

Market failure in the research world

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The serials crisis has been a feature of research life for over 20 years. According to figures from the US Association of Research Libraries, during 1986-2007 journal subscription charges increased by 340%, four times the rate of inflation (<http://www.lib.washington.edu/scholpub/facts/economics>). Publishers contribute very little to the production of research articles referees and authors typically receive zero payment, and editors very little, from the publisher. Typesetting and other production costs have fallen. Yet the profit margins of the dominant commercial academic publishers such as Elsevier, Springer, Wiley and Taylor & Francis are typically around 35-40%, comparable to Apple Computer. It seems likely that market failure has occurred somehow.

There are several apparent reasons for this situation:

- each journal holds a monopoly on its papers;
- consumers (i.e. researchers) are typically insulated from price signals by libraries;
- career rewards for researchers are still largely determined by the historic reputation of journals in which they publish, rather than the quality of their individual articles;
- publishers bundle journals into large packages with major price penalties for users who try to customize them, and only the right to rent access to content (the Big Deal);
- opacity in pricing reduces the bargaining power of libraries.

I focus here on the last issue, although the others are also important and must be addressed. Although I am a strong proponent of open access, and doing away entirely with for-profit publishers in favour of such things as arXiv overlay journals and journals hosted by university libraries, it is not necessary to share these views in order to agree that something is very wrong with the current setup. In no other industry that I can think of is such anticompetitive behaviour tolerated to this extent.

To get an idea of the scale of the costs, in New Zealand research institutions spend about as much on journal subscriptions and database access as the entire Marsden Fund (the only blue skies research fund) awards to researchers over NZ\$50 million annually. The University of Auckland alone spends over AU\$9 million per year on journal access. This kind of (similarly alarming) information for all Australasian universities can be found at http://statistics.caul.edu.au/inst_data.php.

The opacity in pricing is extreme. Several commercial publishers (Elsevier being the biggest and most notorious) have systematically tried to restrict the public disclosure of pricing information by using nondisclosure agreements (see <https://www.youtube.com/watch?v=4JsNT1gKe7I> for

an Elsevier executive's revealing explanation). In order to improve transparency in pricing, Ted Bergstrom, Paul Courant and Preston McAfee have pioneered the use of United States Freedom of Information Act requests to amass considerable information on contracts signed by public universities. Their recent PNAS paper <http://www.econ.ucsb.edu/~tedb/Journals/PNAS-2014-Bergstrom-1403006111.pdf> shows that pricing is heavily tailored to each customer, and some universities are paying twice as much as other very similar institutions, for the same product.

Tim Gowers started the analogue of this work in the UK (<http://gowers.wordpress.com/2014/04/24/elsevier-journals-some-facts/>). Results are broadly similar there to the American ones. Very recently the text of a secret agreement between Elsevier and the French Ministry of Research was leaked (<http://blog.okfn.org/2014/11/11/france-prefers-to-pay-twice-for-papers-by-its-res>) showing that the ministry has agreed to pay \$172 million euro for 476 public institutions to rent access to Elsevier content for 5 years. Overall, prices seem to be set by publishers according to a formula based on historical paper journal subscriptions, with a built-in profit margin that increases each year. They no longer have any meaningful relation to costs.

In Australia and New Zealand, no such information has yet been publicized. Inspired by Gowers, I have sent Official Information Act requests to 7 of 8 New Zealand universities (I tried an informal approach with the 8th, as an experiment, and have not looked at other research institutions). The universities initial responses were depressingly similar, and yet subtly different:

"Making information about what we currently pay Elsevier and Springer for journal access available would be likely to unreasonably prejudice the commercial position of the University. Withholding this information is necessary to enable the University, without prejudice or disadvantage, to carry on negotiations with these publishers. Accordingly, the information requested is withheld under s 9(2)(b)(ii) and s 9(2)(j) of the Official Information Act."

"... has a contractual arrangement with Elsevier. For this reason we have reached the decision that it is necessary to withhold the information in accordance with section 18 (a) Official Information Act 1982 and pursuant to section 9(2)(i) to enable the University to carry on, without prejudice or disadvantage, commercial activities and section 9(2)(j) to enable the University to carry on, without prejudice or disadvantage, negotiations."

"The University and Elsevier have a confidentiality agreement regarding the financial and commercial terms of their contract. Your request is therefore refused under Section 9(2)(b)(ii) of the Official Information Act 1982 on the grounds that making the information available would be likely unreasonably to prejudice the commercial position of Elsevier."

"... advises that the access to Elsevier electronic journals is subject to a confidential legal agreement. Accordingly, ... declines to release the information requested under section 2 (b) (ii) of the Official Information Act 1982 which protects the commercial position of those who are subject to the enquiry e.g. Elsevier and ..., and 2 (ba) which provides for protection of information which is subject to an obligation of confidence."

"The details for Elsevier and Springer are withheld under Section 9(2)(j) of the Official Information Act 1982, on the basis that withholding this information is necessary to prevent prejudice or disadvantage to the ability of ... to carry on negotiations with these providers."

"The University is withholding the first part of your request the total annual fee for Elsevier journals under Section 9(2)(ba) of the Official Information Act on the basis that the information is subject to an obligation of confidence created by a confidentiality clause at 7.8 of the agreement we hold with Elsevier. The University also withholds this information under Section 9(2)(b)(ii) on the basis that making the information available would be likely unreasonably to prejudice Elsevier's commercial position where they have negotiated specific terms with us."

”The amount spent annually for access to Elsevier journals is withheld under sections 9(2)(i) and 9(2)(j) of the Official Information Act. The reasons being commercial sensitivity and prejudice to commercial negotiations.”

In NZ there is no right of internal review of a decision to refuse to provide information, unlike in the UK, so I have made a formal complaint to the Ombudsman. Currently this complaint has been accepted for investigation, but the office complains of a large backlog. Thus I expect to wait several more months.

What I have found is that Wiley and Taylor and Francis apparently do not have nondisclosure clauses such as those routinely used by Elsevier (and possibly Springer). For example, the University of Auckland paid Wiley US\$891067 last year, and paid T& F US\$413715 + AU\$20292, while Victoria University of Wellington paid Wiley NZ\$542856 and Taylor & Francis NZ\$484000.

Commercial publishers may have a role to play in research dissemination, but one in which they add genuine value and are paid accordingly. The current situation in which these publishers repackage (usually with trivial effort) our own work, and then rent access to us at high, and rapidly increasing, prices, is simply intolerable (see <http://whoneedsaccess.org/> for an explanation of why it matters to the wider society). I hope to encourage readers to take up the challenge of bringing these prices to light in Australasia and beyond, and more generally to fight for a fairer way to publicly make research findings available to the widest possible readership at much lower cost. For at least 15 years we have been hearing how NZs future depends on value added through research. It therefore seems perverse to spend so much money to lock away the findings of research.