zero or reduced VAT rating with the European Commission in this case.

4 April 2013

Written evidence submitted by The Association of Learned and Professional Society Publishers (ALPSP)

EXECUTIVE SUMMARY

1. Learned and Professional Societies provide considerable (and often unrecognised) support to the academic research ecosystem and to those who have left academia and continue to pursue their chosen discipline. Such Societies provide such services with the support of income, at least in part, from publishing activities.

2. Open access has the potential to further increase access to the UK’s scholarly research output, for the benefit of not just the UK, but the rest of the world. A rapid move to open access, with unsustainable pricing or lack of other appropriate business models puts this support at risk and therefore is likely to add strain to higher education institutions.

3. Any model of OA, gold, green, delayed, relies on support from a business model. With Gold the support is direct payment by authors (or their funders), with the green and delayed options, the subscription model currently supports their operation.

4. Licensing options for OA have not yet been fully explored. CC-BY is one option and there are other Creative Commons (CC) licences available. CC-BY has been accepted as an appropriate licence for Gold OA by some; such licences were not intended for scholarly publishing and the options for alternatives have not been fully explored. A high proportion of authors are reporting they do not wish to use this licence and their concerns have not been addressed.

5. Article Publication Charges (APCs) are not at the levels they would need to be if OA replaced the subscription model completely and the high quality standards of publication and innovation of products and services for academics, other professionals and the general public are to be maintained. Many APC levels are currently subsidized by other income.

INTRODUCTION

6. The Association of Learned and Professional Society Publishers (ALPSP) is the international organization for non-profit publishers. It has a broad and diverse membership of over 320 organizations in 37 countries who collectively publish over half of the world's total active journals as well as books, databases and other products. ALPSP's mission is to connect, train and inform the scholarly and professional publishing community and to play an active part in shaping the future of academic and scholarly communication.

7. ALPSP welcomes the opportunity to respond to the Business, Innovation and Skills Select Committee's inquiry into the UK Government's Open Access (OA) policy and do so on behalf of our members. There are a number of very important issues raised and we look forward to discussing these further.

8. ALPSP was very pleased to see the formation of the group led by Dame Janet Finch and in particular the broad constitution of the group. It was very encouraging to see that such a group was able to work constructively together and to reach consensus on a way ahead.

9. We were also pleased to see that the UK Government were fully supportive of the findings of the Finch Group and endorsed them all. However there are some issues that we feel need closer attention to ensure the research ecosystem and scholarly publishing community is not unduly disrupted, which would be to the detriment of UK plc.

What are Learned and Professional Societies and what do they contribute to the research ecosystem?

10. Learned and Professional Societies exist to promote and support an academic discipline or closely related group of subject disciplines. Most, if not all, are not-for-profit, supporting themselves through their membership fees, services and in many instances, through publishing income. Their publications, in most instances, are subsidized for their members, or are an important member benefit.

11. Learned and Professional Societies are a key part of the research ecosystem; they provide support, advice, guidance, connect academics and professionals, provide networking opportunities, continuing professional development, conferences, dissemination of the latest scholarly research and thinking, provide quality control and validation for that knowledge, are independent of institutional politics and public funding, and have a dedicated focus on their discipline.

12. They also provide direct financial support such as research project funding, support for PhD students, support for scholars coming to study in the UK (transfer of skills and knowledge) and travel grants for both national and international conferences.

13. Societies pride themselves on producing and publishing high quality information and invest considerable resources to ensure such high standards are maintained.

14. Such Societies are also seen as very important outside their academic and professional spheres, with journalists and the general public regularly turning to them for information and advice. Indeed, many provide key public facing information portals, such as The Royal College of Psychiatrist's Mental Health Information portal,³⁸ and the British Ecological Society's collaborative Natural Capital Initiative.³⁹

15. Learned and Professional Societies are a key part of the scholarly research ecosystem and like any ecosystem, damage to one part leads to many unforeseen problems in other parts of the system.

TOPIC 1

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

16. *What is Gold OA?* It is important to clarify what constitutes Gold OA and Green OA, their similarities and differences. Gold OA is a recognisable business model and Green OA requires an underpinning business model in order to survive. Both incur costs that have to be paid for.

17. Gold OA refers to the immediate, free to read (with appropriate re-use rights) publication of the Version of Record (VoR)⁴⁰ of articles that have arisen to summarise the results of scholarly research. This is the final published version, following copyediting, typesetting, proofreading, addition of appropriate metadata to promote discoverability, reference linking, DOI registration and assigning⁴¹ and many more tools that readers enjoy and now expect.

18. Gold OA provides a model that may be sustainable for Learned and Professional Societies; however, the "preferred" Article Publication Charges (APCs) may have to be much higher in order to cover the real costs of publication. APCs that exist today are subsidized by other income and do not reflect the true cost of high

³⁸ <http://www.rcpsych.ac.uk/expertadvice.aspx>

³⁹ http://www.britishecologicalsociety.org/policy/natural_capital_initiative.php

⁴⁰ http://www.niso.org/news/pr/view?item_key=8a7904a59c448610fac0949fcde7d7d1de9923d7

⁴¹ <http://www.doi.org/>

quality publication. In order to just break even, some journals would require to at least double their current APCs (individual publishers will be able to provide their own economic assessment).

19. However, the market may demand lower APCs. As a result, Learned and Professional Societies with a publishing programme that supports their activities will have to make a choice. They can stop many, if not all, of the activities that they support in the research ecosystem, or they can accept and publish many more articles, in order to increase their income. The latter means that the standards of their peer review processes will have to change significantly, putting at risk the quality standard they have been recognised for internationally. Publishing more papers isn't intrinsically wrong; however academics have long relied on the quality criteria that they recognise in journal brands to provide them with an additional filter when assessing the published literature. In a world where complaints of "information overload" are regularly raised, removing a key filter puts additional load on time-pressed academics when conducting research.

20. As is explained above, Learned and Professional Societies provide considerable support to the research ecosystem in academia, and on-going support to professionals outside academia. They are trusted organisations in their fields, recognised both within academia and outside academia in the UK and internationally. Disrupting this ecosystem has the potential to damage not just the UK scholarly and professional ecosystem, but also the UK's international reputation.

21. *What is Green OA?* This refers to the deposit of an author's Accepted Manuscript (AM),⁴² the version following the peer review process and incorporation of the reviewers' comments. The deposit of this version of articles could conflict with the publication of the VoR (the publishers' primary business) and therefore release of such deposited articles is normally restricted to an appropriate embargo period, in order to allow publishers to recoup their investments in producing the article.

22. Embargo periods differ considerably between disciplines, even down to the journal level and there is certainly not a clear division between the very broad categories of STM (science, technical, medical) and SSAH (social sciences, arts, humanities). For very fast moving disciplines, a shorter embargo period of up to 12 months may be appropriate, but it is very clear that the majority of researchers on SSAH disciplines feel that around 24 months or more is much more appropriate. Note that this is an opinion expressed not solely by officers of Learned and Professional Societies and publishers but by the academics themselves.^{43,44}

23. The value that Learned and Professional Societies and other publishers add to green OA should not be ignored nor underestimated. There is a popular misconception that publishers do not contribute to the peer review process and that this is all done by academics. Whilst the actual reviewing and commenting on the papers is indeed carried out by academic peers of the article authors, publishers invest heavily in supporting that process, making it as simple, streamlined and secure as possible for those reviewers. Security of such systems is critical. Some publishers even go as far as to employ subject specialists (qualified most commonly to degree or PhD level) to assist in reviewer selection, ensuring that authors' manuscripts do not end up at the desktop of their competitors. Reviewer details have to be kept secure and maintained, for example when a reviewer changes jobs, location or indeed their subject specialty. This avoids wasting valuable time when assigning reviewers. Reviewer performance can also be recorded, which can help to ensure that particularly slow reviewers do not continue to hold up the process.

24. Authors rightly demand swift reviewing times; publishers employ database systems or in some cases, staff, to ensure that reminders are sent to reviewers to keep the peer review process flowing in a timely manner.

25. Publishers, or the Learned and Professional Societies themselves where they have the in-house staff, will also provide what could be referred to as a "triage" service, again using appropriately qualified staff to ensure that submissions are of an appropriate subject and conform to the guidelines laid down by that journal.

26. It is interesting to note that Green OA is very similar to a model that has existed for many years, delayed open access; the latter is usually associated with the release of the VoR, rather than the AM, following an appropriate period of time under which publishers recoup their investment. Both delayed OA and Green OA require business models to support them; at the present time, this is the subscription model, whereby the cost of publishing is spread amongst many readers globally, rather than the much smaller number of authors and their funding bodies.

TOPIC 2

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

27. Creative Commons (CC) licences were not designed with the scholarly publishing system in mind. They were designed to allow sharing of technology, initially computer software, to encourage crowd-sourced development.

28. Is CC licensing required for open access? No. What is important is clarity of reuse rights and this can be achieved by other licensing means. Publishers are a collaborative bunch and have worked together to

⁴² http://www.niso.org/news/pr/view?item_key=8a7904a59c448610fac0949fcde7d7d1de9923d7

⁴³ <http://www.history.ac.uk/news/2012-12-10/statement-position-relation-open-access>

⁴⁴ <http://www.royalhistoricalsociety.org/RHSPresidentE-letterJanuary2013.pdf>

produce (and fund) many tools and products that have responded to changing scholarly publishing requirements, such as CrossRef,⁴⁵ CrossMark⁴⁶ ORCID⁴⁷ and FundRef⁴⁸ to name but a few. Publishers are already working with Creative Commons on an updated licence, more applicable to scholarly publishing and its needs; it is with regret that some have accepted the apparent options without considering that there are others which may be more appropriate.

29. Does CC-BY contribute to innovation and what economic benefit does it confer? Clear evidence has not been produced that increasing access has a direct economic benefit. Any benefit it might confer may also not be realised by the nation which funded the research. What is certain is that innovation is not copying text and images and reselling them for commercial profit, which will be facilitated under CC-BY licensing.

30. There are also many innovative start-ups who have successfully entered the market working within current licensing models, such as Mendeley,⁴⁹ DeepDyve,⁵⁰ Pubget⁵¹ and Scrazzl.⁵²

31. It could be argued that CC-BY allows access to researchers who would otherwise be unable to afford such access, most commonly in developing countries. Publishers recognised this problem some time ago and work with projects such as Research4Life⁵³ and INASP.⁵⁴ Merely improving access to scholarly information is not necessarily enough and such programmes assist by providing training in how to use the resources, with technical issues such as managing bandwidth and also support researchers in how to publish their own results. Releasing content with CC-BY licensing cannot solve such issues in the way these international programmes can.

32. Some of the positive implications of CC-BY are:

- 32.1. It allows anyone, anywhere in the world, access to the IP created by UK researchers and funded by the UK taxpayer.
- 32.2. Commercial and non-commercial operations can harvest all UK generated and funded IP, repackaging, rebrand and make available to others as they see fit, including developing nations.
- 32.3. Readers can do whatever they like with the contents of articles, including translation, further dissemination, reanalysis, reinterpretation, republication with other articles or pieces of articles.
- 32.4. Articles, or portions thereof, are not tied to the original publication and only the author(s) need be acknowledged.

33. Some of the negative implications of CC-BY are:

- 33.1. UK generated and funded IP can be utilized by anyone, anywhere in the world, for their own commercial gain.
- 33.2. Authors lose control over who uses their work and importantly the context in which it is reused; incorrect translations could be dangerous, especially in medical fields. Author reputation and the integrity of scholarly information is at stake.
- 33.3. Links to the original article can be lost which means that any updates, addenda and corrections are not included with the distributed articles.
- 33.4. Links from article to underlying data can be lost, reducing the importance, effectiveness and usefulness of the article to the reader.
- 33.5. Ethical issues which will prevent some works being published under this licence.
- 33.6. Publishers less able (unable?) to defend authors' rights. Feedback from authors to publishers indicate this is an area of concern for them.
- 33.7. Journal branding, and thus the degree of authority and validity that academics rely on, can be lost.
- 33.8. Loss of income from reprints (mainly pharma), will result in higher APCs and means UK academia is subsidising commercial pharmaceutical companies.
- 33.9. Secondary rights income, including that which is directed back to academic authors (either direct from publishers, via Learned and Professional Societies or via Reproduction Rights Organisations) will be lost.

34. It is unclear why the UK (or any nation for that matter) would seek to give away its intellectual property, invested in by that nation's taxpayers for no return whatsoever.

⁴⁵ www.crossref.org/

⁴⁶ www.crossref.org/crossmark/

⁴⁷ <https://orcid.org/>

⁴⁸ www.crossref.org/fundref/index.html

⁴⁹ <http://www.mendeley.com/>

⁵⁰ <http://www.deepdyve.com/>

⁵¹ <http://pubget.com/>

⁵² <http://scrazzl.com/>

⁵³ <http://www.research4life.org/>

⁵⁴ <http://www.inasp.info/>

35. Proponents of CC-BY licensing state that it is essential for text and data mining requirement. However, even the Government recognised in its own recent legislation announcements that although an exception for text and data mining can be introduced, it relies on publishers investing in and/or providing the appropriate access and formats for subscribers and others.

36. Text and data mining can, and is, being done under the current licensing models. Publishers are now including clauses for text and data mining in their institutional licences and are working with those requesting access to provide it in the most appropriate way. This may well involve publishers packaging content for export, rather than allowing unregulated crawling of publisher platforms, which can interfere with the access of other users.

37. It is reported that publishers are hindering text and data mining; however even the large publishers, with considerable amounts of content (ie the ones you would expect to be approached first by those wishing to mine content), are experiencing very low requests to mine, in the order of around 10 per year. Most, if not all, of those requests are granted and facilitated, with the exception of where a request would directly harm primary publishing activities.

38. Authors are confused and concerned about what CC-BY means for them. For example, authors who wish to include third party material in works to be published under CC-BY are worried that they will no longer be free to do so under CC-BY terms. For example, many cultural organisations are unwilling to release images of collections or artworks under CC-BY licensing. Authors will therefore be unable to utilise the most appropriate images in support of their work.

39. Of course, it can be argued that inclusion of such images in new articles can be clearly flagged as being republished under a different licence than CC-BY and therefore have different re-use terms. But this just adds to the complexity of understanding what can and cannot be reused, and in general, anyone “harvesting” large quantities of “CC-BY” articles is not going to take the time to remove any papers which have reuse restrictions within them. Those being asked to grant reuse rights will understand this and will either refuse or rightly request appropriate compensation for such reuse.

40. Recent surveys have assessed what the author community, in general, feel about releasing the articles they have invested in, under Creative Commons licences. Authors are clearly indicating that they do not favour the liberal CC-BY licence and prefer the restrictive CC-BY-NC (non-commercial) or even more restrictive, the CC-BY-NC-ND (non-commercial, no derivatives allowed; for example see the OAPEN survey.⁵⁵ Other publishers and Societies have been conducting their own surveys and will provide their own results. Given the amount of concern being raised by the academic community to publishers, it appears that this key stakeholder group was not appropriately consulted by those now making demands on CC-BY licensing.

TOPIC 3

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

41. It is not just the costs of Article Publication Charges (APCs) that have implications for research funding and the taxpayer. Universities are spending undisclosed amounts of monies developing repositories to store their faculties’ publications. Understandably, Universities want to show-case their own work in a one-stop-shop, but is this this an unnecessary duplication of efforts already invested by publishers.

42. Publishers already have invested in hosting platforms for published content. Institutions could store databases of their faculty’s work with links to not just the full text articles, but also to the tools specifically developed for that disciplines requirements, by the publishers. It would be more cost-effective to liaise with publishers to extend their systems to store AM versions of articles (which they already have), than to start again and build whole new systems.

43. Publishers already invest in and support multiple preservation initiatives, such as Portico⁵⁶, CLOCKSS⁵⁷ and Koninklijke Bibliotheek⁵⁸. Therefore the argument for the need for repositories for preservation is reduced. What happens to the content of institutional repositories when the public funding for such repositories is unsustainable?

44. As already mentioned, APCs are currently subsidized, at least in part, by subscription income and in the absence of subscription income would likely need to be higher, assuming additional, alternative income could not be found. At least in the case of Learned and Professional Societies, charging their members more for the services they provide is not an option. Their public facing information portals are provided free of charge and they would be very reluctant to change this.

45. It is possible that income from APCs could replace subscription income and thus Learned and Professional Society and publisher activities could be maintained. Learned and Professional Societies and other publishers are already looking at ways they can evenly and fairly transition subscription income to APCs

⁵⁵ <http://www.slideshare.net/OAPENUK/oapenuk-hss-researcher-survey-results>

⁵⁶ <http://www.portico.org/digital-preservation/>

⁵⁷ <http://www.clockss.org/clockss/Home>

⁵⁸ <http://www.kb.nl/en/for-publishers>

income, and are coming up with some innovative models. However, this rightly needs to be a carefully monitored and balanced process, to avoid damage and disruption to the research and scholarly publishing ecosystem.

46. There is some considerable concern amongst academics that the amount institutions have available to them to fund APCs is simply not enough and that the “competition” for such funding will have adverse effects on their careers. When funds are stretched, will institutions support funding for publication for an established, recognised researcher, who can bring additional kudos to that institution over a new postdoctoral researcher publishing their first paper? What effect will this have on the highly successful and internationally renowned research base in the UK?

47. The bottom line is that Learned and Professional Societies and publishers provide a service that academics and others highly value. That service comes at a cost.

TOPIC 4

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

48. At the present time, Gold OA mandating is taking place predominantly in the UK and given the April deadline for the introduction of RCUK mandate, the UK will be isolated in giving away the articles detailing its tax-payer-funded IP. However, this also means that access to and potentially the profile of, UK research throughout the world will be increased.

49. Learned and Professional Societies and other publishers are reporting differing levels of UK-derived content in their publications, from less than 5% upwards. The UK will still want access to the remaining content produced throughout the world, which will at the present time, be via the subscription model. This will mean that subscriptions will likely need to be maintained, on top of funding APCs.

50. Publishers are already investigating different models whereby APCs continue to be subsidised or where institutions receive specific reductions in subscriptions fees as related to their funding of APCs. More innovation is likely to be required in this area and publishers will continue to work with institutions to find appropriate solutions.

51. It is, of course, impossible to have a global co-ordinated shift from subscriptions to Gold OA publishing and it is not certain that this transition will ever be completed. What is clear, as reflected in the outcomes of the Finch Group, is that a rapid shift in just one part of the research and scholarly publishing ecosystem could be very damaging and a measured, considered shift is far more sensible and importantly, sustainable.

52. The latest studies indicate that the UK currently contributes 7% of global output of research papers, behind the USA and China,⁵⁹ the latter of which recently ousted the UK from its second position. China is not yet making fast moves towards OA and it’s not entirely clear that the US will go fully Gold OA either. One positive activity in the US is the willingness of Federal Funding Agencies to collaborate with publishers to find solutions to their goals. This is producing many positive outcomes, such as FundRef⁶⁰ and the sharing of publisher metadata to the benefit of both the Federal Agencies and publishers.

53. It is a concern that giving away the UK’s intellectual property will mean that Learned and Professional Societies have a reduced income and therefore their support of UK Higher Education Institutions (HEIs) will be diminished. There is clearly no other UK funding source to replace the services and financial support they provide, particularly as the UK will (at least in the short to medium term) essentially be supporting research in other parts of the world.

54. It seems likely that there will be a strain on UK HEI resources if these policies are not implemented in a sustainable way, taking into account myriad differences between subject areas and between journals themselves.

55. There is no denying that Gold OA, or Green OA when supported by a sustainable business model, are attractive ways of increasing access to the published results from research supported by public funding. However, the requirements of all stakeholders, from the individual taxpayer right through to the academic pushing the boundaries of research need careful assessment. Providing access to complex technical articles for the majority of non-technically-trained but interested parties, may not be the most appropriate way to do this. Surely the public-facing Learned Society-funded information portals have a key role to play in ensuring the public continue to benefit from the results of publicly funded research?

Recommendations

56. Consideration is given to *all* stakeholders in the research and scholarly publishing ecosystem.

57. Collaboration between funding bodies, academia (eg at the institution level, at the author/researcher level and at the journal Editor level), Learned and Professional Societies, publishers and other interested parties and intermediaries should be encouraged.

⁵⁹ http://www.stm-assoc.org/2012_12_11_STM_Report_2012.pdf

⁶⁰ <http://www.crossref.org/fundref/index.html>

58. Consideration is given to the widely differing opinions and practices in difference subject areas. It is wholly inappropriate to enforce one or two sizes of mandate on all parts of the research and scholarly publishing ecosystem.

59. Careful consideration is given to the impact of CC-BY licensing on UK plc intellectual property and whether more suitable alternatives can be found to achieve broadly similar goals?

60. Careful consideration is given to how the transition to open access publishing can be funded and made sustainable in the long term, to the benefit of *all* stakeholders.

Dr Audrey McCulloch
Chief Executive

7 February 2013

Written evidence submitted by the British Academy

The British Academy, established by Royal Charter in 1902, champions and supports the humanities and social sciences across the UK and internationally. It aims to inspire, recognise and support excellence and high achievement across the UK and internationally. As a Fellowship of over 900 UK humanities scholars and social scientists, elected for their distinction in research, the Academy is an independent and self-governing organisation, in receipt of public funding. Views expressed in this submission are not necessarily shared by each individual Fellow.

1 The British Academy—the UK’s national academy for the humanities and social sciences—welcomes the opportunity to submit evidence to the House of Commons Business, Innovation and Skills Select Committee’s inquiry on the Government’s Open Access policy.

2 We support moves to make publicly funded research more available, including any data collected in that research, and we believe it is right that members of the public are able to access academic research without excessive obstacles. The Academy has hosted two discussions of open access issues in 2012 (one in January, one in October,⁶¹) issued a formal statement on 26 July 2012 (Appendix A), and in January 2013 submitted written evidence to the inquiry by the House of Lords Science and Technology Select Committee on the implementation of the Government’s Open Access policy.

3 Our official position is one of caution. We welcome the policy in principle but, like many others in the higher education sector, we have been concerned about how implementation has been proceeding. In our view, it has been too rapid and without due attention being paid to some unintended consequences of the policy. We acknowledge that there have been some attempts to clarify the policy within the last month, but we have not been reassured about all our concerns.

4 We group our comments under the headings identified by the Committee as being of particular importance.

THE GOVERNMENT’S ACCEPTANCE OF THE RECOMMENDATIONS OF THE FINCH GROUP REPORT, INCLUDING ITS PREFERENCE FOR THE “GOLD” OVER THE “GREEN” OPEN ACCESS MODEL

5 The *Report of the Working Group on Expanding Access to Published Research Findings* (the Finch Group Report) states that Government and the Research and Funding Councils should “make a clear commitment to support the costs of an innovative and sustainable research communications system, with a clear preference for publication in open access or hybrid journals” (as the first of its recommended “key actions”).⁶² In the run-up to the appearance of the Finch Report, the Minister of State for Universities and Science, the Rt Hon David Willetts MP, had regularly stressed the importance of establishing a financial model that sustained the traditional publishing industry that did what one might call the heavy lifting for the bulk of scholarly journal publishing.⁶³

6 If there had been an announcement that additional public funding was to be provided to meet the Finch Report’s estimate of costs for the transition from a subscription model to the Gold model of open access, then some of the subsequent furore might have been avoided. However, it is now clear that there will not be enough money to meet the demand for all UK articles to be published under Gold open access, or even most of them. In addition, articles submitted from abroad—a majority in high-status journals—will not carry APCs in the great majority of cases. Regardless of any expressed preference by Government for Gold, the *de facto* policy will be a mixed economy, predominantly reliant on the Green model of open access.

⁶¹ A summary of the October event is available on our website at: www.britac.ac.uk/policy/hsslssa-open_access.cfm

⁶² *Accessibility, sustainability, excellence: how to expand access to research publications. Report of the Working Group on Expanding Access to Published Research Findings* (June 2012), p. 8.

⁶³ For example, speech to the Publishers Association, 2 May 2012: “Provided we all recognise that open access is on its way, we can then work together to ensure that the valuable functions you [the publishing industry] carry out continue to be properly funded—and that the publishing industry remains a significant contributor to the UK economy. I believe that academic publishing does add value, not least because peer review is at the heart of our system of determining and communicating high-quality research. ... It would be deeply irresponsible to get rid of one business model and not put anything in its place.” (www.bis.gov.uk/news/speeches/david-willetts-public-access-to-research)

7 Most UK journals are likely to be “hybrid”—ie they will offer a Gold option, but will continue to rely on subscription income to finance non-Gold content. For this reason, the embargo periods allowed under the Green model of open access—the window in which a journal publisher is able to exploit an article commercially—have become a key issue.

8 The importance of not undermining the viability of journals through the imposition of too limited embargo periods was stressed in the Finch Report.⁶⁴ Articles in humanities and social sciences (HSS) journals have longer half-lives than those in STEM journals, so HSS journals need a longer embargo period to avoid librarians cancelling subscriptions. The BIS statement of 16 July 2012 acknowledged that the embargo period could be “longer for publications in those disciplines which require more time to secure payback”—and gave two years as an indicative figure. We are sympathetic to the argument that this figure is realistic for many HSS disciplines, but we also urge that research be carried out to ascertain whether there are in fact disciplines or subdisciplines where this period might be longer.

9 A particular concern has been the position of Research Councils UK (RCUK) on embargo periods, which spoke of a maximum embargo period of 12 months for the publication of research funded through the Arts and Humanities Research Council (AHRC) and the Economic and Social Research Council (ESRC). We welcome the clarification, prompted by the current Select Committee inquiries, that RCUK’s stipulations will now fall in line with the BIS position—ie, where a HSS journal offers a Gold option but no Article Processing Charge (APC) is available, there should be an embargo period of 24 months, at least for the next five years. Our concern remains that no pressure should be put on RCUK grant holders to deter them from publishing in their journal of choice where that journal is compliant with the BIS position.

RIGHTS OF USE AND RE-USE IN RELATION TO OPEN ACCESS RESEARCH PUBLICATIONS, INCLUDING THE IMPLICATIONS OF CREATIVE COMMONS “CC-BY” LICENCES

10 RCUK’s policy mandates that, under the Gold model, articles should be published under a Creative Commons “Attribution” licence (CC-BY)—which allows others to modify or build upon the work. The Academy is aware of the important role that open access publication can play in opening up possibilities for data- and text-mining.⁶⁵ We understand the value in being able to build on and exploit the data and findings contained in STEM articles. However, many articles in HSS subjects are the product of single-author scholarship, where there is more of a claim on “moral rights” that are not adequately protected under an unrestricted CC-BY licence. Data-mining as a concept is also irrelevant to a substantial proportion of papers in many humanities disciplines, which present interpretations of data, not the data themselves.

11 The CC-BY licence also permits exploitation of the work for commercial purposes, eg reproduction by another publisher of a journal article in a themed collection of papers. Much scholarly publication involves the reproduction of material whose copyright is owned elsewhere, for which specific permission has been obtained. Obtaining such permission is a notoriously complex business.⁶⁶ This is particularly so in the humanities, where journal articles may need to reproduce commercially valuable literary or artistic material in order to be able to critique it. In such an instance, academic authors obliged to comply with a CC-BY licence will be prevented from including essential material because they will not be able to reassure copyright owners about its subsequent re-use elsewhere.

12 We believe that it should be possible to vary Creative Commons licences according to the usages and requirements of different subject areas—and that an “Attribution-NonCommercial-NoDerivs” licence (CC-BY-NC-ND) may very often be more appropriate.

THE COSTS OF ARTICLE PROCESSING CHARGES (APCs) AND THE IMPLICATIONS FOR RESEARCH FUNDING AND FOR THE TAXPAYER

13 In its statement of 16 July 2012, BIS announced that the funding needed for the APCs required by the Gold model of open access “will come out of existing research funds”, which the Russell Group calculated could cost up to 1000 PhD studentships.⁶⁷ The subsequent announcement of an additional £10 million for 30 research-intensive universities has not plugged the gap, and was met with some scepticism from parts of the HE sector.⁶⁸

14 RCUK is to support the payment of APCs related to Research Council-funded research, through block grants to selected UK Higher Education Institutions (HEIs). It has now been made clear that the funds made

⁶⁴ “Fundlers’ limitations on the length of embargo periods, and on any other restrictions on access to content not published on open access terms, should be considered carefully, to avoid undue risk to valuable journals that are not funded in the main by APCs.” Finch Report, recommendation (x), p. 8.

⁶⁵ Issues surrounding data- and text-mining were raised in Ian Hargreaves’ 2011 report *Digital Opportunity: A Review of Intellectual Property and Growth*.

⁶⁶ In 2008 the British Academy and the Publishers Association published *Joint Guidelines on Copyright and Academic Research: Guidelines for researchers and publishers in the Humanities and Social Sciences* (available as a PDF file at www.britac.ac.uk/templates/asset-relay.cfm?fmAssetFileID=7267).

⁶⁷ The Russell Group also commented that “The Government’s plan to reduce shrinking research pots in order to fund open access is robbing Peter to pay Paul” (www.russellgroup.ac.uk/russell-group-latest-news/151-2012/5324-government-response-to-the-finch-report/).

⁶⁸ The 1994 Group expressed reservations that this approach could risk other research programmes, www.1994group.ac.uk/newsitem.php?item=440

available will not be enough to support the publication of all Research Council-funded research under the Gold model, should there be demand for it. The Russell Group has calculated that planned expenditure on APCs would pay for around 10% of articles in their HEIs.⁶⁹

15 For the humanities and social sciences (HSS), the Research Councils are not in fact the primary funder of publishable research. Most HSS articles are produced by individual scholars not supported by the large-scale Research Council-type project grant that brings with it the possibility of APCs. For individual scholars in university posts, in many cases APCs would have to be funded through the QR route, made available by HEFCE and the other Funding Councils. It is very likely that this source of funding will not be able to meet all the demand for APCs placed on it.

16 HSS journals tend to have a higher rejection rate than most STEM journals, and to publish longer articles. Costs of peer review and editing are higher as a result. For these reasons, APCs for HSS journals could be higher than for other journals, and therefore the publication of HSS articles will potentially be more at risk in a constrained funding environment.

17 The Academy is concerned that decisions within HEIs about scholarly journal publication may well in the future be taken away from those academics who understand the research in detail and where it should be published for maximum effect. We fear that a more generalist administrator who may be unduly influenced by the varying levels of APCs and so ration publication through Gold open access, thereby preventing research being made available, will become responsible for these decisions. We are particularly concerned that the publication activities of early-career scholars may be restricted, because their contracts will often not extend long enough for them to be counted for the next REF of the employing HEI: this would prevent them from building the profile necessary to advance their academic careers.

18 *Learned societies.* In HSS subjects, as in STEM subjects, much scholarly journal publication is undertaken by independent learned societies. These learned societies use the journal subscription income to support a range of scholarly activities—including support for postgraduates, early-career researchers, academic conferences, and research awards—complementing the role played by the Research Councils. As journal publishing switches from the traditional subscription model to Gold open access, learned societies may face resistance in setting APCs at the level needed to replace the income they need for those wider scholarly activities. As one member of the Finch Working Group has put it, learned societies have received “an enormous exogenous shock” from the way the Finch Report is being implemented.⁷⁰ The concern of the learned societies was evident at the meeting of the Humanities and Social Sciences Learned Societies and Subject Associations Network, hosted by the British Academy on 22 October 2012.⁷¹ Learned societies will doubtless attempt to adapt their business models, but it would be dangerously complacent to undermine their existence—and the crucial role they play—in the medium term.

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

18 In some disciplines, including many in HSS, the majority of the most appropriate journals for academics are based outside the UK. The open access agenda is developing in Europe and other parts of the world. But it is not clear that research funders in all other countries are pursuing the Gold option; indeed, early signs are showing a marked preference for Green-only, particularly in Europe. Journals in those countries are most likely to follow similar patterns; and anyway it would be complacent ever to assume that foreign journals will quickly become compliant with policies stipulated by UK research funding bodies. If UK academics are pressured into not publishing in the leading journals in their field, this both restricts academic freedom, and risks damaging the international reputation of UK research. This would be even more serious for HSS (and also STEM) disciplines were HEFCE to take a similar view to the RCUK when it considers submission criteria for future research assessment (eg after REF 2014).

19 We would cite in this connection the remarks made by Professor Martin Hall (University of Salford and a member of the Finch Group) in his keynote address at the Westminster Forum on 5 February 2013 under the title “Neither green nor gold”.⁷² Even though his final proposals have flaws, in particular insofar as they threaten the interests of learned societies (what he rather dismissively calls “collateral damage”!), it seems to us significant that a central figure in the follow-up to Finch is even now proposing new models and fundamental rethinking. We would urge that such rethinking and consultation should continue and the international developments should be carefully monitored before definite decisions are taken within the UK system. A single solution that respects the needs, professional practices and international standing of all disciplines is not likely to be found in the short term, if at all.

⁶⁹ Russell Group response to the House of Lords Science and Technology Committee’s inquiry on open access publishing.

⁷⁰ Professor Rita Gardner, Director of the Royal Geographical Society, at the Academy of Social Sciences Workshop on Open Access Publishing in Nov 2012: www.youtube.com/watch?v=DMJrkDRN2dA (from 43:20)

⁷¹ A summary of this British Academy event is available at: www.britac.ac.uk/policy/hsslssa-open_access.cfm

⁷² www.salford.ac.uk/_data/assets/pdf_file/0003/220755/Neither-Green-nor-Gold-February-2013.pdf

CONCLUSION

20 The implementation of open access policies by Government, the Research Councils and the Funding Councils needs to take account of a range of issues relating to the humanities and social sciences.⁷³ In his speech to the Royal Society on 12 July 2012, the Rt Hon Dr Vince Cable MP gave a reassurance that “it is not [BIS’s] intention to formulate a one-size-fits-all approach” to open access. We strongly support that and trust that this remains the case.

21 Our overall view is that RCUK would have benefited from a more extensive consultation before announcing its policy, and we welcome RCUK’s recent commitment to the consultation process. We particularly welcome HEFCE’s decision to conduct a consultation on its future open access policies. Indeed, for HSS subjects, the policies of HEFCE and the other Funding Councils—particularly on embargo periods—will be crucial. It is important that HEFCE takes care not to repeat some of the apparent errors in judgment made by RCUK.

Alan Palmer
Senior Policy Adviser

7 February 2013

APPENDIX A

OPEN ACCESS TO RESEARCH: BRITISH ACADEMY RESPONSE

26 July 2012

The British Academy has consistently supported the general move to open access whenever feasible, to improve access to and awareness of the results of research. We therefore welcome the detailed exploration of the issues by Dame Janet Finch’s Working Group on Expanding Access to Published Research Findings.

The Academy welcomes the fact that there will be opportunities to draw on Research Council and Funding Council funds to pay article processing charges (APCs), so that articles may be made freely available at the point of publication in open access or hybrid journals (the “gold” model). The Academy will now consider the implications of these developments for its own research posts and award schemes that are funded by the Department for Business, Innovation and Skills (BIS) and by other funding partners.

However, the Academy has a number of concerns about the proposals.

The first general issue is that the resources to pay for APCs are to come from existing research funds. Inadequate provision of funds for APCs will present universities with invidious choices, which could result in a rationing of publication and corresponding damage to the UK research base. (This point was also made forcefully by the Russell Group of universities in its statement of 16 July 2012.) And the Academy is very concerned that an imposition of the “gold” model with limited levels of APCs will endanger those learned societies whose journal subscriptions currently finance not only high-quality publication but also wider scholarly activities.

Secondly: the new UK initiatives are bold, but many of the leading academic journals (in subjects ranging from political science to modern languages) are published in countries, in both North America and Europe, where the open access agenda is less well developed. If stringent conditions imposed by research funding bodies result in prominent international publications being deemed not “compliant”—such that UK-funded researchers are prevented from publishing their results in them—UK scholarship will risk becoming provincialised and our universities will be pushed down international rankings.

As well as these general issues, the Academy has particular concerns relating to the humanities and social sciences. It is clear that the Finch Report, both in its analysis and in its recommendations, relates primarily to the natural and medical sciences. The humanities and many of the social sciences have quite different publishing models. Journal articles tend to be substantially longer and to have longer half-lives. And a dominant medium of research publication in most of these disciplines is the monograph or the collection of essays—for which, as the Finch Report acknowledges, an established and proven open access publishing model does not yet exist. The Academy therefore welcomes the reassurance of Vince Cable (in his 12 July speech at the Royal Society) that “it is not [BIS’s] intention to formulate a one-size-fits-all approach” to open access.

The Academy further welcomes the expressed intent of the UK higher education funding bodies to consult widely before finalising any stipulations for research outputs to be submitted to a REF or similar exercise after 2014. We look forward to contributing to that discussion. For example, we will seek to explore further the merits, which seem to us considerable, of the “green” model of open access for the humanities and social

⁷³ A dominant mode of research publication in most HSS disciplines is the monograph (i.e. the single-authored academic book) or the book chapter. The Finch Report acknowledged that an established and proven open access publishing model does not yet exist for these formats, and the publication of monographs and book chapters has not been a significant feature of any subsequent policy discussion. In any development of policy regarding publication of academic work, it is important that the key role of monographs and book chapters should be explicitly recognised. For example, a sample survey that we have conducted of the leading institutions who submitted to the Research Assessment Exercise in 2008 reveals that approximately two-thirds of submitted items were books or book chapters rather than journal articles.

sciences—and in particular the setting of appropriate embargo periods for journals in these disciplines, after which articles may be made freely available online.

Written evidence submitted by Dr Martin Paul Eve

EXECUTIVE SUMMARY

1. The recommendations of the Finch Report are broadly sound, but certain vocal groups are scaremongering against aspects that make sense in an ill-conceived attempt to preserve an already broken *status quo*.
2. It is not right that taxpayer-funded, or UK HEI supported, research should remain inaccessible to the general public. Gold Open Access is a sound way of redistributing the existing financial inequalities within the system.
3. It is not right that taxpayer-funded, or UK HEI supported, research should remain unusable by the general public. It is important that the Creative Commons Attribution License remains at the core of the Open Access policy.
4. The Finch Report, however, failed to consider some of the statements in the *Budapest Open Access Initiative Statement* that could have provided alternative funding models for the transition.

INTRODUCTION TO THE SUBMITTER

5. I (Dr. Martin Paul Eve) am a lecturer in English at the University of Lincoln, the founder of a new initiative to establish the *Open Library of the Humanities* (an Open Access humanities mega-journal) and a researcher into Open Access. I have given the keynote address at the UKSG scholarly publishing conference and I edit two small Gold Open Access academic journals. I am on the steering committee for the JISC OAPEN-UK project that investigates the impact of Open Access on scholarly monographs. I am broadly in favour of the recommendations of the *Finch Report*, for ethical reasons, and would like to submit statements based on my expertise that support many of the proposed changes, with some minor criticisms that I believe the inquiry should consider.

SUBMISSION OF FACTUAL EVIDENCE

6. The Open Access model introduces changes across three interrelated axes: access, permissibility and finance. I have statements supported by factual evidence that I wish to submit that concern each of these elements in turn.
7. In terms of access, Open Access publishing is a necessary shift. At present, especially in the humanities where research is more frequently locked behind paywalls, only an extremely small number of individuals have access to work that has been funded by the research councils or supported by UK based HEIs (Higher Education Institutions). Those outside of Higher Education have little ability to access this expensive material, which represents a poor return on tax-payer investment (as well as damaging the economic case for the importance of Higher Education). Furthermore, even many institutions are struggling to cope with the increase in journal subscription expenditure by 300% above inflation since 1986 (Eve). We simply cannot afford to buy the research, which we wrote in the first place, for our students and continuing research success.
8. Moving on to notions of permissibility, this “return on investment” is a fundamental principle of taxation in a liberal society. The Creative Commons Attribution license (CC-BY) that has been mandated by the acceptance of the *Finch Report* is a clear step towards ensuring that society receives the maximum benefit from this, not only in terms of access, but in the ability to re-use material. There have been, however, several vocal, but misplaced, criticisms of this put forward by both the Institute of Historical Research (Institute of Historical Research) and by several academics in the *London Review of Books* (Jones et al.). I would like to pre-empt these criticisms which I anticipate will form part of the inquiry.
9. Without wishing to overly criticise the authors of these position statements, their institutions represent an extremely well-funded minority and it may be the case that they do not struggle to persuade their institutions to purchase the journals necessary for their research and for their students’ continuing success. This is not a situation replicated across the spectrum.
10. Furthermore, one of the criticisms of CC-BY, that it will enable “plagiarism” is wholly untrue and betrays a fundamental misunderstanding of various terms. Plagiarism is something that can still be enforced because this is an **academic, not a legal**, term. If an academic’s work is falsely appropriated without credit, institutional sanctions will still be applied, even if re-use is permitted by the license. We know how to “attribute” in the academy; it’s called citation and we do it already.
11. The authors’ concerns about commercial re-use are also misplaced. If publicly funded academic work is commercially re-used, with credit given, the academics themselves have lost nothing; it’s not as though the publishers paid for the work in the first place. Instead, society has gained by the use of RCUK-funded (or institutionally supported) material. We could also have good faith that people will cite properly, even in the commercial field, or that the CC license will be upheld in law to a satisfactory degree. After all, this has

worked for CopyLeft licenses in various jurisdictions, such as the GPL (“Gpl-violations.org Project Prevails in Court Case on GPL Violation by D-Link”).

12. It is also worth saying that the bounds of CC-BY-NC (Non-Commercial) licenses that could form an alternative are unclear (Möller). Universities are considered commercial entities. Publishers likewise. This will mean that, were this proposed as an alternative to the more permissive license, these entities cannot fully reuse this material. The boundary of “commercial” use is not delineated as clearly as might be thought and is extremely problematic for the modern university.

13. Thinking now about issues of finance, it is clear that financial structural problems *already exist* in the scholarly publication system; many cannot pay for access and the Serials Crisis has been driven by quantified metrics and evaluation such as the Research Excellence Framework. Journals are expensive because they have reputational currency in such evaluation procedures, rather than because one journal enhances scholarly communication more than another (Eve). The proposed shift to an Article Processing Charge model has caused alarm in some quarters merely because new, previously privileged, parties are being exposed to the existing financial problems and inequality.

14. I would like to express concern, however, at the insistence placed within the Finch recommendations upon preserving the status quo of powerful academic publishers with vast profit margins when there are severe problems affecting the production and consumption of academic knowledge; crucial to the knowledge economy. Elsevier’s takings of \$2bn profits in 2009—when institutions are struggling to pay for material—show another side of the financial problem (Morrison).

15. Indeed, the Finch Report did not consider many alternative funding models proposed by the Budapest Open Access Initiative Statement; the founding document of the movement (Chan et al.). This may be because of the heavy representation of commercial publisher interests on the panel. One of these was that Gold Open Access routes could be subsidised by HEIs themselves and this is the approach that we will attempt with the *Open Library of the Humanities*.

RECOMMENDATIONS FOR ACTION

16. I recommend the mandate of Gold Open Access for all RC-UK-funded research (indeed, I would go further and say all UK HEI output, given the financial problems with the current system), with some caveats (see paragraphs 14, 15 and 19).

17. I recommend the use of a Creative Commons Attribution License (CC-BY) to ensure maximum return and benefit to the UK taxpayer.

18. I recommend that the Creative Commons Non-Commercial or Derivative licenses are ruled out of consideration.

19. I recommend exploration of the neglected funding routes for Gold Open Access (institutional subsidy) and the introduction of measures to ensure that commercial publisher interests do not dominate the debate.

20. I recommend that the government seriously consider ways in which future iterations of the Research Excellence Framework can downplay the importance of journal brand, as these measures contribute massively to the cost of scholarly publishing when publishers thrive off notions of “reputation” that are then assessed under REF.

21 January 2013

Chan, Leslie et al. “Budapest Open Access Initiative”. 14 Feb. 2002. Web. 18 Feb. 2011.

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Written evidence submitted by Professor Stevan Harnad

Note: I am responding in an individual capacity not on behalf of my universities. I am summarising a view based on my experience as a UK academic for 20 years and an open-access researcher and advocate for nearly 25 years. I was editor-in-chief of an international journal published by Cambridge University Press (*Behavioral and Brain Sciences*) from 1978–2002, founded one of the first Gold OA journals (*Psycoloquy*) in 1989, posted the “Subversive Proposal” proposing Green OA self-archiving and the Gold OA Publishing model in 1994, launched the CogPrints Repository in 1998, commissioned the EPrints software (from which the DSpace software was also developed) in 2000, co-drafted the Budapest Open Access Initiative (BOAI), co-designed the first Green OA self-archiving mandate (Southampton 2003), submitted the recommendation to the 2004 Science and Technology Committee that became the Committee’s recommendation to parliament—and then became the first RCUK Green OA mandates, and have generated a good deal of research on the effects of OA on downloads and citations as well as the effects of OA institutional and funder policies on the growth of OA. I have consulted worldwide on OA policy-making, and am on the Board of *EOS* and *OASIS* and the *SPARC Advisory Group* on Campus OA Policies. (I also coined the terms “Green OA” and “Gold OA” to distinguish the two ways of providing OA.)

EXECUTIVE SUMMARY:

E1. UK worldwide leadership in OA. The UK has led the world OA movement ever since the historic recommendation of the 2004 (Gibson) Select Committee to mandate Green OA self-archiving. But the new BIS/Finch Committee recommendation to prefer and fund Gold OA pre-emptively and unilaterally, and to restrict UK authors’ journal choice—and the resultant RCUK OA policy—are having unanticipated and unintended negative consequences, both for UK OA and for worldwide OA.

E2. Unintended negative consequences. The UK’s new policy of funding Gold OA pre-emptively and unilaterally in preference to strengthening the UK’s existing Green OA mandate model is neither affordable nor sustainable, and the model is not being (and will not be) followed by the rest of the world. It will not only waste scarce UK research funds needlessly and provoke resentment and non-compliance among UK researchers, but it will have perverse effects on publisher policy worldwide, encouraging publishers to offer hybrid Gold OA (ie, institutional subscription plus optional author Gold OA for an extra fee) as well as encouraging publishers to adopt or lengthen Green OA embargoes in order to make sure UK authors must choose the paid Gold option.

E3. Mandate and monitor immediate, unembargoed deposit. Irrespective of what funds the UK elects to spend on paying pre-emptively for Gold OA while subscriptions still need to be paid, and independent of embargo policy, the UK should (1) mandate and enforce immediate deposit of the author’s peer-reviewed final draft of every articles in the author’s institutional repository immediately upon acceptance for publication and (2) designate repository deposit as the sole mechanism for submitting publications for performance review and research assessment.

E4. Link compliance to funding. Compliance with this immediate-deposit requirement has to be systematically monitored and enforced, with consequences for non-compliance (non-funding and non-renewal of grants), as is now being done to reinforce Green OA mandates worldwide.

E5. Preserve researchers’ journal choice. At the same time, the UK should merely urge strongly, rather than require, that the immediate-deposit be made immediately OA, rather than embargoed. This restores authors’ free choice of journal. It frees authors from having to publish in journals they don’t want to publish in. It frees authors from having to pay for Gold OA if they do not wish to (or can’t). It frees authors from having to provide CC-BY if they do not wish to (or can’t). It ensures that 100% of RCUK-funded research output is deposited.

E7. Facilitated eprint requests during embargos. For whatever deposits are not made immediately OA, the repositories have the automated email-eprint-request Button that allows individual users to request—and authors free to choose whether or not to provide—an individual eprint of a Closed Access deposit with just one click each. (This is not OA but “Almost-OA.”)

E8. ID/OA mandate is globally scalable. The ID/OA mandate allows all funders and all institutions, all over the world, to mandate immediate-deposit (and to provide at least Almost-OA) to all research, irrespective of where it’s published and whether or how long it’s embargoed. The Button tides over research needs during embargos.

E9. Keystroke mandate. 60% of journals already endorse immediate Green OA. Hence ID/OA not only generates at least 60% immediate Green OA plus 40% Almost-OA, but once ID/OA is adopted worldwide, it will usher in the inevitable and well-deserved death of all OA embargoes, under the growing natural peer-to-peer pressure for OA among researchers. OA is—and always was—just a matter of keystrokes.

E10. Optimal and inevitable outcome. The UK should accordingly mandate the keystrokes, now, and the rest will take care of itself, as a natural matter of course. Focusing instead on Gold, Gold funds, CC-BY, copyright, and embargoes will delay for yet another decade the obvious, optimal, inevitable (and long overdue) outcome for refereed research in the online age that has already been within reach for decades.

E11. Priorities. Free online access for all users (not just subscribers) is urgently needed, and extremely beneficial to all research and researchers—both authors and users—because it puts an end to access-denial. Text-mining, re-mix and republishing rights are very important in a few fields and will be useful in many fields, but they are not nearly as important or urgent as free online access is today—and certainly not worth paying pre-emptive Gold OA fees for.

E12. Grasp what is already within immediate reach. Once Green OA has prevailed universally and induced a leveraged transition to Gold OA, as described below, authors will be able to provide as much CC-BY as they wish. But insisting instead on paying for CC-BY now, at the expense of losing the cost-free Green OA that is already within reach, is simply asking for another 10 years in the desert, lacking both free online access and CC-BY.

E13. Unilateral UK Gold is the losing choice in a Prisoner's Dilemma. If the UK unilaterally mandates Gold OA Publishing (with author publication charges) today, instead of first (effectively) mandating Green OA self-archiving (at no added cost) then the UK has made the losing choice in a non-forced-choice Prisoner's Dilemma:

	<i>Unilateral Green (rest of world)</i>	<i>Unilateral Gold (rest of world)</i>
Unilateral Green (UK only)	win/win	win/lose
Unilateral Gold (UK only)	lose/win	win/win

“If OA were adopted worldwide, the net benefits of Gold OA would exceed those of Green OA. However, we are not in an OA world... At the institutional level, during a transitional period *when subscriptions are maintained, the cost of unilaterally adopting Green OA is much lower than the cost of Gold OA*—with Green OA self-archiving costing average institutions sampled around one-fifth the amount that Gold OA might cost, and as little as one-tenth as much for the most research intensive university. Hence, we conclude that *the most affordable and cost-effective means of moving towards OA is through Green OA, which can be adopted unilaterally at the funder, institutional, sectoral and national levels at relatively little cost.*” [emphasis added]

Houghton, John W. & Swan, Alma (2013) *Planting the green seeds for a golden harvest: Comments and clarifications on “Going for Gold”* D-Lib Magazine 19(1/2)

1. **Open Access (OA)** means, first and foremost, *free online access to peer-reviewed research journal articles*. (I will discuss re-use and re-publication rights and CC licenses separately at the end.)

2. There are two ways authors can provide OA:

by (I) publishing in a journal that makes its articles freely accessible online (this is called OA publishing, or “**Gold OA**”)

or

by (II) publishing in any journal at all, and making their peer-reviewed final drafts freely accessible online by self-archiving them in an OA repository upon acceptance for publication (this is called OA self-archiving or “**Green OA**”).

3. **UK Commitment to Open Access.** The commitment of BIS and the Finch Committee to providing OA to UK research output is extremely timely and welcome. It builds on the global leadership role that the UK has been performing for nearly 9 years, ever since the historic recommendation by the 2004 (Gibson) Select Committee to mandate Green OA self-archiving by UK universities and UK research funding councils:

<http://www.publications.parliament.uk/pa/cm200304/cmselect/cmsctech/399/39903.htm>

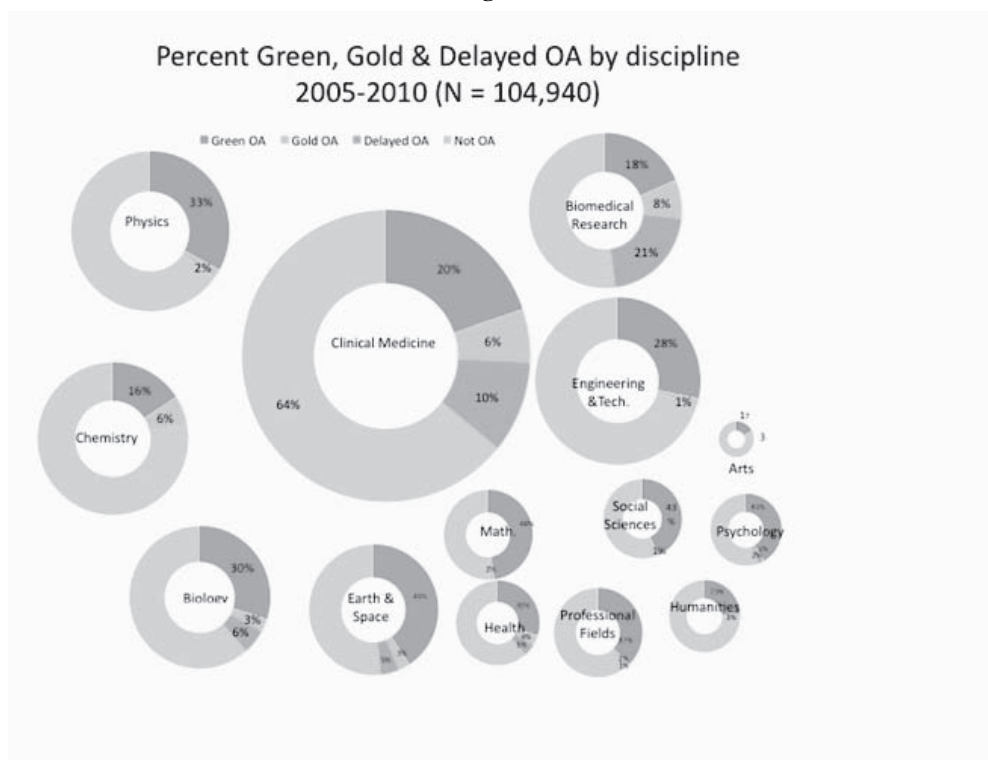
4. That epochal recommendation took root slowly, but has now spread worldwide and is being acted upon by almost every nation on every continent. This is a highly opportune time for the UK to strengthen and accelerate its OA policy, as BIS and the Finch Committee have expressed a clear desire to do.

5. **Strengthening and Accelerating UK OA Policy Fulfillment.** The means by which the Finch Committee has proposed to strengthen and accelerate UK OA policy, however, regrettably give rise to some very serious unanticipated problems. Fortunately, however, these problems can be very easily and effectively remedied. It is the problems and the remedies that I will try to describe in this submission.

6. The 2004 UK Select Committee recommendation had been that universities and funders should mandate (require) researchers to self-archive their peer-reviewed journal articles, but *it did not specify how to monitor and ensure that the Green OA mandate was complied with.*

7. As a consequence, the UK mandates have been only partially successful. The proportion of the UK's total annual research output that is OA today is about 45%, which is higher than the worldwide baseline for unmandated OA, which is about 35% (about 2/3 of it Green and 1/3 of it Gold), but it is still disappointingly far from the goal of 100% OA (see **Figure 1**).

Figure 1



Worldwide percent OA, by discipline. Percent Green, Percent Gold and percent “Delayed-Gold” (which means the publisher makes contents OA after an embargo of 6–12 months or longer) are shown (based on articles indexed by Thomson-Reuters ISI, published 2005–2010, and sampled 2012). Average worldwide OA is about 35%, about 3/4 of it Green and 1/4 of it Gold and “Delayed-Gold”, with Gold (mostly delayed) exceeding Green only in Biomedical Research (Gargouri 2012a; 2013, in prep).

8. For the old RCUK OA mandate, the date at which it was mandatory to provide OA (0 to 6 to 12 months or more after publication) varied from funding council to council, and from UK university to university. Moreover, as noted, no mechanism was proposed to make sure that the OA was provided by the mandatory date: no monitoring for compliance and no consequences for non-compliance.

9. **The Most Effective Green OA Self-Archiving Mandate: ID/OA.** In adopting the UK Green OA model, some universities and funders (in the UK and abroad) did give some attention to devising a reliable, timely compliance verification system, and one of these systems—the *Immediate-Deposit/Optional-Access (ID/OA) mandate, linked to research performance review and research assessment*—has proved to be the most effective:

10. The **ID/OA Mandate.** The *Immediate-Deposit/Optional-Access (ID/OA)* mandate requires:

- (a) **immediate-deposit** (even if access to the deposit is allowed to be embargoed: *no delayed deposit*)
- (b) of the **final peer-reviewed draft**
- (c) **by the author** (*not the publisher*)
- (d) **on the date of acceptance** by the journal (which is marked by a verifiable calendar date),
- (e) The immediate-deposit must be done **directly in the author’s own institutional repository** (*not institution-externally*)
- (f) so that immediate-deposit can be **monitored and verified by the author’s institution** (regardless of whether the mandate is from a funder or the institution)
- (g) as a **funding compliance condition** and/or an **institutional employment condition**.
- (h) The institutional repository must also be designated as the **sole mechanism for submitting publications for institutional performance evaluation, research grant applications and national research assessment**.
- (i) Repository deposits must be monitored and measured so as to generate **rich and visible metrics of usage and citation**, in order to verify and reward authors for deposit as well as to showcase and archive the institution’s and funder’s research output and impact.
- (j) Although the deposit must be immediate, **access to the deposit may be embargoed** if the mandating funder or institution elects to allow an embargo (60% of journals endorse immediate, un-embargoed Green OA self-archiving, about 20% endorse Green OA after a 6–12 month embargo, and about 20% have a longer or indefinite embargo): <http://www.sherpa.ac.uk/romeo/statistics.php>

- (k) For embargoed deposits, the institutional repositories have an **Email Eprint Request Button** that individual would-be users can click to send an automatic eprint request to the author, who can then decide with one click whether or not to allow the repository software to email the eprint to the requester.

11. *Testing the Finch Hypothesis.* ID/OA is an upgrade of the UK's 2004 Green OA mandate, optimizing it for maximal compliance and speed, as well as for global scalability and adoption. The Finch Committee had hypothesized that Green OA mandates are not effective. This hypothesis can be tested objectively. As noted, the UK is already 10% above the worldwide 35% baseline for unmandated OA. This is probably because the UK has the largest number of OA mandates in the world—24 institutional mandates plus 15 funder mandates: <http://j.mp/ukGREEN>

12. But which mandate one adopts matters—and most of the UK Green OA mandates are not the optimal mandate (ID/OA).

13. Classification of OA Mandates By “Strength” (0–12):

- 0: no OA policy at all
- 1: no OA requirement: just request, recommendation or encouragement (non-mandatory OA policy registered in ROARMAP)
- 2: deposit if/when publisher allows
- 3: rights-retention by default (but authors can opt out)
- 3: OA mandatory but embargo of 12 months allowed (no opt-out)
- 6: OA mandatory but embargo of 6 months allowed (no opt-out)
- 9: immediate deposit mandatory (no opt-out, but OA embargo allowed)
- 12: immediate deposit mandatory + linked to performance evaluation (Liège) (no opt-out, but OA embargo allowed)

14. *The Stronger the Green OA mandate, the More the Deposits.* Although the total number of institutional Green OA mandates worldwide (161) according to ROARMAP (February 2013) is still relatively few, we tested whether mandate strength was correlated with the number of deposits in the repository (while controlling for the size and webometric rank of the institution as well as the age of the mandate and the repository): Even with only 161 mandated repositories out of 2189, a significant positive correlation is already detectable both for mandate age (the older the mandate, the more the deposits) (+) and for mandate strength (the stronger the mandate, the more the deposits) (++). (There is also a significant negative correlation for repository age, probably indicating that the annual number of deposits in unmandated repositories, which were the vast majority—2028 out of 2189 repositories in ROAR—tend to fall off with time, for lack of a deposit mandate. There was no relation to institutional webometric rank) . See **Figures 2, 3 & 4.**

Figure 2

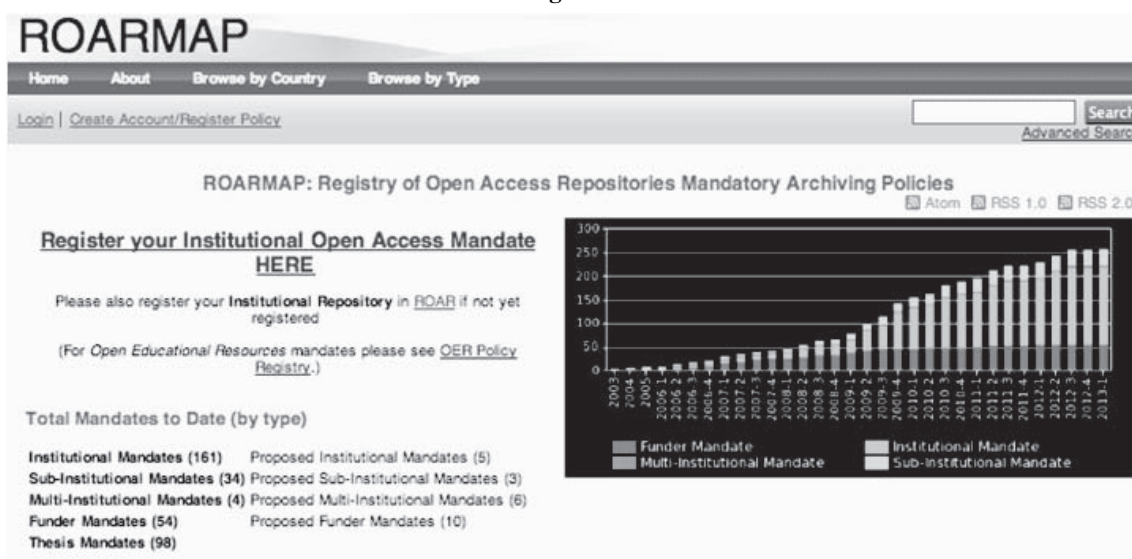


Figure 3

Régressions Binomiales Négatives

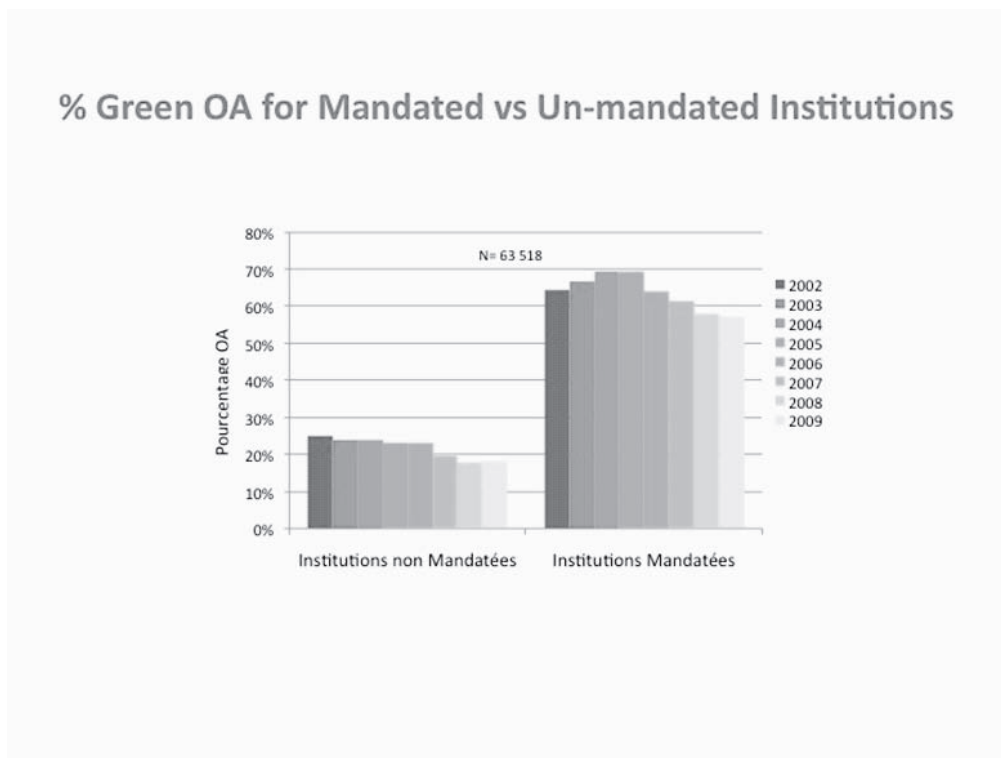
M et NM

Model	Dependent v.	Independent v.	All Institutions		Age M et Age DI > 3 years	
			Exp(B)	N	Exp(B)	N
1	depos_average	MAND-STRENGTH		874		580
		MAND_AGE	+		+	
		REPOS_AGE	-		-	
2	depos_rate	MAND-STRENGTH		869		577
		MAND_AGE				
		REPOS_AGE				
3	depos_total	MAND-STRENGTH	++	870		578
		MAND_AGE	+		+	
		IR_AGE				
4	INST_RANK	MAND-STRENGTH		1472		715
		MAND_AGE				
		REPOS_AGE				
5	depos_rate	MAND-STRENGTH		750		494
		MAND_AGE				
		REPOS_AGE			-	
		INST_RANK				
6	depos_total	MAND-STRENGTH	++	751		495
		MAND_AGE	+		+	
		REPOS_AGE			-	
		INST_RANK				

2/6 signe "+ +" signifie $\text{Exp(B)} \geq 1,05$ (Russels: ERC on OA in SSH (6-7 Feb 2013))
 signe "+ +" signifie $0 < \text{Exp(B)} < 1,05$

Significant positive correlation of mandate strength with total annual deposits (Gargouri et al 2013, in prep).

Figure 4



Percent Green OA for mandated and non-mandated institutions. Green self-archiving mandates triple the spontaneous unmandated self-archiving rate (Gargouri et al 2010). The most recent data (Gargouri et al 2013, in prep) show that the strongest mandate (ID/OA, U. Liège) generates a deposit rate of over 80%.

15. **ID/OA is Strongest Mandate.** We also have some evidence that ID/OA (linked to research evaluation) is the strongest mandate: The percentage of Harvard, MIT and Liege articles published in 2011–2012 and indexed by Thomson-Reuters Web of Science that deposited was 4%, 29% and 82%, respectively. The Harvard and MIT mandates are copyright-retention mandates (which we classify as strength = 3) whereas the Liege mandate is ID/OA (which we classify as strength = 12) (Gargouri et al. 2013, in prep).

16. **Finch Hypothesis About Ineffectiveness of Green Is Incorrect.** The objective evidence shows that the Finch hypothesis about Green OA mandates is incorrect. What is needed is to upgrade the former RCUK Green OA mandate to ID/OA, as described above, in order to maximize mandate effectiveness.

17. **Paying Publishers Still More for Gold Instead of Upgrading Green.** Unfortunately, what the *Finch Committee* recommended as the remedy instead was to downgrade repositories to preservation archiving:

“The [Green OA] policies of neither research funders nor universities themselves have yet had a major effect in ensuring that researchers make their publications accessible in institutional repositories... [so] the infrastructure of subject and institutional repositories should [instead] be developed [to] play a valuable role complementary to formal publishing, particularly in providing access to research data and to grey literature, and in digital preservation...”

18. Instead of upgrading Green, the Finch Committee proposed that Gold OA, funded by article charges, should be seen as “*the main vehicle for the publication of research*”... Public funders should establish “*more effective and flexible arrangements*” to pay [Gold OA] article charges... During the transition to [Gold] OA, funding should be found to extend licenses [subscriptions] for non-open-access content to the whole UK higher education and health sectors.

19. **Unilateral UK Payment for Gold OA is Double-Payment (Incoming Subscriptions + Outgoing Gold).** What this amounts to is the UK double-paying publishers for Gold OA instead of strengthening the UK’s existing mandate to provide extra-cost-free Green OA: The UK publishes about 6% of the world’s research output. Hence, irrespective of how it makes its own research output OA—whether it pays extra for Gold OA or simply mandates Green OA—the UK must continue to pay for its incoming journal subscriptions in order to have access to the remaining 94% of the world’s published research output. Hence *unilateral UK payment for Gold OA is double-payment* (incoming subscriptions + outgoing Gold).

20. **Dictating UK Authors’ Journal Choice Based on Access Policy Instead of Quality.** The Finch Committee might also have imagined that if Gold OA were mandated, UK researchers could and would switch from subscription journals to Gold OA journals. But the majority of journals today (and almost all the top journals) are not Gold OA journals. UK researchers are unlikely to accept to have their journal choice dictated to them, preferring to continue choosing their journals on the basis of their quality and track-record rather than their cost-recovery model or whether they are OA or non-OA.

21. **UK Subsidizing “Hybrid Gold.”** In electing to pay for Gold, the Finch Committee has given subscription publishers an irresistible incentive to add a “hybrid Gold” option for their UK authors. This means journals continue to collect subscriptions from institutions worldwide and in the UK, and their articles continue to be non-OA—except the articles of authors who pay extra for Gold OA: Their articles are made Gold OA. And the journal is double-paid: They receive all of their worldwide and UK subscription revenue, plus whatever extra hybrid Gold OA income they earn from the UK.

22. **Gold OA “Rebates” to Counter Charges of “Double-Dipping.”** Now suppose the publishers make good on their promise not to “double-dip”: Suppose they give all of their Gold OA income back to their subscribers in the form of a subscription rebate at the end of the year. Suppose a journal earns J euros per year in subscriptions and publishes N articles per year. Let’s say it charges J/N euros per article for its Gold OA fee.

23. **UK Unilaterally Subsidizes the World.** Now let’s suppose the UK pays this J/N fee for all of UK’s own articles (which, remember, represent 6% of all articles published worldwide). That means the UK increases worldwide publishers’ revenues by 6% per year. True to their word, the publishers give back that extra revenue to their subscribers. How? At year’s end, every subscribing institution worldwide gets back 6% of what they have paid for subscription. So the UK gets back 6% of the 6% it has itself double-paid (for subscription + Gold), and *the rest of the world gets back 94% of the 6% that the UK has double-paid.*

24. **Unilateral UK Gold is the losing choice in a Prisoner’s Dilemma.** This would not be a very good deal for the UK —especially in view of the fact that the UK’s full annual 6% share of worldwide published research could have been made OA at no extra cost, by mandating Green OA (with an upgrade to the ID/OA mandate). If the UK unilaterally mandates Gold OA Publishing (with author publication charges) today, instead of first (effectively) mandating Green OA self-archiving (at no added cost) then the UK has made the losing choice in a non-forced-choice Prisoner’s Dilemma:

	<i>Unilateral Green (rest of world)</i>	<i>Unilateral Gold (rest of world)</i>
Unilateral Green (UK only)	win/win	win/lose
Unilateral Gold (UK only)	lose/win	win/win

“If OA were adopted worldwide, the net benefits of Gold OA would exceed those of Green OA. However, we are not in an OA world... At the institutional level, during a transitional period *when subscriptions*

are maintained, the cost of unilaterally adopting Green OA is much lower than the cost of Gold OA— with Green OA self-archiving costing average institutions sampled around one-fifth the amount that Gold OA might cost, and as little as one-tenth as much for the most research intensive university. Hence, we conclude that *the most affordable and cost-effective means of moving towards OA is through Green OA, which can be adopted unilaterally at the funder, institutional, sectoral and national levels at relatively little cost.* [emphasis added]

Houghton, John W. & Swan, Alma (2013) *Planting the green seeds for a golden harvest: Comments and clarifications on “Going for Gold” D-Lib Magazine* 19(1/2)

25. **UK-Only Gold OA Rebate.** The only alternative to a 6% publisher rebate given to all institutional subscribers worldwide would be for the full rebate for the 6% UK double payment to be given to UK subscribers only. But that would effectively amount to publishers transforming UK institutional journal subscriptions into Gold OA payments, so that in exchange for whatever was being paid for incoming subscriptions by UK institutions already, each UK institution would also be given (hybrid) Gold OA for its research output. (Let us assume that the UK institutions whose article output exceeded what they were paying for incoming subscriptions at J/N euros per Gold article would be “subsidized” by the institutions whose article output was less than their incoming subscriptions, with the UK’s total overall spend on incoming subscriptions roughly equal to its total annual article Gold OA output at J/N euros per article, accounting for 6% of journals worldwide revenues either way.)

26. **A UK Gold OA Mandate on Publishers?** Such a UK-Only Gold OA rebate would effectively mean that the UK’s OA mandate was binding not on UK *researchers* but on their *publishers*. But it is highly unlikely that established subscription publishers worldwide would comply with a unilateral UK mandate to provide Gold OA for UK output just *in exchange for the institutional subscriptions they were being paid already*. For if publishers did comply with a UK mandate to make all their UK articles Gold OA without the UK paying a penny extra, then of course all other countries could mandate it too.

27. **An Unstable Subscription/Gold Equilibrium.** But if all articles in all journals worldwide were being made Gold OA in exchange for existing journal subscriptions, there would no longer be any reason for institutions to continue subscribing to journals at all, because the journal articles would be accessible free for all. The journal subscriptions would be hanging by a skyhook, and the equilibrium we had assumed between those institutions that were publishing more Gold OA articles (at J/N euros per article) than they were paying for subscriptions and those who were publishing less would lead to instability: There would be opportunistic institutional subscription cancellations, which would require publishers to raise subscription prices to keep their total subscription revenue levels constant; that would in turn raise the J/N euro Gold OA fee. But higher subscriptions prices would generate more cancellations, which would again raise subscription prices and the corresponding J/N euro Gold OA fee.

28. **Transforming Incoming Journal Subscriptions to Outgoing Gold OA Article Payments Stably and Sustainably.** It is evident (and certainly foreseeable by publishers) that a full rebate to UK subscribers in the form of free Gold OA would be unstable, unscalable and unsustainable. The reason is obvious: Journals are subscribed to by institutions as a whole yearly package of incoming articles, whereas articles are published singly, by individuals, as outgoing articles. If there is to be a transition from non-OA journal subscription charges to Gold OA article publication charges, the product that is paid for has to change from annual incoming journal bundles to individual outgoing articles. Such a transformation cannot be sustained by gradually converting incoming yearly journal subscriptions into outgoing yearly subscription rebates for Gold OA.

29. **If Offered Double-Payment Is Offered, Publishers Will Double-Dip.** Hence the likely outcome of a unilateral Gold OA subsidy from the UK is that no one would get back any rebates from the UK double payments. The UK would just spend a lot of scarce research money on paying publishers even more money, in exchange for OA that the UK could have for its 6% had at no extra cost, by mandating Green. And publishers will double-dip.

30. **Restrictions on UK Researchers’ Journal Choice.** Double-dipping is not the end of the negative unintended consequences of the UK’s needlessly paying pre-emptively for Gold instead of effectively mandating Green: RCUK, in a well-meaning effort to reduce Green embargo lengths, added a second constraint on authors’ journal choice. Not only did the RCUK express a preference (echoing Finch) for Gold, offering to pay for (some of) it, but it stipulated that if a journal did not offer Gold OA, an RCUK fundee could only publish in that journal if it did not have a Green OA embargo that exceeded 6–12 months.

31. **Prospect of UK Gold Subsidy Is Publisher Incentive to Adopt or Lengthen Green OA Embargoes.** Not only is UK authors’ journal choice restricted to journals that are either Gold or 6–12 Green, but a second incentive is given to publishers, not only to offer hybrid Gold, but to adopt or increase Green OA embargoes of 13 months or more, in order to ensure that UK authors must pay for Gold if they wish to publish in their journal at all. Apart from the added expense for the UK, this handicaps the Green OA efforts of the rest of the world too: Most other countries have already clearly announced that they have no intention (or funds) to follow the Finch/RCUK U-Turn from the Green Road, on which they had been the pioneers and leaders, to double-paying pre-emptively for Gold instead: <http://sparceurope.org/analysis-of-funder-open-access-policies-around-the-world/>

32. **OA Requires Global Reciprocity.** The new UK-induced handicap for the rest of the world's Green OA mandates is hence longer publisher embargoes, as an unintended consequence of the Finch/RCUK policy. And that in turn redounds negatively on the UK. Because the objective (and the benefits) of OA to the UK are not just to make the UK's 6% output OA for the users in UK and the rest of the world, but also to make the rest of the world's 94% OA for users in the UK.

33. **The Solution: Mandate ID/OA and Restore Researchers' Journal Choice.** The solution is extremely simple: *Upgrade to ID/OA for all UK research output* (ID/OA moots publisher embargoes), *let UK authors publish wherever they wish, and let UK authors decide whether and when they want to publish Gold*, offering them whatever Gold subsidy it is felt can be spared from research without researcher resentment. This will undo both the publisher incentive to offer hybrid Gold and the incentive to adopt or increase Green OA embargo lengths.

34. **Transition From Fool's Gold to Fair Gold.** ID/OA will not only accelerate the UK towards 100% Green, but it will eventually also induce the transition to Gold OA, thereby forcing publishers to phase out products and services for which there is no longer need or market in an OA world, so as to allow publishing to evolve toward the obvious, optimal and inevitable outcome: Gold OA at a fair, affordable, sustainable price, with no inflation and no double-dipping:

SUBSCRIPTION TO GREEN TO FAIR-GOLD TRANSITION SCENARIO

- I. Self-archiving mandates (by universities and research funders)
- II. Green OA 100% globally
(As Green OA climbs anarchically toward 100% under the effect of ID/OA mandates from institutions and funders worldwide, publishers would do well to start to phase in the second rebate model discussed above as they cut costs by phasing out obsolete products and services—the same rebate that is unstable and unscalable until Green OA is globally mandated: The cost of Gold OA is simply deducted from the institutional subscription. As the total publishing price drops instead of rising, driven down by universal Green OA, and the obsolete inessentials and their costs are phased out, this institutional rebate can serve as the transition into the affordable, sustainable asymptotic Fair-Gold OA fee.)
- III. Universal Green OA allows journals to be cancelled: subscriptions become unsustainable
- IV. Journals are forced by cancellations to downsize and cut costs, phasing out obsolete products and services
- V. Print and online editions and their costs are phased out
- VI. Archiving & access-provision are all off-loaded onto the distributed worldwide network of institutional Green OA repositories
- VII. Conversion to Gold OA cost-recovery model occurs at a fair, affordable, sustainable price, *in exchange for the service of peer review and editing only; all else is phased out.*
- VIII. Institutional subscription funds are freed by the cancellations to pay for the Fair-Gold OA service, per paper

35. **Publishers Are Lobbying To Delay Global Green and Fair Gold As Long As They Can.** When BIS is lobbied by the publishing industry about potential job losses as a result of the eventual downsizing likely to be induced by globally mandated Green OA, it would be a good idea for BIS to remind both the industry representatives and themselves that *the real stakes here are not publishing industry job losses*: More publishing industry jobs are being and will be lost to online-era software developments that make publishing more efficient and less labour-intensive than will be lost to OA. *What is really at stake is the productivity and progress of research, researchers, research institutions, research funders, doctors, teachers, students, journalists, the general public, and the vast R&D industry that produces research applications for the benefit of the public that funded the research.*

36. **Publishers are Trying to Embargo OA and Its Benefits.** It is a great miscalculation to allow the publishing lobby to keep holding back the natural evolution of research publishing in the online era, depriving so many stake-holders of the potential benefits of OA in order to preserve the publishing industry's bloated and increasingly undeserved revenues for products and services (print edition, online edition, archiving, access-provision) that are already obsolescent.

37. **First Things First.** Free online access is urgently needed, and extremely beneficial to all research and researchers—both authors and users—because it puts an end to access-denial. Text-mining, re-mix and republishing rights are very important in a few fields, would be useful in many fields, but are *not nearly as important or urgent as free online access*. Moreover, asking subscription publishers (60% of whom already endorse immediate, unembargoed Green OA) to endorse CC-BY would be tantamount to asking them to legalize rival publishers immediately free-riding on their content and selling it at a cut rate having made no investment in it. Nor do all authors want to allow their verbatim texts to be remixed and republished, even with acknowledgment. Hence it is completely unrealistic to demand CC-BY for Green OA—and CC-BY is neither affordable, nor worth paying for, as Gold OA.

38. **Post-Green Gold and CC-BY:** Once Green OA has prevailed universally and has induced a leveraged transition to Fair-Gold OA, as above, authors will be able to provide as much CC-BY as they wish. Insisting on paying for CC-BY pre-emptively now, at the expense of losing the cost-free Green OA that is already within reach, is simply asking for another 10 years in the desert, lacking both free online access and CC-BY.

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Canada Research Chair in Cognitive Sciences, Université du Québec à Montréal, Canada

Professor of Psychology, McGill University, Canada

13 February 2013

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Written evidence submitted by Higher Education Funding Council for England (HEFCE)

EXECUTIVE SUMMARY

1. HEFCE supports the principle that the dissemination of research findings and outputs is an essential and integral part of any high quality research process.

2. It is the Council’s policy that outputs from all research supported through HEFCE funding should be as widely and freely accessible as the available channels for dissemination permit.

3. The Council welcomes the current developments towards increased open access that are being undertaken in the UK.

4. Our Open Access policy will support and encourage the development of open access publication in whatever forms may emerge that will both command the support of the research community and contribute to achieving our policy aims.

INTRODUCTION

5. HEFCE was established by the Further and Higher Education Act 1992 as a non-departmental public body operating with a high degree of autonomy within a policy and funding context set by the Government. The Council’s main function is to administer grant provided by the Secretary of State for Education and Skills. We provide independent advice to the Secretary of State on the funding needs and development of higher education. Further information about the role, policies and funding allocations of the HEFCE can be found on our web-site at www.hefce.ac.uk.

6. The Council allocates approximately £1.6 billion a year as recurrent block grant (non- hypothecated) research funding to HEIs. Through our funding and policy work, we seek to fulfil our strategic aim for research:

- To develop and sustain a dynamic and internationally competitive research sector that makes a major contribution to economic prosperity, national wellbeing and the expansion and dissemination of knowledge.

7. Reflecting this aim, our grant for research is allocated to higher education institutions taking into account indicators of the quality of their research activity in different disciplines; these indicators are derived from periodic national exercises to assess research quality of which the most recent was the 2008 Research Assessment Exercise (RAE) and the next will be the 2014 Research Excellence Framework (REF).

OPEN ACCESS POLICY

8. We support the principle that the dissemination of research findings and outputs is an essential and integral part of any high quality research process. The prompt and widespread dissemination of research findings will in turn both benefit the efficiency of that process and enable its application to support the economic, social and cultural development of the country, as well as increasing public understanding of research.

9. It is therefore our established policy that outputs from all research supported though HEFCE funding should be as widely and freely accessible as the available channels for dissemination permit. It is evident to us that the development of the internet in particular has opened up significant new channels for sharing research findings and outputs, and made possible new forms of academic discourse, in ways that the academic community has not yet learnt to exploit to their full potential. A situation where all outputs from publicly funded research are freely available upon first publication is now achievable as well as desirable—though we do recognise that change on that scale is unlikely to be achievable within a short space of time.

10. Within this context we welcome the current developments towards increased open access that are being undertaken in the UK. We welcome the contribution that the recommendations of the Finch report, and the action now being taken by the research councils to implement these, will make towards accelerating and consolidating these developments, and are committed to further developing our own policy in this area in full dialogue with the communities involved including researchers and research managers, publishing bodies, learned societies, other funders of research, and international organisations.

11. There has been considerable discussion about the most effective route for achieving increased open access in the UK. Given the policy aim of the Council, and the mechanism by which we allocate our funding (non-hypothecated), we do not see it as the role of the Council to instruct the academic community to adopt particular specified channels and modes of publication. We do, however, consider that we have a role to play in supporting and encouraging the development of open access publication in whatever forms may emerge that will both command the support of the research community and contribute to achieving our policy aims.

12. Reflecting this role, following the Government's response to the Finch report in July 2012, HEFCE published on 16 July a statement on implementing open access. That statement:

- Made it clear that HEIs may use the funds provided through our research grant towards the costs of more accessible forms of publication—including the additional costs that may be incurred by them during a transition from the established model of publication funded by subscription to payment by authors or by their employers.
- Set out our intention to develop a specific requirement that research outputs submitted to a REF exercise subsequent to 2014 shall, as far as it may be reasonable to require at the time, be published in an open access form; and to consult widely with interested communities on how in detail such a requirement might be framed.
- More generally, was intended to contribute to advancing a dialogue with researchers and managers in the institutions that we fund. It is clear to us that informed acceptance of our policy position, of the actions planned by the research councils and others, and of the underlying reasons why we support the government's view that the UK should play a leading role in the development of open access rather than awaiting events, will take time to develop and that dialogue is still at a relatively early stage.

13. We are now engaged in dialogue with the interested communities, to identify the key issues around open access while we are developing our consultation proposals. We will shortly issue an informal letter seeking advice on the parameters of our open access requirement in the next REF, and on any unforeseen consequences of this. Following our consideration or the responses to that letter, we envisage launching a formal consultation on specific proposals later during 2013.

14. While our proposals remain under development, we can set out some elements in our thinking on which we plan to consult. We recognise that within the likely timeframe of a REF exercise subsequent to 2014 it would not be realistic to require all submitted outputs to be published in open access form; some of the work that would be submitted could be in the pipeline for publication by the time that our firm plans are known, and moreover the availability of open access options is more developed in some fields and forms of publication than others. Equally, it is our intention to define acceptable forms and conditions of open access publication—for example, in relation to embargo periods for different discipline groups—in terms as close as possible to

those that may be employed at the time by other research funders including in particular the research councils. These and other issues can be resolved only after our planned consultation.

7 February 2013

Written evidence submitted from PLOS

EXECUTIVE SUMMARY

1. PLOS is a not for profit organisation, which publishes seven Open Access journals, operates to a modest operating surplus, and whose largest journal (PLOS ONE) published in 2012 more peer-reviewed research papers arising from Wellcome Trust, MRC, BBSRC, and Cancer Research UK funded projects than any other journal.

2. PLOS strongly supports the Government's moves towards open access for publicly funded research. Implementation will necessarily be a staged and complex process but there are no valid grounds for further delay.

3. Repositories, both institutional and disciplinary are a critical part of the transition to an open access environment as they can widen access at relatively low cost, do not damage publisher business models, and will play an important role in constraining transitional costs.

4. In the longer term repositories will evolve and continue to make a crucial contribution to the dissemination of research outputs. The terms "green" and "gold" are confusing and widely misunderstood and should be avoided.

5. UK research is built on excellence in selecting problems and excellence in execution. Given the vibrant and innovative community of new players emerging in the Scholarly Communication domain, the Government has an opportunity to take a leadership position by adding excellence in effective communication to this.

6. The Creative Commons Attribution Only License (CC BY) is the appropriate license for publicly funded research and has been used profitably by the major Open Access publishers. It maximizes the potential for both economic and scholarly impact, protects the rights of authors, and strengthens the long-standing tradition of appropriate attribution and credit for scholarship.

7. Effective communication is an integral part of scholarship. It is crucial that it be appropriately funded for the public investment in research to have its greatest possible impact.

8. Pricing of journal subscriptions is a result of systemic market failure. A move to a transparent and fully functioning market based on publication services will generate significant savings to institutions, and therefore to the taxpayer.

9. PLOS, and our colleagues at other successful Open Access publishers, have demonstrated that publication services, ranging from the highly selective and prestigious to the specialist and niche, can be delivered at prices well below the allowances made by RCUK in the current provision of institutional funds or the average suggested in the Finch report.

10. PLOS publishes a significant and rapidly rising proportion of the biomedical literature including 11% of all peer reviewed research papers funded by the Wellcome Trust in 2012. The average cost to the Trust in 2012 was £1,060 per paper.

11. In light of this evidence, we suggest several key recommendations about the transition to open access, the role of repositories and ensuring effective licensing.

BACKGROUND ON PLOS

1. PLOS is a not-for-profit head quartered in San Francisco with an office in Cambridge with a mission to transform scholarly communication. PLOS publishes peer reviewed research papers in the science domain with a focus on biomedical sciences.

2. We publish seven journals: two highly selective journals, *PLOS Medicine* and *PLOS Biology*; four community journals which are based on a publishing model that is similar to journals published by scholarly societies and focus on specific domains of Computational Biology, Genetics, Neglected Tropical Diseases, and Pathogens; and *PLOS ONE*, the world's largest journal.

3. PLOS applies the creative commons attribution license (CC BY, [1]) by default to all the content we publish.

4. Since publishing our first articles in 2003 PLOS has seen phenomenal growth. In 2012 *PLOS ONE* published more articles registered in the PubMed bibliographic database as being funded by the Wellcome Trust, MRC, BBSRC, CRUK, Canadian Institutes of Health Research, and the NIH, than any other journal. PLOS published 11% of all Wellcome Trust research in 2012, 9.3% of CRUK, 8.5% of BBSRC, and 6.9% of MRC.

5. PLOS is a leader in high quality peer-review processes. All of our journals are peer reviewed and PLOS applies the highest ethical standards to the peer review process. For instance, unlike most other biomedical publishers, we do not accept advertising from pharmaceutical companies. We are also taking a leadership role in promoting higher reporting standards and reproducibility of research.[2]

6. PLOS has demonstrated alongside other major Open Access publishers that it is possible to deliver high quality services both sustainably and affordably. PLOS has had a modest operating surplus since 2010 as described in our publicly available accounts. PLOS, in contrast with virtually all subscription publishers, has not raised its prices since 2009.[3]

7. The level of Open Access through journals is accelerating globally with the USA, Europe and the UK acting as global leaders. PLOS alone has experienced growth of 43.9% year on year in research publications since 2009.

8. PLOS is an innovator. PLOS has lead the way in demonstrating that Open Access publications can achieve high prestige in the community through *PLOS Biology*, *PLOS Medicine* and the community journals, in demonstrating how peer review can benefit from applying criteria of technical correctness rather than perceived impact through *PLOS ONE*, and is at the forefront in developing measures of the impact and influence of single articles rather than the journals they appear in, through our development of Article Level Metrics.

GOVERNMENT ADOPTION OF THE FINCH REPORT AND THE RCUK POLICY

9. PLOS strongly supports government and UK funder moves towards widening access to the research literature. We applaud the understanding and desire for change that is clear at the highest levels of funding agencies and government in the UK. We look forward to enhancing this and working, alongside our colleagues within other experienced Open Access publishers and providers in delivering on our shared vision.

10. PLOS supports the conclusions of the Finch group, the government, and RCUK that the optimal delivery of access to publicly funded research outputs will ultimately be achieved through a funded system of journal-mediated Open Access.

11. We have clear evidence of the benefits of Open Access, and the damage that a lack of access causes to the economy, to patients, innovators, educators and those that would use the outputs of scholarship to enrich our society.

12. Open Access to the literature alone cannot enable us to reap the full benefits of publicly funded research. Access to data (as noted in the Finch report[4]), methodology and materials alongside measured copyright and IP reform, and infrastructure investment are also required. Open Access is a crucial first step in providing a strong base on which these future developments will build.

Role of Repositories in expanding access to UK research

13. Our experience as an Open Access publisher is that repositories play a crucial role in the process of enhancing access. They provide enhanced access to literature where publishers are not yet in a position to move to an Open Access footing. They provide a buffer for managing the transition of cash flows from subscriptions to publication charges. They also provide a pricing signal in the market that “publishing” in the sense of “making public” can be done very cheaply, forcing Open Access publishers to demonstrate the value that we add in peer review, formatting, indexing, and archival.

14. There is no credible evidence that availability of final author versions of peer reviewed manuscripts in repositories causes any damage to subscription business models and no evidence that embargoes of any length reduce any imagined damage. The PEER project[5] showed enhanced traffic to journal website when articles were made available through a publicly accessible repository. Twenty years of near 100% access to the particle physics, mathematics, and astronomy literature through the ArXiv has not damaged subscription business models in these areas. There is no evidence that availability of articles in PubMedCentral as a result of the NIH Public Access Policy damages subscription businesses.

15. There is also no published evidence to support the idea that longer embargoes are required for different fields nor that longer embargoes improve the viability of publishers or their ability to recover costs. As we noted in our recent submission to the House of Lords,[6] a recent report commissioned by the Research Information Network (RIN), JISC, Research Libraries UK (RLUK), the Publishing Research Consortium (PRC), and the Wellcome Trust[7] concluded that permitting embargoes is unlikely to provide the long-term incentives for publishers to transition to open access and would thus hamper the growth of access

16. PLOS, alongside other Open Access publishers see repositories as our partners in delivering enhanced access through multiple channels. Our aim is to maximize access through whatever channels are appropriate. Unlike subscription publishers we can be confident that our services provide added value to our customers, the authors, because they choose to pay for them.

17. Effective discovery and re-use of the published literature requires appropriate mark-up and associated meta-data. Currently, publishers take on this role but there is no reason that repositories could not also adopt this function, supported by an appropriate business model. The focus of debate on the relative merits of “Gold”

and “Green” rather than on effective mechanisms to enable access is likely to hamper, rather than enhance, progress towards greater access. The terms “Green” and “Gold” themselves are unhelpful and widely mis-used, and should therefore be avoided.

18. Both the Finch report and the RCUK policy have been criticized for down-playing the role of repositories in delivering wider access. PLOS accepts that this may partly be because both announcements focused on a desired end goal rather than mechanisms of transition. We recommend that this distinction be clarified.

UK innovation in scholarly communication: promoting excellence

19. The UK has an opportunity to lead the transformation in scholarly communications that the advent of the web enables. The UK leads due to a tradition of excellence, a justified confidence in the quality of our research, and a history of outstanding innovation. The Government now has the opportunity to further support this emerging field and become a world centre of excellence. UK based research and development into the impact and implementation of Open Access has already been led by Government agencies (eg JISC), funding agencies (Wellcome, RCUK), Research Institutions (EBI), Universities (Southampton, Edinburgh, London), Open Access Publishers (PLOS, BMC) and numerous individual research scholars and librarians. We should have the confidence to continue.

Sustainability: managing the transition

20. As noted above, repositories, both institutional and disciplinary are a critical part of the transition to an open access environment as they can widen access at relatively low cost, do not damage publisher business models, and will play an important role in constraining transitional costs.

21. In relation to the provision of publishing services, the transition to Open Access creates particular challenges for learned societies because the additional services they provide to the research community have, in some cases, been funded indirectly through journal subscriptions (often outsourced to commercial publishers). PLOS, in collaboration with other Open Access stakeholders, is currently developing more resources about pricing and processes to help support societies wishing to transition existing subscription journals to open access.

22. As discussed in our submission to the recent House of Lords inquiry,[6] the challenge for learned societies operating in the 21st century is to provide services that are valued. An unfortunate characteristic of many current societies is that they do not believe that their membership are prepared to cover these costs directly and they have therefore become dependent on the indirect funding provided through journal subscriptions, without exploring alternative options. We believe that learned societies face a range of challenges and that the difficulties identified in the transition to Open Access are a symptom of deeper problems that need to be addressed at their roots.

23. The majority of the current cash flow in UK scholarly communication is used to purchase subscription access to traditional journals from incumbent publishers. PLOS recognizes that there may be transitional costs involved in shifting these cash flows from subscriptions to support of publication charges. However the claimed magnitude of those costs and the ongoing demands for more money from incumbent publishers appear to us unreasonable. In particular, where there are additional charges paid for making a specific article open access in a predominantly subscription journal there is risk of “double-dipping”, where the article costs are covered twice, once through a subscription and one through an APC. It is also essential that like to like price comparisons are made where existing subscription revenue could be used to subsidize APCs. We recommended that the Government endorses price transparency and a functioning and effective market in publication services.

24. Implementation of the transition to Open Access is, however, complex and will require the engagement of all relevant stakeholders in good faith. PLOS is disappointed that current engagement has focused on incumbent stakeholders, particularly publishers, and not engaged with those organizations and communities already delivering sustainable, viable, and competitive access.

25. Open Access publishers and our partners in the repository community have been quietly getting on with the job of delivering access to a significant and rapidly rising proportion of the world’s literature. A vibrant and innovative community, including key stakeholders, such as PLOS and BMC, and Mendeley and Figshare, are yet to take part in the current discussion. New players from the Social Sciences and Humanities, as well as users from industry and biotech are also still to be engaged. We recommend that the government extend their discussion to include these other providers.

RIGHTS AND REUSE: LICENSING AND THE CREATIVE COMMONS ATTRIBUTION LICENSE

26. The major Open Access publishers have been utilizing the Creative Commons Attribution License (CC BY) for over ten years without problems or incident. It is unfortunate that statements, both in media releases and in written evidence to the House of Lords enquiry by various organizations and groups, such as the British Academy[8] and the editors of a range of history journals,[9] are incorrect.

Maximising the public good from the public investment

27. It is the business of government, when it invests in the creation of a public good, such as knowledge, to ensure that it is fully exploited to maximize its social, cultural and economic impact for the benefit of its citizens. Government is unusual in being able to focus on optimizing the system as a whole rather than focusing narrowly on cost recovery.

28. In a networked world supported by web infrastructure, the impact of any resource is driven by its accessibility, discoverability, and usability. To maximize impact, it is not enough to simply stick something on the web. Impact is created through re-use, therefore maximizing re-usability is crucial. Data availability, description standards, and interoperability are all important parts of this but before any of this can happen it is necessary to remove legal impediments to re-use.

29. The CC BY License[1] is the most effective means to ensure that any possible re-use of a research output is legally allowed. This ensures that legal impediments are not the bottleneck in maximizing the impact of the public investment in research. At the same time, the use of CC BY ensures that scholarly standards of attribution and credit are supported and strengthened.

30. Much of the argument around licensing has focused narrowly on the issue of text mining. This shows a lack of imagination. The core reason for adopting CC BY, and indeed Open Access more generally, is to ensure that we do not inadvertently block forms of use *that we cannot yet imagine*. With a critical mass of Open Access content, we will enable new tools for discovery, resources for education, and entirely new modes of knowledge creation and innovation.

31. More narrowly, given that the Government agenda on Open Access is driven in part by the aim of supporting entrepreneurs, innovators, and the economic activity they create, it is critical that restrictions on the commercial uses of research are avoided. Allowing non-commercial restrictions will damage a core component of the Government's innovation agenda.

Use of CC BY in practice

32. Contrary to some claims made in the written and oral evidence to the House of Lords the CC BY license has been successfully used by major Open Access publishers for a decade. This includes not-for-profit publishers such as PLOS, as well as commercial for-profit publishers such as BioMedCentral and Hindawi. All three companies are viable and sustainable despite having "allow[ed] commercial [and] derivative use of their publications" for 10 years or more (quote from the submission by the Int. Soc. for First World War Studies to the House of Lords inquiry[10]).

33. Over the past ten years a corpus of over 200,000 articles has been generated with a CC BY license by Hindawi, PLOS, and BioMedCentral (including 70,000 published in 2012; see also Figure 1, paragraph 48 below). Over that time we are not aware of any incident or issue that can be traced to the use of CC BY as the license of choice.

34. Plagiarism, mis-attribution, and other issues of scholarly mis-conduct do naturally still occur. These are dealt with in exactly the same manner as they are by subscription publishers. Indeed with the corpus freely available detection of plagiarism is easier than it is for paywalled content.

PRICING OF SCHOLARLY JOURNALS AND SETTING OF APCs

35. Effective communication is an integral part of scholarship. As such it is crucial that it be effectively funded for the public investment in research to have its greatest possible impact.

36. The costs of the scholarly communication system have been systematically rising at a rate higher than inflation for the past two decades. While this is in part due to an increase in volume, subscription pricing has not seen the efficiencies obtained in other information distribution markets.

37. The primary reason for the lack of efficiencies in the subscription market is a systemic market failure, caused in large part by the fact that authors have no price sensitivity when they choose a journal in which to publish. This is demonstrated for instance by systematic pricing differences between equivalent journals where commercial publishers charge subscriptions several times that of similar not-for-profit journals.[11,12]

38. The market failure in the subscription pricing market is due to a lack of transparency, an effective monopoly in the saleable goods, and the reduction of pricing information availability for market participants through non-disclosure agreements.[13]

39. By contrast a market in publishing services provides pricing transparency (authors need to know what prices are in advance) in a market of substitutable goods (authors are directly choosing which publication services to purchase).

40. Transparent and genuine competition will engender the best opportunity to ensure that an equitable price is paid for research communication. Several studies show that such a market would lead to significant cost savings for all UK institutions compared to current pricing.[14–16]

41. Government and funders should work to ensure the creation of a fully functioning market with transparent pricing. In particular converting existing “bundles” and “big deals” from subscriptions to APCs and opaque cross subsidization of APCs from subscription income should be avoided.

42. PLOS alongside a range of other Open Access publishers have already shown that a sustainable and successful operating model can be applied to Open Access publication. PLOS posted a modest operating surplus in 2010 and 2011 (at the time of submission 2012 accounts were being prepared). In 2012 PLOS published more than 26,000 papers representing 43.9% year on year growth since 2009. Publication charges make up the majority of revenue.

43. Importantly financial sustainability can be achieved for publication services ranging from high selective publication of articles of wide interest to technically valid research of specialist interest at prices well below the level often quoted.

Table 1

<i>Journal</i>	<i>Papers published</i>	<i>APC (US\$)</i>
PLOS Biology	10	\$2 900
PLOS Medicine	20	\$2 900
PLOS Computational Biology	21	\$2 250
PLOS Genetics	45	\$2 250
PLOS Pathogens	47	\$2 250
PLOS Neglected Tropical Diseases	50	\$2 250
PLOS ONE	391	\$1 350
Total	584	

Papers published from Wellcome Trust Funded projects in 2012 in PLOS Journals. The full set of papers in the PubMed database containing “Wellcome” in the Grant Number field were obtained and papers published in each journal counted. A total of 5212 papers were published in 1,161 journals. APC, Article Processing Fee, given per article for each PLOS journal.

44. For a distribution of articles within our journals average prices are below the allowances made by RCUK in the current round of institutional funds, significantly lower than the ranges suggested by the Finch Report, and below the average currently paid by the Wellcome Trust.[17] It is striking that in the Edinburgh University study that journals with an enhanced access option with an otherwise subscription journal offer significantly less value for money based on the quality comparison made.

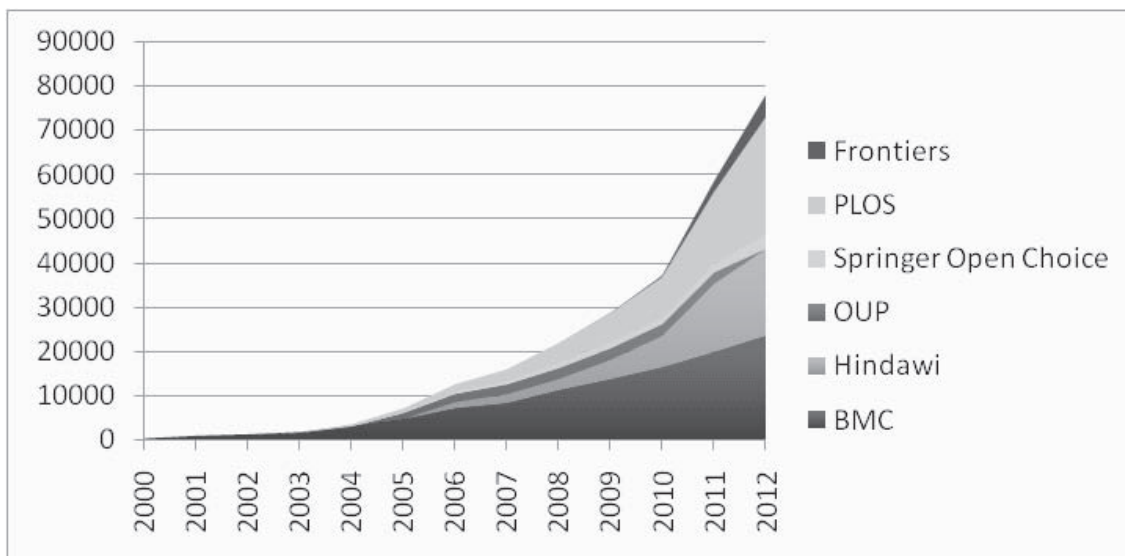
45. For instance, PLOS published 11% of all peer reviewed research articles funded by the Wellcome Trust in 2012. The average price per paper over this corpus was £1,060 (US\$1,680), comparing very favourably to the £1,741 which is the average price paid by the Trust for research published from the University of Edinburgh.[17]

46. In contrast to virtually all other publishers PLOS has not raised prices for our primary revenue stream (article publication charges) since 2009.[3] PLOS has therefore reduced prices in real terms by 10% (UK cumulative annualized inflation 2010–12) compared to rises in serials expenditure as reported by the US Association of Research Libraries of 4.8% in 2010–11.[18,19]

47. In addition to constraining list prices, PLOS also offers waivers for those who cannot afford to pay publication charges, investing \$US2.2 million in this program in 2011. PLOS also introduced a Global Participation Initiative in 2012 specifically aimed at encouraging participation from researchers in low and middle income countries by setting lower prices (starting at zero) for research funded by countries in two groups based on a range of economic criteria.

GLOBAL UPTAKE OF JOURNAL-MEDIATED OPEN ACCESS

Figure 1



Total combined publication volume per year and contribution from a selection of major Open Access publishers (data provided by OASPA and Frontiers Group, 2012 data were not available for OUP). These publishers represented 15–20% of the 340,000 articles published through Open Access journals in 2011 according to.[12]

48. The most recent studies of the take-up of journal-mediated Open Access show a rapidly rising proportion of research being made available through journals, with 11% of global research being made immediately available and a further 6% available at journal website after some delay.[12]

49. PLOS authors come from around the globe and are funded by a wide range of global funders to carry out and disseminate their research. In 2012 the majority of published authors were based in the US, followed by China, Germany and then the UK. Funding agencies include the US NIH and NSF, Chinese Academy of Sciences, German DFG and Max Planck Institutes, Canadian Institutes of Health Research, Howard Hughes Medical Institute, the Australian NHMRC as well as all major UK funders. The NIH is the single largest funder of research published by PLOS, funding for instance 21% of articles published in *PLOS ONE*.

50. As noted above PLOS published 11% of all peer reviewed research from the Wellcome Trust in 2012. This has risen from 5.3% in 2009 by 2% each year. PLOS published 9.3% of CRUK, 8.5% of BBSRC, and 6.9% of MRC research in 2012. PLOS has experienced growth of 43.9% year on year since 2009.

51. *PLOS ONE*, the world's largest journal publishes more peer reviewed research arising from the funding of the Wellcome Trust, MRC, BBSRC, and CRUK than any other journal.

52. We have already highlighted in our submission to the House Of Lords [6] that Research is a global enterprise tackling problems of global, national, and local relevance. Open Access will increase the reach of UK research and will increase the uptake and use of our publicly funded research. Concerns over the international access to UK research are at best misguided. Access is already available to those who wish to exploit UK research via subscription journals. Moreover, payment of subscription fees often benefits publishing companies that are not UK based.

53. As noted above, the Government agenda on Open Access is driven in part by the aim of supporting innovation in business and industry. As we and others discussed in evidence to the House of Lords Science and Technology Committee,[6] there is clear evidence that innovation is hampered by a lack of access and that the economic activity generated through controlling access via traditional business models far outweighs the costs of reducing access. According to the Houghton Reports,[14–16] Open Access is likely to return a five-fold increase in investment. That is, there is a net benefit to the UK economy in moving towards models that widen access. These pure economic benefits will also be bolstered by benefits of wider engagement in research, cultural enrichment, and better informed policy making.

54. In addition to these direct benefits of open access to the literature and data for the UK economy, it is also possible for innovative Open Access publishing organisations to exploit new business opportunities that are not available to traditional subscription publishers. For example, PLOS partners with a wide variety of public and private organizations to facilitate the development of early-stage ideas and technologies. These have included partnerships between PLOS and UK start-up companies, such as Mendeley[20] and Figshare,[21] internationally with organizations such as ScienceExchange[2] and ImpactStory.[22] PLOS has collaborations with governmental and not-for-profit organizations such as the WHO, Wellcome Trust, SPARC, and Creative Commons, as well as with larger commercial organizations such as Google.

RECOMMENDATIONS FOR GOVERNMENT ACTION

55. In light of the above evidence we have provided to the Business, Innovation and Skills committee, PLOS recommends that:

- (a) A clear distinction is made between the desired end goal and the mechanisms of transition to Open Access.
- (b) The terms “Gold” and “Green” be avoided in favour of a focus on the most effective mechanisms for delivering enhanced access and peer review and the operating models to support them.
- (c) The integral role of repositories to Open Access is emphasized.
- (d) That implementation discussions focus on ensuring price transparency and a functioning and effective market in publication services.
- (e) Additional stakeholders and established Open Access providers are brought into the discussion.
- (f) The Creative Commons Attribution License (CC BY) is retained as the most effective means to ensure that any possible re-use of a research output is legally allowed.

Submitted by Cameron Neylon
PLOS Advocacy Director

7 February 2013

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Supplementary written evidence submitted by PLOS

At the invitation of the BIS Committee, I would like to provide additional clarification and evidence about two issues raised at the oral enquiry on Tuesday 16 April.

A. Disagreements in interpretation of the impact of Open Access on the scholarly communications industry (including publishers and scholarly societies) and the availability of high quality data.

1. The committee noted that there are differing interpretations of the available evidence from different stakeholders about the transition to Open Access, including (a) the impact of embargoes on subscription revenues, (b) the appropriate pricing of APCs and additional costs to publishers and societies during any transition, (c) the cost of archiving and ability to achieve OA via repositories and (d) potential differences between STEM and AHSS. This is due to a number of factors but a primary one is the quality, clarity and completeness of the available evidence in this space. Many arguments put forward in the written and oral evidence to the committee depend are based on supposition or on qualitative survey evidence, which is often based on marketing methodology rather than high quality scientific design that provides more rigorous and comparable quantitative evidence.

2. There is a need for high quality monitoring of the transition and the development of reliable and trusted sources of data for all players to rely on. The efforts of Research Councils UK and the Open Access Implementation Group to define and develop monitoring systems that will allow us to manage the transition require support and a commitment to providing high quality data (including financial) from all stakeholders.

B. Licensing and the use of the Creative Commons Attribution license (CC BY)

3. It was noted in evidence that many submissions argue against the CC BY license. We would note that those submissions that advocated the use of CC BY uniformly came from organizations that have deep experience of its implementation and have fully embraced it. Those positions that were opposed came from organizations

with limited experience of Creative Commons licensing or which are seeking to protect real or imagined revenue streams based on closed content.

4. Particularly noteworthy is the submission from the Association for Learning Technology (ALT). Its journal, *Research in Learning and Teaching*, moved to an Open Access basis with a CC BY license in 2012 and in ALT's evidence it describes the concerns about CC BY as "very much overplayed". I was involved in advising ALT on the transition in 2009–10. At that time I was arguing that CC BY was the right license but ALT had concerns, similar to those expressed today by many scholarly societies in their submissions, about loss of revenue and, in particular risks to the integrity of work. That ALT is very happy with the decision to adopt CC BY and their experience of its use in practice after nearly 18 months should be both instructive and encouraging for those that have concerns.

5. Nonetheless, we accept that researchers have significant concerns around commercial re-use and the integrity of their work. We further accept that we have yet not convinced all our research and society colleagues that CC BY is the most effective license for maximizing the impact of publicly funded research. We agree that it is critical that authors retain the rights to their work (eg copyright) and have the ability to make informed choices about how they wish their work to be used. As long as those rights are retained by the research community those of us who argue for CC BY can then work to provide further evidence of its utility, confident that our colleagues will be able to make the choice to release work under freer terms when and if they are convinced.

6. To achieve this we must separate the desire of some incumbent publishers to retain exclusive commercial or distribution rights from the rights of authors to choose how their work is used. Some publishers are claiming they support authors' rights to choose while at the same time acting to retain exclusive commercial rights over published work. To support future innovation we must ensure that authors retain the right to authorize any commercial or derivative re-uses when they choose to do so. We must not cede exclusive and non-recoverable rights to commercial organizations whose interests are not necessarily aligned with those of researchers, funders, or the users of research. PLOS, along with other pure Open Access publishers uses a "license to publish" approach where authors retain copyright and grant the publisher only non-exclusive rights to publish with no exclusive rights.

Cameron Neylon
Advocacy Director, PLOS

23 April 2013

Written evidence submitted by the Political Studies Association of the UK

EXECUTIVE SUMMARY

1. Lack of consultation by Government and the Finch Working Group means that there is scant robust evidence to support the Government's Open Access (OA) policy. This omission is particularly serious with regard to the Government's preference for the "gold" OA model, but also leads to inadequate embargo periods for the "green" OA model.

2. "Gold" OA has been shaped by the science, technology, engineering and mathematics (STEM) agenda, without regard to the needs of other disciplines.

3. "Gold" OA proposals will cost considerably more than the claimed benefits to humanities and social science (HSS) subjects in terms of:

- The likely financial costs of article processing charges (APCs).
- Serious restrictions on academic freedom to publish, thereby limiting the UK's research capacity and output.
- International perceptions of UK research simply "paying to publish".
- A decline in the international standing of UK research.

4. CC-BY licencing will mean that:

- Authors lose control of their work, potentially enabling it to be used in ways which could damage their reputations and/or against the express wishes of the author.
- Commercial opportunities will be handed to the UK's scientific, research and economic competitors.
- Non-UK researchers will likely avoid publishing in UK-based journals because of the lack of ownership over their work.

5. There is no necessary reason that APCs charged by publishers will not rise. Universities will face financial decisions about who and what to publish, in addition to APCs being a direct subvention from the UK taxpayer and fee paying students direct to journal publishers.

6. There is little or no international evidence that the UK will benefit from “first mover” advantage particularly with “gold” OA, with many countries noting the risks this poses to their own academic and research standing and competitiveness.

7. The PSA calls on the Government to reconsider its policy and implement it differentially across disciplines, with a preference for “green” OA in HSS with an embargo period of 36 months, and with current plans piloted first in some of the STEM subjects, particularly the life sciences while further evidence is sought on the implementation of OA in HSS.

GOVERNMENT’S ACCEPTANCE OF THE RECOMMENDATIONS OF THE FINCH GROUP REPORT

8. The Report of the Finch Working Group on Expanding Access to Published Research Findings, published on 18 June 2012, has been held up by the Department of Business, Innovation and Skills (BIS) and by RCUK as the definitive analysis of open access and the academic journal publishing market. Indeed, on 16 July, David Willetts, the Minister of State for Universities and Science, fully endorsed the report’s recommendations, with the sole exception of the recommendation on VAT on online publications. RCUK announced its policy on open access the following day, 17 July. Yet the Finch Working Group, which met just five times, had less than nine months to analyse an extremely complex international market involving a vast range of stakeholders, and thus was able to conduct only a very limited analysis of the costs and benefits of different OA models or to develop an understanding of how other countries might respond to British Government initiatives in this field. Since BIS and the research councils have adopted the recommendations without conducting any further market analysis, the benefits of the policy relative to the costs have still not been quantified and a proper impact assessment is lacking. It is worth noting, however, that at an AHRC-ESRC convened meeting on Open Access on 4th February, a very senior figure in HEFCE said that he did not anticipate there to be major economic advantages to the UK of introducing open access in HSS, but simply that “Open access is right in principle” and a very senior figure in the ESRC said he agreed “that we are not just doing [it] for economic impact. This may be the driver for BIS, but not for us”.

9. Furthermore, the Finch Group did not consult widely. Dame Janet Finch attended an Academy of Social Science meeting of learned society CEOs on the 12 June, four days before publication of her report. This was the first contact our learned societies had received from the Finch Working Group and our concerns were not reflected in the report.

10. As a consequence of the failure to consult sufficiently widely, the BIS policy on OA has been shaped largely by considerations specific to the STEM community and in particular life sciences. The STEM community has been at the forefront of the OA movement and OA publishing is, therefore, considerably better established in the sciences than in HSS. The needs and concerns of the HSS subjects are in most cases quite different to STEM. Furthermore, the benefits of making HSS research findings freely available immediately on publication are considerably smaller. Had the views of HSS community been given due consideration by Finch and BIS, it is hard to imagine that they would have developed such a clear preference for the “gold” model over the “green” model.

11. The cost of processing an HSS article is considerably higher than in STEM due to both the greater average length of HSS articles (19 pages vs. 11 pages)⁷⁴ and lower acceptance rates (11% vs 42%)⁷⁵. Hence the level of APCs in HSS will have to be considerably higher than the figure of £1,750 used to model the costs of introducing APCs in the Finch Report, since this figure is based on the current average level of APCs, which is heavily weighted towards APCs in the STEM subjects. This means that the total proportion of research budgets that will have to be spent on APCs in HSS will be considerably higher than the 1–1.5% that the Wellcome Foundation calculates for research it funds and which is now widely quoted by RCUK. It also implies that the total cost to British universities of the transition to open access, when libraries continue to have to pay subscriptions to journals, will be higher than the £50–60 million quoted by Finch. There is of course no certainty that journals based overseas or indeed journals with substantial non-UK authors in the social sciences and humanities will make any kind of transition away from a subscription model, or even reduce prices consequent on (minority and UK-only) payment of APCs.

12. The half-life of articles in HSS (their continued utility in front-rank research) is generally much longer than in STEM. This means that the imperative to make the article freely available immediately, the primary benefit for the “gold” model cited by Finch, does not hold in HSS. Furthermore, the commercial applications of HSS research are far more limited in most HSS subjects than in most STEM subjects.

13. The benefits of “gold”, if they were to be quantified, might, therefore, be assumed to be very modest in HSS. Yet the costs are considerable. In addition to the financial costs outlined above, there are considerable costs to academic freedom and the reputation of UK research.

14. Since a great deal of research in HSS is conducted by lone researchers working on small grants that would not be able to support the cost of APCs, a large number of academics will have to look to their

⁷⁴ *The Future of Scholarly Journals Publishing among Social Science and Humanities Associations*, Report on a Study Funded by a Planning Grant from the Andrew W.Mellon Foundation by Mary Waltham, 2009

⁷⁵ *The Future of Scholarly Journals Publishing among Social Science and Humanities Associations*, Report on a Study Funded by a Planning Grant from the Andrew W.Mellon Foundation by Mary Waltham, 2009

institutions to fund APCs. There is an obvious risk universities will prioritise the support of established “sure-bets” rather than early career colleagues, or those returning after a career break. At worst those operating outside the mainstream may find funding completely withheld. Hence the academic who does not receive funding for APCs will be forced to go the “green” route, but most of the top international journals will not offer embargo terms that comply with RCUK’s policy, and hence freedom of choice where to be published will be dramatically undermined. The “gold” model is a system that risks promoting orthodoxy over innovation and heterodoxy.

15. Quite apart from the threat to early career academics or those challenging accepted norms, the idea that university managers will become publication gatekeepers, able to determine the journals in which their staff are published and which articles are deemed worthy of the financial support necessary to be published in the journal of their choice, runs counter to the principles of academic freedom.

16. Another issue is the threat of the “gold” model to quality control. The current peer review process is robust and generally works well. The “gold” model introduces a perverse financial incentive for publishers to publish regardless of quality. The counter argument to this is that top quality journals will not want to undermine their reputation by publishing poor quality articles, but there is already evidence that in STEM subjects as long as an author can demonstrate they have met methodological and ethical criteria open access journals will publish their work. In HSS the peer review tradition is to identify work of originality and innovation rather than simply sound methodology or ethics, yet quality peer review cannot be sustained on the level of APC quoted in Finch. Either APCs will have to rise to prohibitive levels or quality of peer review will fall.

17. There are additional and serious concerns about HEFCE proposals that all outputs for the REF 2020 should be open access. Researchers will be pushed not to publish their work in the journals with the most exacting peer review standards—many of which are published outside the UK—and benchmark themselves against the best in the world, but will rather be forced to publish journals that do not uphold the highest standards of peer review, reducing the standing of British research internationally. This would be both damaging to the standing of UK research internationally and deeply undermine the academic freedom to publish in the location of the author’s choice.

18. The PSA believes that the “green” model has considerable merit and is likely to have far fewer negative consequences for academic freedom and research standards than the “gold” model. However, in setting embargo periods, much greater consideration needs to be given to the fact that the half-life of HSS articles is considerably longer than for most STEM subjects. The embargo period for HSS of 12 months as currently set by RCUK is inadequate and should be extended to at least 36 months in order to protect the intellectual property of the researcher and to continue to deliver funding to the profession through learned societies to enable it to develop young researchers.

RIGHTS OF USE AND RE-USE IN RELATION TO OPEN ACCESS RESEARCH PUBLICATIONS

19. The PSA is deeply concerned by RCUK’s requirement that all articles published under the “gold” model must be available under CC-BY copyright licences, which allow unrestricted reuse and modification of articles, meaning authors effectively lose control of their work. The article content could be edited or abridged to such an extent that the integrity of the sources could be compromised. Similarly under CC-BY there is no protection against poor translation. Academics could find themselves, for example, in a position where their work is quoted out of context by extremist groups or reprinted in anthologies where the context might be offensive to the authors and yet, as long as the work has been attributed, they will have no legal recourse to prevent it. Yet intellectual property rights are particularly important for academics in HSS, because, unlike STEM scholars, their work rarely can rarely be protected by other means such as patents. It is also important to bear in mind that for proponents of CC-BY licences one of the primary benefits cited is the possibility of data mining but the viability of data mining HSS articles is extremely modest.

20. In reducing the intellectual property rights of academics based at UK institutions, the Government will be directly handing commercial opportunities to companies based overseas as it is highly likely that in many non-English speaking territories the content will be translated and repackaged by intermediaries and local publishers and sold for profit without the need to pay authors any royalties.

21. At the same time overseas authors, deterred by the lack of control over their intellectual property, are likely to bypass UK journals that comply with RCUK policy, compromising the international standing of UK journals.

22. The requirement for CC-BY could potentially put upward pressure on APCs as publishers will lose secondary income from commercial re-use, which they will seek to recover through higher APCs.

23. The CC-BY licence requirement should be replaced with a CC-BY-NC-ND licence, which prevents use of the work for commercial purposes and any alteration or transformation of the work.

COSTS OF APCs AND THE IMPLICATIONS FOR RESEARCH FUNDING AND THE TAXPAYER

24. Clearly it is in the interests of higher education to reduce its costs, but the “gold” model does not necessarily lead to this. Transaction costs alone are going to be high and, as acknowledged by Finch, the transitional period in which universities continue to pay subscriptions for journals in their libraries (particularly those journals in which UK researchers are a small minority of authors), yet also have to contribute towards the costs of APCs, could be many years.

25. The Government has justified support for OA on the basis that “the public shouldn’t have to pay twice”, both to fund academic research and, through subscriptions, to pay for the published outputs. However the favoured “gold” model will deliver almost entirely free goods to the publishers, paid for by publicly funded APCs. This is in effect a subsidy from taxpayers and from fee-paying students to commercial organisations, since taxpayers contribute to funding academic research through the research councils and through the portion of the fees paid by students, which are used to fund the time academics commit to research and scholarship time. The Government’s argument that “the public shouldn’t have to pay twice” is belied by their own proposals: the public will always have to pay both for the research and its publication, whether the publication costs come from APCs or subscriptions.

26. Furthermore the cost to UK institutions may transpire to be well above the £50–60 million calculated by Finch because there is growing evidence, as shown in paragraphs 28–30 below, that the rest of the world will not follow the UK in supporting the “gold” model and hence competition amongst journals for APCs will not occur. Indeed, the top international journals may be able to set APCs above the current £1,750 quoted in Finch, knowing compliance with RCUK rules will require British-based researchers to pursue the “gold” route. Furthermore, as explained in paragraph 11 above, APCs in HSS journals will have to be considerably higher than the £1,750 used for modeling costs in Finch, and used by RCUK in calculating block grants for APCs, because the overheads in HSS publishing are so much higher than in STEM. At the same time, with slower take up of OA internationally, British universities will continue to have to pay journal subscriptions for far longer than anticipated by the Government.

27. All this implies that unless BIS is willing to increase funding to HEIs, funds may have to be diverted from research and teaching to publications—both APCs and library journal subscriptions.

LEVEL OF “GOLD” OPEN ACCESS UPTAKE AROUND THE WORLD AND THE ABILITY OF UK HIGHER EDUCATION INSTITUTIONS TO REMAIN COMPETITIVE

28. Government claims of first mover advantage for the UK arising from pushing ahead with a highly prescriptive OA policy depend on the rest of the world following the UK’s example. Yet there is little evidence that other major countries are following the lead of the UK, particularly as regards “gold”. Indeed, the debate currently taking place in the UK is alerting other countries to the risks of the “gold” model and many are rethinking their positions. It is increasingly clear that where overseas governments and funding bodies introduce an open access policy they will not prescribe or favour any particular model. This will inhibit the development of the “gold” option internationally and the “gold” route will not be available in many leading journals around the world.

29. The Australian Research Council, the main funding body for non-medical research in Australia, has opted for the “green” model; the National Institutes of Health (NIH) in the US has also opted for the “green” model with a 12 month embargo period; according to Professor Geert Bouchaert of the Public Management Institute in Belgium “Belgium (federal) and the regions have all suspended the implementation of this open access regulation until it is clear what the consequences will be”, a position also being adopted in the Netherlands, while in Germany and France funders are implementing what they see as in the national interests of their academics and publishers.

30. Many advocates of OA in the US have expressed concern that the policy being pursued in the UK and the negative response with which it is being met in wide sections of academia, is undermining support for the principle of OA. As Professor Richard Holton of MIT has said: “One of our concerns is that OA will get a bad name in the UK—and justifiably so it is pushed through in thoughtless ways—and once this happens it is going to be an uphill struggle to get people to agree to anything”.

31. As a consequence of other countries rejecting the “gold” model, the UK runs the risk of being alone in diverting funding for research to APCs. This is of considerable concern at a time when many other countries are increasing research funding and posing a greater competitive challenge to UK institutions.

32. The prospect of having to publish under CC-BY licences may even deter leading academics from taking up posts in UK institutions.

33. A final destructive consequence of the Government’s OA policy is the threat it poses to the future viability of learned societies. Most learned societies publish a range of discipline-based journals and rely heavily on this income to provide vital support to the development of the profession in their individual disciplines, thus contributing to the high international standing of British research.

CONCLUSION

34. The PSA urges the Government to acknowledge that significant differences exist across disciplines and that the “gold” model poses a very substantial threat to academic freedom and the reputation of British universities. It thus urges:

- a reconsideration of the preference given to the “gold” model over the “green” model and to take account of the strong evidence that “green” is a more appropriate route to OA in HSS;
- a review of the embargo periods envisaged under the latter model, with at least a 36-month standard;
- modification of the CC-BY licence requirement under the “gold” model to a CC-BY-NC-ND licence requirement;
- de-linking REF 2020 from any OA requirements;
- piloting the introduction of the policy in life sciences or some of the other STEM disciplines before any decision is made about applying it to all publicly-funded research in the UK.

7 February 2013

Written evidence submitted by Reed Elsevier

1. Reed Elsevier is a FTSE 50 company which employs more than 30,500 people worldwide (4,600 in the UK). It is also a major investor in digital technology, with 86% of its science and technology revenues and 74% of its legal and professional information revenues derived from electronic products and services. It is a world leading provider of professional information solutions in the Science, Medical, Legal, Risk, and Business sectors. In 2011 its UK exports totalled £526 million and its UK tax contribution for 2011 was £154 million. Products include academic journals, books and databases, legal texts and analyses, business to business magazines and websites, information products for academic researchers and medical practitioners, and trade exhibitions. Professional customers use Reed Elsevier products every day to advance science, improve medical outcomes, enable better decisions, enhance productivity, evaluate risk and gain insight.

2. Reed Elsevier’s subsidiary, Elsevier, is a world-leading provider of scientific, technical and medical information products and services. The company publishes more than 2,000 journals, including *The Lancet* and *Cell*, including a growing portfolio of *open access titles*. It also publishes close to 20,000 book titles, including major reference works such as Gray’s Anatomy and titles from Mosby and Saunders. Elsevier’s online solutions include *ScienceDirect*, *Scopus*, *Reaxys*, *ClinicalKey* and *Mosby’s Nursing Suite*, which enhance the productivity of science and health professionals by providing quick and efficient access to published research, and the *SciVal suite* and *MEDai’s Pinpoint Review*, which help research and health care institutions deliver better outcomes more cost-effectively.

3. The people we work with in the research community strive to advance essential knowledge, save lives, and improve the way we all live. Our role is to help them accomplish this. We work closely with researchers to support them as they develop content that others use and rely on. We launch new journals that serve new, groundbreaking areas of science, helping to create communities of practice. High quality, well-recognized journals provide a trusted, respected place to publish researchers’ work. Time is a researcher’s most precious commodity. Our automated editorial systems help editors and reviewers turn an author’s work into a peer reviewed article, quickly. We invest substantially in products and tools that help researchers get the most out of their time. We develop trustworthy tools and applications that help researchers quickly find research in their fields. We also help academic institutions measure research outcomes.

4. This publisher role is important, often challenging, and not always visible. Our substantial and continuing investments make essential content accessible to the world’s researchers, with added tools that enhance efficiency and productivity of both researchers and research institutions. We invest heavily to ensure research information is widely available and efficient for researchers to use. Over the past 12 years, Elsevier has invested hundreds of millions in new systems to increase access to scientific information.

5. We are committed to universal access to information, to maintaining the quality and integrity of the scholarly record, and to sustainability for all stakeholders in the system. Here are 3 examples of our universal access initiatives:

- The general public wants access to scientific information, especially people with health concerns. We provide free or very low cost access to the public in a variety of ways. We have flexible agreements with academic institutions to allow access by individuals who are not members of that institution. Since 2006 we have also provided access to hundreds of medical journals via patient information services such as Patient Inform.
- Developing countries need access to published research but often can’t afford it. We provide free or very low cost access to developing countries through the Research4Life programs. Through Research4Life more than 6,000 institutions in more than 100 developing countries now have free or low-cost access to c. 30,000 peer-reviewed journals, books and databases, including 2,000 journals and 7,000 ebooks from Elsevier.

- Our journal platform, ScienceDirect, has 10 million active users on a monthly basis from more than 120 different countries. In 2011, 600+ million articles were downloaded from ScienceDirect. Digitization of our journals means historical publications back to the 1800s can now be accessed. Researchers are also able to access this content from any location on a variety of mobile devices.

6. The principle of ensuring access to published research by means of open access is therefore entirely one that we support. What is at issue is not the principle of open access, but the form that it should take in order to make it work in a sustainable fashion. Publishing costs money, so there have to be revenues somewhere to cover these costs. Overall, we support the position taken by the Finch Group Report and by the Government in its stated position in response to the Finch Group Report.

7. We welcome this opportunity to submit evidence to the Committee Inquiry into Open Access Publishing and support the comments made in the Publishers Association submission. Our submission seeks to add additional information based on our own practical experience.

8. To the four key points raised by the Committee:

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

9. The Government's policy is based on a rigorous review, by a very expert panel, drawn from a wide array of stakeholder groups. The Finch recommendations were supported by all stakeholders represented on Finch: the Higher Education Funding Council for England (HEFCE), Research Councils UK (RCUK), Research Libraries, Wellcome Trust, Learned Societies, and Publishers.

Gold Open Access

10. Elsevier is in principle happy with any approach to sustainable open access and, in line with Government Policy and the Finch Group, we believe that gold is generally preferable to green, because it gives immediate access to the published version of record and reflects a demonstrably sustainable business model. That said, for a gold open access publishing system to work well, it needs to be properly funded and kept simple.

11. In our experience, where adequate funding is available to authors for open access publishing and administrative processes are simple, it has been possible to achieve 100% compliance with open access policies. This has been the case, for example, with the Austrian Science Fund (FWF), for whose grant recipients we have been publishing on a gold open access basis since 2010. FWF cover all the costs of publication for their grant recipients and we invoice FWF directly for all articles published by their grant recipients. We are able to tailor our article submissions and other systems to ensure FWF grant recipients are aware of the policy and can opt-in. After publication Elsevier deposits the articles on behalf of FWF-funded authors with Europe PubMed Central (Europe PMC), the on-line archive and database of life sciences journal literature.

12. Where adequate funding is available, but the administrative process remains complicated, it is still possible to achieve high, if not complete, compliance. For example, Elsevier has operated an open access publishing agreement with the Wellcome Trust since 2006. We have found that Wellcome funded authors are generally happy to comply with the Wellcome Trust's open access policy, although they find the mechanics of payment and reimbursement somewhat onerous. This payment/reimbursement process is important to Wellcome Trust because it aims to increase authors' awareness of the cost of the scholarly communication system. We find that authors appreciate Elsevier's deposit of their articles to EuropePMC. In this way the open access agreement between the Wellcome Trust and Elsevier has operated efficiently since 2006, and we are committed to ensuring that it will continue to do so through 2012 and beyond.

13. By contrast, when the provision of funding is a barrier, then in our experience compliance with open access policies is low. We believe this explains why author compliance with our current open access agreements with UK Research Councils is disappointing: our data indicate compliance with the Medical Research Council (MRC) gold open access mandate is 14%; compliance with the Biotechnology & Biological Sciences Research Council (BBSRC) gold open access mandate is 4%, and there have been no gold open access articles published with us at all under the Economic and Social Research Council (ESRC) mandate.

14. We believe that a recent amendment to the RCUK policy on open access to no longer limit the use of funds for open access publishing during the lifetime of the grant will be a positive step, as most papers are published after expiry of the grant period. This has been a significant barrier for authors and the change should now improve author compliance rates with RCUK's policy.

15. However we are concerned about two remaining barriers: the funding shortfall in meeting the costs of Gold Open Access, as publicly stated by RCUK in their announcement on 8 November 2012 (which announced RCUK's intention to provide funding to enable around 45% of Research Council funded research papers to be published using Gold Open Access, growing to over 50% in the second year, with funding levels only specified for an two year period); and the added complication of a funding split between UK Research Councils and Universities which will create uncertainty for our authors and additional administrative costs and challenges for all stakeholders.

Green Open Access

16. Green open access is not a business model and therefore has no revenue stream associated with it. Author self-archiving is only sustainable if the costs of publication are covered by a supporting business model. If the business model is gold open access, with funding in place for the costs of publication, then self-archiving can happen immediately and be sustainable. If the aim is to graft green open access on to the existing reader-pays subscription business model, then this requires time to work—and sustainable embargo periods are essential if green open access is not to undermine the journals in which academics choose to publish.

17. Green open access for subscription content adds additional costs of managing institutional repositories, involves duplication of hosting effort by stakeholders, is operationally complex, and if not done well could undermine the integrity of the scientific record by disseminating draft/multiple versions of articles. Some proponents of green open access have even suggested that articles could be published without any peer review at all, in order to try and minimize or eliminate the costs of publication. We do not believe that any such approach would be sensible if the UK is to maintain its reputation for credible scientific research. There are different forms of pre-publication and post-publication peer review, but overall we would agree with the views of the House of Commons Select Committee on Science & Technology, in its report on “*Peer Review in Scientific Publications*” (July 2011) that “Peer review in scholarly publishing, in one form or another, is crucial to the reputation and reliability of scientific research.”

18. For these reasons we view green open access as a second best to gold open access, although we are not opposed to green open access in principle—particularly if it can be made to work in a properly sustainable fashion.

19. Although we offer gold open access options for all articles published in Elsevier owned journals, it would appear that the UK Government’s objective for immediate open access to work by UK funded authors will not be met in the medium term, due to limited funding for Article Publication Charges (APCs). In this situation, clarification of interim implementation arrangements for green open access policy as an alternative to gold open access is essential, because many journals will still rely heavily on subscription income to meet their costs.

20. Elsevier has entered into a number of *agreements* with funders and research universities and institutions for the operation of green open access mandates. These are structured in ways which ensure sustainability for the underlying journals. These agreements, such as the one with the World Bank, enable access to accepted manuscripts via institutional repositories after a title-specific embargo period. Our embargo periods are set on the basis of the evidence provided by comprehensive analysis of article usage data. We calculate a usage half-life and position our embargo periods at the time when 50% of the predicted lifetime usage of a typical article within the journal title has passed. Our embargo periods are generally 12–24 months, although they vary across subject and title as one size does not fit all.

21. The Finch Group Report concluded that: “Where an appropriate level of dedicated funding is not provided to meet the costs of open access publishing, we believe that it would be unreasonable to require embargo periods of less than twelve months” (Finch Group Report—Executive Summary, section 4, xviii—p.10).

22. Recognising the need to maintain sustainability of the scholarly publishing system, in his letter to Dame Janet Finch of 16 July 2012, David Willetts commented further:

“Embargo periods allowed by funding bodies for publishers should be short where publishers have chosen not to take up the preferred option of their receiving an Article Processing Charge (which provides payment in full for immediate publication by the “gold OA” route). Where APC funds are not available to the publisher or learned society, for the publication of publicly-funded research, then publishers could reasonably insist on a longer more equitable embargo period. This could be up to 12 months for science, technology and engineering publications and longer for publications in those disciplines which require more time to secure payback.”

23. At present the RCUK policy is not consistent with either the Finch Group Report or Government policy as it mandates embargos of as short as 6 months. For the vast majority of publications this would be unsustainable. The costs of publishing journals not funded by means of APCs for gold open access is met instead by selling subscriptions, for example to UK and overseas libraries, research institutions and businesses—so to have a sustainable business model, adequate time is needed to collect subscriptions that will cover the publishing costs.

24. We therefore very much welcomed the RCUK statement in January during evidence to the House of Lords Science and Technology Committee that it would waive their previously stated requirement, and instead of insisting that research made available via a green open access route be accessible after six months RCUK will now allow embargoes of at least 12 months where a publisher has offered a gold option but this is not taken up. It would be regrettable if they now backtrack on this commitment.

RIGHTS OF USE AND RE-USE IN RELATION TO OPEN ACCESS RESEARCH PUBLICATIONS, INCLUDING THE IMPLICATIONS OF CREATIVE COMMONS “CC-BY” LICENCES

25. In discussions about the license terms for content published under open access arrangements, some organisations in the UK state firmly that the right of funders “trumps” the right of authors. While it is true that contract law can vary aspects of copyright law, the rights of authors—and the choices they make about how to deploy these—should be taken into account. We would also draw attention to the importance to most authors of their freedom to publish where they choose.

26. There are two important types of licenses which are defined during the publication process: the agreement between author and publisher and the agreement between author/publisher and those who use the publication.

27. In order for us to do our job of publishing and disseminating research articles we need publishing rights from the author. For subscription articles Elsevier request a *transfer of copyright* with authors retaining important rights to use their own article for scholarly purposes. For open access articles we are moving to an *exclusive licensing agreement* in which authors retain their copyright.

28. For open access articles we have experimented with offering a range of end user licenses, both bespoke licenses and different versions of *CC license*. We are moving to offer authors a selection of user agreements depending on the journal in which they choose to publish. Generally we will offer authors a choice of CC-BY (attribution alone), CC-BY-NC-SA (attribution + non-commercial + share alike) and CC-BY-NC-ND (attribution + non-commercial + no derivatives) licenses.

29. We have adopted a test-and-learn approach because there are a number of uncertainties including author preferences, clarity of some terms in the Creative Commons licenses, an absence of case law, and the influence on revenue streams of different forms of license.

30. To resolve some of these uncertainties the International Association of Scientific, Technical, and Medical Publishers is developing a CC+ license. It is designed to:

- add clarity to the Creative Commons definition of “non-commercial” to make it more clear that associating content with advertising is classified as a commercial use and requires extra permissions;
- more explicitly permit text and data mining by enabling automated searching, sorting, parsing, addition or removal of linguistic structures; and
- to use NC-ND (non-commercial + no derivatives) provisions to ensure the integrity of the scientific record, and enable publishers to take action to protect authors’ rights.

31. This is an issue that was not closely evaluated by the Finch Group, and where further reflection and discussion between stakeholders in an implementation forum would be welcome.

THE COSTS OF ARTICLE PROCESSING CHARGES (APCs) AND THE IMPLICATIONS FOR RESEARCH FUNDING AND FOR THE TAXPAYER. 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.

32. The costs to produce properly edited and peer reviewed journals do not change as a result of a payment shift from reader to author. The only change is the way in which the money flows.

33. There is a well-recognised gap between the growth of global research & development investment and resulting growth in published articles on the one hand—and the budgets currently available to libraries to pay for access to this content on the other hand. The principle of coupling growth in research output to publication funding is a sound one so that budgets and research outputs stay in tandem. However for this very reason it is conceivable that more research intensive countries will prefer the subscription model or will support open access with a mix of gold and green.

34. We thank the Committee for this opportunity to provide input to this review and will be pleased to provide further assistance if required.

Submitted on behalf of Reed Elsevier by
Dr Nick Fowler
 Director of Strategy, Elsevier

14 February 2013

Written evidence submitted by Research Councils UK (RCUK)

1. *Research Councils UK (RCUK)*

1.1 Research Councils UK (RCUK) is a strategic partnership of the UK's seven Research Councils who each have a Royal Charter and together annually invest around £3 billion in research. We support excellent research, as judged by peer review, which has an impact on the growth, prosperity and wellbeing of the UK. To maintain the UK's global research position we offer a diverse range of funding opportunities, foster international collaborations and provide access to the best facilities and infrastructure around the world. We also support the training and career development of researchers and work with them to inspire young people and engage the wider public with research. To maximise the impact of research on economic growth and societal wellbeing we work in partnership with other research funders including the Technology Strategy Board, the UK Higher Education Funding Councils, business, Government, and charitable organisations. Further details are available at www.rcuk.ac.uk.

1.2 This evidence is submitted by RCUK and represents its independent views. It does not include, nor necessarily reflect, the views of the Department for Business, Innovation and Skills (BIS). The submission is made on behalf of the following Councils:

- Arts and Humanities Research Council (AHRC).
- Biotechnology and Biological Sciences Research Council (BBSRC).
- Engineering and Physical Sciences Research Council (EPSRC).
- Economic and Social Research Council (ESRC).
- Medical Research Council (MRC).
- Natural Environment Research Council (NERC).
- Science and Technology Facilities Council (STFC).

1.3 RCUK provided written and oral evidence (29 January) on open access to the House of Lords Science and Technology Committee.⁷⁶ This written evidence has been prepared in the context of the debates of the Lords' Committee and other recent developments

2. *Benefits and opportunities of Open Access*

2.1 A key principle that underpins the RCUK Policy on Open Access is that the ideas and knowledge derived from publicly-funded research must be made available and accessible for public use, interrogation and scrutiny, as widely, rapidly and effectively as practicable. The Research Councils thus have a responsibility to ensure the widest possible dissemination of the research we fund, from academics to SMEs, and from the general public to individual innovators. And to us, "use" means much more than just being able to read research papers—it means having the ability to re-use and exploit research papers in the widest possible sense. This may involve text and data mining to advance new areas of research, re-presenting collections of research papers in particular areas, mashing together elements of research papers with other information to create new information products, etc. With maximal openness and accessibility to the outputs of research comes maximal opportunity to read and to exploit research, and thus maximal opportunity for innovation. And from innovation comes growth, and benefit to the UK as a whole. The Research Councils' preference for Gold OA delivers this maximal openness and opportunity for innovation through the CC-BY licence which we require where we pay an Article Processing Charge (APC).

2.2 This move to openness and reusability is already stimulating innovation. One Learned Society has discussed with RCUK its ideas to create a value-added service built around re-presenting research papers in a specific subject area from a variety of publishers. This is made possible through the use of the CC-BY licence. We also consider that open access to published research will help those individuals and organisations acting as knowledge brokers, enabling them to call on a much wider range of material to summarise, synthesise and report on in their role as intermediaries between researchers and industry.

2.3 Further commercial impact of the policy will be monitored over time but it is expected that there will be considerable benefits from the policy directly to business and other sectors.

3. *RCUK Policy on Open Access*

3.1 The Research Councils have a preference for the Gold model of Open Access and will be supporting this with block grants to eligible institutions to fund the associated APCs. We believe that in-line with government policy and the recommendations of the Finch Report,⁷⁷ at the 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. However, we are not anti-Green and are supporting a mixed approach to Open Access. The ultimate decision on which model to follow remains at the discretion of the researcher and their institution.

⁷⁶ <http://www.parliament.uk/business/committees/committees-a-z/lords-select/science-and-technology-committee/publications/>

⁷⁷ <http://www.researchinfonet.org/publish/finch/>

3.2 The RCUK Open Access Policy should be seen in the context of other OA policies, such as those from the Wellcome Trust.⁷⁸ The Trust policy is that electronic copies of any research papers that have been accepted for publication in a peer-reviewed journal, and are supported in whole or in part by Trust funding, are made available through the PubMed Central (PMC) and Europe PMC online repositories within six months of publication. Where this requires authors to publish using Gold OA and to pay an APC, the Trust will cover the costs of this by providing additional funding to grant-holders through their institutions. Similar to the RCUK policy, from 1 April 2013, the Wellcome Trust will also require use of the CC-BY licence wherever Trust funds are used to pay an OA fee.

3.3 The RCUK Policy on Open Access⁷⁹ applies to peer-reviewed research papers that would normally be published in journals or conference proceedings, and which acknowledge funding by the Research Councils. It does not apply to other forms of scholarly output, such as books or monographs. The policy builds on individual councils' policies on open access which have been in place since 2005–06.

3.4 According to this Policy, it is expected that Peer-reviewed research papers submitted for publication from 1 April 2013:

- be published in journals which are compliant with Research Council policy on Open Access, and;
- must include details of the funding that supported the research, and a statement on how the underlying research materials such as data, samples or models can be accessed.

3.5 To be compliant with the policy, Journals must offer either a “Gold” Open Access option, which results in immediate and unrestricted access to the published version of a paper via the journal’s web site; or a “Green” option, allowing deposit of the authors final peer-reviewed manuscript in an institutional or subject-specific repository, with a maximum embargo period on access of six months (or 12 months for AHRC & ESRC funded research). In addition, the policy requires publishers to use the Creative Commons “Attribution” licence (CC-BY), when an Article Processing Charge (APC) is levied. However, as indicated below, RCUK accepts that too sudden a change will be hard to manage productively, especially (but not exclusively) in disciplines supported by the AHRC and ESRC. We will therefore approach the implementation of green option embargo periods with this in mind over the five year transition period (reviewed in 2014). (See also paragraphs 6.5 and 6.7 below.) Details will be finalised in the final guidance to be published in late February.

3.6 Where Research Council funds are used to pay the APC for an Open Access paper, we require that the publisher makes the paper freely available under a Creative Commons Attribution (CC-BY) licence. This is the standard licence used by open access journals, and supports the maximum dissemination and reuse of published papers. It allows others to distribute, remix, tweak, and build upon a paper, even commercially, as long as they credit the authors for the original paper, but not in any way that suggests that they endorse the re-user or the re-use of the paper. The Wellcome Trust has adopted a similar requirement for papers where it pays the APC. The CC-BY licence opens up exciting possibilities for new areas of research by the re-use of papers and the content of papers through text and data mining, and for new ways of disseminating research through being able to re-present papers in innovative new ways. Crucially, the CC-BY licence removes any doubt or ambiguity as to what can be done with papers, and allows re-use without having to go back to the publisher to check conditions or ask for specific permissions. It is also worth noting that it is normal for authors to retain copyright of their manuscript and also, in some fields, pre-publication of the manuscript is the norm.

3.7 The Research Councils recognise that implementation of its policy on Open Access will require a major change in the way researchers, institutions and publishers manage the process of publishing and otherwise disseminating the results of the research that we fund. The Research Councils are also asking that this cultural shift takes place over a relatively short period of five years. For these reasons, the Research Councils see this transition to full Open Access as a journey and not as a single event.

3.8 During the transition period we expect researchers and their institutions to follow the spirit of the policy and strive to achieve full compliance. As the funding we make available for Gold Open Access increases during the transition phase, so will our expectations of compliance. At the end of the transition period we will expect researchers and institutions to be fully compliant with the policy, and for 100% of research papers then arising from the research we fund to be published in journals which are compliant with our policy on Open Access.

3.9 It is planned to issue updated guidance on implementation of the policy in late February, following the on-going process of engagement with various stakeholders. Current guidance is on the RCUK website.⁸⁰ We recognise that the funding we are providing to HEIs to implement the policy is based on a number of estimates. We will therefore be undertaking a review of the policy and its implementation in 2014. We are making it clear that if there is real evidence that the policy is not working, that it is producing unintended consequences, or that the level of funding we are making available to support it is insufficient, we will take this evidence very seriously as part of the review. However, at present we are of course unable to make any commitments beyond the current Spending Review period.

⁷⁸ <http://www.wellcome.ac.uk/About-us/Policy/Policy-and-position-statements/WTD002766.htm>

⁷⁹ <http://www.rcuk.ac.uk/research/Pages/outputs.aspx>

⁸⁰ http://www.rcuk.ac.uk/documents/documents/Guidance_for_the_RCUK_policy_on_Access_to_Research_Output.pdf

3.10 Chronology of the development of the RCUK Open Access Policy. As RCUK had representation on and was involved in the work of the Finch Group, it was possible to develop the policy and engage with stakeholders about it in parallel. Although the chronology notes the major points of engagement with stakeholders, discussions have been on-going, and will continue to take place, with researchers, institutions, publishers and learned societies throughout this period. The main milestones within the process include:

- 2006—Research Councils publish their first Open Access policies.
- *October 2011*—Finch Group established. RCUK has representation on the group.
- *March 2012*—Informed by the work of the Finch Group, RCUK circulates a draft policy to representatives within the different research communities and to members of the Finch Group for comment.
- *18 June 2012*—Finch Group publishes its report.
- *16 July 2012*—Government publishes its response to the Finch Report and, simultaneously, RCUK publishes the finalised policy having taken on board comments from stakeholders.
- *17 July 2012*—European Commission publishes their position on Open Access.
- *7 September 2012*—Government announces additional £10 million investment to “pump prime” Open Access, to be administered by RCUK.
- *27 September 2012*—Sci-Comms Forum debate on Open Access. RCUK represented by Mark Thorley.
- *22–28 October 2012*—Open Access Week. Many RCUK staff gave presentations and talks at universities across the Country about the policy.
- *8 November 2012*—RCUK announced details of the block grant.
- *13 November 2012*—Workshop on the policy held by RCUK. Around 60 representatives from universities, research organisations, learned societies and other sector organisations were able to discuss the policy and ask questions about it. RCUK also used the event to engage with the sector on the best ways to monitor compliance with the policy.
- *6 December 2012*—Russell Group convened meeting with PVCs for Research, publishers, learned societies and RCUK to discuss the RCUK OA policy.
- *9 January 2013*—Meeting between RCUK and representatives of the Russell Group to discuss the policy.
- *31 January 2013*—RIN convened a stakeholder forum meeting, including RCUK, as part of RIN’s programme of work on the implementation of the Finch Report.
- *4 February 2013*—Meeting between AHRC, ESRC and representatives from the Arts, Humanities and Social Sciences communities.
- *5 February 2013*—Westminster Higher Education Forum meeting, “Open access research and the future of academic publishing”. RCUK representatives gave two presentations and participated in discussions.
- *12 February 2013*—BIS convened meeting between publishers, learned societies and universities. RCUK will also be represented.
- *25 February 2013*—Meeting organised by the Royal Society, AMS, RSC and IOP, *Open access in the UK and what it means for scientific research*. RCUK representatives will be speaking/participating.
- *Late February 2013*—Finalised guidance to accompany the policy will be published. Input has been sought from a variety of stakeholders to ensure that it provides clear guidance for implementation.
- *1 April 2013*—New policy comes into effect.
- *Autumn 2014*—First review of the policy and its implementation will take place.

4. International context

4.1 It is acknowledged that this is a fast paced and transformative agenda not only for the UK but internationally. The RCUK Policy on Open Access has been developed in discussion with other stakeholders in the international research community. It is also noted that many stakeholders are currently developing their policies around open access based on the position within the UK. Examples of current international positions are given below and a table is provided in annex A as a summary of the European position:

- For the European Commission, Open Access will be a key aspect to Horizon 2020 and will apply to all funding. The European Research Council has operated such policy since 2006 for its awards.
- The European Commission has also made a recommendation to Member States on improving their policies and practices on open access, with preferably 6/12 months embargo periods.⁸¹

⁸¹ http://ec.europa.eu/research/science-society/document_library/pdf_06/recommendation-access-and-preservation-scientific-information_en.pdf

- The Science Europe General Assembly have been considering their Open Access Working Group's action plan. Science Europe is supporting the development of coordinated policies across Europe with a clear aim ultimately to replace the present reader-paid publication system with an author- or institution-paid one. Clear and transparent cost structures have also been identified as essential elements to enable the transition to open access.⁸²
- In Germany, Deutsche Forschungsgemeinschaft (DFG) has introduced its current open access policy in 2006. DFG expects the publications issued from research it has funded to be made available in open access within 6 to 12 months, either via an institutional electronic archive or published in a recognised peer-review open access journal. Costs to cover APC are eligible as research costs within the grant.⁸³ In addition, DFG provides Open Access block grants to universities to help them put in place stable funding for open access APCs. In order to be eligible to apply, German universities have to provide from their own funding 25% of the overall amount they expect OA costs will be. DFG has also imposed a cap of €2,000 for each publication that is paid from this fund and requires information from the university on how they intend to make the funding of OA sustainable in the future as part of the application criteria.⁸⁴
- FWF, the Austrian research funding agency, has had an open access policy since 2004 for sciences and humanities, and commits to the payment of APCs as a research costs.⁸⁵ In 2011, FWF spent around €1.5 million on APCs (dedicated budget), for both Gold and hybrid journals (Source: Science Europe Working Group on Open Access survey). The FWF policy states that publications should be available via open access after six months (twelve months in exceptional cases). FWF is also a funding member of Europe PubMedCentral (previously known as UK PubMedCentral), alongside a number of UK biomedical research funders, including the MRC, BBSRC, NIHR and the Wellcome Trust.
- In the USA, NIH has recently announced new measures to enforce its open access mandate, which requires all peer reviewed research papers to be archived in PubMedCentral within 12 months at the latest.⁸⁶ A response to a petition submitted to the White House before the election is still expected requiring the NIH mandate to be expanded to all federal research funding.⁸⁷ At the same time, a bill with a similar aim is currently progressing through Congress.⁸⁸
- Fast growing nations such as India and China also have Open Access on their agenda and indications are that the focus of discussion is also on shortening the embargo periods to a maximum of 12 months and enabling maximum use and re-use of published research. The emphasis is both on building a repository infrastructure as well as launching new open access journals. (COAR, the repository directory, currently lists 33 repositories for China and 52 for India). Several countries in South America have implemented legislation supporting open access to publication resulting from publicly funded research.⁸⁹
- The newly formed Global Research Council has made Open Access its main agenda item for their meeting in May. The aim is to develop and agree on an action plan for implementing Open Access to Publications as the main means of scholarly scientific communication.⁹⁰
- The Australian Research Council recently announced its open access policy and cites coming in line with other international funding agencies, such as the UK, as one of the reasons for introducing its policy.⁹¹

5. Support for Universities in the form of funds to cover article processing charges and the response of universities and other HEIs to these efforts

5.1 The total amount of funding that RCUK will put into supporting Gold open access is based on estimates of the numbers of publications arising from all Research Council-funded research activities. Publications data from 2010 & 2011 indicate that some 26,000 peer-reviewed research papers per year arise from Research Council-funded research, of which approximately 90% are produced within the HEI sector and 10% from Research Council institutes. The average cost of an APC has been taken from the Finch report (estimated as £1,727 plus VAT), though we recognise that these are highly variable, and may often be much lower.

⁸² http://www.eurohorcs.org/SiteCollectionDocuments/ESF_Road%20Map_long_0907.pdf and http://www.scienceurope.org/uploads/GRC/Open%20Access/1_Georg%20Botz.pdf

⁸³ http://www.dfg.de/formulare/2_012e/2_012e.pdf, section 13

⁸⁴ http://www.dfg.de/formulare/12_20/12_20.pdf (in German)

⁸⁵ http://www.fwf.ac.at/en/public_relations/oai/index.html

⁸⁶ (<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-12-160.html>)

⁸⁷ (<http://www.timeshighereducation.co.uk/story.asp?storycode=420220>)

⁸⁸ (<http://thomas.loc.gov/cgi-bin/query/z?c1112:H.R.4004:>)

⁸⁹ (<http://www.unesco.org/new/en/communication-and-information/portals-and-platforms/goap/access-by-region/>)

⁹⁰ (<http://www.globalresearchcouncil.org/meetings#berlin>)

⁹¹ http://www.arc.gov.au/applicants/open_access.htm

Table 1

THE TOTAL VALUE OF THE RCUK APC FUND FOR SUPPORTING THE HEIS IMPLEMENTATION OF THE RCUK POLICY ON OPEN ACCESS

Year	2013–14	2014–15	2015–16	2016–17	2017–18
Value of RCUK APC fund	£17M	£20M			
Estimated % papers block grant will fund as Gold OA	45%	53%	60%	67%	75%

5.2 The value of APC awards from 2015–16 onwards will depend on the outcome of the next Spending Review, and any changes in funding resulting in the review of the policy planned for 2014.

5.3 This increase in funding over a five-year transition is a reflection of the time that will be needed for researchers, institutions and publishers to transition into a “Gold” OA model, as well as to allow existing publication funding, already provided through direct and indirect costs as part of grant funding, to be fully utilised. RCUK estimates that, in time, the steady state will be that some three-quarters of research council funded research will be published using the “Gold” OA route and a quarter using “Green”. However, we recognise that this will likely be subject-dependent and are not expecting to achieve this from day one of the policy being introduced. We will continue to review this figure during the transition phase as we gather further publications data.

5.4 Universities will receive block grants in proportion to the amount of direct labour costs (“directly-incurred” and “directly-allocated”) awarded on grants, provided it is above a threshold total of £10,000, that they have received over the three years from April 2009 to March 2012. Direct labour costs have been used as a proxy of research effort leading to the generation of publications, independent of the effects of equipment and infrastructure costs, and overheads. The 36 institutions from the Russell and 1994 groups of research intensive HEIs will receive just over 80% of RCUK’s APC funding. Seventy-one other institutions share the remaining funding.

5.5 In addition to RCUK’s block grant, the top 30 research intensive universities,⁹² based on combined Research Council and Funding Council investment, shared an additional £10 million made available by the Department of Business, Innovation and Skills to “pump prime” open access. The ways in which this money can be used to support the transition to the new open access model are flexible, with universities investing the money in setting up and administering publication funds, supporting their repositories, and paying APCs.

6. Agreeing embargo periods for articles published under the green model

6.1 RCUK sees the implementation of its OA policy as a journey rather than an event, and expects this transition process to take up to five years. RCUK is also committed to an early review of the policy and its implementation towards the end of 2014. During this transition, RCUK recognises that authors and their institutions will need flexibility in how the policy is applied.

6.2 Ideally, a research paper should become Open Access as soon as it is published on-line. However, the Research Councils recognise that embargo periods are currently used by some journals with business models which depend on generating revenue through subscriptions. Therefore, where a publisher does not offer a “pay-to-publish” option the Research Councils will accept a delay between on-line publication and a paper becoming Open Access of no more than six months, except in the case of research papers arising from research funded by the AHRC and the ESRC. Journals are not expected to introduce an embargo period where there has not previously been one, nor to lengthen an existing embargo period.

6.3 Because current funding arrangements make a six month embargo period particularly difficult in the arts, humanities and social sciences, where a publisher does not offer a “pay-to-publish” option, the Research Councils will accept a delay of up to 12 months in the case of research papers arising from research which acknowledges funding by the AHRC and/or the ESRC. However, this is only a transitional arrangement, for a period of up to five years, and both the AHRC and ESRC are working towards enabling a maximum embargo period of six months for all research papers.

6.4 Under the previous policy, only the Medical Research Council (MRC) had a defined maximum embargo period (six months). In future, where the publisher does not offer a “pay-to-publish” option for Open Access, the Research Councils will no longer be willing to support publisher embargoes of longer than six or twelve months from the date of on-line publication, depending on the Research Council.

6.5 Where the first choice of journal offers a “pay-to-publish” option but there are insufficient funds to pay for this, in order to meet the spirit of the RCUK policy, the Councils strongly prefer the author to seek an alternative journal with an affordable “pay-to-publish” option or with a Green option with embargo periods of six or twelve months. The Research Councils recognise that this may not be a feasible option in all cases, especially in non-STEM disciplines. In such a case we would expect the paper to be published in a journal which allows Green compliant OA, with an embargo period consistent with the Government’s response to the Finch Report of 12 months or 24 months, especially for research that acknowledges funding by the AHRC

⁹² <http://www.rcuk.ac.uk/media/news/2012news/Pages/070912.aspx>

and/or the ESRC. Research papers in biomedicine should continue to be published with an embargo of no longer than 6 months (as has been the MRC's mandated policy since 2006).

6.6 This does not represent a change to the RCUK policy. We still see the advantage to having shorter embargo periods of 6/12 months in opening up access to the journal articles in a more timely manner, and will be encouraging authors and institutions to opt for these shorter embargoes whenever possible. However, we recognise that this may not always be possible in the early stages of implementation.

6.7 The reasons behind the RCUK policy of embargoes of no more than 12 months are:

- For open access to be “open”, there should be minimum delay between initial publication and free availability. This is also one reason for the preference of gold over green.
- The MRC and the Wellcome Trust had had mandated embargoes of six months since 2006.
- For Arts, Humanities and the Social Sciences especially, it was felt that to move immediately to a six-month embargo period would be a step too far, both for the academic community and for some publishers and learned societies. This would be consistent with the embargo periods of many other funders (eg NIH—embargo period of 12 months).
- It was intended to encourage publishers to shorten their embargo periods to six/twelve months.

6.8 Despite RCUK's, and the Government's, preference for the Gold route to Open Access, the Green route should also be seen as a real option for open access publishing. In the meeting on 9 January 2013, between representatives of RCUK and the Russell Group, RCUK committed to considering a way forward that acknowledged the points made by the sector, around the idea of a phased implementation and potential distinctions between disciplines. As set out in the wording above, this discussion has led to the Research Councils making clear that during the transition phase, over the five years of introducing the policy, there could be some flexibility applied to embargoes where there are insufficient funds to follow the “pay to publish” route. It is noted though that this could lead to further potential difficulties in relation to interdisciplinary research, and the Research Councils will continue to consider this issue. Some disciplines, such as biomedical sciences, already have mandated embargo periods of six months and it would not be sensible for those to change.

7. Engagement with publishers, universities, learned societies and other stakeholders in the development of Research Council Open Access policies and guidance

7.1 Although the Research Councils did not hold a formal consultation before the new Policy on Open Access was launched, the draft policy was circulated in March 2012 to a variety of stakeholders in order to get feedback and input in the development of the policy. These stakeholders included representatives of the Russell Group and other HEIs, through the members of the Finch group; Learned Societies such as Academy of Medical Sciences; and other groups such as UKPMC (now “Europe PMC”) Funders Group. The draft policy was also mentioned in several blogs including Casey Bergman;⁹³ Peter Suber;⁹⁴ @cces;⁹⁵ and Intellectual Property Watch⁹⁶ as well as by various other media including Research Fortnight (16 March 2012), Times Higher Education (22 March 2012), The Guardian (11 April 2012) and Nature.⁹⁷

7.2 Following the launch of the policy, RCUK has been keen to engage with stakeholders on the implementation of the policy as we recognise that this is both a fast-paced and transformative agenda.

7.3 RCUK staff have given numerous talks to explain the policy and engage with HEIs and members of the research communities. This includes AHRC Subject Associations meeting (June 2012); Imperial College Science Communication Forum (September 2012); Westminster Briefing (September 2012); London School of Hygiene and Tropical Medicine Open Access Week event (October 2012); Exeter University (October 2012); British Academy “Open Access for the Humanities and Social Sciences” (October 2012); Standing Conference of Physics Professors (November 2012); Research Libraries UK (November 2012); British Ecological Society Annual Conference (December 2012); and various Research Council regional engagement sessions with universities and other stakeholders during autumn 2012 (see also 3.10 above).

7.4 RCUK organised a workshop on 13 November 2012, shortly after the details of the block grant had been announced, in order to answer questions and to engage with representatives from Universities (and some other interested parties) on the details of the policy. The workshop also discussed the mechanisms that RCUK could put in place in order to monitor compliance with the policy. We want to work with the HEI sector to focus on changing the way researchers choose to publish their research, to help facilitate a sustainable transition to a new “normal” of full Open Access. Engaging with the sector in such a way has enabled us to consider reporting methods that build on existing processes rather than placing an additional administrative burden on HEIs. A note of the meeting is published online.⁹⁸

⁹³ <http://caseybergman.wordpress.com/2012/03/18/comments-on-the-rcuks-new-draft-policy-on-open-access/>

⁹⁴ <https://plus.google.com/109377556796183035206/posts/Y8zPSf5DP5W#109377556796183035206/posts/Y8zPSf5DP5W>

⁹⁵ <http://access.okfn.org/2012/04/05/comment-on-the-rcuk-draft-policy-on-open-access/>

⁹⁶ <http://www.ip-watch.org/2012/04/16/changes-coming-for-open-access-to-research-in-europe/>

⁹⁷ <http://blogs.nature.com/news/2012/03/uk-research-funders-suggest-liberated-open-access-policy.html>

⁹⁸ <http://www.rcuk.ac.uk/documents/documents/NoteRCUKOpenAccessWorkshop3-Nov-2012.pdf>

7.5 Following some misunderstandings of the guidance for the policy, RCUK has committed to reviewing it and clarifying some of the wording. Attendees at the November workshop were invited to comment on the guidance and several responses were received.

7.6 RCUK will be continuing to engage with a variety of stakeholders throughout the implementation period of the policy. We will be holding a series of bilateral meetings with key stakeholders between now and mid-February 2013, to discuss details of implementation. These include another meeting with the Russell Group, with a range of Learned Societies, and with publishers across the spectrum of disciplines. We expect to recognise the outcomes of these meetings in the final guidance document to be published by the end of February.

7.7 There are also several other activities that RCUK has been working on, in partnership with other members of the sector, in order to develop understanding and best practice around the implementation of the policy. These include:

- Facilitating a project within the HEI sector to develop common processes and procedures, and to share best practice to support implementation of the RCUK policy. RCUK will provide funding to support a project manager and discussions are underway with a number of organisations about hosting the project office.
- In conjunction with the Wellcome Trust, commissioning the SHERPA-RoMEO group at Nottingham University⁹⁹ to develop a support service to provide easily accessible and understandable advice on how journals provide compliance with the RCUK and WT policies.
- In conjunction with the Wellcome Trust, we have written to the top 60 publishers of Trust and RCUK funded research to inform them of the changes in policy and to ask how they plan to comply with policy. This process has resulted in constructive dialogue with the major publishers and with publisher trade bodies (International Association of Scientific, Technical and Medical Publishers; Association of Learned and Professional Society Publishers; Publishers Association; and Open Access Scholarly Publishers Association). Meetings between RCUK, the Wellcome Trust and the trade bodies are continuing on a regular basis.
- RCUK in conjunction with the Wellcome Trust have held constructive discussions with major commercial academic publishers, including Wiley-Blackwell, Elsevier, Nature Publishing Group, Oxford University Press and Taylor & Francis, and with learned society publishers such as the Royal Society of Chemistry, Institute of Physics and the American Chemical Society. From these discussions, and from work analysing the current OA status of journals, we are confident that the majority of journals used by UK researchers will be compliant with the policy. However, many publishers have still to make formal policy announcements in this area, especially around the adoption of the CC-BY licence for Gold. Of journals which have already provided OA offerings, those from the Royal Society are both Gold and Green compliant, Nature and Science are both Green compliant, and Institute of Physics journals offer Gold compliance with CC-BY. This is on top of existing policy compliant Open Access journals—such as those from Springer or the Public Library of Science (PLoS). Indeed, the OA journal PLoS One is now the top journal (in terms of number of papers) for research funded by MRC, BBSRC and the Wellcome Trust; the top journal for NERC-funded research is Atmospheric Chemistry and Physics (an OA journal of the European Geosciences Union).¹⁰⁰
- RCUK, as a member of the UK Open Access Implementation Group (OAIG), is co-sponsoring the development of a number of OAIG activities to support the UK research community. These include an examination of the role of intermediaries in managing the payment of APCs, and an OAIG “resource pack” for learned societies on OA issues, including the opportunities that OA can offer to learned societies.

8. *Challenges and concerns raised to date by stakeholders, and how these have been addressed*

8.1 Much of the reaction to the new policy has been supportive and the main concerns are not with the policy as such but its implementation and the speed of the transition to a new “normal” of Open Access.

8.2 In addition to the engagement activities described above, RCUK organised a meeting on 9 January 2013 to engage specifically with concerns that had been raised by representatives of the Russell Group around the implementation of the policy. The half day meeting involved very constructive discussion and has led RCUK to reflect on the points made and consider introducing some flexibilities around embargoes, monitoring and reporting arrangements and legitimate uses of the block grant.

8.3 Some learned societies in the Humanities, Arts and Social Sciences (HASS) have expressed concerns about making the Gold OA model work for their journals, because of specific issues over the small number of authors and the longer average article length, in relation to the number of subscribers, which would result in what are considered to be unsustainably large APCs. There is also some concern in the HASS community that HEIs will spend the RCUK block grant disproportionately on articles in the natural sciences. RCUK has no evidence that this will be the case. Whether it is will be part of the 2014 review.

⁹⁹ <http://www.sherpa.ac.uk/projects/sherparomeo.html>

¹⁰⁰ From an analysis of Web of Science, for papers where authors acknowledge Research Council funding.

8.4 In addition, there have been objections from some in the HASS community to the requirement to use the CC-BY licence for papers published using the Gold OA model. Some of the issues (for example, use of 3rd party material in papers) need further exploration. However, much of the discussion seems to be based on misinterpretation of what the CC-BY licence will and will not allow. RCUK has concerns that some communities are proposing to use the CC-BY-NC licence, which by disallowing commercial re-use, will impose barriers to the full re-use of published papers, and stifle innovation within scholarly publishing.

8.5 RCUK will ensure that the 2014 review includes an assessment of any differences of impact on the different disciplines and this will be specifically monitored through active engagement with the various academic communities.

8.6 Some of the feedback from the HEI community gives the impression that they are expecting RCUK to provide all the solutions, rather than recognising that HEIs, and indeed *researchers themselves who provide all the content and much of the reviewing gratis*, have a key role to play. It is insufficient just to state that RCUK is not providing sufficient funding, rather than acknowledging that the HEI community must play a key role in negotiating with publishers to drive down subscription and APC costs to enable the available funding to go further.

8.7 There is also a continuing and vocal campaign by a number of OA “pioneers” who consider that RCUK and Finch have made a major mistake in supporting the Gold approach to OA, in preference to Green. Their concerns are based around cost (Gold is using money that could be spent on research) and, from their perspective, the lack of any demonstrated requirement for re-use requiring a CC-BY licence. The RCUK position is that disseminating research is just as much a cost of research as is hiring researchers, buying consumables, and so on.

8.8 A common criticism, as noted above, is that the Research Councils are diverting money that would otherwise be spent on research into paying additional money to publishers in Gold APCs. The Finch Report recommended that “Gold” is the only long-term sustainable solution for publishers. However, RCUK considers that sustainability cuts two ways. The model also needs to be sustainable for funders and institutions. RCUK will make the data they collect on APC fees paid through their block-grant mechanism publicly available. We expect HEIs, JISC Collections and others (eg RLUK) to negotiate hard with publishers to drive down subscription charges to reflect the additional funding that they are receiving to support the payment of APCs. Indeed, we would expect publishers to introduce differential pricing in the UK market to reflect additional income they are earning through APCs.

8.9 There has also been some discussion of whether the major journals across the disciplines will be compliant with the RCUK policy. RCUK, in conjunction with the Wellcome Trust, has written to the top-60 publishers (in terms of volume) of Research Council and Trust funded research to inform them about the requirements of the policy and to understand how they intend to comply. This has led to a constructive dialogue with a range of commercial and learned society publishers, many of whom have provided us with “commercial in confidence” information on their plans for compliance with the RCUK and Wellcome Trust policies. Many publishers have yet to make formal public announcements of their plans, however, we are confident that a large majority of journals, especially within the STM sector, will become either green or gold compliant. We recognise that there could well be some key journals in the HSS sector which will not be compliant when our policy comes into force, and we are working to identify these and to engage with the relevant publishers to understand their reasons for non-compliance. We view compliance for journals in the same way as we see compliance for authors and institutions—as a journey and not an event.

8.10 In order to be able to give a snapshot of the current compliance position, each Research Council has identified what it considers to be a representative sample of the journals which are of importance to their community—regardless of the country in which the journal is published. The current compliance status of these journals has been compiled from information held by the Research Councils and from the SHERPA/ROMEO¹⁰¹ project at the Centre for Research Communications at Nottingham University.¹⁰² The table in annex B gives the result of this analysis. It should be noted that this is the current position, and does not reflect the announcements about compliance that many publishers will soon be making. Out of 108 journals, 69 (64%) are compliant, the compliance of 21 (19%) is currently unclear, and 18 (17%) are not compliant.

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¹⁰¹ <http://www.sherpa.ac.uk/romeo>

¹⁰² <http://crc.nottingham.ac.uk>

Country	Organisation	OA policy	Green	Gold	Hybrid	APC paid Amount and % research budget (if available)	Specific OA fund	Embargo 6/12 months	Libre/ Gratis	Comments
Germany	Forschungszentrum Jülich *	Planned				Yes €100,000 (0.02%)				
Germany	Helmholtz-Zentrum Berlin für Materialien und Energie GmbH *	2006	Yes	No		Don't know				
Germany	German Research Foundation (DFG)	2006	Yes	Yes	Yes	Yes	Yes	Yes		Part of grant and top up fund
Germany	Karlsruhe Institute of Technology *	2010	Yes	Yes		Yes €70,800 (8.85%)	Yes			
Germany	Max Planck Digital Library *	2003	Yes	Yes	Yes	Yes €440,000 (0.03%)	Yes			
Germany	German National Library of Medicine; Cologne/Bonn *	2007	Yes	Yes	Yes	Yes				
Hungary	Hungarian Scientific Research Fund	2010	Yes	Yes		Yes				
Hungary	Hungarian Academy of Sciences *	2013	Yes	Yes		Yes		12	Yes	
Iceland	Iceland Centre for Research	2013	Yes	Yes	Yes	Yes	Yes	Yes		Favours Gold immediate OA
Ireland	Health Research Board	2012	Yes	Yes	Yes	No				Favouring green and national repository
Ireland	Irish Research Council	2012	Yes					12		
Ireland	Science Foundation Ireland	2009	Yes					12		
Italy	National Research Council	2012								Signed Berlin declaration in Sep 2012
Luxembourg	National Research Fund	Planned				Yes				

Country	Organisation	OA policy	Green	Gold	Hybrid	APC paid			Comments
						Amount and % research budget (if available)	Specific OA fund	Embargo 6/12 months	
						Libre/Gratis			
Netherlands	Netherlands Organisation for Scientific Research	2010	Yes	Yes	Yes	Yes	Yes	9 months	OA fund capped on max. € 5000 per NWO-project
Norway	Research council of Norway	2009	Yes	No	No	No	€500,000 (0.07%)		
Poland	National Science Centre	Planned				Yes			Cost covered in grant
Portugal	Foundation for Science and Technology	Planned	Yes	Yes	Yes	Yes	Yes	Yes	Modelled on RCUK and WT policy. Will be mandated. National repository
Slovakia	Slovak Research and Development Agency	Planned				Yes			
Slovenia	Slovenian Research Agency	2012				No			
Spain	Council for Scientific Research *	2008	Yes	Yes	Yes	Yes	€26,780 (0.003%)		National law requiring green archiving within 12m
Sweden	Swedish Research Council	2010	Yes	Yes	Yes	Yes	Yes		
Sweden	Swedish Council for Working Life and Social Research	2012	No	Yes		Yes			
Sweden	Swedish Research Council for Environment, Agricultural Planning and Spatial Planning	2010	Yes	Yes		Yes			
Switzerland	Swiss National Science Foundation (SNSF)	2007	Yes	Yes	No	Yes	Yes		Part of the grant
United Kingdom	RCUK	2006	Yes	Yes	Yes	Yes	Yes	Yes	

Table Note:

¹ Please note this table does not contain complete information but will be updated regularly. Last updated 7 February 2013.

* Research Performing organisations (others are Research Funding Organisations)

Source: Science Europe Survey Oct 2012, Sherpa Juliet, OpenAire, and funders websites.

NATIONAL OA POLICIES (INCOMPLETE INFORMATION AS WORK IN PROGRESS)

Country	OA policy	Green	Gold	Hybrid	APC paid	Specific OA fund	Embargo 6/12 months	Libre/Gratis	Comments
Belgium France	Oct 2012	Yes	Yes				Yes		Declaration of Brussels Minister Fioraso speech January 2013—Journee Couperin Promotion of platinum model—free to readers and authors—publication itself sponsored
	Jan 2013	Yes	Yes				?		
Ireland Spain	Oct 2012 2011	Yes Yes	Yes				Yes 12		Favouring green This is implemented through a national law.
Sweden United Kingdom	In preparation July 2012	Yes Yes	Yes Yes	Yes Yes			Yes Yes		

PAN NATIONAL ORGANISATIONS

Country	OA policy	Green	Gold	Hybrid	APC paid	Specific OA fund	Embargo 6/12 months	Libre/Gratis	Comments
European Commission	July 2012	Yes	Yes	Yes	Yes		Yes		H2020 announcement confirmed FP7 pilot. Recommendation to all mem ber states to implement national policy
European Research Council	2006	Yes	Yes	Yes	Yes		6		Part of grant

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Annex B

CURRENT COMPLIANCE OF JOURNALS (AS OF 6 FEBRUARY 2013)

<i>Journal</i>	<i>Publisher in RoMEO</i>	<i>Gold Compliant</i>	<i>Green Compliant</i>	<i>Compliance Method</i>	<i>Comment</i>
Acta Biomaterialia	Elsevier	N/A	N/A	No	No agreement with funder
Advanced Functional Materials	Wiley-VCH	Yes	No	Gold	
Advanced Materials	Wiley-VCH	Yes	No	Gold	
American Economic Review	American Economic Association	N/A	Yes	Green	
American Historical Review	Oxford University Press: Policy E	N/A	No	No	
Angewandte Chemie International Edition	Wiley-VCH	Yes	No	Gold	
Antiquity	Antiquity Publication	N/A	Yes	Green	
Applied and Computational Harmonic Analysis	Elsevier	N/A	N/A	No	No agreement with funder
Applied Physics Letters	American Institute of Physics	Unclear	Yes	Green	Gold licence unclear
Art History	Wiley-Blackwell	Yes	Maybe	Gold	Green embargo period unclear
Astronomical Journal	American Astronomical Society	No	No	No	
Astronomy and Astrophysics	EDP Sciences	Yes	Yes	Both	
Astrophysical Journal	American Astronomical Society	No	No	No	
Atmospheric Chemistry and Physics	European Geosciences Union	Yes	Yes	Gold	
Automatica	Elsevier	N/A	N/A	No	No agreement with funder
Behavioral and brain sciences	Cambridge University Press	Yes	Yes	Green	
Bioinformatics	Oxford University Press: Policy B	Maybe	No	Gold Maybe	Gold licence unclear
Biomaterials	Elsevier	N/A	N/A	No	No agreement with funder
British Educational Research Journal	Taylor & Francis (Routledge)	Unclear	Maybe	Green Maybe	Green embargo period unclear
British Journal of Management	Wiley-Blackwell	Yes	No	Gold	
British Journal of Sociology	Wiley-Blackwell	Yes	Maybe	Gold	
Cell	Elsevier (Cell Press)	Yes	No	Unclear	Green location unclear
Chaos	American Institute of Physics	Unclear	Yes	Green	
Chemical Communications	Royal Society of Chemistry	Maybe	No	Gold Maybe	Gold licence unclear
Chemical Engineering Science	Elsevier	N/A	N/A	No	No agreement with funder
Chemical Society Reviews	Royal Society of Chemistry	Maybe	No	Gold Maybe	Gold licence unclear

<i>Journal</i>	<i>Publisher in RoMEO</i>	<i>Gold Compliant</i>	<i>Green Compliant</i>	<i>Compliance Method</i>	<i>Comment</i>
Circulation	American Heart Association	N/A	Yes	Green	
Computer Methods in Applied Mechanics and Engineering	Elsevier	N/A	N/A	No	No agreement with funder
Critical Quarterly	Wiley-Blackwell	Yes	Maybe	Gold	Green embargo period unclear
Dalton Transactions	Royal Society of Chemistry	Maybe	No	Gold Maybe	Gold licence unclear
Design Studies	Elsevier	No	Yes	Green	
Econometrica	Econometric Society	N/A	No	No	
Economic Journal	Wiley-Blackwell	Yes	Maybe	Gold	
EMBO Journal	Nature Publishing Group: EMBO	No	Yes	Green	EMBO has a separate policy to Nature Publishing Group
Energy & Environmental Science	Royal Society of Chemistry	Maybe	No	Gold Maybe	Gold licence unclear
English Language and Linguistics	Cambridge University Press	Maybe	Yes	Green	
Environmental Microbiology	Wiley-Blackwell	Yes	No	Gold	
European Physical Journal C	EDP Sciences	Yes	Yes	Both	
Gender and History	Wiley-Blackwell	Yes	Maybe	Gold	Green embargo period unclear
Genes and Development	Cold Spring Harbor Laboratory Press	Yes	Yes	Green	
Genome Research	Cold Spring Harbor Laboratory Press	Yes	Yes	Green	
Global Change Biology	Wiley-Blackwell	Yes	No	Gold	
History of Religions	University of Chicago Press	N/A	Yes	Green	
IEEE Transactions on Fuzzy Systems	IEEE	N/A	Yes	Green	
IEEE Transactions on Neural Networks	IEEE	N/A	Yes	Green	
IEEE Transactions on Systems, Man and Cybernetics Part B-Cybernetics	IEEE	N/A	Yes	Green	
Immunity	Elsevier	Maybe	No	Gold Maybe	Gold licence unclear
International Journal for Numerical Methods in Engineering	Wiley-Blackwell	Yes	No	Gold	
JAMA : the Journal of the American Medical Association	American medical association	N/A	Yes	Green	
Journal of Archaeological Science	Elsevier	No	Yes	Green	
Journal of Cell Biology	Rockefeller University Press	N/A	Yes	Green	
Journal of Clinical Oncology : official journal of the American Society of Clinical Oncology	American Society of Clinical Oncology	N/A	No	No	

<i>Journal</i>	<i>Publisher in RoMEO</i>	<i>Gold Compliant</i>	<i>Green Compliant</i>	<i>Compliance Method</i>	<i>Comment</i>
Journal of Computational Physics	Elsevier	N/A	N/A	No	No agreement with funder
Journal of Cosmology and Astroparticle Physics	Institute of Physics	Yes	No	Gold	
Journal of High Energy Physics	Springer Verlag	Yes	Yes	Both	
Journal of Management Studies	Wiley-Blackwell	Yes	Maybe	Gold	
Journal of Materials Chemistry	Royal Society of Chemistry	Maybe	No	Gold Maybe	Gold licence unclear
Journal of Physical Chemistry	American Chemical Society	No	Maybe	Green Maybe	Green embargo waiver required
Journal of Physical Chemistry C	American Chemical Society	No	Maybe	Green Maybe	Green embargo waiver required;
Journal of Physics G: Nuclear and Particle Physics	Institute of Physics	Yes	No	Gold	Gold licence wrong
Journal of Roman Studies	Cambridge University Press	N/A	Yes	Green	
Journal of Social Policy	Cambridge University Press	Yes	No	Gold	
Journal of the American Chemical Society	American Chemical Society	No	Maybe	Green Maybe	Green embargo waiver required
Lancet	Elsevier	Maybe	No	Gold Maybe	Gold licence unclear
Langmuir	American Chemical Society	No	Maybe	Green Maybe	Green embargo waiver required;
Mind	Oxford University Press	Maybe	Maybe	Maybe	Gold licence wrong
Modern Language Review	Modern Humanities Research Association	N/A	No	No	Green embargo period unclear; Gold licence
Modern Law Review	Wiley-Blackwell	Yes	Yes	Both	
Molecular Ecology	Wiley-Blackwell	Yes	No	Gold	
Monthly Notices of the Royal Astronomical Society	Oxford University Press: Policy P	No	Yes	Green	
Nano Letters	American Chemical Society	No	Maybe	Green Maybe	Green embargo waiver required;
Nature	Nature Publishing Group	No	Yes	Green	Gold licence wrong
Nature Chemistry	Nature Publishing Group	N/A	Yes	Green	
Nature Geoscience	Nature Publishing Group	Yes	Yes	Both	
Nature Materials	Nature Publishing Group	N/A	Yes	Green	

<i>Journal</i>	<i>Publisher in RoMEO</i>	<i>Gold Compliant</i>	<i>Green Compliant</i>	<i>Compliance Method</i>	<i>Comment</i>
Nature Photonics	Nature Publishing Group	N/A	Yes	Green	No agreement with funder
Neural Networks	Elsevier	N/A	N/A	No	Gold licence unclear
Neuron	Elsevier	Maybe	No	Gold	Maybe
New England Journal of Medicine	Massachusetts Medical society	N/A	Yes	Green	
Nuclear Physics B	Elsevier	Yes	No	Gold	
Optics Express	Optical Society of America	No	Yes	Green	Green embargo waiver required;
Organic Letters	American Chemical Society	No	Maybe	Green	Gold licence wrong
Past and Present	Oxford University Press: Policy E	N/A	No	No	
Philosophical Transactions of the Royal Society B- Biological	Royal Society	Yes	Yes	Both	
Philosophy of Science	Philosophy of Science Association	N/A	No	No	No agreement with funder
Physica D-Nonlinear Phenomena	Elsevier	N/A	N/A	No	Gold licence unclear
Physical Chemistry Chemical Physics	Royal Society of Chemistry	Maybe	No	Gold	
Physical Review A	American Physical Society	No	Yes	Green	
Physical Review B	American Physical Society	No	Yes	Green	
Physical Review C (Nuclear Physics)	American Physical Society	No	Yes	Green	
Physical Review D	American Physical Society	No	Yes	Green	
Physical Review Letters	American Physical Society	No	Yes	Green	
Physics Letters A	Elsevier	Yes	No	Gold	
Physics Letters B	Elsevier	Yes	No	Gold	
Plant Cell	American Society of Plant Biologists	N/A	Yes	Green	
PLoS Biology	Public Library of Science	Yes	N/A	Gold	
PLoS Medicine	Public Library of Science	Yes	N/A	Gold	
PLoS One	Public Library of Science	Yes	N/A	Gold	
Political Studies	Wiley-Blackwell	Yes	Maybe	Gold	
Proceedings of the National Academy of Sciences of the USA	National Academy of Sciences	n/a	Yes	Green	
Proceedings of the Royal Society B-Biological Sciences	Royal Society	Yes	Yes	Both	
Progress in Human Geography	SAGE Publications	No	Yes	Green	
Quarterly Journal of Economics	Oxford University Press: Policy E	N/A	No	No	
Regional Studies	Taylor & Francis (Routledge)	Unclear	Maybe	Green	Green embargo period unclear

<i>Journal</i>	<i>Publisher in RoMEO</i>	<i>Gold Compliant</i>	<i>Green Compliant</i>	<i>Compliance Method</i>	<i>Comment</i>
Reviews of Modern Physics Science	American Physical Society American Association for the Advancement of Science	No N/A	Yes Yes	Green Green	Gold wrong version
Textual Practice	Taylor & Francis (Routledge)	Maybe	Maybe	Maybe	Green embargo period unclear; Gold licence unclear
The Classical Quarterly	Cambridge University Press	N/A	Yes	Green	

Written evidence submitted by The Russell Group

SUMMARY

- The Russell Group is committed to open access, but the sector, and in particular research-intensive universities, face a number of challenges in the implementation of open access policy.
- In addition, we remain concerned about the overall business case for the Government’s open access (OA) policy that is predominantly focused on a relatively rapid move to Gold OA.
- Where funding is required to deliver the Government’s OA policies this must be additional money, not re-purposed research funds.
- The Green route is a simple, genuine and cost effective way of delivering OA. Embargo periods still need to be agreed and could be phased with the intention to deliver shorter periods over time.
- Greater freedom could be given on CC-BY licensing requirements to help keep costs down and ensure researchers aren’t overly restricted in where they can publish.
- OA policy is effectively being extended far beyond research funded by the Research Councils, without any additional support being made available to cover these costs. We estimate RCUK funding will only cover Gold OA costs for around 10% of total Russell Group publications.
- It is not clear how moving rapidly to Gold OA will improve our international standing which has been built up over many decades; indeed, implementation of OA policy could be detrimental to our standing and restrict academic freedoms.

1. INTRODUCTION

1.1 We welcome the opportunity to contribute to this inquiry into the Government’s open access policy. As well as submitting this short note, we would be happy to contribute oral evidence if required. We would also like to draw the Committee’s attention to written evidence the Russell Group submitted to the recent House of Lords inquiry into open access publishing, which covers some related issues.

1.2 The purpose of the Russell Group is to provide thought leadership and strategic direction for the 24 major research-intensive universities of the UK; we aim to ensure that policy development in a wide range of issues relating to higher education is underpinned by a robust evidence base and a commitment to civic responsibility, improving life chances, raising aspirations and contributing to economic prosperity and innovation.

2. RUSSELL GROUP POSITION ON OPEN ACCESS

2.1 Many Russell Group universities are themselves lead players in moves towards open access, in particular through the development of repositories and other initiatives to ensure the widest possible dissemination and discussion of research.

2.2 The Russell Group remains committed to open access, but we still have concerns over the robustness of the overall business case for the Government policy. In addition, there are significant challenges and risks that need to be addressed, as well as opportunities to be realised in implementing this policy. The academic and publishing sectors are going through a period of substantial change even without Government intervention on open access. It is important that policy and its implementation do not damage the UK’s standing for world-class research and do not disadvantage or otherwise burden universities with unreasonable costs or other requirements.

2.3 Gold OA—where authors pay an Article Processing Charge (APC) up front to support immediate open access of publications—is not the only way to facilitate open access. The Green model—where materials are available in repositories—is perfectly valid, simple and cost-effective.

2.4 We are monitoring the implementation of Government policy carefully and have had a number of meetings with RCUK and BIS to discuss challenges with them. We will also be taking an active interest in OA developments for future rounds of REF with HEFCE.

2.5 We are grateful for the clarification RCUK has been able to provide on its publication targets, OA compliance and other matters, and its willingness to review policy implementation in 2014. We welcome that RCUK describes the implementation of its OA policy as a journey over at least five years rather than being a “day 1” requirement. This will allow much needed breathing space for universities to make further steps towards open access. Ultimately, moves in the direction of OA will probably take longer than five years.

2.6 We now look forward to confirmation of the position RCUK will take as it finalises its guidance notes on implementing OA policy. We hope that the final guidelines will reflect our concerns and give universities significant flexibility in how they use their block grant to achieve open access.

3. THE ECONOMIC CASE FOR OPEN ACCESS PUBLISHING

3.1 We are concerned about the overall business case for the Government’s OA policy that is focused predominantly on Gold OA.

3.2 First, the funding for OA is being taken directly from Research Council budgets, which could otherwise be used to support research, doctoral training and knowledge transfer activities that have a more direct impact on economic growth, jobs and future quality of life. RCUK has earmarked £37 million over two years for Gold OA: £17 million in the first year of policy implementation and £20 million in year two. This is equivalent to the stipends and fees for 964 doctoral students in year one, 1,135 in year two and even more in subsequent years as OA requirements increase. In research terms this is three times more than EPSRC is investing in the UK Catalysis Hub at Harwell, which will have major applications in energy, manufacturing and healthcare. Over a five year period, RCUK has estimated it will need to put over £100 million into Gold OA, similar to the whole of the Government's recent announcements on capital spending for synthetic biology research.

3.3 Where funding is required to deliver the Government's OA policies this must be additional, "new" money, not re-purposed research funds. If this is not possible, other alternative solutions may be required, for example allowing universities more freedom on how the block grant can be used and/or altering OA target levels to create a phased approach to OA over a longer time period.

3.4 Second, the market for Gold OA is still very much in its infancy and we are concerned the UK will end up paying twice for research papers: via *both* APCs and subscriptions. Even if the UK moves strongly in favour of Gold OA, we will still continue paying subscription charges to access the journals our researchers need. The UK produces approximately 6% of the world's published research articles and so our expectation is that this is the level of reduction in overall subscription costs the UK might be able to achieve. Research Libraries UK (RLUK) has estimated UK universities currently pay around £150 million in subscription charges so a 6% reduction amounts, at best, to a saving of £9 million a year. At the same time our international competitors will be able to access our best research papers for free.

3.5 Third, it is not clear why moving swiftly towards Gold OA will necessarily benefit the UK economy through the increased exploitation of research outputs. Businesses are already able to access UK research via libraries, their own journal subscriptions and, increasingly, through direct engagement with university research groups and individual academics. For commercial exploitation purposes it is usually important for businesses to have access to research well before it is published so that appropriate intellectual property protection can be put in place prior to commercialisation. This means it is the on-going relationships between business and universities that need to be fostered, alongside universities' own commercialisation activities, as the priority for delivering economic returns.

3.6 It should also be noted that Gold OA will give free access to the UK's academic research output to businesses competing with the UK from overseas. A more focused solution, providing UK businesses with a degree of competitive advantage, would be to deliver a national licence arrangement for organisations based in the UK.

4. GREEN OPEN ACCESS

4.1 Green OA was recognised as being important in the Finch Review, and is also accepted as part of the OA landscape by BIS and RCUK—although they all favour Gold. A quarter of Research Council funded papers are expected to be made open access through Green routes in five years time in the RCUK model and three quarters through Gold.

4.2 Green OA can include self-archiving in institutional or discipline-based repositories and/or archiving in repositories operated by publishers. Publishers may then allow free access to deposited material after an embargo period. Institutional repositories are already searchable by current web engines in an effective way.

4.3 The Green route is a simple, genuine and cost effective way of delivering OA, but there is no additional RCUK support for Green OA even though it is a part of their overall OA model. We recognise that the Government and RCUK have a stated preference for Gold OA, but *we would like to see a wider acceptance and financial support for Green OA routes as a valid option*. The Finch Review recommended an additional £10 million should be made available for repository enhancements.

4.4 In some disciplines, including physics and economics, it is already fairly standard practice for working versions of papers to be circulated on the web or shared through open repositories for comment and further input. It is possible these activities could be put at risk by some approaches to OA publication.

4.5 Green OA with reasonable embargo periods is an important element in the mix of options for all researchers and in particular for some disciplines in arts, humanities and social sciences. We have discussed possibilities of a phased approach to embargo periods with RCUK and hope that this will be considered as they develop their new guidance material. We support the Finch Group recommendations that would allow 12–24 month embargoes in certain circumstances. We recognise that six months has already become the standard practice in medical sciences, and we should not pull back from that, but *nor should Government seek to impose a six to 12 month model on disciplines that could be damaged by such a move*. Embargoes longer than 24 months may also be needed in some cases.

4.6 Green OA will remain an important option for publications with small numbers of research papers. Moving to Gold OA could mean disproportionately high APCs for researchers and thus additional burden on universities. Mandatory Gold, or even Green with very short embargo periods, could also seriously undermine the viability of monograph and book publishing as well as some distinguished UK journals.

5. CC-BY LICENCES

5.1 OA costs are likely to be higher than modelled for the Finch Review because of the requirement for Gold OA to be accompanied by a CC-BY (creative commons by attribution) licence allowing commercial and all other forms of re-use and modification. Some journals have already increased their APCs where this licence is available, others are unlikely to offer the highest level CC-BY licence as an option and this will restrict journal choice for researchers.

5.2 We recognise that a CC-BY licence removes doubt about how research papers and their content may be reused, but we wish to see the licensing requirement widened to include other CC-BY non-commercial and share-alike licences. This will help to keep OA costs down and will ensure researchers are not unduly restricted in where they can publish. A CC-BY-NC option also clearly allows the original creator of the IP to retain control during any subsequent commercial use. Again, there could be a phased approach over a number of years to encourage CC-BY in the long-term.

6. COST OF DELIVERING GOLD OPEN ACCESS

6.1 RCUK will be providing a block grant to universities to accelerate Gold OA publishing in the UK from 1 April 2013. In Year 1, RCUK has estimated that its funding will cover Gold OA costs for around 7,500 research papers produced by Russell Group universities. We estimate that this is around 10% of *all* publications produced each year by the Russell Group—funded from all sources, not just those deriving from research funded by the Research Councils.

6.2 Just looking at Research Council funded research, our universities have started to estimate whether the allocations indicated for them will be sufficient to meet RCUK's targets. So far, the allocations appear to be an under-estimate, with universities reporting potential funding gaps of between £0.4 million and >£1.4 million in Year 1. At least in part this is because these universities publish more papers than estimated by the Research Councils.

6.3 The calculations are complicated by unknowns such as future APCs that may be higher with CC-BY licences and because our world-class universities typically aim to publish in the most highly regarded journals, which are likely to charge higher APCs. Much world-leading research is also done in collaboration with other researchers in other institutions—often overseas—and/or is funded from multiple sources including business, charities and other parts of Government. It is almost impossible to disaggregate research outputs to determine if papers include an element of Research Council funded activity or not—and especially if the original research was done many years ago or elsewhere.

6.4 We have discussed this with RCUK and have made it clear the draft guideline for their OA policy to apply to all research funded “wholly or in part” by the Research Councils is impractical.

6.5 A wider concern is that OA policy is effectively being extended far beyond research funded by the Research Councils, without any additional support being made available to cover these costs. This is likely to be a particular challenge in some arts, humanities and social science subjects where the Research Councils provide only a small proportion of research funding. As new research project proposals are drawn up with other funders it *may* be possible to include additional lines to cover their proportion of Gold OA costs, but it is not possible to do this retrospectively. It means that universities could find themselves burdened with funding the balance of OA costs from their own reserves for many years to come while the outputs from existing research projects and programmes are published.

6.6 In addition to the direct APC element, there will also be significant administrative and management costs for universities of establishing and operating a new OA model. The costs are recurring and will need to be covered for the full period of policy implementation. We have recommended to RCUK that universities should be free to use the block grant to cover reasonable costs associated with OA, rather than being overly prescriptive. This additional freedom would allow universities to be flexible in how they administer the block grant, deliver culture change for the future (eg with training), provide oversight of publishing strategies and explore other options that can lead to more open access in the future.

6.7 The additional requirements of meeting the Governments OA policy come at a time when universities are making major strides to improve operating efficiency as a result of the Wakeham Review. In delivering OA, universities must not now be penalised in the Wakeham efficiency calculations that the Research Councils are using to encourage the reduction of indirect costs.

7. COMPETITIVENESS

7.1 The UK's leading universities are already highly competitive and rank among the best in the world on most indicators. The UK is in a unique position for a medium-sized economy having such a high proportion of world-class universities and researchers and regularly punching well above our weight in terms of research publications rated as excellent internationally.

7.2 It is not clear how moving rapidly to Gold OA will improve this international standing that has been built up over many decades. Indeed, open access policy implementation may create unintended behavioural

consequences—for example in publishing strategies among academics or in the perceived attractiveness of the UK to overseas researchers—which could start to undermine our reputation.

7.3 There may, for example, be an impact on the international standing of UK universities if there is an overall reduction in the number of research papers submitted to the most highly-rated journals because of cost or licence restrictions or if the proportion of international researchers in UK institutions is affected.

7.4 Limited funding and strict requirements for Gold OA are likely to mean that cost rather than academic relevance will often have to become the deciding factor on where to publish, and with a block grant there may also be a timing effect on publications—a peak being created artificially as annual grants are released to institutions. These changes will put the UK at a disadvantage internationally and may make the UK less attractive as a location for the best international researchers as most will not face such restrictions from research funders in their home countries.

7.5 In short, there is a real concern that funding limitations will restrict academic freedom and that OA policy will be seen as another layer of Government regulation on the sector.

7.6 Our universities will not flourish if they are over-regulated. Academic freedom and university autonomy are essential components of our universities' success.

7 February 2013

**Written evidence submitted by SPARC Europe
(Scholarly Publishing and Academic Resources Coalition)**

SPARC Europe is an organisation that promotes change in scholarly communication for the benefit of research and society. <http://sparceurope.org/>

1. SPARC Europe (Scholarly Publishing and Academic Resources Coalition) is pleased to have the opportunity to comment on the issues below. SPARC Europe welcomes the UK Government's positive interest in Open Access (OA), the commissioning of the Finch report on expanding access to research publications and the Research Councils' active engagement in developing policy.

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

2. SPARC Europe's *response*¹⁰³ to the Finch Report is a public document and details our reservations about the direction and conclusions of the report. Before we explain these we wish it to be noted that we have serious concerns in two areas—there are factual inaccuracies in the Finch report and there are a number of assumptions or conclusions that are not evidence-based. We point these out in order to flag up points that the Committee may wish to note in its own considerations and because these contribute to our analysis and response to the Finch study and its conclusions.

3. *Factual errors.* The report:

- (a) *Implies that "Green" Open Access is always embargoed (delayed by publisher embargoes on permission to put papers into repositories).* This is incorrect: 60% of journals allow immediate opening-up of the peer-reviewed version of the article and a further 27% permit the opening-up of the submitted version. 16% even allow the published version (the Version of Record) to be placed in a repository immediately upon publication.
- (b) *Reports that the impact of repositories (Green OA) is limited except in those disciplines that support large-scale subject repositories.* In fact, repositories are providing seven-eighths of the 40% of the UK's research outputs that are Open Access, and the amount of Green OA is greater than Gold OA (openly-published in journals) in every field except the life sciences.¹⁰⁴
- (c) *Reports that Green OA cannot be given a liberal licence to allow text- and data-mining.* This is incorrect: there are many examples of liberally-licensed Green OA material and these are growing.
- (d) *States that most Open Access journals charge article-processing fees.* This is incorrect: the majority of OA journals (70%) do not charge a publication fee.
- (e) *States that publication fees are paid by authors.* This is misleading, since most publication fees are paid by the institution (24%), by the funder (59%) and only in 12% of cases by the author. There are implications here for the public purse.

4. *The lack of an evidence base for some of the important assumptions made, and some analytical errors:*

¹⁰³ <http://sparceurope.org/sparc-europe-response-to-the-finch-report/>

¹⁰⁴ Data from Björk B-C, Welling P, Laakso M, Majlender P, Hedlund T, *et al.*, 2010. Open Access to the scientific journal literature: Situation 2009. *PLoS ONE* 5(6): e11273. doi:10.1371/journal.pone.0011273 <http://www.plosone.org/article/info:doi/10.1371/journal.pone.0011273> and from Gargouri *et al.*, 2011 (unpublished; personal communication from Yassine Gargouri, *Université du Québec à Montréal*)

- (a) *Concludes that Green OA with short embargo periods may damage publishers.* This ignores the complete lack of evidence for this and the substantial body of evidence against it, which we detail below in this response.
- (b) *Concludes that repositories have a role merely in preserving the literature and for archiving theses and grey literature.* This is a strange conclusion given that virtually all repositories were built specifically to provide Open Access to the journal literature and in the UK have succeeded in providing this at way above global average levels.
- (c) *Uses an above-average value for publication fees in the calculations of the cost to the UK of Gold Open Access.* The value used in the study was £1,500–2,000 (based on the publication fees being paid by the Wellcome Trust for authors to publish in Gold OA journals in the life sciences). The global average is USD 907 (c£570).¹⁰⁵ This is important because the overall Finch recommendations are for the UK to move to all-Gold Open Access (ie pay for every article published) and Government-level acceptance of such a high value for publication charges may lead to publishers putting their charges up to this level if they feel the money is there.
- (d) *Does not take into proper account the existing policies from governments and research funders.* There are over 50 funder policies¹⁰⁶ on Open Access, all of which align except for detail and all of which have a primary focus on Green Open Access using repositories. The Finch conclusion—to focus on Gold Open Access—is an outlier (though the aim is, apparently, to “lead the world”).
- (e) *Assumes that potential users will want the Version of Record (VoR).* Potential users may prefer the VoR but this requires Gold OA for all articles—an expensive option for the UK. For most potential users, the Green version is perfectly adequate.
- (f) *Assumes that innovative SMEs all need liberally-licensed research outputs so that they can carry out text-mining.* While this is the case in some sectors (eg biotechnology), for the majority of sectors the need is simply for humans to have access to articles to read them.

5. The main reservations we have with the conclusions of the Finch report are these:

- The Finch study is disappointing in not focusing properly on providing Open Access but instead on providing Extended Access.
- The UK is already in the forefront in providing Open Access, but the way it has achieved this success is neither recognised by this study, nor used to build further similar progress.
- Recommending paying for “hybrid” Gold Open Access without securing full re-use rights in exchange for the payment is not the advance we were hoping for, and will hamper academic and commercial research progress. To some extent this problem has been overcome by the subsequent RCUK policy.
- The overall recommendations are out of line with those of every other policy from every other nation, region or institution. This is not brave leadership, but a serious mistake. It is very disappointing given the pattern of initiatives elsewhere in the world focused on achieving Open Access in an aligned manner, and especially in the light of the UK’s commanding global position on Open Access.

6. Given these inaccuracies, SPARC Europe cannot fully endorse the conclusions of the Finch report, nor support the specific shape of the subsequent RCUK policy based upon the report. No national policy should be based on flawed or missing evidence and we exhort the Committee to pay attention to the facts when considering what its own recommendations might be.

7. There is a considerable body of opinion that feels that the Finch study gave overmuch weight to publisher fears (evidence-free) about their businesses and sought to promote a route to Open Access that put publisher interests above those of the research community and the public that funds research. SPARC Europe concurs with this in general, though our view is nuanced: we believe that it is possible to develop a policy position that achieves Open Access within a reasonable period, supports innovative publishing services and new business models, delivers a competitive market and returns value to the taxpayer. What the Finch report concluded and recommended does none of these well.

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

8. Openly accessible publications may be specifically licensed to permit barrier-free re-use for multiple purposes, including text-mining. Text-mining is a technology that is proving to have particular potential in applied biomedical and chemical research, though it is likely to be increasingly important in most disciplines.

9. Where publishers are paid for Gold OA they are selling a publishing service. Purchasers of that service should select the level of service that they deem appropriate and where public money is being used, as in the

¹⁰⁵ Solomon DJ and Björk B-C (2012) A study of open access journals using article processing charges, *Journal of the American Society for Information Science & Technology* 63 1485–95 DOI: 10.1002/asi.22673 <http://www.openaccesspublishing.org/apc2/preprint.pdf>

¹⁰⁶ Registry of Open Access Repository Mandatory Archiving Policies (ROARMAP): <http://roarmap.eprints.org/>

case of the RCUK's intention to pay for Gold OA, the purchaser should decline to pay unless the product fully suits its needs. RCUK should require the form of licensing that it deems appropriate (it is minded to require a CC-BY licence) in return for Gold OA payments.

10. It should be noted—and was not in the Finch report—that Green Open Access material can also carry a liberal licence such as CC-BY. Increasing amounts of Green OA material is licensed in this way:¹⁰⁷ liberal licensing is not limited to Gold OA.

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

11. The Finch report's calculations on the cost to the UK research budget of moving to an all-Gold Open Access scenario used relatively high article processing charges (APCs) of £1,500 or more, based on the charges that the Wellcome Trust currently pays publishers for articles from its funded research in biomedicine. Biomedical journals have the highest APCs of all disciplines. The real current average charge levied across all OA journals that charge APCs (most do not) is £571.¹⁰⁸

12. By using a high figure, the Finch study raises the expectation of what the UK might be prepared to pay in APCs, opening up a potential distortion of the market as publishers with moderate or low APCs raise their APCs in line with that expectation, and exposing the UK's research budget to unnecessary and certainly unwarranted demands with respect to publication costs. This move is a grave disservice to British research and to other nations whose researchers will also have to pay any higher APCs levied by publishers.

13. Moreover, the Finch recommendations and the subsequent RCUK policy do not differentiate between fully OA journals and “hybrid” Gold Open Access: they take the view that both are equally beneficial and APCs from either are eligible for payment by UK research money. Hybrid Gold Open Access may be viewed as a mechanism for transition and clearly is as far as the Finch study goes. The alternative view is that it may be a mechanism that will actually slow progress—and cost a great deal in the process—as publishers delay converting their journals to full OA so as to enjoy for as long as possible revenues both from subscriptions and from APCs for a proportion of articles (a process known as “double dipping” into the public purse).

14. To make matters worse, the Finch report does not contain any assurances that hybrid Gold access will be provided with liberal re-use licence conditions in return for the money paid for it. RCUK is apparently trying to make suitable arrangements with publishers but compliance with RCUK's demand that where it is paying for Gold OA then the articles will be CC-BY-licensed is by no means guaranteed: publishers have good business reasons to fear such liberal licensing terms and some, or even many, may resist it for some time to come. This is not a good deal for UK research, innovation or taxpayers.

15. Conversely, pure Gold Open Access is now no longer an experiment. Full Open Access publishers have become mainstream players, demonstrating that business models to deliver pure Gold Open Access can be successful and sustainable ones for journal publishers, including in the humanities (and including for monograph publishing, for which there are now some workable and innovative new business models in play). These publishers have also shown that it is entirely possible to use open licensing without this threatening their business: in short, they are facilitating the kind of dissemination that is optimal for research and for society and are making a commercial success of it, creating jobs into the bargain.

16. In addition, this model has the potential to introduce proper competition into the market, which will result in better processes at lower cost to the taxpayer. Directing substantial amounts of research funding into hybrid Gold publishing will thwart this competitive drive and undo a lot of good progress: if money is available to pay for Open Access publishing, we suggest it should be confined to paying for the real value created by pure Gold Open Access.

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

17. All this said, we do question the over-weighted “Gold” thrust of the Finch report and the RCUK policy. Economic modelling¹⁰⁹ has indicated that the cheapest way for the UK to become an “Open Access” nation is to transition through “Green” OA to a final “Gold” OA world. The general benefits of OA (greater usage and impact of research, better reach to SMEs, professional, practitioner and education sectors and the general public) accrue throughout the transition, but the costs of transitioning are much less. This delivers value back to taxpayers at the same time as achieving the goal. We do not understand the thinking behind spending precious research funds on publishing activities when OA can be delivered more cheaply and as effectively in other ways. There is a policy opportunity with respect to Gold OA, especially the opportunity to help create a better market for publishing services, but we do not agree that the RCUK policy approaches it in the best way.

¹⁰⁷ SPARC Open Access Newsletter, June 2012: <http://legacy.earlham.edu/~peters/fos/newsletter/06-02-12.htm#libre>

¹⁰⁸ Solomon & Björk (2012), *op cit*.

¹⁰⁹ Houghton J and Swan A (2013) Planting the Green seeds for a Golden harvest: clarifications on “Going for Gold”. D-Lib Magazine, Jan/Feb 2013 19(1/2) <http://www.dlib.org/review/dlib/january13/houghton/01houghton.html> doi:10.1045/january2013-houghton

18. Some 40% of the UK’s annual research outputs are already freely available, a far greater proportion than the world average (20%). The Finch study does not acknowledge at all the fact that the vastly greater part of this content is provided through “Green” Open Access, delivered through a nationwide network of interoperable repositories that is second to none in terms of technical and policy advances. Considerable investment in this arena has been made both by research-focused institutions (all of which have Open Access repositories) and research funders (some of which have their own repositories), and policy developments by both have resulted in an exemplary leading position for the UK in this respect. Yes, there is more to do here, but it is policy development and implementation that needs attention—and that comes free.

19. The latest data show that 35% of the UK’s research outputs are freely provided through the Green route (compared to 5% through the “Gold” route).¹¹⁰ And the UK has more policies that are ensuring this Green progress than any other country, size for size.

20. It is mystifying, then, that the achievement of UK repositories and their promise for the future is completely unacknowledged in the Finch Report, and that further building on this foundation is not recommended. Instead, repositories are consigned, with little further consideration, to a role as providers of access to grey literature and data, and of preservation services. While repositories are certainly flexible enough to fulfil these roles, and are already doing so to some extent, the primary imperative for their establishment in every case has been to provide Open Access to the research literature. With proper policies in place, repositories can deliver Open Access extremely effectively.

21. We would like to see explicit recognition of that fact and of the potential that repositories embrace, and strong support for repositories in furthering the aim for increased accessibility. We note also that the report suggests that Green Open Access always involves embargoes, which is untrue (see paragraph 3a). Embargoes are not an inherent characteristic of the Green system: they are publisher-inflicted, where they occur, and can be rectified by proper attention during policy-making to copyright and the timing of deposit.

22. The report also suggests that this type of Open Access cannot provide liberal re-use; also untrue. Most repository software packages offer the depositor a choice of licensing terms to use for the deposited item. It is perfectly possible for authors to elect to use a liberal licence: that many do not yet opt for this is not an intrinsic flaw of the Green route but a result of lack of awareness and understanding, something that can be remedied over time by careful advocacy.

23. On the specific issue of Gold OA in relation to policy, our analysis of worldwide Open Access policies of research funders is presented in summary form in the table below (we have not included our *institutional* policy analysis here because it is out of scope). This is an analysis of the 49 funder policies from the Registry of Open Access Mandatory Archiving Policies (ROARMAP) that have been formally implemented. It is clear from that analysis that the UK (RCUK) stands alone in policy terms in *requiring* Gold OA where it is offered by publishers. In every other case, where Gold OA is explicitly part of a policy it is included as a *choice* for authors, not a required option. This includes the forthcoming policy from the European Commission for Horizon 2020, the framework programme for 2014–2020. Forthcoming policy from the US to cover federal agencies’ research will be either the same or will be Green-only.

24.

<i>Type of policy</i>	<i>Number of policies</i>
Green OA mandate	36
Green OA mandate with a Gold OA option (payments for APCs allowed from grant or claimed from funder)	12
Gold OA mandate with a Green OA option	1*

*RCUK

25. This independent policy stance by RCUK could be seen as a brave lead, or it could be seen as a lonely walk into the unknown without any understanding of the likelihood of finding any other nations marching in step.

26. Whichever, it is going to be a costly business for UK research-performing institutions and there are problems and dangers in the implementation. Early estimates from large research-intensive universities suggest that additional staff will be needed to manage the system of block grants that RCUK intends to award to institutions to pay for Gold APCs. Researchers are anxious about the process of allocation of funds (block grants) that RCUK admits will not be enough to cover APCs for all articles published from RCUK research. Smaller publishers, including many learned societies, are worried about achieving their “fair share” of the block grant money when there will be competition for it and the large publishers are likely to offer “deals” to universities in order to secure large proportions of the available funds. Indeed, the largest publisher has already made a move in this direction (see paragraph 31 below).

27. To reiterate a simple point, the money RCUK intends to make available for APCs is coming from the research budget. RCUK has declared that it will make £100 million available for this purpose over five years, money that would otherwise directly fund research. What this means for the competitiveness of UK HE

¹¹⁰ Data collected for a study on behalf of the OAIG (Open Access Implementation Group), to be published shortly.

institutions, struggling to acquire research funding and to stay at the forefront of international research efforts, is self-evident.

Support for universities through funds to cover article processing charges

28. Even before the Web made the case for Open Access compelling, there was a market problem in academic publishing. The market is far from perfect because there is no proper competition between products and users of the products (researchers) are not the purchasers (libraries are) so pressure on prices is reduced and price elasticity of demand has been low. As a consequence, journal prices have risen inexorably over the decades.

29. Open Access provides the opportunity for publishers to change their business models to provide free access to readers and to cover their costs by making a charge for their services rather than for their products. Such a system should naturally adjust the market by putting researchers who are—as authors—the customers for publishing services into the position of purchaser. This will create a more competitive market as publishers will need to compete on service quality and price.

30. Unfortunately, the proposed system of block grants to institutions will hinder the development of a more competitive market. Authors will be one step removed from the purchase decision by dint of an inevitable allocation system within each institution.

31. Moreover, opportunities for further monetisation of publicly-funded research are already being grabbed. One very large publisher is attempting to do a national-level deal with libraries to acquire a large share of the £10 million that David Willetts handed out to 30 institutions to ease the path towards implementing the RCUK policy of paying for Gold OA. This publisher has made an offer to the UK's research libraries to make the RCUK-funded articles it published last year (2012: note that this has nothing to do with Open Access; it is retrospective back-catalogue access) freely available for sums of hundreds of pounds *per article* (varying depending on how many of the circa 3,000 articles involved the libraries can or will pay for). Note that this publisher has *already been paid*, in the form of subscriptions, for handling these articles. Note, too, that opening up the articles is portrayed as being a complex task of “conversion”, one worthy of a charge of several hundred pounds per article.

32. This example clearly illustrates that the proposed block grant approach will simply turn the current “Big Deal” system for subscriptions into a Big Deal system for article processing charges. There will be many losers, just as there are from the Big Deal subscription system, not least small publishers that cannot compete with the might of the publishing giants, and certainly including the British taxpayer because a better, competitive market will not result.¹¹¹

OTHER POINTS

Embargo periods

33. It is worth noting that the Finch report states that embargoes of less than 12 months are “unreasonable”. It bases this on the claim by subscription publishers that immediate Green OA threatens their businesses, yet no evidence to support this claim has ever been produced. There is no evidence at all that short embargoes—or even no embargo at all—damage publisher subscription businesses (what has caused relentless attrition in journal subscriptions over 30 years is the equally relentless above-inflation increase in subscription prices).

34. On the contrary, the two main society publishers in high-energy physics have publicly stated that they have seen no damage to their businesses from 20 years of Green OA (where there is no embargo at all) in this discipline. The National Institutes of Health (US) policy, a “Green” Open Access policy that has been in place since 2007, requires authors to deposit their articles in the OA repository called PubMed Central—and the publishers of thousands of journals also *voluntarily* submit their own articles to PubMed Central, not something they would do if it damaged their businesses.¹¹² And *Nature*, the most prestigious scientific journal of all, says, “We have, to date, found author self-archiving [Open Access] compatible with subscription business models, and so we have been actively encouraging self-archiving since 2005.”

35. It would seem not unreasonable then to conclude that Green Open Access does not (yet) harm subscription publishers: and the recently-completed PEER project, a publisher-led, EU-funded study to gather evidence of the effects of Green Open Access, concluded exactly that.¹¹³

36. RCUK should therefore allow a maximum embargo period for natural sciences, engineering and medicine of six months, and for humanities and social sciences of 12 months. This is still not Open Access, but it is a step towards it.

¹¹¹ Note: three days ago (04.02.2013) a preprint was published by a US economist on the adverse effects of big-publisher market power in an Open Access scenario: Odlyzko, A [University of Minnesota] (2013) Open Access, library and publisher competition, and the evolution of general commerce <http://www.dtc.umn.edu/~odlyzko/doc/libpubcomp.pdf>

¹¹² The NIH Public Access Policy. Director's report, February 2012: http://publicaccess.nih.gov/public_access_policy_implications_2012.pdf

¹¹³ http://www.peerproject.eu/fileadmin/media/reports/20120618_PEER_Final_public_report_D9-13.pdf

Improving the levels of Open Access in the UK

37. RCUK revised its original Open Access policy in 2012. The original policy, implemented by all seven Research Councils by 2007, was the most successful funder policy in the world in terms of the amount of OA material it was achieving. [It was not the most successful policy of all: that honour continues to belong to the University of Liege in Belgium (collecting 83% of its annual outputs in its OA repository) and, since the whole Belgian HE system is now adopting the same policy conditions in conjunction with the Belgian national research funder, FNRS, Belgium is expected shortly to overtake the UK as the country leading the world in providing OA. This is a properly joined-up national policy scenario.]

38. RCUK can retain its lead by continuing with its original policy but enforcing it better. In 2012, both the Wellcome Trust and the NIH in the US announced that they would be strengthening the policing of their OA policies to ensure better levels of compliance. RCUK should do the same instead of changing the whole basis of the policy, confusing and alienating the UK research community and shifting research funding into further spending on publishing.

39. RCUK was already working on technical solutions for measuring and assessing the impact of its funding programme, and this included a plan to harvest RCUK-funded outputs from institutional repositories (IRs) into a central RCUK database that would provide the material for analysis and assessment. This was a simple and elegant way for the impact of British-funded research to be assessed. Now, the reduced focus of the new policy on Green OA will mean that RCUK-funded research will not all gather in institutional repositories, as was the original plan, but will appear variously across IRs, centralised repositories such as UKPMC (now PMC Europe) and multiple publisher websites. This seems a step backwards, forcing more complicated technical processes to be developed in order to measure the impact of British research, and inevitably delaying the implementation of such a system.

Dr Alma Swan
Director of Advocacy Programmes

7 February 2013

Supplementary written evidence submitted by SPARC Europe

Following the hearing on Open Access on Tuesday 16 April, I have a number of further points to make.

THE COST OF GREEN AND GOLD OPEN ACCESS, AND TRANSITIONING TO AN OA WORLD

1. I confirm that our modeling showed that, in an all-Open Access world where all research reports are openly available, Gold Open Access would be cheaper—so long as article-processing charges are kept at a reasonable level. This, of course, would require suitable market pressure on these charges (see below).

2. Our modeling also showed that by far the cheapest way for any actor (university or nation) to get to that point is through Green Open Access. This has much lower costs than Gold OA (especially in the UK where the costs of the repository infrastructure are largely already sunk) and simply requires institutions to continue paying subscriptions for the journals they require while using their repositories to provide access to all their outputs. In this scenario, the issue of the UK producing only 6% of the world's research but needing access to 100% of that corpus becomes less important. Annex A shows some further data.

“HYBRID” GOLD OPEN ACCESS

3. RCUK's policy has a stated preference for Gold Open Access, and permits paying for so-called “hybrid” Gold OA, where authors can opt to pay an article-processing fee to make individual articles Open Access in an otherwise toll-access (subscription-based) journal. In these cases, unless the publisher has a sophisticated mechanism in place to reduce subscription costs in line with the additional, new, revenue from this “hybrid” Gold stream, the UK taxpayer ends up paying the publisher twice—once for the subscription and again to make individual articles freely available (this is known as publisher “double dipping” into the taxpayer's pot).

4. As we heard from Elsevier, that company has a system whereby reductions in subscriptions occur after a two-year delay (presumably accounting practices make it difficult to shorten this timespan). The important point is that the reduction in subscriptions is effectively a gift to the rest of the world from the UK, since it applies across the board, across all subscribers. Meanwhile the UK has paid for the subscriptions *and* for the individual article-processing charges.

5. The bulk of the money RCUK is allocating to Gold OA will go to publishers already charging for subscriptions, since RCUK's unusual (indeed, unique) “preference for Gold” provides the incentive for these publishers to offer the “hybrid” Gold option. It is questionable whether this is a good use of taxpayers' money.

A FUNCTIONING MARKET

6. We have seen three or four decades of above-inflation price increases from scholarly publishers. One of the opportunities that a move to Open Access brings is the chance to correct this and create a properly

functioning market for scholarly information. There are a number of things wrong with the current academic publishing market, apart from the fact that a handful of large companies dominate it. In a subscription-based academic publishing world, the users of the products are not the purchasers: libraries make the purchase decisions. In an Open Access world where there is a per-article charge for publication, market pressure on prices could be brought to bear by a system where authors make the purchase decision and use money from their research grants to pay for publishing charges. This at least enables authors to decide on how best to spend their grants and makes them weigh up for themselves the value of different routes to Open Access.

7. RCUK's model, where block payments are handed to universities to pay for publishing costs, will not help improve the market. The danger is that institutions, or national bodies acting on their behalf in a consortium model, may find it easiest to accept the offers of large publishers to set up a "block payment" system. A university, or a consortium, could simply pay an amount upfront to a publisher which would cover the cost of a certain number of papers from that institution to be made Open Access. Publishers will claim (rightly) that this can save a university some administrative overheads. There is some attractiveness to it for institutions, therefore, and publishers certainly prefer this sort of arrangement to having to work with micropayments from thousands of authors.

8. What such a situation represents, however, is a move from a world of big-publisher "Big Deals" on subscriptions to a world where we will have big-publisher "Big Open Access Deals". The smaller (often learned society or researcher-led) publishers, and the "pure Gold" Open Access publishers will be yet again elbowed out and the market will remain broken.

9. The way to create better pressure on prices is to allow authors to make the purchase decision themselves by permitting grant funds to be used for publishing charges. This is the model employed by almost all research funders around the world (excepting the Wellcome Trust which pays the charges itself on application).

10. We heard from Alicia Wise of Elsevier that the Competition Commission held an investigation into the academic publishing market in 2001 when Reed Elsevier proposed to purchase Harcourt, itself a large publisher. My company, Key Perspectives Ltd, was contracted by the Competition Commission to help gather market data for its investigation, so we had more than a passing interest in the process and its outcome. The full report by the Competition Commission is here: http://webarchive.nationalarchives.gov.uk/+http://www.competition-commission.org.uk/rep_pub/reports/2001/457reed.htm#full

11. Dr Wise stated that the Competition Commission concluded that there was no public interest issue involved. This is not an accurate portrayal of the case. The truthful way of reporting what the Competition Commission at the time concluded is that there was a split, with two of the three panel members concluding there was no public interest issue and one concluding the opposite. The Commission decided to use the majority view as its official conclusion, but it is important to note that the level of disagreement with this by the third panel member was such that a note by him explaining his disagreement was included in the Commission's official report at the end of Chapter 2 here: http://webarchive.nationalarchives.gov.uk/+http://www.competition-commission.org.uk/rep_pub/reports/2001/fulltext/457c2.pdf

12. Since 2001, when this investigation took place, the industry has seen further mergers and acquisitions, including the joining of two large publishers, Wiley and Blackwell, a few years ago. Whilst the long tail of tiny publishers has almost certainly grown longer in the past decade, the market has certainly not become any less dysfunctional.

13. The other issue is that of transparency. Big Publisher "Big Deals" have long been a topic of discussion within the academic library community, and one of the reasons is that discussion of prices is generally not allowed: libraries are forced to sign non-disclosure agreements when they conclude such a deal. During the hearing last week Dr David Prosser, director of Research Libraries UK (RLUK), tweeted this: "#bisoa perhaps have a librarian on the panel? We could tell you all about non-disclosure clauses (although not an #oa issue)". (https://twitter.com/RLUK_David/status/324117270773256192)

POLICY LEADERSHIP

14. RCUK is still claiming leadership in policy development. This is belied by the facts. Despite the efforts of Janet Finch and David Willetts to persuade the European Commission and other funders to adopt the same "Gold preferred" model as RCUK, none have yet done so. The policies announced since that of RCUK (Australian Research Council, the consortium of Irish funders and research institutions, the White House Office of Science & Technology Policy) are policies that mandate Green OA. Other policies in the pipeline are the same.

15. RCUK has a table (created by Science Europe) showing the results of an analysis of European funder policies. This did not indicate funder *preferences*, merely recording whether Green or Gold OA are *permissible* by each funder. Thus the subtlety of funder preferences was lost, making it look as though RCUK's policy was in line with many others. These others, however, are those that *permit* Gold OA as a route to Open Access but none of them express a preference for that and none top-slice money from the research budget to pay for any costs involved.

16. In fact, *no other policy is like that of RCUK* in stating a preference for Gold OA. A number of funders permit grant funds to be spent on publishing costs if authors so choose, but this is very different from allocating

money up-front purely for publishing fees (and allowing this money to be spent on “hybrid” OA). Our own analysis of funder policies (worldwide, not just European) shows RCUK out on its own because of this stance. The SPARC Europe policy table is presented in Annex B.

17. There is one outlier, the Austrian national funder, FWF. This funder has agreements with publishers to pay for Gold OA and the publisher automatically charges the funder—the author has no say in the matter (for example: <https://plus.google.com/100061319416663890162/posts/KAJ6gUeST5Z> Perhaps this can be counted as “preference by practice” for Gold OA: most of the money goes on “hybrid” OA while Austrian universities continue to purchase journal subscriptions.

Dr Alma Swan

Director of Advocacy, SPARC Europe

10 May 2013

Annex A

COSTS OF GREEN AND GOLD OPEN ACCESS

These data are from the economic modeling exercise by Houghton & Swan (2012).

<i>UK</i>	<i>Costs £m</i>	<i>Savings £m</i>	<i>Net saving (cost) £m</i>	<i>Benefit/cost ratio</i>
OA publishing (Gold OA)	(148)	199	52	1.4
Worldwide OA	(148)	17	(131)	0.1
Unilateral OA				
OA self-archiving (Green OA)	(18)	75	57	4.2
Worldwide OA	(18)	6	(11)	0.4
Unilateral OA				

UNILATERAL OA

- Unilateral OA is much more expensive.
- Costs exceed benefits.
- Net cost of *unilateral* Green OA is much lower than that of Gold OA (£11 million: £131 million).

WORLDWIDE OA

- In a Green OA world, benefits exceed costs by 4x.
- In a Gold OA world, benefits exceed costs only by a factor of 1.4.

Annex B

RESEARCH FUNDER POLICIES ON OPEN ACCESS

At 10 February 2013 the global picture was as below.

OVERALL NUMBERS

<i>Green (repository-based) OA required</i>	<i>Either Green or Gold routes satisfy policy requirements</i>	<i>Gold (journals) preferred where available</i>
33	14	1

Funders permitting Gold OA article processing fees to be paid from research grant, or by a request to the funder = 20.

GREEN (REPOSITORY-BASED) OPEN ACCESS REQUIRED: 33 FUNDERS

Argentina	Ministerio de Ciencia, Tecnología e Innovación Productiva
Australia	Australian Research Council
Australia	National Health and Medical Research Council
Belgium	FWO (Flanders Research Office)
Canada	Canadian Institutes of Health Research
Canada	National Research Council
Canada	International Development Research Centre
China	National Science Library Chinese Academy of Sciences
Denmark	Council for Independent Research, Danish National Research Fdn, Danish Council for Strategic Research, Danish National Advanced Technology Fdn, and the Council for Technology and Innovation (joint policy)
European Union	European Research Council

EU Member States	EUR-OCEANS Consortium on Ocean Ecosystem Analysis
France	IFREMER
Ireland	Science Foundation Ireland
Ireland	Health Research Board
Ireland	Irish Research Council
Italy	Telethon
Norway	Norwegian Research Council
Spain	Government of the Principality of Asturias
Spain	Madrid Autonomous Community
Spain	General State Administration
Ukraine	Parliament of Ukraine
UK	Arthritis Research UK
UK	British Heart Foundation
UK	Cancer Research UK
UK	Chief Scientist Office Scotland
UK	Department of Health
UK	Dunhill Medical Trust
UK	Multiple Sclerosis Society
UK	Wellcome Trust
USA	National Institutes of Health
USA	Howard Hughes Medical Institute
USA	Autism Speaks
USA	Institute of Education Sciences

EITHER GREEN OR GOLD ROUTES SATISFY POLICY REQUIREMENTS (IE ONE OR THE OTHER MUST BE PROVIDED): 14 FUNDERS

Austria	FWF (Fonds zur Foerderung der wissenschaftlichen Forschung)
Canada	Ontario Institute of Cancer Research
Canada	Fonds de recherche du Québec
Canada	Canadian Health Services Research Foundation
Canada	Heart and Stroke Foundation
European Union	European Commission
EU Member States	CERN
Hungary	Academy of Sciences
Hungary	Hungarian Scientific Research Fund (OTKA)
Iceland	Rannis
India	Council of Scientific and Industrial Research
Sweden	Swedish research Council Formas
Sweden	Swedish Research Council Vetenskapradet
Switzerland	Swiss National Science Foundation

GOLD (JOURNALS) PREFERRED WHERE AVAILABLE: 1 FUNDER

UK	Research Councils UK
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Supplementary written evidence submitted by Professor Steven Harnad

The only barrier separating the UK and the rest of the world from Open Access (OA) to its refereed research journal article output in the online era is *keystrokes*. It is important to bear this in mind in considering the following comments. Once global policy has seen to it that those keystrokes are universally and systematically executed, not only OA itself, with all its resulting benefits for research productivity and progress, but all the other desiderata sought—the end of Green OA embargoes, a transition to Gold OA publishing at a fair and sustainable price, CC-BY, text-mining, open data—will all follow as a natural matter of course.

But not if the keystroke barrier is not first surmounted, decisively and globally.

It is in the interests of surmounting this keystroke barrier to global OA that this summary strongly supports the institutional-repository immediate-deposit mandate of HEFCE/REF¹¹⁴ proposal to complement and reinforce the RCUK OA mandate.

Embargoes: About 60%¹¹⁵ of subscription journals (including most of the top journals in most fields) affirm their authors' right to provide immediate, un-embargoed Green Open Access (OA) to the peer-reviewed final draft of their articles by self-archiving them in their institutional repositories immediately upon acceptance for

¹¹⁴ <http://www.hefce.ac.uk/whatwedo/rsrch/rinfrastruct/openaccess/>

¹¹⁵ <http://www.sherpa.ac.uk/romeo/statistics.php?la=en&fIDnum=%7C&mode=simple>

publication as well as making them OA immediately. The remaining 40% of journals impose an embargo of 6–12–24+ months on Green OA.

The optimal solution is for research funders and institutions to mandate that authors deposit the peer-reviewed final draft of all their articles in their institutional repositories immediately upon acceptance for publication, set access to the 60% of deposits that are un-embargoed as Open Access immediately, and set access to the other 40% as Closed Access during the embargo.

This means that for the 40% of the immediate-deposits that are embargoed, users web-wide will still have immediate access to the bibliographic metadata (author, title, journal, abstract) during the embargo, and individual users can request an individual copy for research purposes by clicking the repository's "request copy" Button;¹¹⁶ the author receives an immediate email and can then authorize emailing the requested eprint with one click.

This compromise is not OA but "Almost-OA" and it can tide over user needs during any allowable embargo period—as long as all the papers are systematically deposited immediately, not just the un-embargoed ones.

Regardless of whether the author publishes in a subscription journal or a Gold OA journal, regardless of whether the OA is immediate or embargoed, regardless of how long an OA embargo is allowed, OA mandates should require immediate deposit of all papers upon acceptance for publication.

This ensures that everything is deposited, as clocked by the date of the journal acceptance letter, that 60% is immediately Green OA, and that the remaining 40% can have "Almost-OA" during the embargo.

This is a practical compromise that has already been tested and demonstrated to be effective.¹¹⁷ To insist instead on mandating immediate or almost-immediate Green OA (ie no or almost no embargo at all), needlessly risks non-compliance by authors, who will not give up their right to publish in their journal of choice simply because the journal embargoes Green OA. The right compromise is to mandate immediate deposit, and to tolerate embargoes for the time being. Once mandatory immediate deposit with 60% immediate-OA and 40% Almost-OA becomes universal, embargoes will shrink and disappear as a natural matter of course, under global pressure from the growth and benefits of OA. But *everything must be immediately deposited first*.

An immediate institutional-deposit mandate, as proposed by HEFCE/REF,¹¹⁸ will also recruit institutions to monitor and ensure timely compliance with the HEFCE mandate in order to be eligible for REF, thereby remedying the current defect in the RCUK OA mandate, which has compliance mechanisms for Gold OA compliance, but none for Green OA compliance.

Access Rights vs. Re-Use Rights (CC-BY): Online access to peer-reviewed research, free to all users, not just subscribers, is urgently needed in all fields of scholarly and scientific research. There exists no field of research publication in which access-denial is not a problem: for *users*, in terms of lost access to findings, for *authors*, in terms of lost user uptake and usage of their findings, and for the *tax-paying public* who fund the research, there is the lost return on their investment, in terms of lost research uptake, usage, applications, impact, productivity and progress.

Apart from the urgent and universal need for *access* to research findings, there are also further potential benefits from being able to *re-use* the *texts* of the articles in various ways: to text-mine and data-mine them by machine as well as to re-publish them in various new re-mixes or "mashups".¹¹⁹

However, this further need for re-use rights, over and above online-access rights is neither urgent nor universal. In some fields, such as crystallography, certain journal-article re-use rights would indeed be very useful today; but in most fields the need for journal-article re-use rights is not pressing. Indeed many authors may not even want to allow it—especially in the humanities, where preserving text-integrity is particularly important, but also in other scholarly and scientific fields where authors are resistant to allowing re-mix and re-publication rights on their verbatim texts:

Note that all users that can access them are of course already free to re-use the *findings* (ie the content of the texts) of published articles (as long as author credit is provided through citation). But *free online access already allows the re-use of findings*. Text re-mixes and re-publication are another matter.

Moreover, there is an important negative interaction between re-use rights and publisher embargoes on Green OA: If Green OA did not just mean online-access rights, but also re-use and re-publication rights (eg CC-BY), then publishers would understandably be much more inclined to embargo Green OA: For if they authorized immediate re-publication rights, their own opportunity to recover their investment could be undercut by rival publishers free-riding on their content immediately upon publication! So subscription publisher embargoes on Green OA (now only 40%) would multiply and lengthen if re-use rights, over and above free online access, were mandated too.

¹¹⁶ <https://wiki.duraspace.org/display/DSPACE/RequestCopy>

¹¹⁷ <http://www.berlin9.org/bm-doc/berlin9-rentier.pdf>

¹¹⁸ <http://www.hefce.ac.uk/whatwedo/rsrch/rinfrastruct/openaccess/>

¹¹⁹ <http://en.wikipedia.org/wiki/Mashup>

The optimal OA policy is hence to *mandate only free online access, and leave it up to the publisher and the author what further re-use rights they may wish to grant.*

Once mandatory Green OA prevails universally, all this will change, and authors will be able to grant whatever rights they wish. But pre-emptive insistence on re-use rights today will only serve to further retard and constrain basic access-rights and provoke author resistance and noncompliance.

Author Choice and Journal Quality: One of the most fundamental rights of scholars and scientists is the right to choose whether, when and where to publish their findings. It is a great (and unnecessary) strategic mistake—and will only generate author resistance and policy failure—to try to force scientists and scholars to choose journals based on the journal’s economic model (subscription or Gold), licensing policy (CC-BY) or embargo length instead of the journal’s quality and suitability.

Journals earn quality track-records on the basis of the level of the peer-review standards that they maintain. Researchers—as well as their institutions and funders—want to meet the highest quality standards they can. And users rely on them to judge what work is of sufficient quality to risk investing their scarce time and resources into reading, using, and trying to apply and build upon. Unreliable and invalid research can retard productivity and progress just as surely as access-denial can.

The only requirement of an OA mandate should be *immediate deposit of the final draft, with as short an embargo on OA as feasible, and as many re-use rights as the author can and wishes to allow. No restriction on journal choice, which should be based on journal quality-standards alone.*

Gold OA and CC-BY should be left as options for authors to choose if and when they wish. They will grow naturally of their own accord once mandatory immediate-deposit becomes universal.

Pre-Emptive Unilateral Double-Payment by the UK: The UK publishes about 6% of the world’s annual research output. The majority of journals today are subscription journals. Hence the UK pays for about 6% of worldwide annual institutional journal subscriptions. Gold OA fees are additional expenditure, over and above what the UK spends on annual subscriptions, because institutional Gold OA fees are for providing OA to UK *output* (6%) whereas institutional subscriptions are for buying in access to *incoming* articles from other institutions, both in the UK (6%) and the rest of the world (94%). So institutional journal subscriptions cannot be cancelled until not only UK articles but the remaining 94% of published articles are made OA.

Suppose the UK decides to pay Gold OA fees for all of its annual research output. That increases UK publication spending—already stretched to the limit today—by 6%, to 106% of what it is today. Some of this extra UK expenditure (out of already scarce and overstretched research funds) will simply be extra payments to pure Gold OA publishers; some of it will be double-payments to hybrid subscription/Gold publishers. Both mean *double-payment* on the part of the UK (subscriptions + Gold); but hybrid Gold also means *double-dipping* on the part of hybrid Gold publishers.

Some hybrid Gold publishers have promised to give a subscription rebate proportional to their uptake of hybrid Gold. If all publishers offered hybrid Gold (as they can all do, easily and at no extra cost, in order to earn UK’s unilaterally mandated Gold subsidy) and all gave full rebates on subscriptions, that would mean that *all subscribers worldwide* would receive a 6% rebate on their subscriptions, thanks to the UK’s unilateral double-payment.

But for the UK, this would mean that the UK gets back in subscriptions only *6% of the 6%* that the UK has double-paid for hybrid Gold OA ($6\% \times 6\% = 0.4\%$ UK rebate), while the rest of the world gets a rebate of 94% of the 6% that the UK (alone) has unilaterally double-paid for hybrid Gold OA ($6\% \times 94\% = 5.6\%$ rebate to the rest of the world).

In other words, unilateral UK hybrid Gold OA double-payments not only make UK output OA for the UK and the rest of the world, but, if rebated, they also subsidize the subscriptions of the rest of the world. (This is a classic “Prisoner’s Dilemma”,¹²⁰ in which it is to the rest of the world’s advantage to mandate cost-free Green, and at the same time cash in on the rebate from the UK’s unilateral Gold mandate.)

The optimal RCUK policy is hence to leave it up to authors whether they wish to pick and pay for the Gold OA option, but on no account require or prefer Gold, and particularly in the case of hybrid Gold OA.

(If publishers instead gave the full Gold OA rebate to the subscribing institution, that would be tantamount to letting all subscribing institutions publish Gold OA at no cost—a “subscription” deal that publishers are not likely to be in a big hurry to make, because if it scaled it would leave “subscriptions” hanging from a skyhook! Even the premise that all hybrid Gold OA publishers would indeed faithfully refrain from double-dipping by giving a full rebate for the UK 6% Gold by reducing worldwide subscription costs by 6% is a very tenuous assumption.)

UK Leadership in OA: The UK was indeed the worldwide leader in OA from 2000–2012, thanks to the contributions of JISC, EPrints, and especially the 2004 Parliamentary Select Committee¹²¹ that first

¹²⁰ <http://openaccess.eprints.org/index.php?archives/962-Open-Access-and-the-Prisoners-Dilemma.html>

¹²¹ <http://www.publications.parliament.uk/pa/cm200304/cmselect/cmsctech/399/39903.htm>

recommended that UK funders and institutions mandate Green OA. RCUK followed this UK Green OA recommendation and it has since been followed by 80 funders and over 200 institutions¹²² worldwide.

But this UK world leadership in OA ended in 2012 with the Finch Report and the resulting new RCUK policy of (1) restricting UK authors' journal choice, (2) downgrading Green OA, and (3) preferring and funding Gold OA and CC-BY, when what was really needed was only a (cost-free) upgrading¹²³ of the RCUK *compliance monitoring and assurance* mechanism for Green OA.

Fortunately, HEFCE/REF¹²⁴ has now proposed precisely the upgraded Green OA compliance mechanism that can once again earn back the UK's worldwide leadership role in OA:

In order to be eligible for submission for REF¹²⁵ 2020, all peer-reviewed journal articles must be deposited in the author's institutional repository immediately upon publication (not retrospectively), regardless of whether they are published in a subscription journal or a Gold OA journal, regardless of whether their license is CC-BY, and regardless of whether OA to the immediate-deposit is immediate or embargoed.

Green OA Compliance Mechanism: The proposed HEFCE/REF immediate institutional-deposit mandate overcomes all the major obstacles and objections concerning author restrictions on journal choice, embargo lengths, sufficiency and disbursement of Gold OA funding, double payment, double-dipping, and (unavailable or unwanted) re-use rights:

All UK authors can publish in their journal of choice and no author is prevented from publishing for lack of Gold OA funds. Institutions are recruited to monitor and verify compliance with the immediate-deposit requirement for their own research output, ensuring that all deposits are made on or near the calendar date of acceptance for publication. Access is immediately Green OA (60%) or Almost-OA (40% during any allowable embargo period) (via the repository's request a copy Button), thereby remedying the RCUK policy's failure to provide a mechanism for ensuring Green OA compliance.

OA Benefits: The primary benefit of OA is that it ensures that no would-be user of the research is denied access for lack of subscription access.

As has been demonstrated in study after study, in every scholarly and scientific field: OA maximizes research downloads and citations,¹²⁶ thereby maximizing research uptake, usage, applications, productivity and progress.

Gold OA Transitional Costs: The secondary benefit of OA is that it will eventually make publishing less costly. But for this to happen, *Green OA must be universally mandated first*. Pre-emptive double-payment (subscriptions plus Gold OA fees) by the UK, unilaterally, would just mean that the UK was paying even more than it is already paying for subscriptions, in order to make its own research output OA (Gold CC-BY). This is a highly counterproductive policy.

The UK should lead the way toward effectively mandated Green OA worldwide. Once Green OA is universal, institutional subscription cancellation pressure will force publishers to downsize and convert to Gold OA at a fair price, paid for out of institutional subscription cancellation windfall savings instead of double-paid, as with the unilateral pre-emptive Gold funding proposed by Finch/RCUK.

The worldwide network of Green OA repositories will take over the function of access-provision and archiving, unbundling the management of peer review¹²⁷ to leave it as the sole remaining essential value still provided by peer-reviewed journal publishing and hence the sole remaining publishing cost. This "Fair Gold" will cost a fraction of the current price per article, reckoned as 1/Nth of the worldwide subscription revenue of a subscription journal publishing N articles per year today. Hence Fair Gold will cost an order of magnitude less than the £500-£5000 asking-price for Gold OA today. (Please see the evidence of Swan & Houghton¹²⁸ on the Green/Gold transition and the relative cost/benefits of Green and Gold OA, unilaterally vs. universally.)

Brief notes on points that arose during the Committee Hearing:

HEFCE/REF mandate proposal: The proposed HEFCE/REF institutional immediate-deposit mandate, if adopted, will completely remedy the flaws of the Finch/RCUK policy.

Embargoes and compromise: An interim compromise is needed on the problem of publisher embargoes on Green OA: The optimal compromise is not to insist on double-paying for immediate Gold CC-BY today, preemptively, unilaterally and needlessly, with all its perverse consequences, but instead to mandate immediate deposit of all articles independently of whatever allowable Green OA embargo length is agreed upon.

¹²² <http://roarmap.eprints.org/>

¹²³ <http://www.dlib.org/dlib/september12/harnad/09harnad.html>

¹²⁴ <http://www.hefce.ac.uk/whatwedo/rsrch/rinfrastruct/openaccess/>

¹²⁵ <http://www.ref.ac.uk/>

¹²⁶ <http://opcit.eprints.org/oacitation-biblio.html>

¹²⁷ <http://www.dlib.org/dlib/july10/harnad/07harnad.html>

¹²⁸ <http://www.dlib.org/dlib/january13/houghton/01houghton.html>

Journal Prestige and Price: A journal’s “prestige” is based on its public track-record for quality. A journal’s quality depends on its peer-review standards. The higher the quality standards, the more rigorous and selective is the peer reviewing. The cost per accepted, published article of a highly selective, high-standard journal can be higher because the cost for the peer review of all the submitted and refereed articles that did not meet the journal’s quality standard must be factored into the price of every accepted article. With post-Green Fair-Gold not only is the cost of peer review unbundled from the cost of access-provision and archiving, but peer review can be provided on a “no fault”¹²⁹ basis, with each round of the peer-review service paid for, per paper submitted, irrespective of whether the outcome is acceptance, revision, or revision/resubmission and re-refereeing. This unbundling will re-distribute the cost of the peer review service equitably, so the no-fault peer review fee (1) discourages authors from making unrealistic submissions to journals whose quality standards their work is unlikely to meet, as in the days when peer-review was paid for by subscriptions and hence cost-free to the author, and (2) discourages journals from accepting substandard articles in order to earn more peer review revenues, because their revenue is based on peer review rather than acceptance, and their reputation depends on their track-record for quality.

Publishing costs as research costs: It has been repeatedly stated (particularly by the Wellcome Trust) that “publishing costs are just a small part of research costs” (c. 1.5%), and hence that research funders should be prepared to pay them as such—in the form of Gold OA fees. This sounds fine from the standpoint of a research funder like Wellcome, which need only fund research. But, as noted above, most publication costs today are paid in the form of institutional journal subscriptions. Wellcome does not pay the institutional journal subscriptions of its fundees’ institutions: Those are paid by others, from other resources. Hence Wellcome payment of Gold OA fees (at today’s inflated asking-price, and often paid to hybrid subscription/Gold journals) is *double-payment*, but the double-payment is not by Wellcome. The UK government is ultimately paying for both journal subscriptions and RCUK Gold OA fees. Hence Wellcome’s motto that “publishing costs are just a small part of research costs” cannot be applied to UK governmental funding until UK subscription costs no longer need to be paid and peer review costs have been unbundled and offered as Gold OA at a fair price. In other words, after global Green OA has prevailed globally.

Disproportionate publication costs for research-intensive institutions and countries: When publishing costs are paid by the institutions that *provide* the research (in the form of Gold OA fees) instead of by the institutions that *consume* the research (in the form of subscription fees), more research-intensive institutions pay more than less research intensive institutions do. But, as *Houghton & Swan*¹³⁰ have shown, both will still pay substantially less than they are paying today in subscriptions, because the price of post-Green Fair-Gold publishing (freed from double-payment and downsized—by universal Green—to peer-review costs alone) will be so much lower than the current price of subscription publishing.

The cost of institutional repositories: Most institutions in the UK, EU and US already have institutional repositories¹³¹ (for a variety of institutional purposes, including OA). Their start-up costs¹³² were low, and have already been invested. Their annual maintenance costs (a server and some sysad time) are low, and part of existing institutional network infrastructure. The cost per paper deposited in an institutional repository is virtually zero, yet this represents the institution’s contribution to globally distributed access-provision and archiving. (Even for a global central repository like Arxiv, the price per paper is less than \$7).¹³³ This is what will permit the current publication price per article—paid in the form of worldwide institutional subscriptions—to be reduced to just the price of peer review alone.

Finch on repositories: The Finch report, under the influence of publishers, suggested that Green OA is a failure in practise as well as inadequate in principle, so Finch accordingly recommended downgrading institutional repositories to the role of (1) data-archiving, (2) digital preservation, and (3) linking data to publishers’ websites. It should be evident now that this was a self-serving assessment on the part of publishers (as was Elsevier’s Alicia Wise’s plea during the BIS hearing not to have institutional repositories needlessly “duplicate” access-providing and archiving functions that publishers already perform: “Leave it to us!”). What institutional repositories need in order to successfully provide OA to journal articles is for funders and institutions to upgrade their Green OA mandates and compliance mechanisms to ensure immediate deposit of all articles, as proposed by HEFCE/REF (see above).

Publisher deposit: Publishers, in an effort to retain control over as much of the transition to OA as possible, have proposed to deposit papers (in institution-external repositories), on behalf of their authors, on publishers’ terms and timetables. *On no account should publishers be relied upon to ensure compliance with OA mandates: the mandates apply to researchers, not to publishers.* Publishers are happy to comply when they are paid for Gold. But it is not in publishers’ interests to comply with Green—nor are they required to do so. Authors are perfectly capable of doing the few keystrokes of self-archiving for themselves, at no cost. Once again, the optimal policy is HEFCE/REF’s, which proposes mandating immediate-deposit, by the author, in the author’s institutional repository, immediately upon publication. Institutions can then monitor and ensure timely compliance for their own institutional publication output, in their own institutional repository.

¹²⁹ <http://www.dlib.org/dlib/july10/harnad/07harnad.html>

¹³⁰ <http://www.dlib.org/dlib/january13/houghton/01houghton.html>

¹³¹ <http://roar.eprints.org/>

¹³² <http://www.dlib.org/dlib/january13/burns/01burns.html>

¹³³ <http://arxiv.org/help/support/whitepaper>

Complementary self-archiving mandates from funders and institutions: The RCUK/HEFCE/REF OA mandates can and should be complemented by institutional OA mandates, likewise requiring immediate-deposit, as well as *designating institutional immediate-deposit as the sole mechanism for submitting published articles for institutional performance review*. Belgium has provided the optimal integrated institution/funder model¹³⁴ for this.

Patents, plagiarism: Both patents and plagiarism are red herrings, insofar as OA is concerned. OA concerns access to *published* articles. What authors wish to conceal, they do not publish, hence OA is moot. Plagiarism is possible with all published work, OA or non-OA. OA merely makes the words accessible to all users, not just subscribers. And inasmuch as copyright protects against plagiarism, it protects OA and non-OA work equally. Even CC-BY requires acknowledgement of authorship (that's what the "BY" refers to) (although in a "mash-up," the re-mix of words, even listing all authors, can be rather like crediting body-parts in a common grave); but for now, allowing CC-BY should be left entirely a matter of author choice.

Institutional vs. central repositories: All OAI-compliant¹³⁵ repositories are interoperable, hence harvestable and hence searchable as if they were all one global archive. So it does not matter technically or functionally where articles are deposited, as long as they are deposited immediately (and made OA). But it matters a great deal strategically—for the effectiveness of mandates, for compliance verification, and to minimize author keystrokes, effort and hence resistance and resentment—that *mandates should require institutional deposit (and just once)*. Once, deposited, the metadata can be automatically exported to or harvested by other repositories, so they can be searched at a central-repository level for a discipline, nation, or globally.

"Evidence of harm": Publishers often speak of repositories and Green OA self-archiving in terms of the presence or absence of "harm." But one must ask what "harm" means in this context: Increased access, downloads and citations overall are certainly not evidence of harm—to research, researchers, their institutions, their funders, R&D businesses and the tax-paying public—quite the contrary, irrespective of whether the increase usage occurs at the publisher's website or institutional repositories. Nor is it clear that if and when mandatory Green OA should eventually make subscriptions unsustainable—inducing cost-cutting and a transition to Gold OA at a fair price and without double-payment—that this should be counted as "harm" rather than as yet another benefit of OA—to research, researchers, their institutions, their funders, R&D businesses and the tax-paying public—in the natural evolution of scientific and scholarly communication with technology (bringing not just universal research access, but lower publication cost), to which the publishing industry can and must and will adapt, rather than the reverse.

Embargoes and compromise: It has to be clearly understood that embargoes on providing Open Access to the author's final draft are imposed by the publisher in order to protect and sustain subscription revenues and the subscription model. If the objective is a transition to sustainable Gold OA at a fair price, publisher OA embargoes are not in the interests of the research community. However, as a compromise, they can be tolerated, for the time being, *as long as the HEFCE/REF immediate-deposit mandate proposal is adopted*.

Redirecting funds: It is premature to speak of "redirecting funds" from subscription payment to Gold OA payment. Journal subscriptions cannot be cancelled until the journal articles are accessible in another way. That other way is Green OA. Hence Green OA must be universally mandated First. The alternative is double-payment and double-dipping (see above).

Added value: The values added by publishers to the author's un-refereed draft are: (1) peer-review, (2) copy-editing, (3) formatting and tagging, (4) print edition, (5) online PDF edition, (6) access-provision, (7) archiving. Once Green OA is universally mandated, (3)—(7) become obsolete. It is not clear how much copy-editing (2) is still being done or needed. So the only remaining essential post-Green function of peer-reviewed journal publishing is the service of peer review (1). This is what can be paid for as Gold OA, at a fair, sustainable post-Green price.

Hybrid gold and embargo: One of the perverse effects of the Finch report's recommendation to require authors to pick and pay for Gold OA if a journal offers it is to encourage subscription publishers to offer hybrid Gold as an option and to adopt and lengthen Green OA embargo periods beyond the allowable limit, so as to make sure that authors must pick and pay for Gold. This is why the Green option must always be allowed and mandates must not be draconian.

Open data vs article access: It is a misunderstanding as well as a strategic mistake to conflate open data and OA. The purpose of data is to be used. In general, the one who gathered the data must be allowed fair first data-mining rights. After that, it is reasonable for the funder to require that the data be made open for re-use. But articles are not data, and authors must be allowed to decide whether or not to allow their text to be re-used. (The findings and ideas can of course always be re-used, with acknowledgement; but that is not the same thing as re-using, re-mixing or re-publishing the verbatim text itself.)

Discipline differences: There may be discipline differences in the length of OA embargo needed to sustain subscriptions, but there are no discipline differences in the need for free online access to research for all would-be users, not just those that have subscription access.

¹³⁴ <http://openaccess.eprints.org/index.php?archives/864-.html>

¹³⁵ <http://www.openarchives.org/>

“Reasonable access”: At the hearings it was asked “what is ‘reasonable’ access”: it’s free online access to peer-reviewed research, immediately upon publication.

Written evidence submitted by Universities UK

INTRODUCTION

1. Universities UK is broadly supportive of the direction of travel on open access following the publication of the Finch report and the response from the UK government, Research Councils UK (RCUK), the Higher Education Funding Council for England (HEFCE) and others in 2012.

2. Open access in research is important for a number of reasons, including realising the significant potential benefits for the profile and impact of UK research and ensuring an efficient and effective publication system. Open access also has great potential to drive innovation in academic publishing, which will, in turn, drive efficiency. While early open access experiments simply replicated operational and revenue models from subscription journals, more recent innovations in peer review, web and search technologies, text-mining and workflow tools promise to reduce publishing and associated library costs in these areas. For example, the co-founder of the Public Library of Science PLoS ONE open access journal, now the biggest journal in the world, has set up Peer-J where, for a lifetime membership of \$99, academics can use a journal infrastructure wherein they both contribute to and benefit from peer review activity.

3. Given the complexity in the system, the transition to open access as envisaged by Finch might take some years. We recognise the concerns that have been raised over the costs of transition to the “gold” model. We would therefore emphasise the need to monitor very closely trends in article processing charges (APCs) the impact on journal pricing and on institutional costs across the sector, and to understand the impact of the Finch proposals more generally. This will need an agreed and consistent approach across all stakeholders and interests. The Open Access Implementation Group, Chaired by Professor Martin Hall, is well placed to do this and is considering this question and additional evidence requirements to support the open access transition. Additional government support for the transition has been welcome and we would urge that the funding requirements to support this transition period, across the whole higher education sector, be kept under close review.

THE COSTS AND MANAGEMENT OF APCs

4. Although open access publishing and institutional repositories have been evolving as an alternative publishing model for a number of years, the Finch report set out a road map for how a more fundamental transition to open access can be achieved. The government’s support for Finch and associated changes to funders’ policies will lead to significant change. However, given the complexity of the academic publishing market any transition to open access will inevitably take some years, and will be characterised by a mixed economy. Universities will need to maintain subscriptions to journals (to enable their researchers and students to access the world’s literature), put in place arrangements to fund APCs to support open access publishing (in part covered by block grants from funders such as RCUK and the Wellcome Trust), and support their repository (to ensure their research has maximum impact).

5. While consensus supports open access, there are costs to all scholarly communication, which have to be borne somewhere in the system. The Finch report estimated, based on certain assumptions, that the additional costs during a transition could amount to around £50—£60 million per year,¹³⁶ of which £38 million were APCs, although thereafter it would be cheaper and more effective. Given the diversity of the sector, the way in which institutions will respond and the costs of transition would vary. In a welcome move, the UK government has allocated £10 million this year to universities to cover part of this cost. As noted above, we recognise the concerns that have been raised over the costs of transition, and would emphasise the need to monitor the impact on institutional costs across the whole sector, and on subscription journal pricing, very closely and to understand the impact of the Finch proposals more generally.

6. Universities should work with funders to define a set of metrics that they would wish to have monitored to ensure the transition is both making progress and is cost-effective in the medium to long term. Data from these metrics would ensure that there was a clear and shared understanding of any ongoing requirements to support transition, but any monitoring will need to be based on a clear consensus on the approach and metrics used. Jisc, RCUK and the Wellcome Trust are collaborating to collect data on APCs to ensure that the national agreements with publishers, brokered by Jisc, are informed by accurate data on costs incurred by universities.

7. Because the UK produces more high quality journal articles per capita than many other countries, it may pay higher aggregate APCs, though the overall cost-benefit for the UK is likely to remain positive when compared with the current position. A number of other countries are moving towards an open access model, for example there are strong moves in both USA and Germany. It will be important to monitor open access developments and costs worldwide and UNESCO has already developed a tool to support this.¹³⁷ Where possible, open access policies should be coordinated through government or relevant international

¹³⁶ This was based on a projected average APC of £1,750, which is much higher than the global average of £571 and an order of magnitude higher than the \$188 first copy article publishing costs reported by a survey of smaller journals using open source software. On the other hand, the Finch report anticipates a major role for hybrid journals, whose APCs are significantly higher.

¹³⁷ UNESCO Global OA Portal: <http://www.unesco.org/new/en/communication-and-information/portals-and-platforms/goap/>

organisations. One issue which will need to be addressed at international level in the short term is the publication of authors' work resulting from international collaborations.

8. Another issue relates to the management of APCs and ensuring that there is a consistent and transparent approach in institutions to ensure that academics wanting to publish are able to do so. All universities in receipt of research council or Wellcome Trust funds to cover APCs will need to put in place appropriate arrangements for their management. Research funders will have specific requirements for accountability and monitoring the spend associated with these funds, partly to keep track of compliance with their open access mandates. From April 2013, universities in receipt of research council grants will be expected to have a publication fund, through which the money can be managed and on which reports can be made to funders. Support and guidance in this area has been developed and services are emerging that enable universities collectively to manage APC transactions. Jisc will pilot a service during 2013. Again, as part of the monitoring of the implementation of the Finch proposals, it will be important to consider the management and payment of APCs.

GREEN OPEN ACCESS POST-FINCH

9. Green open access will continue to be an important part of any future scholarly communication system and will need a supportive policy environment. Indeed, most institutions have a repository that can be used to showcase and share all of its open access publications, as well as doctoral theses and other material. Increasingly, such repositories are also used to support research management and reporting.

10. Currently, most research papers that are open access go through the green route.¹³⁸ For universities, it is a very cost-effective approach, although some publishers are concerned that, if taken too far, it might threaten their revenues. To manage this risk, many publishers impose "embargoes", so that the deposit of an open access repository version is time restricted. Embargo periods will vary between publishers and disciplines. Embargoes are sometimes conceptualised in terms of the "half life" of a journal article—the period during which half of all potential readers can be expected to access a given article.¹³⁹ The version information and licence conditions on manuscripts published in this way are often unclear.

11. The Finch report was sensitive to the balance between the aims of, on the one hand, increasing access, and on the other of avoiding undue risks to the sustainability of subscription-based journals. The report proposed that where insufficient dedicated funding is available to meet the costs of open access publishing, it would be unreasonable to require embargo periods of less than 12 months. Although shorter embargo periods for publicly funded research will help secure the public interest, we would support the introduction of some flexibility in this area. We would also, however, endorse the government's assertion that it would be difficult to argue that embargo periods of longer than two years were serving the public interest. We would encourage a move ultimately to a standard minimum six-month embargo period without restrictions on non-commercial reuse.

IMPACT OF OPEN ACCESS ON SCIENTIFIC AND PUBLISHING COMMUNITIES

12. One of the main concerns has been the potential impact of open access on learned and professional societies, particularly where the proceeds of subscription publishing operations contributes to the work of their communities. This was a concern recognised by Universities UK in our 2006 position statement on open access. Monitoring the position of learned and professional societies will be important, but as with any changing business environment, the open access landscape also provides these publishers with opportunities to innovate and develop new business models.

LICENSING AND REUSE

13. The opportunities for reuse of materials is an important benefit of open access. Text and data mining has huge potential for research, particularly in the medical sciences, and the wider economy. We welcome the government's work, following the Hargreaves review, to reform copyright so as to realise this potential. Although concerns have been raised in certain discipline areas, we would strongly support the intention that outputs should be in a form that enables search, reuse, text and data mining. We believe that this should be done on a CC-BY basis wherever possible. Where well evidenced and legitimate concerns exist there may be a case for non-commercial or other licence options.

ABOUT UNIVERSITIES UK

14. Universities UK is the representative organisation for the UK's universities. Founded in 1918, its mission is to be the definitive voice for all universities in the UK, providing high quality leadership and support to its members to promote a successful and diverse higher education sector. With 133 members and offices in

¹³⁸ Poynder R (2011) *Open Access by Numbers* <http://poynder.blogspot.co.uk/2011/06/open-access-by-numbers.html>

¹³⁹ It should be noted, however, that there are currently no substantial or systematic studies that have demonstrated that journal subscribers actually do behave in this way, or that green open access with short, or no, embargo periods does actually result in the cancellation of subscriptions.

London, Cardiff and Edinburgh, it promotes the strength and success of UK universities nationally and internationally.

12 April 2013

Letter from Rt Hon David Willetts MP to Lord Krebs, Chair, House of Lords Science and Technology Committee (copied to the Business, Innovation and Skills Committee)

INQUIRY ON OPEN ACCESS: BIS ECONOMIC ANALYSIS

In my letter of 1 February with supplementary evidence on the Government's position on Open Access, I shared with the Committee a summary of the economic cost- effectiveness analysis that BIS had undertaken to inform our policy position on Open Access.

The full document is now ready for publication and I would like to take this opportunity to share it with the Committee ahead of its public release on 21 March.

As emphasized at the hearing on 29 January and in my letter on 1 February, BIS economists deemed the scarce quantitative evidence on the benefits of open access insufficient for a credible valuation of the benefits and undertook a cost-effectiveness analysis instead of a full cost-benefit analysis. The attached document explains the detail of this decision.¹⁴⁰

It is also worth bearing in mind that this analysis was done in mid 2012 prior to the publication of the recommendations of the Finch Group and prior to the announcement of RCUK policy. It was not intended as an evaluation of the policy that has now been adopted but it supports the Government's preference for Gold access independently of Finch and RCUK.

I hope you find the full document informative of the Government position on Open Access.

The Rt Hon David Willetts MP

18 March 2013

Supplementary written evidence submitted by the Department of Business, Innovation and Skills

20 June 2013

OPEN ACCESS EVIDENCE SESSION—OUTSTANDING POINTS

Thank you for inviting me to discuss Open Access on 14th May 2013. This letter is to follow up some points that arose in the hearing.

Q135 and Q136 *the Minister agreed to consider and respond to a report the Committee received that a publisher had used "sharp practice" to mislead authors about the RCUK's open access policy*

Ron Egginton has contacted Dr Alma Swan, as requested by Mr Binley.

Dr Swan has pointed out a UK-based publisher that is apparently extending embargo periods for Green OA to 24 months when the Gold OA option offered by the publisher is not taken up. Dr Swan is concerned that this is retrograde, a direct result of UK policy, and may now be adopted by other publishers.

Although the Government has a preference for Gold OA, the UK retains Green OA as a complementary alternative. This 'mixed model' approach takes the sustainability of our publishers and learned societies into account, and allows for expanding access to publicly-funded research findings in the equitable way set out by Dame Janet Finch in her report. I share Dr Swan's concerns that researchers should not be misled. However, I feel that the interpretation of the UK policy apparently being made by the publisher in question is not accurate. The Government/RCUK have no firm requirement for humanities, arts and social sciences (HASS) embargo periods to be set at 24 months in the absence of funding for Gold OA. The publisher is acting within the limits of UK policy but for Green OA, where Gold OA is being offered, required embargo periods are *up to* 12 months for science, technology, engineering and medicine (STEM) disciplines, and *up to* 24 months for HASS. The 24 month allowance was therefore never intended as a requirement, but a maximum allowance. This is set out in the Publishers' Association (PA) decision tree. Dr Swan has stated that, "the interests of the science community, SME business community, wider society and the practising researcher members of learned societies are all best served by short embargoes." I agree with this as a principle; any move to *extend* embargo periods where shorter ones are otherwise sustainable for publishers would be counter to the overall aims of the Government's OA policy.

My officials have also confirmed to Dr Swan that OA is a matter of policy and not the subject of legislation or any directive. The European Commission has issued its requirements on Open Access in the form of a Recommendation which makes clear that both Gold and Green are acceptable forms of OA. Two key

¹⁴⁰ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/142814/bis-13-689-open-access-economic-analysis-of-alternative-options-for-the-uk-science-and-research-system.pdf

differences between our similar policy positions are that the UK has expressed a strong preference for Gold, whilst also accepting Green is an acceptable alternative and that where researchers cannot access funding to pay APCs the publisher may reasonably apply longer embargo periods (up to 12/24 months for STEM/HASS respectively).

My officials have also asked the PA what advice it is giving its members on appropriate communication to users about embargo periods. The PA has said it would welcome being informed of instances where it appeared that inappropriate extensions of embargo periods were being implemented. It supports the need for clarity to ensure that both Gold Green OA options are clearly and accurately explained on its members' websites and elsewhere. One example of good practice that we have seen is on the Wiley Blackwell site (see <http://exchanges.wiley.com/bloq/2013/04/30/helping-researchers-understand-the-rcuk-policies/>). A further good example would be Taylor Francis' explanation at <http://journalauthors.tandf.co.uk/pdfs/oa-guide-UK-based-authors.pdf>

Early evidence suggests that UK policy is already leading to significant improvements in Green OA by means of shorter not longer embargo periods. Some publishers have introduced finite embargo periods in place of indefinite period pay walls, and other positive changes as a direct result of the UK policy. For example, authors publishing in most of Wiley's 1,600 titles before the Research Councils UK implementation guidance came into effect (as of April this year) would sign a copyright transfer agreement which had no Green OA option. All of Wiley's titles now carry a Green OA option and have adopted the required embargo periods. Taylor & Francis report that the Finch recommendations provided impetus to ensure that a Green OA option was made available across their ~1700 titles. The latter have also informed BIS that they have now broadened their offering of Gold OA (from ~33% of titles to ~94%, including their US-based titles). Taylor & Francis, like Wiley Blackwell, have also accepted CC-BY, and overhauled internal business processes to ensure RCUK compliance, in readiness for accepting a high volume of Gold OA manuscripts from the UK. These are but a few examples of positive changes brought about as a result of the UK's pioneering OA policy.

The Government maintains that market demand should determine the price of Article Publication Charges (APCs). I hope to see the market change organically as both new entrants and established publishers offer new services. Block grant funding from RCUK to universities to pay for APCs allows flexibility and academic freedom to be retained within the UK's mixed model approach. It also allows payment for Gold OA publications beyond the live grant lifetime.

On non-disclosure agreements (NDAs) with academic libraries, the Government would wish to see greater transparency including publishers and libraries more frequently agreeing subscription contracts without a NDA. I understand that publishers view NDAs as a means by which they can offer flexibility in their pricing to different institutions, including discounts. BIS has communicated my concerns to the PA directly. The PA has stated that it would like to be informed of instances where refusal of a NDA by a library has resulted in it being unable to take up a journal subscription. The PA also informs us that it has evidence that publishers do occasionally drop the requirement when requested.

Dr Swan also expressed concerns about hybrid journals, and I commented on this at the hearing. The Government sees merit in such journals because they preserve the range of choice for researchers on where they may publish. They should therefore encourage greater and faster take-up of the Gold OA option (see Wiley Blackwell's and Taylor & Francis' initiatives). I also commented at the hearing on potential 'double-dipping'. As discussed at the hearing, I agree that further imaginative work is required by publishers and learned societies to ensure that increased revenue from UK researchers paying for Gold OA is offset by a suitably commensurate decrease in subscription costs for the institutions to which they are associated. For example, the Royal Society of Chemistry has an interesting scheme known as 'Gold for Gold'. BIS has made it clear to publishers that we would like to see more innovative pricing schemes.

More innovative pricing and discounting is needed to moderate the higher transitional costs for institutions paying for Gold OA (wherever they happen to be located, not just the UK). The PA is aware of my view that amortising revenue from Gold OA to discount *global* subscription rates is not a satisfactory solution. Given the UK's six% share of global publications and a target for Gold OA that will mean only a fraction of this generating Gold OA revenue, the resultant impact on an individual institution's subscriptions would be very low and would not incentivise research intensive institutions to publish under Gold OA to assist the transition process.

The Government has no wish to ban publicly funded research from being published in 'hybrid' journals as appears to be the case in Germany. We would prefer to be able to demonstrate how the publishing industry has addressed the issue of hybrids and 'double-dipping' so that other nations, as discussed on the 12th June with G8 members, see the merit in adopting the UK's approach to Gold OA. This same point was recently made in the Open Access policy published by Science Europe, which opposes 'hybrids' as SE feels they are currently being applied. It would be unfortunate if misinterpretations or abuses of the UK's equitable OA policy impacted adversely on the willingness of the academic community to support it. This would risk eroding the good practices being introduced by some publishers, and losing the wider research and economic benefits of OA.

I am meeting with the Finch Group in September to review progress on implementation of its recommendations BIS officials are also meeting with the Finch review secretariat and others stakeholders next month, where these matters will also be raised.

Q156—the Minister agreed to send a joint note from BIS or the Treasury with a “detailed explanation” of why it is not possible for the Government to attempt to negotiate a reduction in VAT on e-journals, to provide further detail on the BIS memo of 4 April 2013

I include with this letter a more expansive explanation of the Government’s position on this issue, as provided by HMT.

Q121—the Minister agreed to look into the effects of OA policy on business to business (B2B) publishing. I have discussed this with Mr Binley who has explained that his interest is in the effect of OA policy on 1) B2B publishing that is driven by advertising revenue, where publishers circulate trade publications to targeted businesses free of charge and 2) annual subscriptions of businesses to trade press. It would be useful to know whether impact of OA policy on this aspect of the publishing industry has been or will be considered by the Department

I thank the Committee Clerk for the clarification on Mr Binley’s line of inquiry. My officials discussed this with the PA. The PA, like the Government, did not think the Government policy, which applies to formal publications arising from publicly-funded academic research, would impact significantly on the business-to-business publishing sector and the trade press. The PA referred the department to the Professional Publishers’ Association (PPA) for further insight.

The PPA confirmed that some of its members do have businesses and publications that would be affected by the public OA policy (with some specific examples of ‘trade’ publications in scientifically-related sectors reported), but core business media publishers are not driven by peer reviewed academic content.

I have not heard any concerns from this sector about OA policy but I would be glad to see evidence of actual effects, both positive and negative.

I hope that this reply is useful to you in your deliberations, and I look forward to receiving the Inquiry Report.

THE RT HON DAVID WILLETTS MP

Enclosed: HM Treasury note, VAT on e-journals

VAT E-JOURNALS

TREASURY NOTE FOR THE HOUSE OF COMMONS—BUSINESS INNOVATION AND SKILLS COMMITTEE

Introduction

The Business Innovation and Skills Committee took evidence from Rt Hon David Willetts MP and Ron Eggington on 14 May 2013. Questions 154 to 157 considered the topic of VAT on e-journals. The Chair, at Q 156, expressed a wish to see the detailed explanation of why it is not permitted for the United Kingdom to have a zero rate or reduced rate of VAT on e-journals.

Background

Zero Rates

When VAT was introduced in the United Kingdom in 1973, the European legislation (contained in the First and Second VAT Directives) allowed considerable flexibility in the coverage of the tax. This meant that it was free to define which items were:

- taxed at the standard rate;
- defined as exempt (where suppliers are unable to recover the VAT they incur); and
- wholly relieved of the burden of VAT through the zero rate.

It was against this background that books and newspapers, previously relieved of Purchase Tax, were zero rated when VAT was introduced in 1973.

In 1978 the Sixth VAT Directive replaced the Second Directive, this had been negotiated by all the member states at the time with unanimous agreement. The Sixth Directive was more prescriptive in what could be exempt from VAT, and only allowed a very narrow scope for domestic zero rating.

However it allowed member states to continue to exempt or zero rate goods supplies where the relief was already in place. The Sixth Directive was amended in 1992 to make it clear that zero rates in force on 1 January 1991 could be retained, but extending or creating new zero rated items was not permitted. When the Sixth Directive, including all its amendments, was consolidated into Directive 2006/112 “The Principal VAT directive”, these provisions were restated.

This means that the United Kingdom is able to retain the zero rates it has, but is not able to extend their scope.

Reduced Rates

The Principal VAT Directive allows member states to have one or two reduced rates set at a minimum of 5%, but the scope of reduced rates is restricted to the list of goods and services set out in Annex III. Books and newspapers are included. However electronically supplied services are specifically excluded from the reduced rate.

Electronically supplied services

When the provisions of the Sixth VAT Directives were negotiated in the 1970's the concept of supplying services electronically was at best in its infancy, so little regard was taken. However as broadcasting services and electronically supplied services developed, it was necessary for member states to consider how these should be taxed. The result was that, with effect from 1 January 2003, electronically supplied services were specifically mentioned and excluded from the scope of the reduced rate.

In addition, in order to provide clarity and uniformity as to what constituted electronically supplied services, the member states unanimously agreed the wording of a Council Regulation in 2005 that defined and listed examples of electronically supplied services.

The regulation includes “subscription to online newspapers and journals”, and “the digitised content of books and other electronic publications”, so these items must be taxed at the standard rate.

PROSPECTS FOR CHANGE

It can be seen that there has been an open debate among member states, which has focused solely on the issue of defining the scope and VAT treatment of electronically supplied services, and these services include the provision of online digitised content. The unanimous agreement on that treatment is that standard rate VAT should apply.

There are several factors that count against the prospects for any change:

- The European commission has a long term and firm commitment for broad scope of VAT at the standard rate, and would resist any proposal for another reduced rate. In order to introduce a new reduced rate, a European Commission proposal would be needed, and given its long term commitment the prospects of such a proposal are remote.
- The scope of the United Kingdom's zero rates and reduced rates is under continuous scrutiny of the European Commission, so to raise the issue of extending the reduced rates even to online journals, is considered high risk and politically sensitive, even mentioning the issue may lead to adverse reaction and additional pressure from the Commission to broaden the scope of our standard rated tax base.

Against this background we do not consider the UK should pursue a policy of re-opening the issue of reduced and zero rates.

HM Treasury

12 June 2013
