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# Articles shared on a medical web site – an international survey of non-open access journal editors

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## Abstract

**Introduction:** Previous research described a file-sharing web site aimed primarily at medical researchers that allowed non-open access journal (NOA) articles to be shared. This research aims at garnering opinions from affected NOA journal editors. **Methods:** From a random sample of 800 journals affected by the web site, a total of 722 editors were requested to participate in an online survey. **Results:** Response rate: 31.0%. Responses were spread internationally, although the USA, UK, the Netherlands and Switzerland dominated. Most journals' subjects were medically-related. One-third did not allow any form of free access, while others allowed restricted access. The vast majority did not see their journals becoming OA in the foreseeable future. Nearly 2/3 had not known of such file-sharing sites, and 3/4 had no idea of how many such sites existed. Journals appeared reluctant to take action against such sites, although legal action might be considered by 1/3 of the journals. Based on their priorities, there were apparent differences of opinions between publishers and editors, and there was also strong (but not unanimous) support for OA amongst the editors. **Discussion and Conclusion:** Editors of medically-related NOA journals are generally not aware of such file-sharing, and do not appear to be overly concerned about it, although they do regard the phenomenon as problematic for their publishers.

## INTRODUCTION

### BACKGROUND

The role of the Internet as a distributor of digital content is being widely felt by all media. The recent music battle is all but over. Currently, some argue that television and film are learning that "fighting the consumer's desire for limitless content is a loser's game" [1].

The print media, including academic journals, are also in the spotlight. Previous research published by the author in this journal [2] referred to a medical web site that allowed participants to share non-open access (NOA) journal articles. That research described the structure of the web site, with more than 125,000 registered users and 300,000 posts in electronic forums. The article explained that the site allowed users with no legitimate access to NOA journals to request required articles from other users. These articles were then found by those users who did have access to them, and the articles were then posted to the web site, so that they could be accessible by any person who visited the web site. These requests and posting occurred in a sub-forum of the web site named "Databases & Journals – Requests and Enquiries."

Over a six-month period, a total of 6,587 articles had been requested; 5,464 had been returned, and these articles had been viewed by others a mean of 4.47 times. At an estimated mean price of \$30.00 per article, this amounted to an estimated loss to these journals of a little over \$1.4M.

### OPINIONS

Although that research was situated in the context of medical and other academic publishing, there appears to be widespread interest in the subject and the issues raised by the article [3].

While the most obvious impact of the file-sharing might be financial, and therefore of concern to the publishing houses, there is far more to a journal than the publisher. A crucial role is played by the editor. Put succinctly, "the editor of a journal is the person responsible for its entire content" [4]. The editor also has an interest in copyright issues, and in the number of readers and number of citations of the journal articles. For this reason, it was determined that the views of the editors on such a file-sharing web site would be important.

This study set out to discover the editors' views on issues

related to the information published in the original article.

## **METHODS**

An online, ten-question anonymous questionnaire, aimed at journal editors, was created. The questionnaire asked editors for the physical location and the subject of their journal. Because there is no “generally-accepted classification of scientific fields of study” [5], it was decided to use a broad subject classification. Because the Scopus system of classification is strong in the sciences and holds more 15,000 journal titles [5], Scopus was chosen as the subject classification system.

In addition to the first two questions, editors were asked about the type of access currently allowed to their journal (e.g. subscription or open-access), whether or not the journal would become open access within the ‘foreseeable future,’ and, if so, what type of model would be used to cover costs. Editors were also asked whether they had been aware of file-sharing sites such as the one described in the research, and the number of such sites that they believed existed. Finally, they were asked what action they thought would be taken by them or their publishers in response to these sites.

An important consideration of this survey was the sample size and the factors affecting the response rate. Three factors led the researcher to believe that the response rate from the editors would be low. The first factor was that, although editors have editorial autonomy, there have been cases where a conflict between editors and publishers have had dramatic impacts on the editors’ lives [6; 7]. It was feared that editors may be reluctant to answer questions on issues that impacted on the publisher’s income, even in an anonymous survey. Secondly, because the impact appears to be primarily one of finance, editors may feel that this has little to do with them, and would not see their need to participate. Thirdly, other published surveys of journal editors on the subject of open access, and surveys of medical journal editors on other publishing issues have shown a low response rate [8; 9].

With this in mind, it was decided that this survey should contain only 10 questions, and would be aimed at a large number of journal editors. In addition, editors could request notification of the publication of the survey results.

From the 2,867 journals identified in the original research, a random sample of 800 journals was selected for study. Of the 800 journals, 23 journals were excluded because the editors’ contact details could not be determined. As this was

a survey of editors’ opinions, there was a risk that bias would be introduced if an editor were an editor of more than one journal, and participated in the survey twice. As a result, 14 journals were excluded because the editor was an editor of multiple journals (in each of these cases, the journal described as most affected in the original research was selected for inclusion).

During October / November 2009, the editors of the 763 journals were contacted, either through their e-mail addresses, or through a contact page in the journal’s web site. The cover letter described the previous research, gave a hypertext link to that research, and requested the editor’s participation in the survey, with a hypertext link to the online survey form. The mailings were spaced over 14 days in order to reduce the load on the server hosting the survey.

A total of 41 editors (5.4%) could not be contacted because the contact information was not valid or had changed since the information had been gathered. This gave a total sample of 722 editors.

Quantitative data were electronically captured into an MS-Excel spreadsheet. Qualitative data were manually themed using NVivo Version 7.

## **RESULTS**

Six editors responded via email, indicating that they did not wish to participate in the survey; of these six, four said that these were publishers’ issues, and two did not give reasons. Four other editors responded by email, requesting to know more about the authors and / or the research before participating in the survey. Several editors appeared to have forwarded the information on to their publishers; nine editors or publishers wished for disclosure of the research site’s details, but appeared satisfied with the explanation of ethical consideration preventing the site’s details from being released.

A total of 224 survey forms were submitted, giving a response rate of  $224/722 = 31.0\%$ . Of the 224 participants, 21 requested notification of publication of results.

## **GEOGRAPHICAL LOCATION**

A total of 216 (96.4%) participants indicated the geographical location of their journal. The journals were located in 21 countries. Most of the journals were located in the USA (82, 38.0%), the UK (58, 26.9%), the Netherlands (23, 10.7%) and Switzerland (11, 5.1%). Together, these four countries (19% of the total number) accounted for

80.6% of the journals. The dominance by the USA, the UK and the Netherlands is reflected in a similar dominance in the Scopus listing, where 65.9% of all NOA active journals (14,686) are from those three countries (31.9%; 22.4% and 11.6%, respectively).

Other countries with more than one journal represented in the responses were: Germany (8), Australia and Canada (5 each), Italy (4), Sweden (3), Austria, Japan, Norway and Pakistan (2 each). One participant indicated that the journal’s responsibilities were spread across three countries.

While the journal location reflects a Pareto’s rule of 20/80 dominance, the journals are spread internationally. The 21 countries represented in the sample account for 86.4% of the 14,686 NOA active journals listed by Scopus.

**SUBJECT**

A total of 215 (96.0%) participants indicated the subject of their journal. Given the nature of the web site in the previous research, as was expected, the largest category of subject was “Medicine” (67, 31.2%). The next most frequently represented subjects were “Biochemistry, Genetics and Molecular Biology” (13); “Pharmacology, Toxicology and Pharmaceutics” (12), “Engineering” and “Multi-Disciplinary” (10 each). In total, medically-related fields accounted for 131 (60.9%) of the journals.

In addition, 13 (6.1%) journals were characterized as “Other.”

**TYPE OF ACCESS**

Participants were asked about the type of access permitted to their online articles. The question asked was: “Does your journal currently allow non-subscribers free full access to full articles that are online (a non-subscriber is a person who has paid no subscription fee, or professional or other organisation fee of any sort)?” Participants could select all options that applied to their journal. A total of 217 (96.9%) of participants answered this question. Table 1 summarises the results.

**Figure 1**

Table 1: Full free access permitted to online articles (n = 217). Participants could choose all that applied, so the total of all selections will be greater than n.

Type of Access	n	%
No, not at all	68	31.3
Yes, completely open access upon publication (with no registration)	7	3.2
Yes, completely open-access upon publication (with free registration)	4	1.8
Yes, but only selected articles from each edition (with or without free registration) (“Selected articles” does not refer to ‘free samples’ only or editorials only, or a single free sample edition that many journals have on their sites – see next option for this.)	50	23.0
Yes, a few selected samples, or a sample edition	49	22.6
Yes, all articles, but only 6 months after publication.	10	4.6
Yes, all articles, but only 12 months after publication	29	13.4
Yes, all articles, but only 18 months after publication.	1	0.5
Yes, all articles, but only 24 months after publication	1	0.5
Yes, all articles, at a later date than 24 months after publication.	8	3.7
Yes, all articles, if the person is a member of a specific professional organisation.	25	11.5
Yes, all articles, where other conditions apply (e.g. where funding agencies require it).	16	7.4
Yes, access through HINARI	25	11.5
Yes, we allow open-access self-archiving of papers	12	5.5
Don’t know	10	4.6
Other types of access	13	6.0

As expected (because the sample was drawn from journals that had been accessed through a file-sharing web site), the largest single grouping (68, 31.3%) did not allow any type of open access to their journals. For many of the journals, other types of restricted access are available, including to samples, and 22.6% allowed access to the public after a period of time (an “embargo” period). Under “Other types of access,” participants included through university consortia (which is, in effect, a NOA access), or to residents of a particular country, or for a restricted amount of time, or special issues.

**OPEN ACCESS IN THE FORESEEABLE FUTURE**

In response to the question on whether they believed that their journal would be OA in the foreseeable future, 213 (95.1%) participants answered the question. Of these, 13 (6.1%) said “Yes,” 162 (76.1%) said “No,” 37 (17.4%) did not know, and one said it was not applicable (as the journal was already open access). This indicates only a very small tendency towards open access, with the vast majority of journals currently intending to remain NOA.

**FUNDING MODEL**

Although editors are usually not involved with the funding of their journal, they have knowledge of the quality of the content, the origin of their authors, and their target audiences. Given the possible impact of the funding model on these [10], it was desirable to know which funding model, if the journal were to be OA, the editors thought would be an appropriate funding model for their journal.

Only 20 participants answered this question. Given the low number of editors who had expected their journal to become

open access in the foreseeable future, and the fact that editors are not usually involved in the business side of the journal, this low response is to be expected. The low response rate to this question makes any conclusive statement speculative at best, but the results are presented in Table 2 for the record.

**Figure 2**

Table 2: Appropriate funding model if the journal were to become OA (n=20)

Model	n	%
Author / Institution covers the publication costs	4	20.0
All publication costs covered by advertising, (i.e. the journal's and publisher's responsibility).	1	0.5
A combination of the first two options above	11	55.0
Other	4	20.0

### AWARENESS OF SUCH SITES

A total of 215 (96.0%) participants answered the question on whether or not they had been aware of such file-sharing web sites (before being contacted to participate in this survey). A total of 76 (35.4%) indicated that they had been aware of these sites, while 139 (64.6%) had not been. These figures indicate that the phenomenon of file-sharing sites is largely unknown amongst journal editors.

### NUMBER OF SUCH SITES

Participants were asked how many such file-sharing sites they believed existed. A total of 203 (90.6%) participants answered the question. Table 3 below summarises their responses.

**Figure 3**

Table 3: Numbers of such file-sharing sites that editors believe exist (n = 203)

Number	n	%
1 - 5	6	3.0
6 - 10	17	8.4
11 - 20	7	3.4
21 - 50	4	2.0
More than 50	16	7.9
I have no idea	153	75.4

The large number of participants who have no idea of the number of such sites corresponds closely the number of participants (in the previous question) who had not known about this type of site. Expectedly, more participants who

had known of such sites estimated a number of sites (28/76) than participants who had not known of such sites (22/139) (95% CI; p < 0.001).

### JOURNAL'S RESPONSE TO SUCH SITES

The participants were asked what their journal's response was to such sites. A total of 215 (96.0%) of the participants answered. Their answers are summarised in Table 4 below:

**Figure 4**

Table 4: Journal's response to these sites (n = 215). Participants could choose all that applied, so the total of all selections will be greater than n.

Response	n	%
No decision yet taken	87	40.5
Monitor the situation	62	28.8
Ignore it – it is too small to take action	22	10.2
Ignore it – we are open-access	5	2.3
Do not search for such sharing sites, but, when such a site is discovered, respond to the site owner or domain host	19	8.8
Actively search for such sites, and, when such a site is discovered, respond to the site owner or domain host	8	3.7
Other	37	17.2

From these figures, it is obvious that very few journals are currently prepared to take any action against such site. Under "Other," however, the majority of the participants indicated that this would be a problem for the publisher, and was not something that would concern editors.

### JOURNAL'S ACTION UPON DISCOVERING SUCH A SITE

Participants were asked what action the journal or publisher might consider taking when discovering such a site. A total of 200 (89.3%) of the participants answered this question. Their answers are summarised in Table 5 below:

**Figure 5**

Table 5: Journal's or publisher's possible action upon discovering such a sites (n = 200). Participants could choose all that applied, so the total of all selections will be greater than n.

Action	n	%
Taking legal action against the site owner and / or domain host if the site is NOT closed within a specified amount of time.	57	28.5
Taking legal action against the site owner and / or domain host even if the site IS closed within a specified amount of time.	18	9.0
No action to be taken	48	24.0
Other	87	43.5

Under "Other," the majority of the participants said that they did not know, while others indicated that the decision would be taken by the publisher, and would not involve them.

### COMMENTS

In the last question of the survey, participants were requested to add comments on the subject or any issues relating to it.

Seven broad themes emerged

### **A DIVISION BETWEEN EDITORS AND PUBLISHERS ON ACCESS TO PAPERS**

There was a view that editors wished their journals to have as much exposure as possible, and would not wish to restrict access. There was a strong distinction between their academic role (usually unpaid), and the business interests of the publisher. Many editors appear caught between their personal beliefs in access to research, and their obligations to publishers whose journals they edit. Some also pointed out, however, that the final decisions lay not with them but with the publishers, and that it was likely that publishers would want to take action against file-sharing sites.

I think publishers would be more concerned by this than editors... The publisher and other people with a financial interest would probably be more concerned. They might be quietly pleased, though, if they thought about the potential influence on impact factors, etc...

Editors are people interested in the dissemination of high quality research results. Open access is the best situation, however we realize that publishers must get return on investment. We, the editors are not in this for the money!

The editorial board is concerned about the accuracy, scientific merit and quality of what is printed in the journal. Editors are not paid. There is a clear separation of duties between the editorial board and the publisher. Anything to do with the business side of the journal is not my responsibility. If I thought there was a problem I would notify the publisher, but it would be up to them to pursue the matter.

### **A STRONG WISH FOR OPEN-ACCESS**

Corresponding to this view, there was a strong feeling in favour open-access amongst the editors. They saw their role as distributors of high-quality information, and any hindrances to this distribution was unwelcome.

The situation whereby readers have to pay a substantial amount for research already completed by others is in my opinion anachronistic and should be changed. We should be moving towards an internet only publication system with the option to download articles as required by a reader. I don't know who would pay but costs should be considerably lower than they currently are

I would like to see open access but we are a society journal and have a contract with the publisher.

As an academic editor I'm kinda pleased that lots of people might be able to read the material in the journal; I believe in open access to science and in a perfect world it would be freely available to everyone.

I believe all journals should be open access

### **CHEAPER RATES**

In a similar light, where the argument was not in favour or pure open access, there was a wish for cheaper rates.

I believe we want to encourage readers to find our information, then make it as painless as possible for them to download as large a volume of information as we can persuade them to take, provided they pay a small incremental fee for the privilege... If the information is restricted, unavailable, awkward to find, expensive or difficult to purchase, it may as well not be available at all because people will not bother fighting to get it.

I believe the story parallels the music industry. Unless we find a way of providing cheaper services, we will run out of business.

### **AGAINST OPEN-ACCESS**

Although a large majority were in favour of open-access, this was not unanimous, with a few expressing strong sentiments against open access in general. Some were concerned about a viable business model for open-access..

When will open access advocates discuss option(s) rather than view they are morally superior!!!! (This view was echoed by the participant in a personal email to author.)

Without subscriptions, the work of scientific editors, peer review, copy editing and long-term archiving cannot be supported. Payment by authors can provide an important conflict of interest for editors in making the decision on what to publish since authors are paying for the right to publish. This damages the peer-review system since there is a financial interest in accepting articles for publication.

How expensive is "open access" for the one who publishes a paper? As long as this option is too expensive, open access will have no future.

I have not seen a business model that makes me think open access if viable on a long-term basis.

### **A CONCERN OR NOT**

Reflecting the balanced view shown in the results in sections

3.7 – 3.9 above, editors were divided on how much of a concern the file-sharing sites were. Some felt that the issue was troubling, while others the file-sharing sites were not much cause for concern. Usually, they felt a lack of concern because online access, or access after a short while, was so widespread.

very worrying re revenue stream

Clearly an important subject, but new to me and needs consideration.

I do not believe such sites are a major issue. Individuals, certainly in first world countries, already have access to almost anything, either from their library, interlibrary loan, or a friend at another university who will email the article.

This is not an issue since we submit papers to PubMed Central 6 months after publication

### **AN ETHICAL ISSUE**

A small number felt that, whether a financial issue or not, the illegal sharing of such material was unethical.

You are basically asking about theft, in the same realm as down-loading music files

As an Editor, I have no strong objections to a limited number [of] scientists sharing a limited number of papers as well as their thoughts on same on a “closed” web site - something on the order of a web-based seminar group. Wholesale, open posting of copyrighted materials should be vigorously pursued by publishers.

### **A MISUNDERSTANDING OF OPEN ACCESS**

There was also some misunderstanding of open access, with some editors believing that access through intuitions constituted open-access.

Our journal operates an open access policy where authors from subscribing institutions are entitled to free open access publication

### **DISCUSSION**

Although the response rate of 31% is somewhat low, as discussed in the Introduction, this was expected, and is the reason that such a large sample was chosen. In addition, the wide spread of the journals across 21 countries, and dominance of the USA, UK, and the Netherlands is a realistic reflection of the world’s currently active NOA journals.

In the Results (Section 3.3) only 32% of the journals were not available at all to non-subscribers. The others were available with various restrictions, including an embargo period. In addition, some editors pointed out that some researchers accessed articles by contacting authors and requesting off-prints or the electronic equivalents.

While some usage of the file-sharing site might be because of convenience, based on the number of files accessed through the file-sharing site, it appears these other methods are not entirely viable. This is not surprising. While the concept of the embargo is preferable to no access at all, it perpetuates a system in which some researchers have access only to out-dated information. If any of these researchers wish to submit original research articles to journals, they will be disadvantaged if their most recent references are already out of date. Similarly, for medical practitioners, one wonders at the implications of a doctor performing a procedure when evidence is beginning to question that procedure, but the research is available to that doctor in only 2 years’ time.

Institutional access for students and researchers is also available – again, however, depending on the amount that the institution is prepared to pay, this access may be embargoed.

Access through legitimate sites such as the WHO Project “Health InterNetwork Access to Research Initiative” (HINARI) will go a little way to alleviate the problem, but HINARI has its own, somewhat inexplicable, restrictions. For example, HINARI “does not accept registrations from individuals, but only from institutions,” and does not accept membership from South Africa and India [11].

Although the majority of the editors appeared to support open access, some of the comments appear to indicate that there is still some tension between commercial and OA publishing, particularly when the OA publishing involves universal and immediate access to all articles, in line with principles of the BOAI. This tension is reflected in the literature also. For instance, while proponents of free and complete open access describe it with words like “visionary” [12], others view this approach as “dogmatic” and “extreme” as opposed to a “moderate” approach, which has more restrictions, such as embargoed access, or availability to only specific groups [13].

Some of the editors’ objections to open access models on the grounds that they may impact on the quality of the papers

has been raised elsewhere, but also been disputed [14]. The concern that OA editors may wish to publish low-quality papers in order to increase payment is also strange, as the NOA editors recognise the sharp distinction between the editors' role and the business operations of the publisher.

Finally, although one would suspect that author-pay models would have an impact on research from developing countries [10], it is fairly common practice for OA publishers (including the publisher of this journal) to reduce or even waive the publication fee in such cases. It at least avoids an ironic situation, experienced by this author, in which researchers from developing countries have papers accepted by NOA journals, and then have to wait for an embargo period (or have to pay a fee) before they can access the journals in which their own papers appear.

## **CONCLUSION**

Although many medically-related NOA journals do allow some restricted access to non-subscribers, there is very little intention of becoming open access. Internationally, it appears that the editors of these journals are not aware of the phenomenon of file-sharing web sites, and are also not overly-concerned about it. In many cases, they are concerned only with the broader dissemination of their journal information. They do, however, recognise that these sites would be problematic for publishers of NOA journals, and that legal or other action would be considered when such sites are discovered.

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