



Consortium of University Research Libraries



Society of College,  
National and University  
Libraries

## House of Commons: Science and Technology Committee Inquiry into Scientific Publications

Evidence submitted jointly by **CURL (Consortium of University Research Libraries)** and **SCONUL (Society of College, National and University Libraries)**

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## Executive summary

- 1 CURL and SCONUL represent the libraries and information services of all universities and most colleges of higher education in the UK and Ireland, together with the national libraries.
- 2 The current system of scholarly communication, which has served the research community robustly in the past, now operates below its optimum level. The present situation is financially unsustainable for universities and their libraries. Subscription prices of scientific journals have increased much more rapidly than prices of most other commodities. The average price of an academic journal rose by 58% between 1998 and 2003, while the UK Retail Price Index increased by 11% over the same period. Although the proportion of university library expenditure on serials has increased it has not maintained serials purchasing power. The VAT differential on the cost of electronic publications places an additional financial burden on libraries and is a disincentive in the transfer towards electronic access.
- 3 Five publishers now produce around 37% of the nearly 8,000 scientific journals (44% of articles) rated as worthy of citation analysis by the Institute of Scientific Information. There is strong evidence that mergers and takeovers in scientific, technical and medical (STM) publishing lead to faster rising prices. Future merger proposals should be strictly monitored and investigated, to avoid further enhancement of monopoly market power. Given the international nature of the journals market this will involve liaison across national boundaries.
- 4 'Big deal' schemes, while offering some advantages to the library and researcher, seriously inhibit the library's ability to manage and develop its collections to fit the changing academic interests of its users.
- 5 It is important, for the sake of the health of UK research, to ensure that as high a proportion as possible of scientific articles is available without unnecessary barriers. 'Open access' publishing and 'self-archiving' are complementary initiatives in re-engineering research publication in a more equitable way for the benefit of research and society generally. ('Open access' publications are free of charge to users, their costs being met by the authors or funders of the research published. 'Self-archiving' means authors depositing their own publications on a public website.) To assist this complementarity, universities and similar research institutes should be encouraged to set up their own electronic research repositories, that is to say, internationally-searchable databases of the publications of their own staff.
- 6 The Research Assessment Exercise should not discriminate against, nor in favour of, open access journals. The quality of the research should be the deciding factor. Research funding bodies should encourage open access publishing by agreeing that author fees are a legitimate call on research grants.
- 7 The British Library and the other national libraries have a pivotal role in serving the requirements of scholars and researchers. They need adequate funding to maintain their current collections and services, and to ensure a speedy and comprehensive implementation of the new law relating to deposit of electronic publications.

## Major recommendations

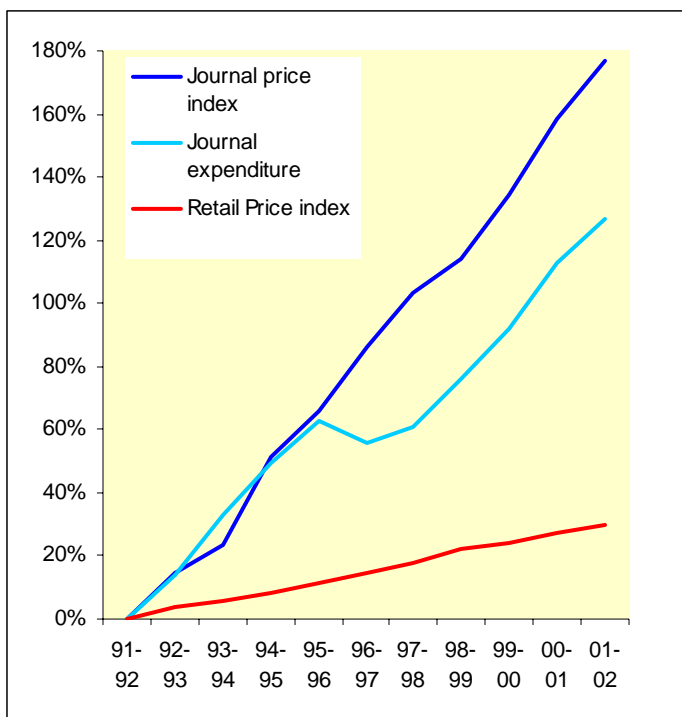
- 8 The Research Councils, and other grant-making bodies supported by public funds, should require the publications resulting from their awards to be openly and freely available to all, either via 'self-archiving' or by publishing in an open-access journal (*paras 33, 37, 46*)
- 9 The Research Councils, and other grant-making bodies supported by public funds, should accept, following the lead of the Wellcome Trust, author fees/publication charges as a legitimate call upon research grant funding (*para 43*)
- 10 Since further concentration of the commercial scientific publishing sector will entrench the monopoly power of a few publishers, any significant merger proposals should be investigated by the Competition Commission, taking into account the unique features of the journals market (*para 29*)
- 11 Discrepancies in VAT between print and electronic publications should be investigated, with a view to removing the additional VAT burden from educational institutions (*para 35*)
- 12 The British Library, and the other national libraries, should be funded to allow speedy and comprehensive implementation of the electronic deposit provisions of the Legal Deposit Libraries Act: to facilitate significant expansion of work to preserve digital materials; to enable the comprehensive acquisition of research material; and to provide expanding electronic document delivery services (*paras 34, 37*)

## Introduction

- 13 Established in 1983 to bring together the larger research-based university libraries in the United Kingdom and Ireland, CURL has grown from a fairly informal grouping of seven university libraries into a strong, nationally and internationally recognised partnership of 25 major research libraries participating as full members, including 22 major university libraries and the UK's three national libraries. It also has one associate member, the Wellcome Trust. CURL's mission is to increase the ability of research libraries to share resources for the benefit of the local, national and international research community. More information is available at [www.curl.ac.uk](http://www.curl.ac.uk).
- 14 SCONUL, founded in 1950, is an association representing the heads of library and information services in all universities, and most colleges of higher education, in the UK, together with the directors of national libraries. (SCONUL also represents their counterparts in Ireland, and its membership includes the CURL libraries). By sharing good practice, and facilitating collaborative schemes for the benefit of library users, SCONUL ([www.sconul.ac.uk](http://www.sconul.ac.uk)) promotes excellence in its constituent library services.
- 15 We are pleased that the Science and Technology Committee is conducting an inquiry into scientific publications. We believe that the present system of scholarly communication, while it has served the research community robustly in the past, now operates well below its optimum level. We also believe that Government, and bodies responsible to Government, can encourage steps already taking place to widen access to research findings, to the ultimate benefit of all UK citizens in such areas as medical treatment, environmental improvements and economic growth.
- 16 Evidence is provided below on each of the specific points raised by the Committee.

**What impact do publishers' current policies on pricing and provision of scientific journals, particularly 'big deal schemes', have on libraries and the teaching and research communities they serve?**

17 It is well documented that the subscription prices of scientific journals have increased over the last ten years or more much faster than the price of most other commodities. For example, the average price of an academic journal has risen from £252 in 1998 to £397 in 2003, or by 58%<sup>1</sup>, while the UK Retail Price Index has increased by 11% over the same period.



18 The reasons for this inflation have been a matter of some dispute, but may include a rise in the average number of pages or articles in a journal volume (given the pressure to publish an ever-increasing volume of research), and the costs of providing the electronic format, now almost universal for scientific journals (in most cases, such costs have not yet been offset by the abandonment of the print version of the journal).

19 But we believe that the major underlying cause is the monopoly position of the publisher. Journals, and journal articles, are not interchangeable. If a particular article is required by a researcher, a substitute will not do. A self-reinforcing hierarchy of journals has grown up in any given field, well-known to its researchers. The 'best' articles will be submitted for publication in the 'best' journal, which will thus retain its position. Publishers are therefore able to charge increasing prices, safe in the knowledge that competition is very limited. It is almost impossible to set up an immediately prestigious journal from scratch, and for a large number of journals at least, demand is extremely inelastic.

<sup>1</sup> Library and Information Statistics Unit, Loughborough University *Annual library statistics, 2003*. Table 5.6a

- 20 Evidence of this monopoly position is provided by the profit levels of commercial publishers of STM journals. Reed Elsevier, for example, reported an adjusted operating profit margin for 2002 of 33% for its Science & Medical Division (the most profitable of its four divisions)<sup>2</sup>. The position of the leading commercial publishers has been further reinforced in recent years by a spate of merger and takeover activity, including the mergers of Reed Elsevier and Harcourt, and of Kluwer and Springer under the auspices of Candoover Cinven (which is now said to be seeking further publishing acquisitions), and takeovers by Taylor & Francis of a number of smaller publishers. The top five publishers now produce around 37% of the nearly 8,000 scientific journals (44% of articles) rated as worthy of citation analysis by the Institute of Scientific Information (ISI).<sup>3</sup> There is strong evidence that mergers/takeovers in STM publishing lead to faster rising prices in the future.<sup>4</sup>
- 21 In the face of subscription increases, UK university libraries have struggled to maintain strong journal collections, the lifeblood of scientific research. These libraries have seen their information resources (IR) expenditure increase by 29% over the last five years for which figures are available<sup>5</sup>, but the average journal price has increased by 41%<sup>6</sup>. The proportion of IR expenditure on serials has increased from 47% to 52%<sup>7</sup>, but this has not maintained serials purchasing power. Furthermore, there is now less money to spend on books, with adverse effects on researchers in the humanities and social sciences, who depend to a greater extent on scholarly monographs; and on students, who also need a large and current book collection in addition to the journal literature.
- 22 A further problem for university library budgets resulting from the shift towards electronic publication is the issue of VAT. Print publications are zero-rated, but online information attracts VAT at the standard 17.5%. The VAT differential is an unwelcome disincentive, and an extra cost, in the transfer towards electronic access.
- 23 'Big deal schemes' have been introduced by journal publishers in recent years. Made possible by the advent of the electronic journal, they provide a library with access to all the journals of a particular publisher, at a price somewhat greater than the aggregate subscription already being paid for the subset of the publisher's journals received in print. Such deals are often negotiated nationally, through the NESLi2 scheme for example<sup>8</sup>. They do offer some advantages to the library and researcher, and are undoubtedly popular with staff and students. Such deals often provide access over a standard platform to a substantially increased number of journals, some of which turn out to be well-used and valuable. Other titles, however, are not relevant to the research and teaching undertaken at a particular university, and receive very little, or no use.

<sup>2</sup> Reed Elsevier, *Annual review and summary financial statements 2002*

[<http://www.reed-elsevier.com/ReedElsevierPlc/storage/annualrev02.pdf>]

<sup>3</sup> Morgan Stanley Equity Research, *Scientific publishing: knowledge is power*. September 2002, p.3.

<sup>4</sup> M.J. McCabe, 'Journal prices and mergers: a portfolio approach', *American Economic Review*, 92(1), 2002, pp. 265-267

<sup>5</sup> SCONUL. *Annual library statistics*. [1996-97 to 2000-01]. London: SCONUL, 1998-2002

<sup>6</sup> Library and Information Statistics Unit (LISU), Loughborough University, *Annual library statistics*. Table 5.4, the 41% figure obtained by estimation from year-on-year increases in order to provide same-basis comparison

<sup>7</sup> LISU. *Annual library statistics*. Tables 3.6 and 3.7

<sup>8</sup> Joint Information Systems Committee, *NESLi2: the National e-Journals Initiative*. [<http://www.nesli2.ac.uk/>]

- 24 Given the popular perception that, by its very nature, electronic information is distributed free of charge, it is worth emphasising that in some senses journals in electronic form are less freely available than printed ones. A printed journal becomes the purchaser's property and may be read without limitation by however many people choose to pick it up. Electronic journals, in contrast, are normally leased to libraries on a time-limited basis, and with careful restrictions as to who may consult them. The onus is on the customer to ensure that access to them is controlled within a specified set of students and staff.
- 25 From the publisher's point of view, the marginal cost of providing electronic access to all titles is virtually zero, and revenue is secured usually for two or three years. The library however, given the declining purchasing power of its budget, as these deals become established, has to make cancellations elsewhere to finance the maintenance of the 'big deal', and this can disproportionately affect titles from smaller publishers. Some of these may be more academically valuable than some of the additional titles accessed via the 'big deal'. Thus libraries are committed to buying some journals which they do not want, at the expense of other journals which they do.
- 26 Large publishers, whose portfolios include a significant proportion of the academic journals considered 'core' by most research universities, are able to exploit the 'big deal' approach by limiting their tariffs essentially to an 'all or nothing' offer which omits graduated options for partial purchase. Libraries, despite being major customers, are often not provided with more flexible purchasing options, such as the ability to purchase a 'big deal' subset, except on prohibitive terms, and with limited or no control over what constitutes a subset. In a non-monopolistic market environment, the customer would be able to influence the vendor by threatening to withdraw custom and shop elsewhere. However, in the case of the market in academic journal articles, as we have described above, no such recourse is available.
- 27 The widespread availability of scientific electronic journals in recent years has been a great boon to researchers. Desktop access has enabled a more seamless approach to research, with enhanced search and display facilities, and often direct access from references in online databases straight through to the full text of the relevant article. However, this ease of access has in itself brought dangers. Researchers more easily ignore, or at least regard as lower priority, information, and in particular journal articles, not immediately available online. Although the British Library continues to provide an invaluable and essential document delivery service, the use made of it by UK higher education institutions has dropped significantly over the last five years, reflecting growth in the availability of electronic journals, but also perhaps the perceived inconvenience of non-immediate access. Given this concentration on instantaneous availability, it becomes all the more vital, for the sake of the health of UK research, to ensure that as high a proportion as possible of scientific articles is presented without unnecessary barriers.

## **What action should Government, academic institutions and publishers be taking to promote a competitive market in scientific publications?**

- 28 We have suggested above that many of the problems of the current system arise from the inherent monopoly position, and 'non-substitutability', of academic research. The situation has been exacerbated by understandable efforts by publishers to maximise their revenue. Benefit has accrued not only to wholly commercial publishers but also to learned societies that look to surpluses from their journal sales to finance other activities.
- 29 Given this position, and given the recognition by the Office of Fair Trading (OFT) that 'the market for STM journals may not be working well' and that 'many commercial journal prices appear high, at the expense of education and research institutions,'<sup>9</sup> intervention by the competition authorities may be necessary. The Competition Commission scrutinised the 2001 merger between Reed Elsevier and Harcourt<sup>10</sup> and ruled, by a majority decision, that it should be allowed to go ahead, but suggested that the OFT might wish to investigate the STM journals market. The quotations above come from the OFT's report, *The market for scientific, technical and medical journals*, published in September 2002. The report concluded that the authorities should not intervene at that point, given possible changes in the market, but that 'the position will be kept under review'. At the very least, future merger proposals should be strictly monitored, and investigated, to avoid the further enhancement of monopoly market power. Because of the international nature of the journals market, this will involve co-operation or at least liaison with other competition authorities in Europe, the United States, and elsewhere.
- 30 In reaching its decision not to intervene, the OFT considered the possible development amongst academic communities of an awareness of their potential power. The great majority of research articles are submitted without charge to appropriate journals, with academics also providing free of charge the essential peer review service ensuring the integrity and value of the published article. Researchers are happy to do this, because their career advancement, research funding, etc., comes via the impact and originality of their publications, as recognised by their peers.
- 31 Until recently, most academics have also been happy to assign the copyright in their articles to the publisher. This practice is now coming under much greater scrutiny. It is now feasible to consider a network whereby all researchers will be encouraged to 'self-archive' their articles, which will then be accessible to all without charge. Such a possibility arises from the development of 'institutional article web repositories', together with software which makes it easy to search a combination of all such repositories, whether subject-based or institutional, that conform to the Open Archives Initiative protocol<sup>11</sup>.

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<sup>9</sup> Office of Fair Trading, *The market for scientific, technical and medical journals*. London: OFT, September 2002, p.1 [<http://www.oft.gov.uk/News/Press+releases/2002/PN+5502+Can+the+scientific+journals+market+work+better.htm>]

<sup>10</sup> Competition Commission, *Reed Elsevier Plc and Harcourt General, Inc: a report on the proposed merger*. London: the Commission, August 2001 [[http://www.competition-commission.org.uk/rep\\_pub/reports/2001/457reed.htm](http://www.competition-commission.org.uk/rep_pub/reports/2001/457reed.htm)]

<sup>11</sup> e.g. GNU Eprints archive software [<http://software.eprints.org/>]

- 32 The prototype for such a repository – the US-based high energy physics archive – has now been in existence for more than a decade, and is an essential source for all physics researchers<sup>12</sup>. JISC (the Joint Information Systems Committee of the UK funding councils for higher and further education) has supported a number of open access archive projects (e.g. SHERPA<sup>13</sup> and DAEDALUS<sup>14</sup>), in which university libraries are playing a leading role, encouraging higher education institutions to initiate and develop appropriate archives, which may be compared with similar initiatives abroad<sup>15</sup>. Experience to date suggests that associated technical problems are relatively easily soluble, but encouraging researchers to deposit their articles is more problematic. Their reluctance may be due to a perception that copyright transfer prevents such an action: this may indeed be a barrier in some cases, but 55% of all publishers already allow articles to be deposited in this way<sup>16</sup>, and many others will do so if requested.
- 33 We believe that all universities and similar research institutes should be encouraged to set up repositories, either on their own or shared among groups of institutions. They should also require, or at least strongly encourage, their staff to deposit articles. Such a process would be greatly facilitated if project funding from the Research Councils and similar bodies included a condition that resulting research should be publicly available in some form without charge. This in no way precludes researchers from continuing to publish in the standard peer-reviewed journals. However, it does open up access to research findings, with consequent benefit for the whole research process. The investment made by the higher and further education funding councils through JISC in recent years has ensured that university libraries are acquiring the technical skills to run research repositories on behalf of their institutions. Senior university academic and research managers can now promote their comprehensive use by academic departments, in order to reap the benefits of open access.
- 34 We welcome continuing investment by the British Library in improved online services, including the recent introduction of an enhanced electronic document delivery service. Such services provide an alternative to some extent for libraries to subscribing to journals, either individually or via ‘big deals’, and should be encouraged. Efforts should continue to resolve some outstanding issues, relating for example to electronic signatures, which are inhibiting streamlined document delivery, and are a further factor in the drop in traffic noted in para 27 above.
- 35 Government could ease the pressure on research library budgets by exempting educational institutions from payment of VAT on electronic information resources, including electronic journals.

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<sup>12</sup> *arXiv.org e-Print archive* [<http://www.arxiv.org/>]

<sup>13</sup> SHERPA: Securing a Hybrid Environment for Research Preservation and Access [<http://www.sherpa.ac.uk/>]

<sup>14</sup> DAEDALUS [<http://www.lib.gla.ac.uk/daedalus/>]

<sup>15</sup> e.g. Digital Academic REpositories (DARE) in the Netherlands [<http://www.surf.nl/en/themas/index2.php?oid=7>]

<sup>16</sup> Project RoMEO: Rights Metadata for Open Archiving [<http://www.lboro.ac.uk/departments/dis/disresearch/romeo/index.html>], ‘Copyright policies and self-archiving’ page, last updated March 2003

**What are the consequences of increasing numbers of open-access journals, for example for the operation of the Research Assessment Exercise and other selection processes? Should the Government support such a trend and, if so, how?**

- 36 Our comments in the previous section have concentrated on the concept of researchers 'self-archiving' their journal articles. This is one way of opening up research beyond the present restrictions, but a parallel development is the growing number of open-access journals. The standard directory of peer-reviewed open-access journals currently lists 736 titles<sup>17</sup>. Although this is still only around 3% of the 24,000 research journals published worldwide in all subject areas<sup>18</sup>, the number is growing daily.
- 37 Open-access journals are freely available to all on the web. In order to meet the real costs of implementing peer review and of publishing, a number of open-access journals make charges to the author (rather than by subscription to the user). Waiver policies are often in place to cover submissions from less-developed countries and similar cases. The expectation, however, is that fees paid by authors will in general be met by research grants etc. The great advantage of open-access journals is of course that, even where overall costs are similar, their content is available to all without financial barriers.
- 38 Open-access can be a commercially viable proposition, and the biggest publisher in this area, BioMed Central (BMC), is a commercial company, looking to make a profit<sup>19</sup>. BMC currently charges authors about \$500 per accepted article for most of its journals, although two will charge \$1000, and one \$1500. In 2003, JISC brokered a deal waiving fees for all researchers in UK higher and further education (the National Health Service has a similar arrangement), in order to encourage researchers to try this new form of publication – JISC is also inviting bids to fund, on a pilot basis, further examples of open-access publication. In terms of consultations measured as 'hits' on the website, BMC estimates that articles in its journals receive many more than articles in non open-access journals, and consequently enjoy greater impact. In the medium term, the survival and growth of the BMC journals will depend, as with all journals, on the quality of submissions attracted and the number of citations to articles in their journals. This discipline should ensure that peer review remains stringent: acceptance of articles based on ability to pay will very quickly prove self-defeating.
- 39 Another example of a prestigious open-access journal is *Public Library of Science Biology*<sup>20</sup>. This US-based journal, launched in 2003, will be joined by *PLoS Medicine* this year. Together they are aiming to compete with top journals such as *Nature*, and are charging authors \$1500 per published article. Existing publishers are also experimenting with open access, for example Oxford University Press plans to

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<sup>17</sup> *Directory of Open Access Journals*, containing 'fulltext, open access scientific and scholarly journals that use an appropriate quality control system to guarantee the content' [<http://www.doaj.org/>] – checked 2 Feb 2004

<sup>18</sup> Ulrich's database [<http://www.ulrichsweb.com/>]

<sup>19</sup> BioMed Central [<http://www.biomedcentral.com/>]

<sup>20</sup> *PLoS Biology* [<http://www.plosbiology.org/plosonline/?request=index-html>]

provide free access, where an author fee has been paid, to articles in its highly regarded journal *Nucleic Acids Research*<sup>21</sup>.

- 40 Open access publishing and self-archiving are complementary initiatives in re-engineering research publication in a more equitable way for the benefit of research and society generally. This complementarity could be assisted by the use of institutional repositories as public archives of research material. *PLoS Biology*, for example, specifies that all articles published in it should also be freely available on a publicly accessible website, which acts as the archive of its content. It uses PubMed Central<sup>22</sup> for this purpose. We would wish to encourage open-access journal publishers to use the growing network of institutional repositories, funded by universities, for the same archival purpose. Since searches of these repositories can be federated, UK universities and research institutes could thereby provide a distributed public archive, which could be searched as though it were a single database. The investment in this archive has already been significantly pump-primed by JISC. The main challenge now is to ensure that it is used.
- 41 We recognise that both open access publishing and self-archiving are relatively new models in the scholarly communication process. Further investigation is needed to build on the encouraging progress so far achieved. We believe there is longer-term potential in these models to provide easy access to scientific publications at a fair price.
- 42 The examples of open-access journals given above indicate that open-access titles aim to operate at all levels of the journal hierarchy. As such, there should be no discrimination by the Research Assessment Exercise (RAE) against open-access journals per se – nor indeed discrimination in their favour. The quality of the journal, or rather the quality of the article, should be the deciding factor. This has always been the stated RAE policy, but it would be helpful if this could be repeated and emphasised (to subject panels as well as to the community at large), given the growth in the number of open-access journals, and the possible lingering fears among researchers that these might not be regarded as of equal status.
- 43 Although the RAE should be ‘blind’ to a journal’s modus operandi, it would be an extremely important step forward if funding bodies agreed that authors’ publication fees were an appropriate charge on research funds.
- 44 In Germany, the Berlin Declaration in support of Open Access<sup>23</sup> was signed in October 2003 by the Max Planck Gesellschaft and other leading research funding organisations from Germany, France, and other European countries. This followed other statements of support from the USA<sup>24</sup>, and the Budapest Open Access Initiative of February 2002<sup>25</sup>, affirming backing for both self-archiving and for open-access journals. The OECD Committee for Scientific and Technological Policy,

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<sup>21</sup> See <http://www3.oup.co.uk/nar/special/14/default.html>

<sup>22</sup> National Library of Medicine (US). *PubMed Central: an archive of life science journals*. [<http://www.pubmedcentral.org/>]

<sup>23</sup> *Berlin declaration on open access to knowledge in the sciences and humanities*. October 2003 [<http://www.zim.mpg.de/openaccess-berlin/berlindeclaration.html>]

<sup>24</sup> *Bethesda Statement on open access publishing*. April 2003 [<http://www.earlham.edu/~peters/fof/bethesda.htm>]

<sup>25</sup> *Budapest Open Access Initiative*. February 2002 [<http://www.soros.org/openaccess/>]

supported by governments including that of the UK, has very recently issued a declaration recognising for example that 'open access to, and unrestricted use of, data promotes scientific progress.'<sup>26</sup>

- 45 In the UK, a lead has been taken by the Wellcome Trust, following its commissioned report on the economics of scientific publishing<sup>27</sup>. The Trust issued a position statement in support of open access in September 2003<sup>28</sup>. It affirms that it 'will meet the cost of publication charges including those for online-only journals for Trust-funded research'. A UK-wide declaration, similar to that made in Germany, uniting Research Councils and other funding organisations behind the open access approach, would be a useful step.
- 46 CURL and SCOUNL believe that both self-archiving and open-access journals should be supported, in ways laid out in the previous paragraphs, and that it is essential for research funding to support this concept. Publishers are conscious of the commercial risks in moving to open access, and smaller publishers, operating on very limited surpluses, tend to be the most cautious. A declaration of intent from research funding bodies that author fees for open-access journals would be paid out of research grants would be likely to encourage existing journals to 'convert' to open access, and thus encourage widespread, and perhaps eventually universal, adoption of this new model of scholarly communication.

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<sup>26</sup> OECD Committee for Scientific and Technological Policy, *Science, technology and innovation for the 21<sup>st</sup> century. Annex 1: Declaration on access to research data from public funding*. January 2004  
[[http://www.oecd.org/document/0,2340,en\\_2649\\_34487\\_25998799\\_1\\_1\\_1\\_00.html](http://www.oecd.org/document/0,2340,en_2649_34487_25998799_1_1_1_00.html)]

<sup>27</sup> SQW Ltd, *Economic analysis of scientific research publishing*. London: The Wellcome Trust, 2003  
[<http://www.wellcome.ac.uk/en/1/awtpubrepeas.html>]

<sup>28</sup> *Scientific publishing: a position statement by the Wellcome Trust in support of open access publishing*. September 2003 [ <http://www.wellcome.ac.uk/en/1/awtvispolpub.html> ]

**How effectively are the Legal Deposit Libraries making available non-print scientific publications to the research community and what steps should they be taking in this respect?**

- 47 CURL and SCONUL welcome the recent Legal Deposit Libraries Act<sup>29</sup>, and urge the Government to provide sufficient resources to ensure a speedy and comprehensive implementation of the provisions relating to deposit of electronic publications, including appropriate access arrangements. We also stress the importance of the British Library and the other national libraries maintaining and improving their acquisition of all scholarly publications, to enable the continuation of a comprehensive document supply service, serving the information requirements of scholars and researchers.
- 48 Long-term preservation of the scholarly record of digital publications is a vital concern, and the national libraries are well placed to take a leading role in initiatives in this area. Once again, this responsibility requires sufficient funding from Government.

**What impact will trends in academic journal publishing have on the risk of scientific fraud and malpractice?**

- 49 Current trends should not in themselves increase or decrease the possibility of scientific fraud. Fraud has on occasion come to light in the traditional world of print journal publishing, and it is equally possible in open access online publishing. Plagiarism is a problem for the web in general, but the ease of copying is counterbalanced by more effective methods of detection. Improved accessibility of published research would itself reduce the chances of undetected fraud.
- 50 What is not in dispute is the importance of the maintenance of a robust system of peer review. Peer review has not been infallible in the past, and it is possible that additional methods of quality control could be developed in an online environment. It is essential that whatever model is adopted, quality assessment remains in place. The scientific community is very conscious of this requirement, and current developments outlined and supported above take full account of this.

In addition to this written evidence, CURL and SCONUL would be pleased to give oral evidence to the Committee in due course if this is deemed useful. We shall send under separate cover the latest five volumes of SCONUL's *Annual library statistics*. Earlier volumes are available if the Committee should request them.

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<sup>29</sup> Legal Deposit Libraries Act 2003. 2003 Ch 28  
[<http://www.legislation.hmso.gov.uk/acts/acts2003/20030028.htm>]