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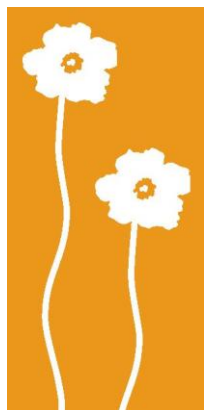
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Australian Quarterly is an important public and independent platform to increase public participation towards these objectives.



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A WORD

Well the majority has spoken: a new government has been sworn in and Federal Labor are licking their wounds. Yet the victory was not as clear cut as Tony Abbott's team would have wished for, with a rag tag bunch of senators set to hold the balance of power after next year's Senate change-over. Whatever your opinion of the outcome, it's probably a sure bet to say that everyone is glad the election is over and that we hope both sides of government commit to improving the level of productive debate.

Only days ago, Tony Abbott announced his front bench, with the disturbing revelation that for the first time since 1931 there is to be no federal science portfolio, instead being lumped in with Industry. Troubling times for a country that will need to transition away from a resource-based economy and toward a knowledge-based economy.

This edition AQ continues its spotlight on Open Access Research, with Emeritus Professor Arthur Sale's dissection of recent developments around the globe, which are paving the way for free and universal access to the world's knowledge banks.

With the gift of hindsight we look back to the Howard years surrounding the declaration of the War on Terror. Were our political responses to those turbulent years dictated by logic, considered intelligence or simply by fear? Michael Crowley interrogates how the make-up, and individual motivations of the parliament may have influenced the legislation of the time.

I'm also proud to showcase the winner of this year's Australian Cancer Council Essay Competition, Amanda Tillmann, who won the chance to represent Australia at a cancer and oncology summer school in Vienna. With rising cancer survival rates, Amanda's winning essay examines the role of local GPs in a patient's cancer journey.

Ever tried to get your head around some of the regulatory agency acronyms that often litter the business pages? Australia has a complex system of business regulation, spread across numerous agencies. But what is slipping through the cracks, and who is really the prisoner of Australia's regulatory panopticon?

To keep up with AQ all year round, find AQ: Australian Quarterly on Facebook and Twitter (@AQjournal) and join the conversation.

Grant Mills

Editor

Erratum: AQ would like to acknowledge an error in the April-June 2013 edition. In all references to the 'Getting the Measure of Australians' article, Associate Professor Verna Blewett's name was misspelt. AQ apologises for the error.

NOTES FOR CONTRIBUTORS

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Revolution in the Wings

Recent developments in Open Access Research

ARTICLE BY: EMERITUS PROFESSOR ARTHUR SALE

Research advances because scientists, social scientists, researchers and scholars generally share their work, right? Well actually no, or rather it is a half-truth. For about 200 years, the research literature has been largely restricted behind a pay-barrier. Prior to that, research articles were shared freely through correspondence, though seminal books like *The Origin of Species* did not, because of print cost. Since then, research has been restricted with the invention of the print journal and recovery of costs via subscriptions imposed on readers.

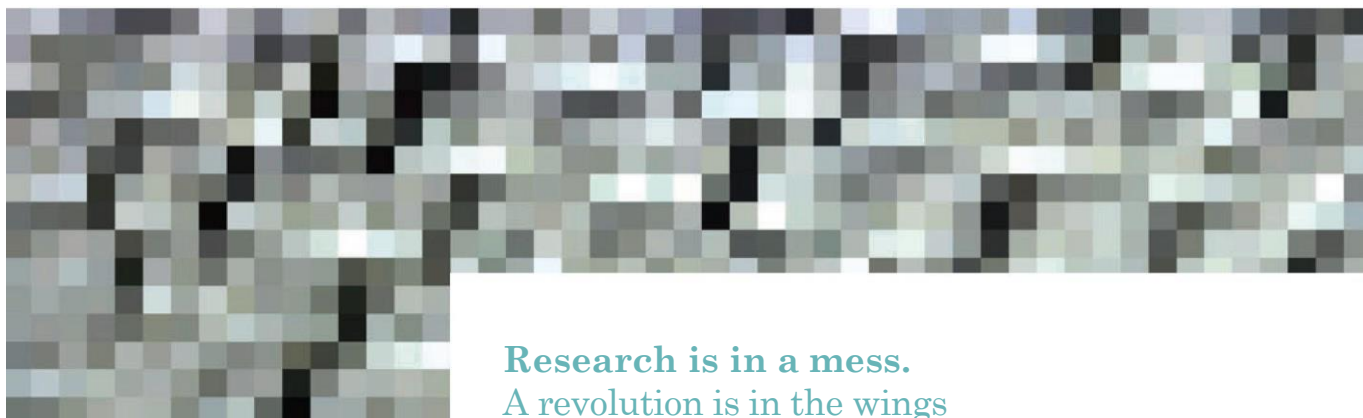
Most researchers in the West are oblivious to this, because their universities or labs pay for the subscriptions they

need, totalling many millions of dollars per institution. Articles look free to them. But no university can afford to buy all of the world's research literature, so researchers don't know what they can't or don't see. Worse, less developed countries are discriminated against because they can see even less, and we also suffer because we cannot see what they are doing either.

Research is in a mess. A revolution is in the wings.

The Internet could solve this problem tomorrow, but it doesn't. The story of this article is that of recent advances...

Almost as soon as it became obvious that the Internet was going to go global, and the World Wide Web was invented, some researchers realized that it offered, amongst its other opportunities, the possibility of transforming the publication of scholarly research. The dissemination costs would disappear, and it might be possible for scholarly articles to be provided free to any researcher wanting to read them. Paper journals might disappear.



Research is in a mess. A revolution is in the wings

The European response is very varied.

Some jurisdictions have strong open access policies, others are targeted to the very best researchers, and some have none. It has been argued that the (post-WW2) German Constitution prohibits a mandatory open access policy, deriving from rejection of controls on academics in the Nazi era. The EU has several committees and bodies working on open access policies and there is a lot of activity and a lot of success stories. Part of the problem is the EU itself, part Francophone and other language issues, and part simply lack of unity.

This became known as 'Open Access'. Yet problems began appearing. One of these was the scholarly publishing industry. Although of tiny proportions compared to the cost of the research itself, the industry had tradition on its side, and was and is determined to protect its monopoly rent profits.

After more than a decade, during which many other ICT services have transformed our society, the open access dream has not yet come to fruition. The reasons for this are complex, and this is not the place to canvass them, apart from this brief summary:

- The scholarly publishing industry has resisted open access. Profitability of the scholarly publishing industry exceeds many other companies considered to be leaders in technology.
- Many researchers are reluctant to pressure the publishing industry, bypass them, or change their own traditional practices. Disinterest in dissemination of research is common.
- Research institutions have been reluctant to require their researchers to make their publications open access, partly because of tradition, and partly because senior administrators are

usually ex-researchers firmly grounded in the same obsolete practices.

- The open access proponents have not been united— instead they are divided on the differences between *libre* and *gratis* OA, Green and Gold preferred routes to OA, discipline differences, and bemused by copyright.

United Kingdom

The United Kingdom's Joint Information Systems Committee (JISC) has had a long record of supporting open access, funding the development of EPrints software, and therefore indirectly leading to the development of other open access software initiatives such as DSpace, OpenDOAR, OpenDOAJ. The seven UK research councils had policies somewhat similar to those now applying in Australia, until the publication of the Finch Report^{1,2}. This turned British policy on its head.

The Finch Report tried to change the UK's previous policy and recommended that publication in journals providing open access (across the board, or on an item-by-item basis) was the preferred way forward. About £60M/year was estimated to be required, which would be taken out of existing research funds. The *Research*

OPEN ACCESS EVENT: On 16th Oct 2013 ANU will host a lecture by Prof Aidan Byrne, CEO of the ARC, and Prof Warwick Anderson, CEO of the NHMRC, discussing their organisations' Open Access policies. The lecture will be recorded and available on the ANU Youtube Channel from the 21st October (<http://www.youtube.com/user/ANUchannel>)

Councils UK (RCUK) was required to adopt the policies. This policy harked back to the first era of open access activism: simplistic, was skewed by publisher lobbying, and aroused a storm of protest from open access activists.

Basically, what Dame Finch's working group recommended was that

1. The future of scientific publication was in journals with open access (on the Internet)—the so-called *Gold Road* to open access.
2. Since recovering costs from readers was precluded, publishers would recover costs from authors, author research grants, or author institutions.
3. The RCUK would provide transitional funds from its research funding to meet these fees for grant recipients, anticipating that when Open Access journals were universal, institutional funds no longer needed for journal subscriptions could be diverted to this purpose.
4. The so-called *Green Road* (deposit of ancillary copies of publications in open repositories) was described in the report as inadequate.

The effects were predictable, and were widely discussed:

- If there is more money available to them (though less for actual research), subscription scholarly publishers will ensure that they capture as much as

possible. The net effect is to boost the already high profitability of scholarly publishers with no long term change certain.

- Open access journals are encouraged, but since their impact will be low they will make little difference to the scholarly publishing scene in the next decade. The Finch Report looked likely to delay the transition to open access rather than accelerate it.
- The UK produces 6% of the world's research, so this funding would be seen as icing on the cake for global publishers. UK research might become more open, but UK researchers would still have to pay for subscriptions. The Finch Report is reliant on the improbability that the major research-producing countries (USA, China) adopt the same model.
- Researchers will not switch instantly to open access journals with author-side fees, preferring to stay with established subscription-based publishers (currently the majority) because of their perceived higher impact. This will

inflate the costs of research publication for the UK significantly, and over at least a decade.

In short, the Finch Report could have wasted UK research funds. The Report did not adequately take into account how a

technological revolution might be achieved, but took a wild leap into the possibilities, heavily influenced by the publisher lobby. Australia should not, and has not, followed its lead.

However to balance this up, open access journals are indeed a possible long-term future of scientific publication. The Finch Report realized that. Where they fell down is in the

analysis of what had already happened, and the nature of the paradigm change that is needed.

The Finch Report did not adequately take into account how a technological revolution might be achieved, but took a wild leap into the possibilities, heavily influenced by the publisher lobby. Australia should not, and has not, followed its lead.

The House of Lords

The House of Lords Science & Technology Committee examined the UK's response to open access, the Finch Report, and what the RCUK had done. The report

Many researchers are reluctant to pressure the publishing industry, bypass them, or change their own traditional practices. **Disinterest in dissemination of research is common.**



was recently released³, and it yielded few surprises. The Lords Committee (under Lord Krebs as chair) thought that the RCUK actions were dubious, as were the Finch Committee findings. They recommended examining whether other countries were following the UK emphasis on the Gold Road or had adopted it (they haven't) and suggested that the Finch recommendations were probably counter-productive. They called for more discipline analysis, endorsed the move to making public research open access, and called for greater scrutiny and regular implementation review. The consequent changes to the RCUK guidelines went a long way to nullifying the bad effects of the Finch Report.

No other country is contemplating, let

alone implementing, a scheme like that recommended in the Finch Report so that will be reduced in emphasis; discipline differences will be revealed; and the emphasis on flexibility and a whole-of-country approach will be emphasized, with reviews every two years. The RCUK has responded to the House of Lords Committee report.

The House of Commons

On 3 September, the House of Commons Business, Innovation & Skills Committee⁴ produced its Report on OA. This is extremely sensible and advised what many OA proponents have been advocating for a decade: all research funded via government funds should be deposited in an institutional

Recent German news

A Bill¹² has been introduced into the Bundestag which seeks to change its copyright act so as to provide for 'secondary publication', which may be interpreted as open access. The following is a translation of the relevant paragraph of Section 38 of the Bill.

(4) Even if a work is not made available exclusively for scientific or scholarly purposes, at least half of the work must be made available for teaching or research purposes, periodically, yearly, in a form that is suitable for publication, publicly, and without restriction on the expiration of the copyright, for commercial purposes, original publication, agreement, of the author.

The UK will be examined carefully and probably be important in **shaping Australian policy.**

The Harvard Policy has been widely copied in the USA, for example by the multi-campus University of California, but seems to not have an example in Australia.

repository (computer database) immediately after publication, and made freely available not later than 6 months for the sciences and 12 months for the humanities. Emphasis on OA journals should be downgraded to equality with other routes. This report has attracted much praise from the OA community. The publisher community has not yet had time to respond.

It is quite hard to determine what the impact of this will be, but as the UK has been the leader in OA policy on most issues, it will be examined carefully and probably be important in shaping Australian policy.

The USA response

In the 'land of the free', coordinated responses to open access opportunities are rare and not to be expected very often. However the NIH (National Institute of Health) policy requires deposit of NIH-funded articles in PubMed by no later than six months.

The 'Harvard policy' model is worth discussing. It is not a mandate in that deposit of an article is not *required*, but it reverses the onus for non-deposit onto the author. If he or she does not make their article open access after a reasonable period (usually six months), they are required to have sought prior permission. Thus authors are free to use any publication outlet they choose, under any conditions, but it is clear that they are expected to make the article open access, or to seek prior permission as to why not. The article can be published in an open access journal, via a fee-for-OA

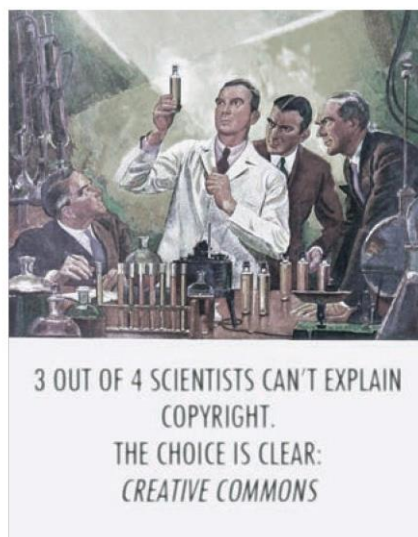
hybrid journal or via conventional subscription journals. No matter: the freedom is there; but you have to ask for it.

The effect is remarkable. Authors take the Harvard policy as endorsement by their employer that open access is desirable and has official endorsement, and most comply. The reversal of the onus to deposit is sufficient, since it takes more work to apply for exemption than it does to deposit the article for open access. The Harvard Policy has been widely copied in the USA, for example by the multi-campus University of California, but seems to not have an example in Australia.

The USA has also made two massive shifts which are reverberating in Australia. Firstly *both* the Democrats and the

Republicans sponsored a Bill (known by the acronym FASTR) in both the Congress and the US Senate⁵ (US Congress, 2013). This Bill requires all federal agencies spending more than \$100M/year in extramural research to arrange for all associated publicly funded publications to be made available free to the public in a repository, as soon as possible but no later than six months after publication. Though nothing is certain in US politics, it seems possible that FASTR will pass, perhaps in a modified form.

Immediately afterwards, President Obama issued a directive⁶ (effective immediately) to all federal agencies spending more than \$100M/year on R&D, to produce a plan in six months that ensured that for all associated publicly funded publications



USA agencies

Agencies covered by the Presidential directive are:

National Science Foundation (NSF) – the equivalent of ARC, Department of Education - including federally funded universities, EPA (Environment Protection Agency), NASA, USDA, HHS (NIH, CDC, FDA, ARHQ) - Health, DOC (NIST, NOAA) – geography, oceans, meteorology, Department of the Interior (USGS) – geology, mapping, Department of Defense (DoD), Department of Energy (OE), Department of Transportation (FAA, FHWA), Department of Homeland Security, Department of State and U.S. Agency for International Development (USAID), and the Smithsonian Institute.

What is Australia doing in the face of all this change? Actually, Australia is moving rather slowly and acting as a **belated follower of trends rather than a leader.**



to be made available free to the public in a repository, as soon as possible, but no later than twelve months after publication (US President, 2013). [refer: SIDEBAR 4]

Though there are differences between the two statements, they indicate a tri-partisan approach by the two legislative houses and the executive government. It is hard to over-estimate the effect of this development. Maybe half the world's recent research could become publicly accessible within a year after publication, and the Internet will become the 'commons' of the world for scientific and scholarly publication.

Australia

What is Australia doing in the face of all this change? Actually, Australia is moving rather slowly and acting as a belated follower of trends rather than a leader. But, two major developments have taken place in the last twelve months. Firstly the *National Health & Medical Research Council* (NH&MRC) announced a policy that all publications arising from one of their project grants would have to be placed in an institutional repository and made open access, no later than twelve months after

Chinese response

China is predicted to overtake the USA in publications in a few decades. Chinese institutions are enthusiastic about open access of their articles, and those of others, and there is no Communist Party dislike of them. Language remains a problem: Chinese

language is the only remaining major competitor for English in scientific circles. However, it is difficult to discern a Chinese policy direction in open access, apart from the desire to regulate the social side of the Internet, and it is not clear what an eventual Chinese response to OA might be. China supports few open access journals.

IMAGE: © Ditter-SXC

publication. This policy took effect from 1 July 2012, effective immediately, and was stated as being influenced by public demand to see the results of publicly funded medical research.

The second of Australia's two research councils, the *Australian Research Council* (ARC) initially resisted a change, but has now brought in a similar policy,⁸ effective on new project grants awarded after 1 January 2013. The ARC policy has several examples of poor wording, but the following is pretty clear:

- All new project grants are subject to the policy.
- The ARC policy precedes publisher agreements for publications deriving from grants accepted after 1 January 2013, and thus over-rides such agreements if there are conflicts, as there is documented acceptance of a prior contract by the researcher and the administering institution.
- In all cases metadata for each article arising from the research must be placed in the institutional repository as soon as possible.
- The full text should be deposited as soon as possible, and made open access as soon as possible, but no later than twelve months after publication. Either the Accepted Manuscript (AM) or the Version of Record (VoR) is acceptable.
- In rare cases such as a third party IP interest, or inclusion of cultural data (such as secret Aboriginal business), the article may be restricted but has to be justified in the Grant Final Report.

- If the full-text is already open access, for example in an OA journal, then it does not need to be re-deposited, and a link to the OA version will suffice for the repository.
- The policy is deemed to apply to books as well as journal and conference articles.

The effect of these policy shifts have not yet been tested, but two things are beginning to take place around Australia.

All universities will be working to track recipients of research grants and to ensure that the Chief Investigators are aware of their responsibilities. Guidelines will be drawn up and circulated to advise authors what to do in their negotiations with publishers.

All Australian universities have institutional repositories in 2013. The policies will have a broad impact on research in universities, since although the number of ARC and NH&MRC grants is small compared to their research-active staff, the most active researchers are usually involved in them, and a single grant brings in many ancillary researchers. The impact on Cooperative Research Centres (CRCs) will also be significant. One can also expect CSIRO to examine the policies carefully.

Secondly, some of the more perceptive universities will take these new policies as indicative, and may be motivated to

Getting in on the discussion

Australia has established a new listserv to communicate on OA issues, following two or three earlier listservs that have declined to low traffic levels after interest failed to produce results. This listserv is run by Dr Danny Kingsley at ANU, and can be viewed at <http://aoasg.org.au/>.

develop their own mandatory policies applying to all staff and all research. The number of effective deposit mandates is at present rather small, probably because senior university administrators are almost universally old-school researchers and out of touch with trends.

It is to be expected that such policies will adopt consensus of the ARC and NH&MRC policies. More effective policies are possible, but a major benefit that

universities would see would be unifying their procedures.

This change is long overdue, but its advent is welcome. Its most important effect will not be the numbers of articles directly affected by the changes, but a sea-change in Australian attitudes, including an urgent need to educate researchers regarding

dissemination and copyright. This will inevitably lead to discussion and use of open access journals, and similar issues regarding traditional publishers who offer an open access option at extra cost.

THE POLICIES
WILL HAVE
A BROAD
IMPACT ON
RESEARCH IN
UNIVERSITIES.

Who cares how the publisher tail on the research dog is funded? We still have journals, they still do the same thing, maybe they do it cheaper, so why does where the money comes from matter?

Training of PhD candidates will be affected; directly in the case of those funded by research grants. It remains to be seen if the Department of Education, Employment and Workplace Relations (DEEWR) will amend the guidelines for PhD scholarships, but in any case the majority of universities already have put in place effective procedures for making all theses and dissertations open access, with an optional short student-requested embargo of at most two years, usually to enable them to publish journal articles or a book from the thesis.

A strange feature of the ARC and NH&MRC policies are the imposition of a

maximum embargo period of one year. This is longer than is used elsewhere (usually 6 months), and presumably is a consequence of representations by publishers. An alternate view suggests that it may be due to the annual reporting cycle of the Higher Education Research Data Collection (HERDC) in Australia.

ANALYSIS

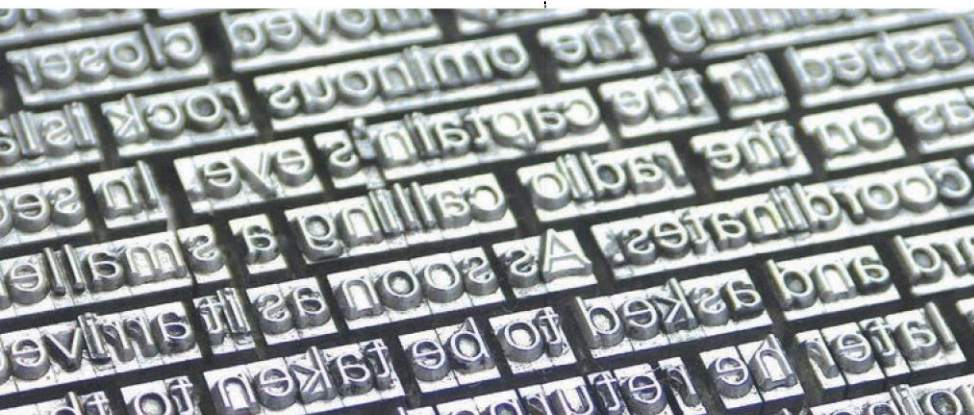
Despite being predicted a decade ago, open access to all research articles is still not available. Why? The reasons are complex, but the short answer is simply

that the conditions for a paradigm revolution⁹ were not present. In other areas affected by the internet, rapid change has occurred. The reason is to be sought in the super-profits reaped by the scholarly journal publishers. They pay nothing for their input, pay relatively little for their processing, and have a captive clientele. The financial bonanza is not to be given up easily. Publishers have been resisting the Internet consistently, to string out their super-profits as long as possible. The end result is however predictable: open access will become the norm. This has been aided by the complaisance of researchers, who are socialised into being not interested in dissemination, just in research.

The Green Road

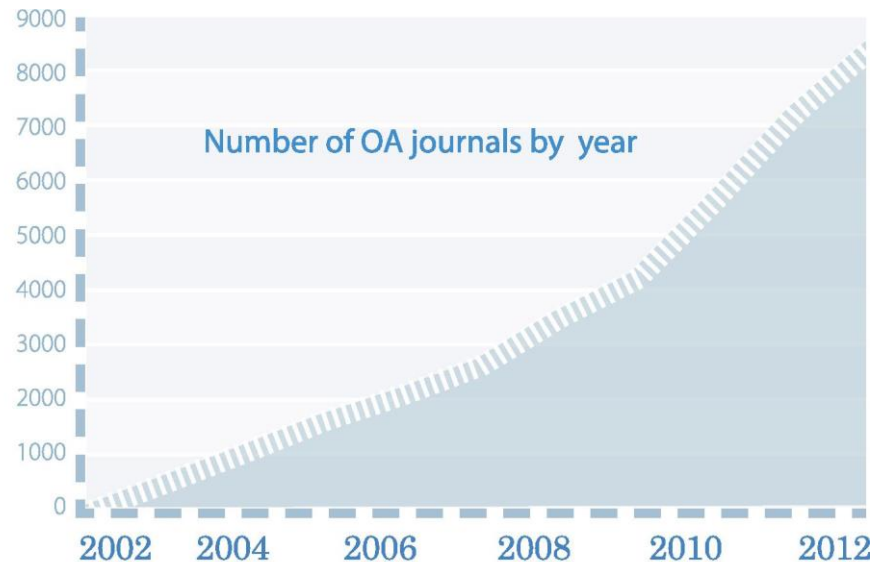
The Green Road, as described by Stevan Harnad¹⁰, is based on researchers depositing their publication as open access, regardless of, or taking cognisance of, publisher legal impositions. The hope is that when sufficient significant authors adopt deposition of their publication in a repository, traditional publishers will have to adapt their business models. There will be less incentive to pay journal subscriptions, which have increased far faster than the cost of living index over decades.

Since voluntary adoption of this activity consistently failed, attention turned to mandatory deposit – in other words, researchers are required by their institutions to deposit as part of the employment contract. Few Australian universities have adopted such mandatory policies, though



Reason is to be sought in the super-profits reaped by the scholarly journal publishers. They pay nothing for their input, pay relatively little for their processing, and have a captive clientele. The financial bonanza is not to be given up easily.

FIGURE 1. Number of registered OA journals in the Directory of Open Access Journals (DOAJ)



globally 165 universities and 54 funders are registered as having something approaching such a policy in the online Registry of Open Access Repositories Mandatory Archiving Policies (ROARMAP). Again the hope is to achieve a tipping point.

The Green Road is based on a concept of creating a scientific revolution by providing very low cost open access through self-deposit and use of institutional repositories, a good grasp of the legal situation, and of possible publisher responses, awareness that institutions (as employers) have the legal right to mandate deposit of articles in their repository, and a plan to reach a technological change tipping point.

The Gold Road

The counterpart to the Green Road is the Gold Road. Non-researchers (such as librarians) prefer this path because it fits their current practices. Here the concept is that publishers will change their business model, abandoning their subscription-based model (funded by readers, meaning libraries) in favour of an open access model, making all publications immediately readable by all. The costs can be met by subsidy, government grant or author-side fees (again paid by the author's institution or via grants).

The reason non-researchers like this path is that it looks just a tweak on the traditional model. Who cares how the publisher tail on the research dog is funded? We still

have journals, they still do the same thing, maybe they do it cheaper, so why does where the money comes from matter?

It is this attitude that resulted in the Finch Report recommendations, without paying attention to the strategy. Indeed, if the Finch Report had proposed subsidies for a publisher to change its business model, rather than for researcher publication costs, it would not have attracted so much criticism, nor have been condemned. However even journals are up for challenge, but that is another story.

Currently, there are around 8500 open access journals¹¹ in the world. The number is growing fairly fast though they are still the minority, and still do not contain most of the profitable high prestige journals. Figure 1 shows the growth rate. The USA is well represented in first place at 1273 journals at present, but China is not following the trend with only 36 and 43rd in rank. Australia is 20th with 124 OA journals. The number offering hybrid open access (in other words optional

access for your article if you pay extra) is harder to estimate, but not a very significant statistic. The fees range from around \$100 to \$3000/article.

Australian response

The sensible Australian response would be for every Australian university to recognise the value of open access, and to mandate for all their staff (who, being employees, are required to comply) to make all their research outputs open access as soon as possible but no later than six months after publication. Deposit in an institutional repository would be the default, though publication in an open access journal would be regarded as equivalent.

Summary

Open access has made significant strides in the last year, and there is at last hope that significant change is imminent across the world and especially in Australia. When it takes off, it is likely to happen fast. Watch this space![AQ](#)



AUTHOR:

Arthur Sale was the Foundation Professor of Computer Science at the University of Tasmania. After serving as Chair of the Professorial Board and later Pro Vice-Chancellor he retired in 1999, and has pursued research in publication metrics, biotechnology, and the promotion of Open Access to the world's literature.

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Revolution in the Wings –

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