Research Communications Strategy

4th Report to JISC – March 2011

# **Current Issues in Research Communications: Open Access – the View from the Academy**

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#### **Research Communications Strategy 4th Report to JISC – March 2011**

This is the fourth and final quarterly report to JISC from the Research Communications Strategy (RCS) project. In addition to a strategic overview of developments and issues in the sector, it contains a number of recommendations for further action. It includes:

- initial results from the RCS's recent opinion-gathering activities on attitudes to open access among researchers and senior managers in HEIs
- comments on some ongoing issues relevant to the open access (OA) agenda
- suggested approaches to future OA advocacy.

## 1. Attitudes to Open Access in the academic community

In our previous report,<sup>1</sup> we raised a question concerning the nature of the barriers that dissuade researchers from adopting open access methods of disseminating their research. We suggested that in querying the value of OA, unconvinced researchers might be relying, not just on potentially robust arguments, but also on subjective and even irrational feelings. We concluded by indicating that 'the RCS is working towards an understanding of the unconscious opinions that underlie OA practice'.

This work continues. In order better to understand the attitudes of researchers to OA, we have carried out a survey of the views of economists and chemists (our two designated target groups) in selected HE institutions. While analysis of the results of the survey is not yet complete, our findings allow some initial conclusions to be drawn.

We have also initiated conversations with senior policy-makers in institutions – with Pro-Vice Chancellors for Research (or their equivalent) and with Research Directors. Their comments have enriched our understanding of the views about OA that are current in the universities – and how some of these views might hinder its widespread adoption.<sup>2</sup>

#### 1.1 What do researchers think about OA?

The SOAP project<sup>3</sup> has recently carried out a worldwide survey of researchers' attitudes to Gold OA. A summary of the results,<sup>4</sup> issued in advance of a more detailed main report, tabulates the responses of some 38,000 active researchers. The results strongly suggest that the majority of researchers take a very positive view of OA. 89% of those surveyed, when asked 'Do you think that your research field benefits, or would benefit from journals that publish Open Access articles?', answered 'yes'. Stéphane Goldstein of the RIN has described this

<sup>&</sup>lt;sup>1</sup> <u>http://ie-repository.jisc.ac.uk/502/</u>

<sup>&</sup>lt;sup>2</sup> See Appendix.

<sup>&</sup>lt;sup>3</sup> <u>http://project-soap.eu/</u>

<sup>&</sup>lt;sup>4</sup> Dallmeier-Tiessen, Suenje, Darby, Robert, Goerner, Bettina et al, 2011. *Highlights from the SOAP project survey: what scientists think about open access publishing*.

<sup>&</sup>lt;u>http://arxiv.org/ftp/arxiv/papers/1101/1101.5260.pdf</u> Despite the implications of its title in English, the survey covers all academic disciplines.

finding as a sign of 'progress in making publication in OA journals more acceptable and even desirable' and as indicating 'a big cultural shift'<sup>5</sup> in the practice of scholarly communications.

So the recent initiatives to expand opportunities for Gold OA publishing are timely. As PLoS ONE becomes arguably 'the largest peer-reviewed journal on earth',<sup>6</sup> other publishers are moving to establish new OA publications. SAGE has announced SAGE Open, a peer-reviewed online journal for the social sciences and the humanities.<sup>7</sup> The Genetics Society of America's new open access journal G3: Genes | Genetics<sup>8</sup> will also appear for the first time in 2011. The American Physical Society has stated its commitment to 'embrace open access publishing to the maximum extent possible':9 as well as establishing a new OA journal (*Physical Review X*) it has enabled hybrid OA options on most of its other publications. Nature Publishing Group claims to be founding 'a new era in publishing' by creating the OA journal Scientific Reports,<sup>10</sup> covering all fields of the natural sciences.

Given the profile and brand-value of *Nature*, this last is a significant development. Scientific Reports not only allows open access to materials, it has also adopted (in line with PLoS ONE) a peer-review model which is unusual for high-brand journals: that of assessing the technical validity of the research in question, but not the implications that have been drawn from it.<sup>11</sup>

Advocates of (Gold) OA have been keen to welcome these initiatives and to see them as heralding a real change in the scholarly communication process: the arrival of *Scientific Reports* has been described as potentially sounding a death knell for many lower-volume, middle-ranking traditional journals.<sup>12</sup> If this did occur, it would be important to note that it was not OA that caused the closure of journals: rather, Nature's brand position allowed it to leverage online and electronic production and dissemination to competitively succeed relative to less highly regarded brands. OA simply facilitated the financial model. This is an example of journal brand having a disproportionate effect on the market.

http://blogs.law.harvard.edu/pamphlet/2011/01/15/a-ray-of-sunshine-in-the-open-access-future/ The blog refers to the analysis in Morrison, Heather, 2011. 'PLoS ONE: now the world's largest journal?', The Imaginary Journal of Poetic Economics, weblog post, January 5, accessed 25/2/11. http://poeticeconomics.blogspot.com/2011/01/plos-one-now-worlds-largest-journal.html

<sup>10</sup> <u>http://www.nature.com/srep/marketing/index.html</u>

http://www.plosone.org/static/whypublish.action

<sup>&</sup>lt;sup>5</sup> Goldstein, Stéphane, 2011. 'SOAP and the challenge of publishing in OA journals', RIN team blog, weblog post, January 18, accessed 28/2/11. http://www.rin.ac.uk/blogs/team/stephane-<u>goldstein/soap-and-challenges-publishing-oa-journals</u> <sup>6</sup> Shieber, Stuart, 2011. 'A ray of sunshine in the open-access future', *The Occasional Pamphlet on* 

Scholarly Communication, weblog post, January 15, accessed 25/2/11.

http://www.sagepub.com/sageopen/landing.sp

<sup>&</sup>lt;sup>8</sup> http://www.g3journal.org/

<sup>&</sup>lt;sup>9</sup> Sprouse, Gene D., 2011. 'Editorial: Expanded Open Access and Creative Commons', Physical Review Letters, 106/7, p.1. http://prl.aps.org/pdf/PRL/v106/i7/e070001

<sup>&</sup>lt;sup>11</sup> <u>http://www.nature.com/srep/faqs/srep-faqs.html;</u>

<sup>&</sup>lt;sup>12</sup> Cameron Neylon, quoted in Jump, Paul, 2011. 'Nature's open-access offering may sound death knell for subs model', Times Higher Education, January 13, accessed 25/2/11.

http://www.timeshighereducation.co.uk/story.asp?sectioncode=26&storycode=414822&c=1 Also see Smith, Richard, 2011. 'Might copies of PLoS ONE change journals for ever?', BMJ, weblog post, March 29, accessed 29/3/11. http://blogs.bmj.com/bmj/2011/03/29/might-copies-of-plos-onechange-journals-forever/#

Perhaps the recent publishers' initiatives will indeed lead to widespread adoption of OA and a revolution in scholarly communication. So far 'the jury is still out'.<sup>13</sup> Some of the senior policy makers in HE institutions contacted for this report did feel that the pattern of scholarly communication was likely, eventually, to change as a result of the success of journals such as *PLoS ONE*.<sup>14</sup> One commented that 'academics are more likely to use open access options if presented to them by publishers'.<sup>15</sup> Others are less sure. Although, according to the SOAP survey, there is widespread acceptance by the academy of the value and desirability of OA, many researchers still seem reluctant actually to use it when it comes to publishing their own work. The authors of the SOAP report point out that only 8-10% of articles are currently published in OA journals.<sup>16</sup>

In order to try to account for this gap, the authors of the SOAP report asked respondents who had not published OA articles (29% of the total) what were their reasons for failing to do so. The most weighty reason was the lack of funding, closely followed by the belief that OA journals are of lower quality than subscription journals and/or that they have no impact factor.<sup>17</sup>

#### **1.2 Gold OA: the problem of prestige**

The RCS's research, while clearly much less extensive than that conducted by SOAP, tends to reinforce its findings. Among the chemists and economists who responded, more than 90% of those who had not made use of OA options had not done so because they needed to publish in high-impact journals – thus implying that they do not believe OA journals to be sufficiently prestigious.<sup>18</sup> Our discussions with PVCs and Research Directors revealed a similar story: all but two of our correspondents identified as a major drawback to the acceptance of OA the lack, or perceived lack, of quality associated with OA journals. Several explained that in the run-up to the REF, researchers were being encouraged, or even instructed by their Heads of School, to publish in journals scoring highly for impact in journal league-tables – and that these were not the OA journals.<sup>19</sup> One PVC remarked that if it came to a choice between Nature and PLoS ONE, there was no contest: publication had to be in Nature.<sup>20</sup> Several respondents implied that the culture within which the researchers were working had as much impact on publication practice as any objective knowledge of the importance of publication in the "top" journals. But as we are continually finding, cultural factors are the main drivers of practice – and the hardest to change.

<sup>15</sup> Research director – anonymous by request.

<sup>&</sup>lt;sup>13</sup> Jump, Paul, 2011. 'Research intelligence – slow train coming', *Times Higher Education*, January 27, accessed 27/1/11. <u>http://www.timeshighereducation.co.uk/story.asp?storycode=414956</u>

<sup>&</sup>lt;sup>14</sup> eg Prof James McElnay, Queen's University Belfast; Prof Steve Williamson, University of Surrey; Prof Robert Allison, University of Sussex – though he pointed out that the change would be a gradual process; respondent from the University of Sheffield.

<sup>&</sup>lt;sup>16</sup> The reference is to the previous SOAP report: Dallmeier-Tiessen, Suenje, Darby, Robert, Goerner, Bettina et al, 2010. *First results of the SOAP project: open access publishing in 2010.* <u>http://arxiv.org/ftp/arxiv/papers/1010/1010.0506.pdf</u> However we have not been able to locate this precise figure in the report.

<sup>&</sup>lt;sup>17</sup> It is not clear from this interim report whether any distinction was made in the survey between fully OA journals and hybrid ones.

<sup>&</sup>lt;sup>18</sup> See Figure 1.

<sup>&</sup>lt;sup>19</sup> Anecdotally, this reliance on journal league-tables appears to be particularly prevalent in Business Schools.

<sup>&</sup>lt;sup>20</sup> Prof Evelyn Welch, Queen Mary University of London.

Where does the prestige of high-impact journals come from? Partially from the culture within a discipline; but as we mentioned above, a major identified driver is the REF. For the RAE, it was noted that no form of research output would be seen as better than another *per se*, and that the impact factor of the journal in which an article had been published would not be used as a measure of quality. However, the statement did leave open the possibility that publication in high-impact journals might allow the panels to assume quality.<sup>21</sup> Anecdotal evidence from some panels says that because of lack of time, if an article was published in a high-impact journal it was indeed assessed to be of high quality without being read. Therefore, a prominent statement from the REF as to the equality of peer-reviewed journals, including OA ones, would increase academic and managerial acceptance of OA journals as valid publication opportunities and appropriate for the REF.

*Recommendation*: that HEFCE be encouraged to make it clear that peerreviewed OA journals will be considered the equal of any traditional journals for the purposes of the REF.

#### 1.3 Gold OA: the problem of cost

According to our survey, next on the list of reasons not to publish by OA methods comes the fact that it is perceived to be too expensive. Nearly 60% of those who answered the relevant question in our survey agreed with this proposition.<sup>22</sup> Again, this was echoed in our conversations with PVCs and research directors, many of whom identified cost as a factor that tended to dissuade researchers from embracing OA.<sup>23</sup> And again, this may be a question of belief rather than knowledge – of researchers ignoring, or being unaware of, the fact that publication costs can often be met from grants or institutional funds. Or is it that researchers shy away from the idea of paying to publish because of the academic stigma attached to "vanity" projects and an association with "paying to publish"?

It might also be argued that the cost of Gold OA publishing, while sometimes significant, is small relative to the overall cost of research. Indeed there may be no cost at all: the SOAP study found that of researchers who had made work open access, just over 50% had done so without incurring a charge. The most common price band (which applied to 12.6% of respondents) was €501-1000 and only 0.2% had paid more than €3000.<sup>24</sup> Further work might be done to discover in what sense OA publishing costs are thought to be "too much" in the context of research grants of hundreds of thousands of pounds. What are academics' attitudes to the research monies that pass through their hands? Are they seen as public funds for which due account must be made and costs minimised wherever possible? Why should €3000 be seen as "too much" in order to get the widest dissemination? It may be that this is in comparison to traditional publication practice where publication and readership is free – at least from the academic's point of view. It would be interesting to examine attitudes

<sup>&</sup>lt;sup>21</sup> The Generic Statement on Criteria and Working Methods, §32. <u>http://www.rae.ac.uk/pubs/2006/01/docs/genstate.pdf</u>

<sup>&</sup>lt;sup>22</sup> See Figure 1. Approximately 86 people answered most parts of this question.

 <sup>&</sup>lt;sup>23</sup> Prof James McElnay; Ian Carter, University of Sussex; Luke Georghiou, University of Manchester; Prof Trevor MacMillan, Lancaster University; Prof David Price, UCL; Prof Nick Talbot, University of Exeter; and respondents from the Universities of Bath, Sheffield and Lancaster.
 <sup>24</sup> <u>http://arxiv.org/ftp/arxiv/papers/1101/1101.5260.pdf</u>

to expense in those institutions where library budgets have been devolved – even partially – to academic departments: where there is an awareness that traditional publication incurs a dissemination expense.<sup>25</sup>

#### Recommendations:

a) that an advocacy message from JISC be that:

- dissemination is an expense
- OA is an alternate not an additional expense
- in the context of grants the cost of OA publishing is tiny
- money is available to support OA publication

b) that consideration be given to employing high-profile figures with appeal both to the academic community and the wider public to publicise and endorse OA

## 1.4 Green OA: the problem of awareness

Green OA, of course, should not be subject to the same strictures. It facilitates the deposit of work that is already peer-reviewed and submitted to a journal of choice, thus solving the prestige problem, and it is free (for the researcher). So what reasons do researchers give for not using repositories? Among those of our economists and chemists who had doubts about OA, around 40% were worried about copyright and the terms of their agreements with their publishers. Other concerns, expressed by 30-35% of those who answered the question, were all based on a lack of knowledge of the system: 'It takes too much time and effort', 'It's not a concern of mine', 'I don't know much about OA'.<sup>26</sup>

This brings us to the point that despite all efforts over the years, it would seem that advocacy for OA has still, for significant numbers of researchers, not succeeded in making a noticeable impact. In our survey of chemists and economists, 36% answered 'no' or 'I don't know' to the question 'Does your institution have a repository?' – though all the institutions concerned do have one. Nearly 30% of those who did not make their work OA claimed one of the reasons was that they did not know how. Several of our interviewees remarked that researchers were dissuaded from OA by a lack of clarity in the way its benefits were presented, or a lack of understanding on the part of researchers.<sup>27</sup>

This absence of understanding can also exist among university managers. Ian Carter (Director of Research and Enterprise, University of Sussex, and Chair of ARMA) suggested that 'the OA agenda tends to be led by the Library, rather than being part of the research strategy',<sup>28</sup> and this was borne out by our experience during the consultations for this report. Of the ten research directors with whom we made contact, five passed the enquiry on to their institution's library or repository staff, on the grounds that they did not see OA as something they should be concerned with or knew anything about.<sup>29</sup> One Director of Research Development claimed not even to understand the language in which the questions were framed – backed up by the librarian of the same institution, who remarked that the terms were indeed 'very opaque'. If phrases like "open

<sup>&</sup>lt;sup>25</sup> For example, City University London, Bangor University and the University of Exeter, which have fully or partially devolved budgets; other institutions are reported to be considering it.
<sup>26</sup> See Figure 1.

<sup>&</sup>lt;sup>27</sup> Prof Bob Allison; Prof Kevin Schürer, Leicester; Ian Carter.

<sup>&</sup>lt;sup>28</sup> Ian Carter, by email, 19/2/11.

<sup>&</sup>lt;sup>29</sup> At least two of the institutions concerned have OA mandates in place.

access" seem opaque to senior managers of research and resources, what chance have we?

The RCS's event "Research Management: Smoothing the Way", for senior librarians and research managers, was an attempt to improve communications between these two groups and to increase their awareness of OA issues; it was followed up by the creation of a dedicated email list to facilitate further discussion and collaboration. We have also addressed research managers through our presence on the ARMA email list.

#### 2 What might they do instead?: social networking

If we are right in believing that the benefits of Green and Gold OA as usually defined are not fully recognised among the academic community, it may be that researchers are turning instead to other methods of "open" communication. Our previous reports have discussed the potential of services such as Mendeley that combine reference management software with social networking. The CRC is continuing to investigate the extent to which these services are becoming widely used in the academic community. It is the subject of a consultancy exercise currently being commissioned by the RCS.

We asked PVCs for Research and Research Managers if they knew of interest in Mendeley among their research staff. None reported being aware of more than a few people from their institution using the site. Several knew nothing of it at all. Two<sup>30</sup> indicated that their institutions were considering how to incorporate social networking tools into research workflows – others mentioned alternative services that their researchers were using (Google Docs, Facebook) but did not suggest that they felt a need to formulate any institutional policy in respect of them, or to establish any formal practice. Only one respondent<sup>31</sup> expressed anxiety about the commercial basis of such services being a possible threat to sustainability (see our previous report).

Another respondent did remark that social networking was something for the young. Early-career researchers are likely to have been used to relatively trouble-free methods of sharing information and collaboration during their post-graduate years. When they come to contribute to academic journals they may become frustrated by the restrictions imposed by publishers on the use of their own intellectual property, which may lead to a surge of interest in OA options. However, this is speculation and our discussions with young researchers suggest that it will not happen soon. Pressure from more senior members of departments for younger researchers to conform to normative behaviour may prove too strong.

<sup>&</sup>lt;sup>30</sup> Prof Evelyn Welch; Prof David Price.

<sup>&</sup>lt;sup>31</sup> Respondent from the University of Sheffield.

#### 3 Current issues in research communication

In this section of the report we note briefly some of the "hot topics" in scholarly communication that have a bearing on OA and might provide a context for future work in this area.

### 3.1 Peer review

Peer review continues to be a live issue and ideas about the potential of open peer review surface with some regularity.<sup>32</sup> *BMJ Open*, an open access and open peer-reviewed medical journal, published its first papers in February. (*Nature's* OA journal development deserves to be seen in the light of changing peer review practice as much as in relation to OA.) The House of Commons Select Committee on peer review has received 87 written submissions, including a joint one from JISC, UCL and the University of Salford<sup>33</sup> that explicitly connects changes in the practice of peer review with open access. Other submissions that suggest the possibility of a move towards open peer review include those by PLoS<sup>34</sup> and the Wellcome Trust.<sup>35</sup> It will be interesting to see whether the recommendations in the committee's report include support for open peer review. If they do, it will also be interesting to see how receptive the academic community in general will be to what for many is still a radical notion.

## **3.2 Intellectual property rights**

Another relevant ongoing enquiry is the Hargreaves Enquiry into how intellectual property supports growth and innovation.<sup>36</sup> This has also attracted a large number of written submissions, including one from JISC. Many of the submissions come from associations of owners of IP who are concerned to ensure the retention, if not the strengthening, of restrictions on the use of their work. However, some submissions argue for a relaxation of the current controls on the re-use of IP. The submission from the Arcadia Fund,<sup>37</sup> which is signed by representatives of several significant players on the UK HE scene, focuses on advocating open access.

Other submissions to the Hargreaves Enquiry seek to make a case for a change in IP regulations in order to facilitate, for example, text- and data-mining.<sup>38</sup> It is a matter of debate as to whether text-mining without permission from the copyright holder contravenes copyright law. Certainly publishers have attempted to retain control over text-mining rights when allowing deposit in repositories; but it is hard on the face of it to see which provision of the Copyright, Designs and Patents Act such activity would be contravening.

If items are placed in repositories with licences that explicitly forbid text-mining, are they really "open"? Not by some definitions. If some items in a repository

<sup>&</sup>lt;sup>32</sup> See for example Cecire, Natalia, 2010. 'Why *PMLA* should become *PLotMLA*; or, Using your powers for good', *Works Cited*, weblog post, December 29, accessed 24/3/11.

http://nataliacecire.blogspot.com/2010/12/why-pmla-should-become-plotmla-or-using.html; and Boldt, Axel, 2011. 'Extending ArXiv.org to achieve open peer review and publishing', *Journal of Scholarly Publishing*, 42/2. DOI: 10.3138/jsp.42.2.238 (unfortunately not OA!) <sup>33</sup> Increasing the value from peer review and open access.

http://www.publications.parliament.uk/pa/cm201011/cmselect/cmsctech/writev/856/m77.htm

<sup>&</sup>lt;sup>34</sup> <u>http://www.publications.parliament.uk/pa/cm201011/cmselect/cmsctech/writev/856/m54.htm</u>

<sup>&</sup>lt;sup>35</sup> http://www.publications.parliament.uk/pa/cm201011/cmselect/cmsctech/writev/856/m55.htm

<sup>&</sup>lt;sup>36</sup> <u>http://www.ipo.gov.uk/ipreview.htm</u>

<sup>&</sup>lt;sup>37</sup> http://www.ipo.gov.uk/ipreview-c4e-sub-arcadia.pdf

<sup>&</sup>lt;sup>38</sup> eg submissions from the National Centre for Text Mining, <u>http://www.ipo.gov.uk/ipreview-c4e-sub-nctm.pdf</u>; the British Library, <u>http://www.ipo.gov.uk/ipreview-c4e-sub-bl.pdf</u>

may be mined and others may not, we are adding another layer of complexity – exactly what, our researches tell us, is to be avoided if authors are to be attracted to the idea of OA.

Data-mining is, of course, somewhat different, as the extraction and reutilisation of data stored in a repository would be likely to be controlled by the regulations surrounding database right as well as (or instead of) copyright. 'The easiest solution for data-mining (and it could be argued for open access in general) is blanket rights for data-mining being retained by funders: or for publicly funded research to be placed in the public domain as regards copyright, as is done in the States'.<sup>39</sup> If the lack of retained rights leads to repositories becoming unusable by new e-science applications, something has to change.

Negotiations on ACTA (the Anti-Counterfeiting Trade Agreement) have made some progress (see our first Quarterly Report, March 2010). A final draft text<sup>40</sup> of the agreement has been released (dated December 2010). It has turned out to be less restrictive than some had feared. However, those who were anxious about an over-protection of IP previously under consideration by ACTA are now concerned about the Trans-Pacific Partnership, a prospective free-trade agreement between the USA and Pacific nations that (these commentators believe) is a further attempt unfairly to impose 'intellectual monopolies'. <sup>41</sup> The TTP may have little or no direct bearing on activity in the UK, but it is another indication of a general feeling that intellectual freedom may be under threat which may in turn, as we suggested in our first report, have 'effects across a range of current practices ... affecting copyright [and] open access'.<sup>42</sup>

IP rights may also be seen to be placed at risk as a result of the attempt by Elsevier to enter into restrictive agreements with HEIs concerning the deposit in institutional repositories of articles published in Elsevier journals. The Open Access Implementation Group has issued a statement<sup>43</sup> calling on universities not to enter into individual negotiations with publishers about self-archiving rights.

Meanwhile, the long-running argument between Google and rights holders about the digitisation of books has taken a new twist after the rejection by a New York federal judge of the settlement reached between Google, the Authors Guild and the Association of American Publishers.<sup>44</sup> As with the ACTA and TPP agreements, the direct connection with OA may be slight. However, along with the other "hot topics" referred to above, this battle between publishers and exploiters of

 <sup>&</sup>lt;sup>39</sup> Hubbard, Bill, 2011. 'Data-mining and repositories', *Research Communications Strategy*, weblog post, March 22, accessed 23/3/11. <u>http://rcsproject.wordpress.com/tag/data/</u>
 <sup>40</sup> http://www.ustr.gov/webfm\_send/2417

<sup>&</sup>lt;sup>41</sup> Moody, Glen, 2011. 'Why we should care about the Trans-Pacific Partnership (TTP)', *Open Enterprise*, weblog post, March 14, accessed 21/3/11. <u>http://blogs.computerworlduk.com/open-enterprise/2011/03/why-we-should-care-about-the-trans-pacific-partnership-tpp/index.htm#</u> See also *TTP Watch*, <u>http://tppwatch.org/</u>, accessed 21/3/11.

<sup>42</sup> http://eprints.nottingham.ac.uk/1454/1/RCS March 2010.pdf

<sup>&</sup>lt;sup>43</sup> <u>http://213.133.67.199/open-access/?page\_id=258</u>

<sup>&</sup>lt;sup>44</sup> See Helft, Miguel, 2011. 'Judge rejects Google's deal to digitize books', *New York Times*, 22/2/1011. <u>http://www.nytimes.com/2011/03/23/technology/23google.html?\_r=1</u>

research indicates that "openness" (and non-openness) is a significant current issue – and not just within the academy. Advocacy of OA should build on this.

## 4 Advocacy

Despite the researchers' anxieties described above, OA is clearly becoming more widely accepted - publishers would not be hurrying to create OA journals if they did not think there was a growing market. Green OA is now facilitated by 186 repositories in the UK and the trend is still upwards.<sup>45</sup> Yet there remain people unaware of, or indifferent to, the opportunities that OA offers. What might change their minds?

Various suggestions can be made. Will sceptics be persuaded by mandates, either from their institutions or their funders? Do they find information about increases in citations, or download statistics, compelling? Would they be more likely to opt for Gold OA if they were helped with the costs? Or is the moral argument, about the desirability of publicly-funded research being publicly available, the one that will lead most directly to change?

## 4. 1 Mandates

An early finding from our survey of chemists and economists is that the existence of an institutional mandate was identified least often as a motivation by those who did make their work OA.<sup>46</sup> Of course, this is self-identified motivation by those who deposit. It may well be that such mandates are instrumental in changing behaviour on an unconscious level. Also, further analysis is needed to tease out the full implications of our results. For some respondents there is no mandate in their institution. In other cases researchers may be ignoring a mandate that does exist. What does seem clear, however, is that where there is an institutional mandate, many researchers are unaware of it. Of respondents who replied to the question 'Does your institution have an open access policy or mandate?' from institutions that do have one, 41% answered 'no' and 46% answered 'I don't know'.

We also found that only a minority of researchers (just over 20%) were inclined towards OA by the existence of a mandate from their funder. Again, it was evident that the existence of a funder's mandate was not recognised by many respondents. Of those who answered the question 'Does your current/usual funding agency have an open access policy or mandate?' where the funder in question does have one, 45% said there was no mandate and 34% answered 'I don't know'.

These results, on the face of it, invite us to query the widely-promoted view<sup>47</sup> that such mandates result in rising deposit rates. The received wisdom is that

<u>http://eprints.ecs.soton.ac.uk/11006/1/jiscsum.pdf;</u> Sale, AHJ, 2006. 'The acquisition of open access research articles', *First Monday*, 11 (10).

http://www.firstmonday.org/issues/issue11\_10/sale/index.html; Harnad, Stevan, 2006. 'Opening

<sup>&</sup>lt;sup>45</sup> Information from OpenDOAR: <u>http://www.opendoar.org/index.html</u>

<sup>&</sup>lt;sup>46</sup> See Figure 2. Only around 15% of respondents said that when they made their work OA they did so partly or wholly because of an institutional mandate.

<sup>&</sup>lt;sup>47</sup> See eg: Swan, Alma, 2005. *Open access self-archiving: an introduction.* 

high-level buy-in to OA, demonstrated by the existence of an institutional and/or funder's mandate, is crucial for developing an OA-friendly culture within the academy. Our research does not disprove this, but it does suggest that the mandate alone is not enough. Ongoing and pro-active publicity, perhaps allied to some form of enforcement, seems to be required.

#### 4.2 Citations

Advocates of OA have devoted considerable effort to demonstrating an increase in citations when research is made OA.<sup>48</sup> Repositories routinely make available download statistics - sometimes just raw numbers, sometimes with added features that record, for example, the top ten most downloaded papers per month. Now the PIRUS2 project<sup>49</sup> is working on combining information from repositories and journals so as to aggregate download statistics at article level. Researchers no doubt like to be made aware that their work has been read, or might have been read, by many people. Moreover, there is a suggestion that 'online usage as an alternative, accepted measure of article and journal value and usage-based metrics [are] being considered as a tool to be used in the UK Research Excellence Framework and elsewhere'.<sup>50</sup> If download statistics did indeed become significant for the REF, this would be a powerful incentive for OA. At present, however, as has been already indicated in this report, the strong message that we are getting from our interviewees and survey respondents is that citation or download numbers are not the main focus of researchers' attention. Only half of our economists and chemists who made their work OA did so because it conveyed a citation advantage. What researchers care about is the prestige attached to certain journals in their field.<sup>51</sup> And since the absence of such prestige is mentioned so often as a block to the adoption of OA, it seems the message that in many cases Green OA can be employed as well as traditional publication is not getting through. Once again, OA is being held back by what people think they know about it, not by what is actually the case.

#### 4.3 Managing costs

It does seem likely that help with publication costs for Gold OA, or a better understanding of how to ensure that costs are met out of research grants, might persuade researchers to adopt it more readily. Connecting OA publication with grants is facilitated by the introduction of research management systems that allow seamless workflows from grant application to publication. Most of the institutions whose representatives we talked to have, or are planning to have, a CRIS system. The feeling was that this will increase the use of the repository – especially where the repository is also the publications database, though the likelihood is that many researchers will be content to have the metadata for their

access by overcoming Zeno's Paralysis.' In: Jacobs, Neil, ed., Open access: key strategic, technical and economic aspects, Chandos.

http://eprints.ecs.soton.ac.uk/12094/

<sup>49</sup> <u>http://www.cranfieldlibrary.cranfield.ac.uk/pirus2/tiki-index.php?page=pirus2</u>

<sup>50</sup> *The PIRUS2 Project*, web page, updated 9/2/11, accessed 4/3/11.

http://www.cranfieldlibrary.cranfield.ac.uk/pirus2/tiki-index.php?page=About

<sup>51</sup> Prof Trevor MacMillan pointed out that it is not the number of citations that interests a researcher, but who is doing the citing.

<sup>&</sup>lt;sup>48</sup> Exhaustively listed in Wagner, A. Ben, 2010. 'Open access citation advantage: an annotated bibliography', *Issues in Science and Technology Librarianship*, Winter. <u>http://www.istl.org/10-winter/article2.html</u>

publications included in the database. In that case more incentives might be necessary to persuade them to deposit the full text.

## 4.4 The public good

What, then, of the moral argument? Professor Martin Hall, VC of Salford University, speaks eloquently of his conviction that open access is at the heart of what universities do.<sup>52</sup> Is there any evidence that researchers are swayed by such arguments? Our survey of chemists and economists shows that of those who do make their work OA, around 75% do so because, or partly because, they believe that the results of publicly-funded research should be publicly available.<sup>53</sup> Of course, these are the converted. However, this finding may suggest that the moral argument is persuasive. The problem would seem to be that the perceived practical drawbacks - citations, prestige, cost and complexity - are more telling still.<sup>54</sup>

## Recommendation

Once the moral argument has been identified as a persuasive, we recommend that more is done to build on it. It may be that this has not been done in the past because of sensitivity to the implications of it being an overtly political message. Perhaps in a time of financial stringency the argument takes on a new complexion of apolitical financial expediency. In any case, this seems to be an argument that does get traction with an academic audience and so would be a beneficial approach for JISC to take.

## 4.5 What might change their minds?

One of our correspondents said that the 'cycles of virtue ... are very hard to break'.<sup>55</sup> We need an approach to changing the expectations and environment within which OA is seen. As we have said before with reference to campaigns in other sectors (such as those in relation to climate change or obesity), cultural change takes time and is effected only by repeated (and simplified?) messages. It is clear, if only from the reactions of traditional publishers,<sup>56</sup> that in recent years OA has come a long way, in the face of some significant opposition. To deal with the issue of "buy-in" to OA and the level of culture change that appears necessary, it is perhaps to the world of commercial advertising that we need to turn. The prominence of journal brands has been mentioned several times in this report - addressing perceptions both of self-esteem and the esteem in which others are held. Journal brands are embedded within professional reward structures and national assessment methods. Journal brands affect the formation of publication habits in young researchers. For OA to advance, even with mandates and supportive policies, authors' perceptions of journal brand centrality have to change: and changing attitudes to brands is the stuff of commercial advertising. It is a testament to the work funded by JISC and the strength of the OA concept that there has been the progress there has been. Supporters of OA now need to consider how to address cultural change and

<sup>&</sup>lt;sup>52</sup> See for example <u>http://www.openscholarship.org/jcms/c\_7213/martin-hall-argues-for-giving-information-away</u>

<sup>&</sup>lt;sup>53</sup> See Figure 2.

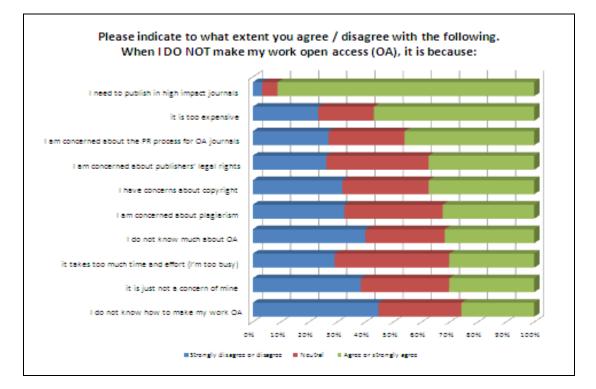
<sup>&</sup>lt;sup>54</sup> The RCS is commissioning further work with researchers based on the results of the survey. This may cast more light on their motivations and anxieties.

<sup>&</sup>lt;sup>55</sup> Nick Talbot, by email, 14/3/11.

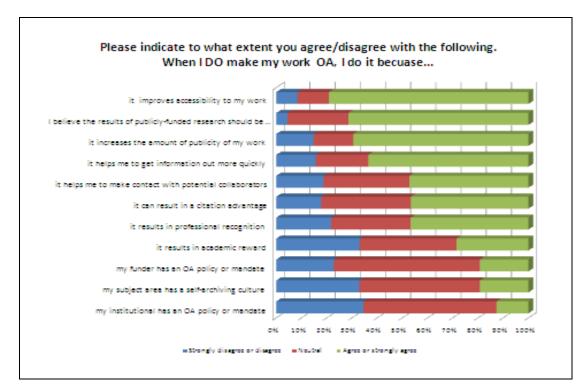
<sup>&</sup>lt;sup>56</sup> For example Elsevier – see above, paragraph 3.2.

"brand development" of OA itself at a new level. However, the public perception of employing advertising consultants to advise on OA advocacy might be damaging: is JISC in a position to employ advertising consultants for this purpose? And if not JISC, then who? *To move OA further, we need a simple and accessible message that can be continually repeated through multiple channels.* 

#### Figure 1



#### Figure 2



## Appendix

## **RCS Survey of chemists and economists**

The survey was conducted online in January 2011 and addressed to 738 researchers in chemistry and economics in 11 selected HEIs:

Bath East Anglia Imperial Leicester LSE Nottingham Nottingham Trent Manchester Manchester Metropolitan Southampton Sussex

We had 130 responses. We have carried out some initial analysis and are currently commissioning further work to explore and present the results.

## Sectoral consultation for this report

Contact was initiated with around 80 PVCs for Research and Research Directors in Russell Group and 1994 Group HEIs. Of these, a number of PVCs and Research Directors agreed to hold conversations with us either by phone or email. The institutions that responded were:

Bath, Exeter, Glasgow, Lancaster, LSE, Manchester, Queen Mary London, Queen's Belfast, Sheffield, St Andrews, Surrey, Sussex, UCL.