

Chapter 7: The culture of Open Access: researchers' views and responses

In this chapter Alma Swan draws from the surveys undertaken by Key Perspectives Ltd into researchers attitudes toward open access. She describes the context in which researchers work, and how this leads to them valuing (or not) the potential of open access. Based on this evidence, she outlines a range of practical moves that can be made to configure open access as a solution to researchers' very real needs and concerns.

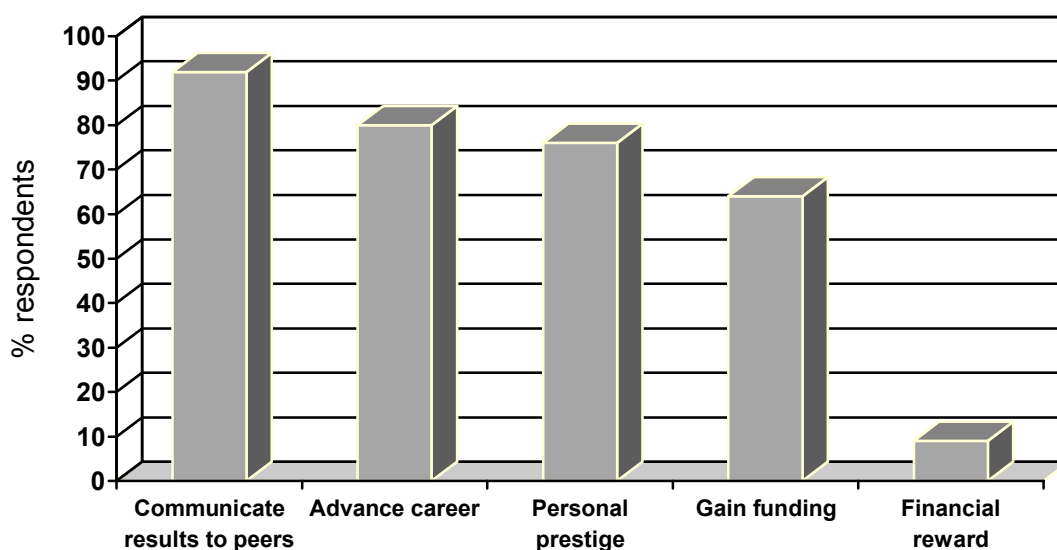
Chapter 7: The culture of Open Access: researchers' views and responses

Alma Swan

The last couple of years have seen the acceptance of Open Access (OA) as a desirable goal by institutions, research funders, libraries and some publishers, to the point that action has been taken by these parties towards achieving it. Scholars themselves, however, have proved somewhat harder to prod into action. Once they understand the aims of Open Access they generally identify with the concept, unsurprising since it is scholars themselves who stand to benefit most from its inception. Nevertheless, in general scholars have been slow to act in ways that bring Open Access about, a significant retardant to progress for Open Access since its implementation is largely in the hands of the research community itself. What is behind this?

Before that question can be answered, it is instructive to revisit once more the primary motivations of researchers with respect to publishing their work. Why do they publish at all? We feel we understand the answer to that one: it is largely because if they do not publish, their work remains obscure and their life's toils are as worthless. On a more mundane note, they publish because it is the overt expression of their effort and because it offers a way of measuring, albeit fairly crudely, their 'worth'. Finally, they publish because it is expected of them, by their employers and by the bodies that fund them.

If their motives are examined more closely, though, scholars provide further clarification on this point. Figure 1 shows the proportions of authors in the respondent pool from one of our author surveys who gave a 'very important' classification to various reasons for publishing the results of their work (Swan and Brown, 2005). Several reasons are considered very important but the one that comes out top is **to communicate my results to my peers**. Researchers consider it a top priority to report their results to their peer community so that others can read and build upon them. They wish to make an impact.



[Insert Figure 7.1]

Figure 7.1: Researchers' reasons for publishing their work

Now that we understand what the major aspiration of researchers is with respect to publishing their work it comes as a surprise that, given the impact advantage that Open Access brings (see Kurtz and Brody, this volume), more authors do not see the connection and make providing Open Access to their work a priority. So far, according to our own data, around a quarter of researchers have placed copies of their articles on their own website (or their department's site), around 20% have self-archived articles in their institutional repository and even fewer have done so in a subject-based centralised repository. Around one-quarter have submitted at least one article to an Open Access journal, though 49% say they intend to do so over the next three years. These are not figures that support the notion that researchers care most of all about making an impact on their field, so what is the explanation for the discrepancy between intent and practice?

First, there is the issue of awareness. Many researchers simply remain unaware of the concept of Open Access or, if they have heard of it, they remain largely in ignorance of its implications. Our findings show that over one-third of researchers are not familiar in any way with the possibility of self-archiving their work, for example. There is evidence, though, that things are changing and that awareness is growing. We found, in two surveys one year apart, that there had been an increase in the percentages of researchers self-archiving their work (Swan and Brown, 2004; Swan and Brown, 2005) and another author study indicated that awareness of Open Access had grown in the period between it and its predecessor carried out by the same body a year earlier (Rowlands and Nicholas, 2005). Nevertheless, there is still some awareness-raising work to be done within the academic community on behalf of Open Access.

Second, there is a lack of clear understanding and appreciation of the issues to do with Open Access, even when scholars consider themselves to be familiar with the concept. The arena is a minefield of misconceptions, some arising from incorrect information in the first place, some from simple misunderstandings and some rooted in the nomenclatures and terminologies — and their unfortunate misuse — that pervade the scene.

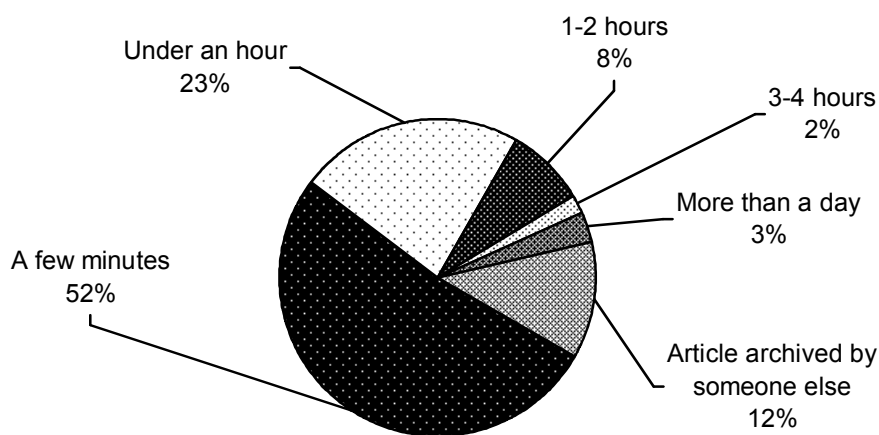
Third, there is disinterest on the part of some researchers who feel, for one reason or another, that access to the research literature is not a problem. Some such people may be privileged enough to work in well-funded institutions whose libraries can supply all they want. Others fall back on the 'information overload' angle, declaring that they have quite enough information to contend with and do not need access to more, freely-provided or not. Such cases are misguided for, as I have argued elsewhere, the term Open Access is a misnomer — though one we are stuck with — for the issue is about enhancing research *dissemination* and not, primarily, access. Enhanced access (for others) is the outcome of a process that requires active participation on behalf of researchers, who should understand that they are being offered an opportunity to maximise the potential impact of their own work in this way.

Fourth, there are a number of specific, practice-based reasons that researchers give for not providing Open Access to their work. In the case of Open Access journals, authors who have already published in such journals say they have done so primarily because they subscribe to the principle of free access for all readers. Conversely, those who have not used such journals say the main reason they have not done so is that they are not familiar enough with such journals in their field to submit their work there.

With respect to self-archiving, the alternative method of providing Open Access, authors have anxieties about what the process actually entails (see also Harnad, this volume). There are three commonly-expressed worries: that if they self-archive they will be infringing a rights agreement with their publisher, that it will take too much time, and that it will be difficult to do. It is easy to debunk all three of these (though harder to get the message over to researchers).

Regarding copyright, over 90% of journals explicitly permit authors to self-archive their articles, in most cases as postprints (after peer review, in the form of the author's final submitted manuscript) and in a few cases as preprints (before peer review, in the form of the author's final draft before submission to the publisher). The policies for each journal and for each publisher can be consulted at two sites on the web maintained by the University of Southampton (*Eprints Journal Policies*) and the SHERPA Project at the University of Nottingham (*Sherpa/RoMEO list*), both in the UK.

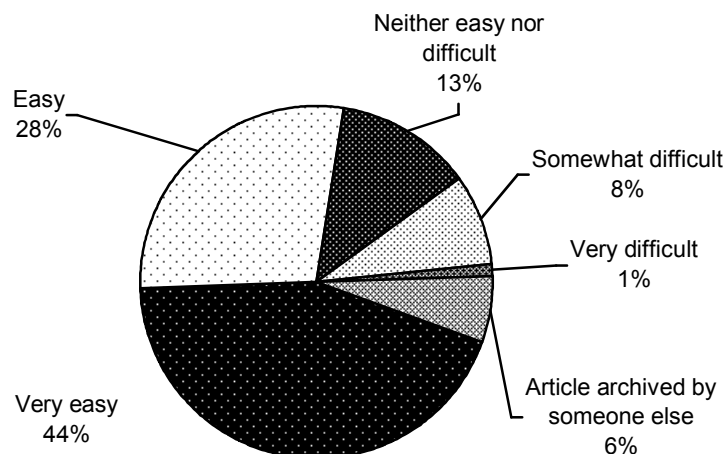
As far as the worry about time pressures, the answer is that it takes a few minutes to deposit an article in a repository. Our own data show that this is true for the majority of researchers (Figure 7.2). Data from the log files of the repository at Southampton University's School of Electronics and Computer science corroborate this finding. The log files show that each article takes about ten minutes to deposit (Carr and Harnad, 2005).



[Insert Figure 7.2]

Figure 7.2: Time taken to deposit an article in a repository

That leaves the issue of difficulty. Once again, we can turn to our own data to see what authors say about this. Most of them say it is very easy; in fact almost three-quarters of them say it is either easy or very easy and only 9% express any degree of difficulty at all with the procedure (Figure 7.3). Any reader doubting this can try a sample deposition themselves using the *EPrints* software on the *Demoprints* facility.



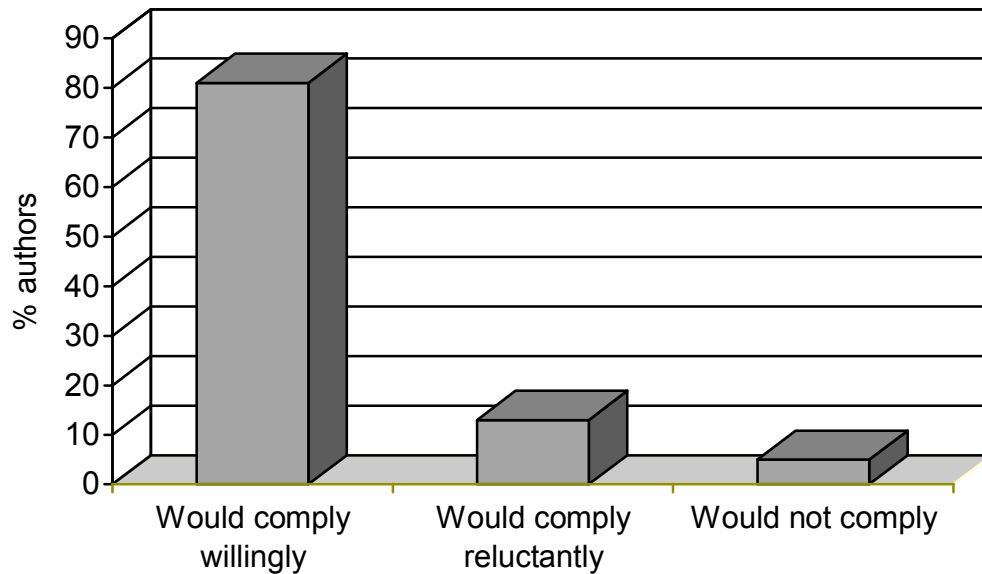
[Insert Figure 7.3]

Figure 7.3: Ease of deposition of an article in a repository

Researcher anxieties and objections on these points can therefore be very simply answered, and researchers reassured, but there remains one more factor which is much, much harder to counter, and that is inertia. Researchers whose institution has a repository and who fully identify with the aims and objectives of Open Access still grin ruefully if challenged informally as to why they have not deposited their articles, or have done so in a less than systematic fashion — depositing some but not others, perhaps, or omitting the most recent ones — and say they will ‘get round to it’. Every reader will recognise this: it is a condition that afflicts us all over one aspect or other of life. What can be done about it, though?

The answer is that something very simple can be done about it – *require* researchers to provide Open Access to their work. This may seem a tough stance, especially when the constituency involved is a body of independent-thinking researchers. Isn’t this a somewhat dangerous course of action? It turns out that it is not.

We asked researchers, in two separate surveys, how they would respond to a requirement from their employer or funder to make their work Open Access by self-archiving their articles in an Open Access repository. The answer could not have been clearer, with the vast majority (81%) saying they would comply with such a requirement willingly. Fourteen percent said they would do so reluctantly and only 5% said they would not comply at all (Figure 7.4).



[Insert Figure 7.4]

Figure 7.4: Compliance of authors with an employer or research funder mandate to self-archive their articles

That is what researchers say they would do. What happens in practice, though? Well, we can see, because already several institutions around the world have implemented such a mandate, as recorded in the *Registry of Open Access Repository Material Archiving Policies*. It seems that such a policy works in Open Access terms while making no waves in terms of researcher reaction. Elsewhere in this volume my colleague Arthur Sale presents the evidence, demonstrating that an institutional mandate is successful in producing Open Access, by providing the deposition data (the number of articles deposited in institutional repositories) for a number of Australian universities that have differing policies on Open Access. He contrasts the high proportion of published articles self-archived in the university that has a mandatory policy (Queensland University of Technology) with the much lower proportions at other universities, institutions that have only voluntary policies.

We can look elsewhere, too, to see that this holds up across the world. In Europe the particle physics laboratory, *CERN*, has a mandatory policy on Open Access, with the result that there is now approaching 90% of articles published by *CERN* scientists in that repository and available to all. The School of Electronics & Computer Science at the University of Southampton has over 90% of its published articles self-archived in its repository, thanks to its own mandatory policy introduced in 2003. And there are other examples, too.

In contrast, where self-archiving is a voluntary issue, researchers succumb to the aforementioned inertia, unfounded anxieties, or just lack of awareness. The *National Institutes of Health* in the USA, for example, introduced an Open Access policy in 2005 (see Suber, this volume). After much deliberation about wording, the final version *requested* NIH-funded researchers to deposit their articles in the *PubMed Central* repository, rather than *requiring* them to do this, despite all the advice and blandishments from Open Access experts that this would not be sufficient to produce the Open Access that the US Congress had intended when it instructed the NIH to act on this matter (US Government House Appropriations Bill, 2004). The

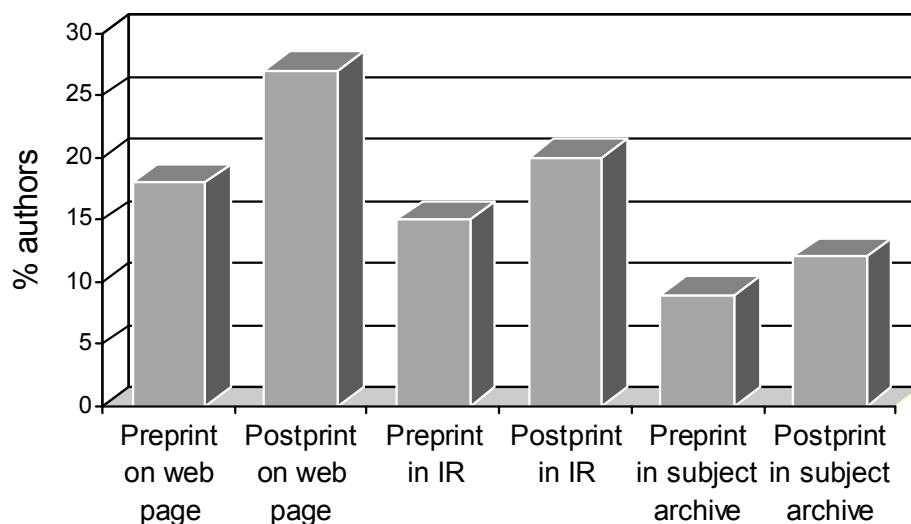
Open Access advocates proved right: in the first few months of the policy's operation, fewer than 3 in 100 of the articles that should have been deposited actually appeared in *PubMed Central*. The upshot is that the policy and its implementation must now be reviewed and amended in the light of this, costing another year of lost access (as well as more American taxpayers' money into the bargain).

In contrast, the London-based *Wellcome Trust* implemented its own Open Access policy in October 2005 (Wellcome Trust, 2005a) with a requirement — rather than a request — to its funded researchers to provide Open Access to the results of the research it funds (see Terry and Kiley, this volume). In the first few weeks the Trust received a considerable number of responses from its fundees, none of them voicing any objections: the queries were about how to comply with the mandate — either specific questions about self-archiving or questions about how to find out what rights policies their favourite journals espouse (Terry, 2006). Moreover, articles *are* being deposited by Trust researchers.

That is the stick, then. Is there also a carrot somewhere, too, to tempt researchers to provide Open Access? Yes, several.

First, there is the enhanced visibility that Open Access brings their work. Downloads lead to citations in a predictable way (Brody, Harnad and Carr, 2005) and so the more an author can maximise the number of downloads to his/her articles, the more citations should result. Elsewhere in this volume Tim Brody and Michael Kurtz describe their work on the effect of Open Access on citations in detail.

Some researchers have already made the link between the opportunities of the digital age (new dissemination channels), visibility, and eventual impact, as witnessed by the reasonably high numbers of researchers who have put their articles up on their websites for all to access, along with other information about their professional activities. This is, however, the least satisfactory way to self-archive since from the user point of view locating articles placed on websites, even in the age of Google Scholar, can be a haphazard process and from the provider's end there is no systematic provision for long-term access of any individual articles. One challenge, then, is to convert these people to self-archiving not on websites but in formal, organised, OAI-compliant repositories so that they become part of the global Open Access corpus. There is some reason to think that this might already be happening: our data show that there has been an increase in all three types of self-archiving over the year between our surveys, the biggest increase having been in the use of institutional repositories (Figure 7.5). Part of the explanation for this may be that there has been an increase in repositories themselves over this time as more and more institutions see the benefits of having such a digital archive for providing Open Access as well as for other reasons. As repositories become established, institutions begin to advocate their use to their research communities. Researchers see their articles being downloaded from their institutional repositories and they know their work is gaining an increased readership.



[Insert Figure 7.5]

Figure 7.5: Methods of self-archiving used by authors to date

Second, repository managers can help this edification process by providing usage statistics, such as the feature introduced to the University of Tasmania's repository by Arthur Sale and described by him in this volume.

Third, repository managers can assist in other ways, by providing guidance, advice, encouragement and practical assistance where necessary for researchers willing to self-archive but deterred by some aspect of the process.

And finally, funders and employers can help researchers who wish to publish their work in Open Access journals. They can do this in two ways; by explicitly permitting funds from research support to be used to pay, at least in part, any publication fees such journals may levy, and by explicitly affirming — as the *Wellcome Trust* has — the principle that it is the intrinsic merit of the work of the researcher, rather than the journal in which it is published, that will be considered in any career, research assessment or funding decisions.