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Unlocking Research

University of Cambridge Office of Scholarly
Communication

Half-life is half the story

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This week the [STM Frankfurt Conference](#) was told that a shift away from gold Open Access towards green would mean some publishers would not be ‘viable’ according to a story in *The Bookseller*. The argument was that support for green OA in the US and China would mean some publishers will collapse and the community will ‘regret it’.

It is not surprising that the publishing industry is worried about a move away from gold OA policies. They have proved extraordinarily lucrative in the UK with [Wiley and Elsevier each pocketing an extra £2 million](#) thanks to the RCUK block grant funds to support the [RCUK policy on Open Access](#).

But let’s get something straight. There is **no evidence that permitting researchers to make a copy of their work available in a repository results in journal subscriptions being cancelled**. None.

The September 2013 UK Business, Innovation and Skills Committee [Fifth Report: Open Access](#) stated “There is no available evidence base to indicate that short or even zero embargoes cause cancellation of subscriptions”. In 2012 the Committee for Economic Development Digital Connections Council in [The Future of Taxpayer-Funded Research: Who Will Control Access to the Results?](#) concluded that “No persuasive evidence exists that greater public access as provided by the NIH policy has substantially harmed subscription-supported STM publishers over the last four years or threatens the sustainability of their journals”

I am the first to say that we should address questions about how the scholarly publishing landscape is shifting with systematic data gathering, analysis and discussion. We need to look at trends over time and establish what they mean for the ongoing stability of the scholarly literary corpus. But consistently evoking the ‘green open access equals cancellation so we should have longer embargoes’ argument is not the solution.

Let’s put this myth to bed once and for all.

The half life argument

Publishers have been trying to use the half-life argument for some time to justify extending their embargo periods on the author’s accepted manuscript. Embargoes are how long after

publication before the manuscript (the author's Word or Latex document, usually saved as a pdf) can be made available in the author's institutional or a subject-based repository.

The half life of an article is the time it takes for articles to reach half their total number of downloads.

The argument goes along the lines of 'if articles have a longer half life then they should be kept under embargo for longer' because, according to a blog published at the beginning of this year by Alice Meadows [Open access at Elsevier 2014 in retrospect and a look at 2015](#): "If an embargo period falls too far below the period it takes for a journal to recoup its costs, then the journal's survival will be jeopardized."

The problem with this argument is that there has been, and continues to be, no evidence that permitting authors to make work available in a repository leads to journal cancellations. It is ironic that the consistent line on this issue from the publishers has been that the half-life argument is helping '[set evidence-based policy settings of embargo periods](#)'.

The half-life spectre was raised again at this week's STM meeting by Philip Carpenter, executive vice president of research at Wiley where he noted that only 20% of Wiley journal usage occurred in the first 12 months after publication and referred to a 12 month embargo [offering only 'limited protection'](#) according to *The Bookseller*.

Evidence for the green = cancellation argument

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The way the 'evidence' for this argument has been presented is telling. There is a particular paragraph in [Meadow's blog](#) that is worth republishing in full:

How long those embargo periods should be before manuscripts become publicly accessible is a key issue. To help set evidence-based policy settings of embargo periods, we have contributed to growing [industry data](#). Findings of a recent [usage study](#) demonstrated that there is variation in usage half-lives both within and between disciplines. This finding aligned with a study by the [British Academy](#), which also found variation in half-lives between disciplines – and half-lives longer than those previously suggested.

Despite looking like links to two separate items (which gives the impression of more 'evidence'), the first two links in the section above to 'industry data' and to a 'recent usage study' both lead to the SAME November, 25, 2013 [study by Phil Davis into journal half life usage](#) that started the whole shebang off. The study looked at the usage patterns of over 2800 journals found that only 3% of the journals had half-lives of 12 months or less. The fewest journals with this short half-life were in the Life Sciences (1%) and the highest in engineering (6%).

While in no way criticising the findings of that study, it should be pointed out that the author clearly states that the study was funded by the Professional & Scholarly Publishing (PSP) division of the Association of American Publishers (AAP). The work has not been peer reviewed or published in the literature.

The British Academy report [Open Access Journals in the Humanities and Social Sciences](#) does not appear to be available online any longer.

Now, there is no dispute that there are differences in usage patterns of articles between disciplines. This is a reflection of differing communication norms and behaviours. But there is a huge logic jump to then conclude that therefore we need to increase embargo periods. Peter Suber went into some detail on 11 January 2014 (yes, we have been swinging around on this one for a while now) [explaining the logical flaw in the argument](#). At the time Kevin Smith also noted in a blog "[Half-lives, policies and embargoes](#)" that "we should not accept anything that is presented as evidence just because it looks like data; some connection to the topic at hand must be proved".

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[Meadow's blog](#) went on to say:

There are real-world examples where embargo periods have been set too low and the journal has become unviable. For example, as published in the [The Scholarly Kitchen](#), the Journal of Clinical Investigation lost about 40 percent of its institutional subscriptions after adopting a 0-month embargo period in 1996, so it was forced to return to a subscription model in 2009. Similar patterns have been seen with other journals.

The issue referred to here has nothing to do with the half life of research papers that are being made available open access through a repository. This refers to a journal that went to a GOLD Open Access model in 1996 (publishing open access and relying on non-subscription revenue sources), but eventually decided they needed to impose a subscription again in 2009. Not only is this example entirely unrelated to the embargo issue for green Open Access, it happened six years ago. Note the blog does not link to other 'similar patterns'. They do not exist.

Green policies mean cancellations

The half-life argument has replaced previous, even less substantial 'evidence' provided by the publishing industry in 2012. The study was cited as evidence for the argument that "short embargo periods are likely to lead to significant cancellations" by Wiley in a 2013 blog post [Open Access – Keeping it Real](#) and by Springer in an interview published as [Open Access – Springer tightens rules on self archiving](#).

The study was conducted by the Association of Learned and Professional Society Publishers (ALPSP). However the study, which was written up and published online had some major methodological issues. It consisted of a single poorly worded question:

"If the (majority of) content of research journals was freely available within 6 months of publication, would you continue to subscribe? Please give a separate answer for a) Scientific, Technical and Medical journals and b) Humanities, Arts and Social Sciences Journals if your library has holdings in both of these categories."

An analysis of the study [highlighted methodological criticisms](#). The work was not peer reviewed. But there are deeper questions about the motivation behind the survey. The researcher was the Chair of the ALPSP Research Committee and was on the steering committee for the Publishers Research Coalition, raising questions about her (and the study's) objectivity. There are [several other issues](#) relating to the validity of the researcher.

What is the real problem?

There is no doubt that open access policies are causing disruption to publisher's funding models. That is hardly surprising and in some cases may well be the intent of the policy. But presenting spurious arguments to try and maintain the status quo is not moving this discussion forward.

The point is we do need evidence. If green OA is causing cancellations then let's collect some numbers and talk about the issues:

- How does this affect the scholarly communication system?
- What are the implications?
- Does this mean publishers will fold (unlikely in the short term)?
- Will some journals close (possibly)?
- Is that a problem?
- Perhaps we need to consider issues relating to the reward system and what is valued?

But I will give the last word to the person who caused me to write this blog in the first place – Philip Carpenter, executive vice-president of research at Wiley who, according to *The Bookseller* said at the STM meeting: “We’ll need to think hard about what factors influence library purchasing decisions; we don’t know enough [about that]”.

Hear, hear.

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