



The Journals Crisis and the University of Adelaide

Academia's knowledge banks are running out of money.

A paradigm shift to commercial ownership of scholarly and scientific research over the last 20 to 30 years or so has put academia throughout the world in the invidious position of having to buy back the knowledge it created in the first place. Publishing monopolies and escalating prices mean institutions face the real possibility of not being able to afford their own published research.

Go to your favourite Internet search engine (or use the sample URLs we've provided in the box on this page) and type in "serials crisis" or "journals crisis" (include quotes) and you'll find many articles about the dire situation universities are facing as a result of a commercial stranglehold on scholarly publishing.

This special issue of *NEWS* will focus on the various aspects of this problem for Australia's academic sector and the University of Adelaide, in particular.

This is not a problem resulting from an 'information explosion', or decreasing library budgets, or a trend towards electronic publishing, or in Australia, the devaluation of the Australian dollar; although certainly these are all factors in how the crisis is being aggravated. Many who are not familiar with the machinations of library purchases and scholarly

publishing would simplify the problem to one of libraries needing a bigger acquisitions budget.

Although bigger budgets will obviously help us to address the journals crisis, it is only a palliative regarding the crisis in print journals. However, bigger budgets are necessary if we are to be able to rationalise spending on print journals and also afford the important datasets that top research universities, here and overseas, see as a vital part of their information infrastructure – datasets such as ISI's *Web of Science*, Elsevier's *ScienceDirect*, etc. The University's strategic plan highlights the need for such international information; it notes the need to provide access to international-quality information and library services.

This problem is much bigger than the Library and has serious repercussions for the influence and prestige of academia across business and industry, and indeed society as a whole.

This special issue of *Library News* concentrates on issues relating to journals. It was edited by Ray Choate, University Librarian and Stephen Cramond, Electronic Information Resources Librarian, with the assistance of Jan Gaebler who is an Information Management Specialist.

We are already seeing a disturbing erosion in the standing of the University of Adelaide Library as one of the top prestigious research collections in Australia, as a result of our inability to keep our collection at the levels we maintained before this crisis hit.

The problem is a complex one and cannot be simplified by buying fewer publications, or cheaper alternative titles. You can have two journals dealing with the same subject matter, but that is certainly no guarantee that their usefulness and expertise is comparable.

The problems facing universities, and particularly as reflected in their library budgets, are compounded by academia not appreciating its own research value. Researchers and academics have literally given away their

intellectual property rights to commercial enterprise.

It is time to correct the situation at source.

SEARCH ENGINES

(At the search prompt type in "serials crisis")

Altavista <http://www.altavista.com>
Hotbot <http://www.hotbot.com>
Northern Light <http://www.northernlight.com>

A good explanation of the diverse issues of the Journals Crisis is contained in:

"To publish and perish" a key paper co-sponsored by the Assoc of American Universities & and Association of Research Libraries
<http://www.arl.org/scomm/pew/pewrept.html>

Diminishing budgets: the facts

Imagine if over the past 10 years the cost of everything increased by 10% each year, yet your weekly income remained static. By the end of 10 years your essential costs of power, light, food, petrol etc have increased by about 160%, yet your available funds are the same level as 10 years previously. What do you do to save your livelihood?

This is a serious question library directors across the world are asking themselves, and their finance managers.

The question is even more alarming for Australian library directors. Their costs have escalated and their budgets have remained static along with their overseas colleagues, but they are also dealing with a fluctuating Australian dollar that can further decrease their buying power.

The funding imbalance is reverberating across the globe with examples of journal and book prices far outstripping materials budgets of research libraries.

Library directors are pragmatic in their outlook for materials budgets. They are convinced that the journals crisis is not going to go away;

equally, they are aware of the need for new subscriptions to research journals and for additional research datasets.

The University is buying about 1,500 fewer titles, yet it is paying about \$1.5 million more in 1999 than in 1991. In percentage terms, there has been about a 20% drop in the titles collected against a 163% increase in overall purchase costs.

Since 1991 the Library has cancelled over 3,600 titles. During this time, we also subscribed to about 1,200 new subscriptions (converting some cancelled titles to new subscriptions), and rationalised subscriptions with the collections of the SA Research and Development Institute (SARDI), Primary Industries and Resources (PIRSA) and the SA Mental Health Services. The overall net loss after this important resource sharing is about 1,500 titles.

In 1991 journal subscriptions cost \$2.4 million; in 1999 the subscriptions (print and electronic) will cost about \$3.9 million. Since 1993, and including the year 2000, the University Library has allocated \$3.6 million annually for print and electronic subscriptions; it has not been practical to allocate more due to the need to maintain

monograph collections (also subject to a steady-state allocation) and sustain essential services. Staffing levels in the same period have dropped

from 157 to 139 (including staffing from five amalgamated libraries over this period).

The ‘dumbing down’ effect

The journals crisis is not just about money. It is more about diminishing access to the essential information that encourages Australia’s research and development.

Money becomes a focus because of the tangible picture that can be painted with statistics. But it is the intangible picture, the ‘dumbing down’ effect, that is the more worrisome and the more elusive to explain than dollars and cents, to those without a working knowledge of the importance of scholarly publishing and research.

The journals crisis has grave implications for Australia’s ongoing development as a creative, innovative ‘*can do*’ society. The reduction in research journals means less information readily available in libraries and universities and it could take years to build back to the level that has been lost.

In the meantime, standards are dropping, costs continue to escalate, our research collections are being eroded, our scholarly output is diminishing, and our future scholars are likely to gravitate to those collections which can still support them. As a net importer of research we are increasingly unable to buy the information we require and, equally, increasingly disadvantaged in terms of generating information ourselves.

This is not solely a library problem. Outside of the library, however, it is only the academic and research communities throughout the world that can really comprehend the long-term and dire implications of the journals crisis. For them, it should signal a wake-up call to immediate action.

How did the crisis happen?

Researchers, scientists and scholars are experts in their fields -- they are usually not publishers. 20 to 30 years ago the traditional publishing system, based on the scholarly societies and university presses, was under strain due to an increase in demand from the universities for publication outlets. With the numbers of academics growing rapidly during the global expansion in higher education, it made good sense to hand over the production of their research to the experts – the commercial publishers.

It signalled a new and expanded opportunity for all concerned.

Unfortunately, the scholars inadvertently handed over their intellectual property rights at the same time. More importantly, commercial

publishers now controlled the mechanics of peer-review – the very process by which individual faculty demonstrate their worthiness for tenure, promotion, grants, etc., and by which the value of their contribution to their field is certified.

This hadn’t mattered so much when university and scholarly society presses dominated academic publishing. They shared with the universities the ethos of not-for-profit publishing and inexpensive dissemination of information. The picture began to change with the introduction of commercial publishing assumptions. The result was a boon for commercial publishing, which now had a near-monopoly over a captive market and control of ownership of content and the mechanics of peer-review.

In perhaps the most unusual of information ecologies, academia was the primary producer and primary consumer of the knowledge produced, and the commercial publishers had the freehold licence for escalating profits.

The situation reached crisis point when it became clear that academia could not break the chain to the publishers. It continues to be important for academics to publish prolifically for career advancement, and the commercial publishers had a stranglehold on the process of peer-review.

Other attempts by university libraries to break the profit chain by buying fewer titles saw the

commercial publishers respond, in many instances, by grossly increasing the costs of these core titles to make up for the losses of titles which were not selling.

In a system that is underpinned by necessity, and seemingly fuelled by greed, the commercial publishers could charge exorbitant rates for core titles, with the guarantee that their consumers could not afford *not* to have them. Although smaller institutions were increasingly disadvantaged by spiralling costs, there were always other institutions who could pay what the publishers were asking.

SPARC torch carries to Australia

One of the key developments on the international front addressing the journals crisis has been the formation of SPARC, the Scholarly Publishing and Academic Resources Coalition. SPARC is “an alliance of libraries that fosters expanded competition in scholarly communication. SPARC creates ‘partnerships’ with publishers who are developing high-quality, economical alternatives to existing high-price publications.” See www.arl.org/sparc/factsheet.html.

SPARC aims to support, and promote new ventures in journal publication, particularly those that are university presses, with innovative approaches to scholarly publishing.

In a real sense, SPARC is committed to ‘buying back the farm’ and encouraging universities, learned societies and scientific and professional associations to self-publish rather than take the commercial options. It endeavours to promote parallel titles that are peer reviewed and prestigious enough to compete with high-priced established journals from the commercial publishers.

SPARC encourages involvement of countries of the Western Pacific Rim, and CAUL is a member. The AVCC has also provided a letter of endorsement of SPARC initiatives. See www.arl.org/sparc/avcc.html.

Locally, a companion group, the Australian University Libraries Fighting Fund, was formed last year to ensure a robust and sustainable future for Australian research in the global economy.

As a result of a Fighting Fund-sponsored workshop in March this year -- with representatives from University libraries, AVCC, DETYA, CSIRO and SPARC -- it is now planned to commission research and conduct surveys that will explore issues associated with cost effective access to scholarly research and promote new business models.

The University Librarian attended the initial workshop held in Canberra last March. It was an encouraging start to collectively looking at ways we can start to turn the journals situation around. In Australia we are disadvantaged by the tyranny of distance, the fluctuating dollar and the insignificant size of our scholarly research output against a global scale.

We must work collectively to ensure that we enhance Australia’s strategic position as a provider of scholarly research. It is our content, not the volume, that matters in the final analysis.

But we cannot hope to maintain the quality of our content, if we cannot even maintain the resource collections that enable our Australian researchers and scholars to develop, and ultimately excel, in their chosen fields.

First steps to buying back the farm

There have been several innovative publishing initiatives, one on the west coast and one on the east coast of USA, to redress the commercial publishing monopoly of scholarly publishing.

Project MUSE is an initiative of Johns Hopkins University offering a discount pricing model that frees up access to its database of 45 journals (growing to 112 in the year 2000) through liberal licensing and attractive pricing and access conditions. It also provides access to an electronic archive of material, even after a subscription is dropped, which brings its electronic licensing policy in line with the long accepted patterns for cancelling print materials. Project MUSE journals can be accessed title-by-title through the Library catalogue, or by going directly to the MUSE Web site at <http://muse.jhu.edu/>

HighWire Press is an initiative of Stanford University. The journals HighWire supports focus on science, technology, and medicine and are among the highest-impact journals in the literature.

HighWire was founded to ensure that its partners -- the major scientific societies and other responsible presses -- would remain strong and able to lead the from print to electronic publication. The HighWire Press acts as partner, agent of change, and advisor.

HighWire's approach to online publishing differs from MUSE, in that it is as much about exploiting the possibilities of Web-based delivery as it is about the development of common, rational licensing policies. HighWire has been at the forefront in adding value to online publication by, for example, adding hyperlinks among authors, articles and citations and to external databases such as *PubMed*, and by including advanced searching capabilities, high-resolution images, multimedia, and interactivity..

However, while most publishers under the HighWire aegis have sensible licencing policies, some are very restrictive indeed.

HighWire Press titles can be accessed through the Library catalogue, or by going directly to the HighWire Press site at <http://highwire.stanford.edu>

Los Alamos E-print Server is a database of papers circulated via the Internet prior to publication in peer reviewed journals. It is publicly funded [by the US tax payer] through grants-in-aid, and grew from the activities of Paul Ginsparg, a research physicist at Los Alamos national Laboratories, who was looking for ways to automate and archive the traditional habit amongst physicists of sharing pre-print articles. It is now said to be the most important single source for 'journal article' distribution for physicists worldwide.

While peer-reviewed print journals remain a destination for most of these papers, and some publishers are now accepting direct from the Los Alamos server, Ginsparg argues that direct feedback from readers to the Los Alamos site is often as helpful in revisions to papers as conventional referee's comments.

Through the Los Alamos program, and a local partnership of the National Institute for Theoretical Physics, the Department of Physics and Mathematical Physics and the University of Adelaide Library, we provide the Australasian mirror for LANL here at Adelaide. The mirror site is at <http://xxx.adelaide.edu.au> In theory, the presence of pre-print servers like Ginsparg's should reduce the need for libraries to subscribe to print journals which simply repeat information found here.

E-Biomed is a proposal from the National Institutes of Health - the US equivalent of NH+MRC and the major disburser of grants for biomedical research worldwide. They have seen and been inspired by the Los Alamos example, and want to set up a biomedical research equivalent.

E-Biomed would 'transmit and maintain, in both permanent on-line and downloaded archives, reports in the many fields that constitute

biomedical research, including clinical research, cell and molecular biology, medically-related behavioral research, bioengineering, and other disciplines allied with biology and medicine. The essential feature of the plan is simplified, instantaneous cost-free access by potential readers”.

See

www.nih.gov/welcome/director/ebiomed/ebiomed.htm
for more details on the plan.

Other proposals, examples

For information on these and other e-print archives, see the Library's Web Page at www.library.adelaide.edu.au/gen/journals.html#preprints

For information on other proposals for exploiting the Web to re-engineer peer review see the Web page of Stevan Harnad, one of the leaders of the 'free journals' movement, at www.cogsci.soton.ac.uk/~harnad/

Digital vs print

The Internet has opened a vast communications medium which libraries across the world use considerably. It has also spawned one of the great myths, namely that whatever you want is somewhere on the Net, is free and that libraries of tomorrow will be digital.

The facts include:

- anything published more than five years ago is unlikely to be mounted on the Net
- if the information is useful, you'll likely find a 'teaser' for free but if you want the content, you'll have to pay
- the Internet is a wonderful source of citations but libraries remain the critical storehouses of useable content.

The optimum library resource, for the foreseeable future, will offer a mixture of print, electronic and multi-media resources.

It is important to understand some of the **issues** posed by the sudden appearance of the bulk of peer-reviewed journals in electronic form.

The **first issue** for universities as consumers of information is that few, if any, publishers are confident about pricing policies for electronic versions of their journals. Many of them see electronic distribution as a threat to their existence, defined in terms of the management and control of the process of peer-certified print publication. Pricing policies often therefore link e-access to the ongoing existence of a print subscription. Where publishers do 'unbundle' print and electronic versions, there is often a substantial premium for the electronic delivery. In fact, only

a half-dozen publishers actually offer discounts for e-only delivery – Johns Hopkins University (JHU), Blackwell Science, American Mathematical Society (AMS) among them.

The **second issue** is that the whole question of long-term preservation of digital material has not been sorted out.

In a specific sense, publishers are now being asked to have strategies in place for access to an electronic archive, as if they were libraries, or to provide libraries with an electronic archive. Some do – Academic Press, JHU, AMS and Blackwell Science again -- but others don't. For example, one major publisher made an attractive offer to CAUL in 1999 for all of their titles - many of the most important in science, technology and medicine. They offered unbundled access to electronic data at a cost close to our existing budget for their titles. However, there were 2 major stings in the tail which illustrate the problems in moving to electronic-only access, and the challenges in funding access in this interregnum.

Firstly, they required a 2 year deal, with our expenditure in Year 2 being the same as in Year 1, plus inflation -- making cancellation of their titles impossible, but having the effect of increasing the cancellation burden amongst their competitors to whom we also subscribe. Secondly, they only offered access to a 'rolling' 3 year file. In other words, in 2000 we would have access to their output for 1997 - 2000. In 2001 we would have access to 1998 - 2001 etc. Were we to drop paper to afford the cost of going electronic only, we would then, by 2004, find ourselves

with no access to print resources since 2000, and no defined access to the publisher's electronic archive either, and no idea of price were such an archive to be available. Were we to seek the assurance that a parallel paper subscription would give us for archiving, we would have to pay another \$70,000 per year.

Some publishers are starting to offer electronic archives to lapsed subscribers for the portion of information they subscribed to before dropping the subscription. Interestingly, this trend is most apparent amongst the scholarly rather than the commercial publishers.

A **third issue** is that licensing agreements for electronic information can be far more restrictive than the 'fair dealing' applications of current

copyright legislation for print materials. For example, our Library which provides community access to its collection must in some cases restrict the access to electronic information it holds on databases to the University community, when that information has been bought at education rates for students and faculty.

Clearly, electronic information is here to stay and will have an increasingly important place in library collection development. However, there are still many unresolved issues concerning its use, its on-going viability, and its conditions of use, particularly in terms of ownership and copyright considerations.

Positive outcomes of the journals crisis

The news is not all bad, concerning the journals crisis. Facing the immediate challenges that the crisis presents has led to some positive outcomes for libraries and users:

- Strategic partnerships and liaisons to encourage more effective sharing of resources.
- A reappraisal of collection rationale; academic libraries are becoming committed to the importance of a *collection development policy* that tightens the scope and depth of its collecting to ensure the core research focus of the clientele it serves, in much the way that business and industry is committed to the *business plan*.
- Consortia are acting as buying agents and negotiating 'strength in number' contracts to information resources that might be beyond the affordability of single institutional subscribers.

- A reappraisal of collecting strategies (providing 'access' to the contents of journals as opposed to 'ownership' of journals) leading to innovation in document delivery mechanisms, and greater exploitation of emerging technologies in a global, and increasingly electronic, information market.

Australian academic libraries are represented by several peak bodies, notably CAUL (Council of Australian University Libraries) and ALIA (Australian Library and Information Association). Each contributes in some way to either highlighting the problems associated with the journals crisis or addressing partial solutions. For example, CAUL and its New Zealand equivalent, CONZUL (Council of New Zealand University Libraries), were able to negotiate with both OCLC and Lexis-Nexis – two major USA database vendors -- to treat Australia and New Zealand as a single buying block of services and in so doing provide price economies of scale to its member institutions.

How can you help?

The articles in this newsletter have demonstrated the diverse issues associated with the journals crisis and have, hopefully, inspired you to invest your energies into reclaiming scholarly intellectual property where it belongs. What can individuals at the University of Adelaide do to help address these problems?

- It is important to understand that academia is both the key creator and key consumer of scholarly publication
- Intellectual property rights should remain with the author or parent institution, not the publisher. Academics should seek to licence their research papers to print-journal publishers, defining the conditions under which they will let the publisher use it, and retaining rights of use for education purposes of sharing with colleagues in their field.
- Understand that the journals crisis is not limited to this University or to Australia -- it is a global problem
- Become familiar with the issues by reading “*To Publish and Perish*” at www.arl.org/scomm/pew/pewrept.html for a concise and clear explanations of the diverse aspects of the journals crisis

Ways the Library is addressing the problems:

- Participation in regional and national resource sharing consortia
- Strategic cost recovery arrangements with colleague libraries
- Participation in library advocacy groups
- Stringent acquisition and renewal procedures
- Avoiding unnecessary duplication of titles across campuses
- Budget cuts to other library programs
- Innovative approaches to document delivery and information access alternatives
- Innovative approaches to new acquisitions, including conversion of personal subscriptions and faculty/ library strategic negotiations

Ways YOU can help address the University’s journals crisis

- **Work closely** with our Research and Branch Librarians to ensure collection relevance and economic purchasing
- **Identify** for cancellation high cost/low use journals in your discipline/subject expertise
- **Cancel** what you do not use

Options for the future

- Rebuild the journal collection ‘*de novo*’ Undertake comprehensive surveys of the research and teaching needs of academics to ensure that the journals collection is focused on current rather than historical needs.
- Exploit the possibilities provided by the Internet to substitute, wherever possible, subscription to paper-based journals with access to articles on a transactional basis.
- Document a *collection development policy* to guide on-going collection development
- Fundraising initiatives to assist with spiralling costs and static budgets