Build It and They Will Come? Support for Open Access in Australia

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Abstract

Australia has enjoyed governmental support for open access for approximately a decade. This article provides a brief overview of the infrastructure now in place as a result of this support, including widespread repositories and mandates at institutional and funding levels. In addition, the funding process for Australian universities means citation information for all research output has been collected for many years. This offers a unique test case for attempting to determine whether good infrastructure support results in a higher uptake of open access. The difficulties in establishing the percentage of research that is available through open access make it impossible to answer the question definitively. However simple changes such as developing an open access advocacy body, altering the wording of mandates, and the introduction of a requirement to provide the accepted version for reporting would allow Australia to take full advantage of the policy and technical infrastructure already in place and to experience a large increase in open access to Australian research.

Keywords

Knowledge dissemination; Open access; Digital scholarship; Research assessment; Research funding; Open data; Data repositories; Tools and practices

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Introduction

This article takes a critical look at the Australian open access landscape and analyzes the issues with existing mandates and infrastructure through the lens of achieving open access via placing work in institutional repositories. Beginning with an explanation of the funding arrangements for universities in Australia, this article describes the existing policy structure, the funding for physical infrastructure, how Australian theses are shared, and the approach to the management of data as a research output. The second half of this article takes an analytical view of the policy landscape and repository infrastructure in Australia. This will demonstrate that beyond the basic provision of the tools for open access, many issues affect the success or otherwise of an open access program. The article will conclude by exploring areas that could be improved and that would allow Australia to take full advantage of the infrastructure in place to increase open access uptake in the country.

Government support for research

Funding of the higher education sector in Australia

Australia is a wealthy first world country of 22.6 million people (Australian Bureau of Statistics, 2012). There are 39 universities in Australia with comparatively high research output; all but two are publicly funded, that is, research is supported almost exclusively by government funds (Universities Australia, 2010). Australia does not have a tradition of substantial endowment either to universities or for research generally. A significant proportion of research in universities is government funded. The reporting requirements for this funding have resulted in an annual university-level collection of almost all of the citation information — and in a large proportion of cases, a copy of — the publications authored by members of each university. This means Australian universities hold a relatively complete record of their research output going back many years. However because the emphasis of this collection has been on reporting rather than access, the opportunity to use the collections as a vehicle for realising widespread open access to Australian research has not been exploited. This issue will be discussed in the second part of the article.

With the exception of some grants from individual government departments (which are not discussed in this article), the largest portion of government research funding takes the form of several block grant schemes, the three primary schemes being the Joint Research Engagement Scheme, the Research Training Scheme, and the Research Infrastructure Block Grants.[1] These schemes provide funds for research and research training activities, funds to support research training for students undertaking Doctorate and Masters degrees by research, and funds to enhance the development and maintenance of research infrastructure respectively. In 2012, the Australian government will provide $1.63 billion of support through these schemes (Department of Industry, Innovation Science, Research, and Tertiary Education, 2012a).

These block grants have varied rules, but all rely on data provided by a process called the Higher Education Research Data Collection[2] (HERDC) a process by which all scholarly "outputs" are collected: primarily peer reviewed journal articles, conference papers, book chapters, and books. To explain the process in highly simplistic terms,

each publication (other than a book) is worth one "point" and books are worth five points. As points are equally shared amongst all the authors of a paper, the amount allocated to an institution for a publication can be a small fraction of a point in multi-authored papers.

Universities report their collated number of points annually to the government, who then provides funding based on this figure. Each point is worth a designated amount, which changes annually. The distribution of this funding is at the discretion of the university — it is not required to be redistributed as a reflection of the disciplinary proportions in the HERDC report.

As an indicator, the Australian National University (ANU) is a comparatively small university with 1,500 academics, 8,000 postgraduates, and 10,000 undergraduate students. It has a research focus, and depending on the league table, such as the Times Higher Education World University Rankings[3] or the Shanghai Jaio University Academic Ranking of World Universities[4] and how the numbers are massaged, it vies for the position of Australia's top university with Melbourne University. In 2010, the ANU reported 3,132 points as part of HERDC (Australian National University, 2012).

Government funding is also provided on a competitive basis for specific research projects, which is discussed later in the article in the context of funding body mandates.

Reporting processes to the government are changing. The government held the first round of a new reporting process, the Australian Excellence in Research for Australia (ERA) (http://www.arc.gov.au/era) in 2010, and the results were announced early in 2011 (Australian Research Council, 2011a). The second round is being held in 2012. While currently no funding is attached to the ERA process, it is generally expected to have funding attached before long.

ERA works retrospectively over a six-year period, and takes into account publications where at least one of the authors is from a given institution. The publications are coded by discipline. Reporting for ERA is heavily dependent on the collection already being performed by universities for HERDC. Generally metrics are used for evaluation, but in five "clusters" (Social Sciences, Humanities & the Creative Arts, Education, Information & Computer Science, and Economics), peer review is used, where assessment panels look at the publications put forward for evaluation. The system requires universities to provide access to works for the ERA peer reviewers by making the works available in a repository.

Australian repositories

The ERA process emerged after a change of government in Australia. Prior to the 2007 election, the conservative government was preparing to introduce a similar program called the Research Quality Framework (RQF). Introduced to support the RQF, the government established the Australian Scheme for Higher Education Repositories (ASHER). Despite the change of government and migration to the ERA process, this funding was continued. The ASHER program had the aim of "enhancing access to research through the use of digital repositories" (Department of Industry, Innovation Science, Research, and Tertiary Education, 2010, para. 3). Over 2007–2009, the

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government provided $25.5 million to universities so they could develop their data systems to prepare for the ERA process. The key outcome of this initiative is that all Australian universities have a repository.

Repository managers in Australia have been supported by an ongoing organized community. In 2005, as part of a suite of funded schemes, the government provided funding for a project called the Australian Partnership for Sustainable Repositories or APSR (http://www.apsr.edu.au), which, amongst other initiatives, hosted several conferences and workshops. These allowed relevant people in the field in Australia to share ideas about open access issues and concerns about the RQF, and then ERA. It also provided a forum to invite leading international figures in the field to address the Australian repository and research management community.

In 2008, the funding for this suite of schemes ended. One of the parallel schemes to APSR, Australian Research Repositories Online to the World (http://arrow.edu.au), had some unused funds. These funds were used to set up the CAUL Australian Institutional Repository Support Service or CAIRSS (http://cairss.caul.edu.au/cairss), which ran during 2009 and 2010, where CAUL stands for Council of Australian University Librarians. When this central government funding ended, the university libraries agreed to continue the service by supporting it with member contributions. The service currently includes university libraries in New Zealand. CAIRSS provides a forum for repository managers to share ideas, pose and answer questions through an email list, and to meet regularly. It also provides technical support, acts as a lobbying body where necessary, and makes a copyright officer available to help with copyright issues. A list of Australian repositories ordered by the software platform they employ can be found at the CAIRSS website (http://cairss.caul.edu.au/cairss/repository-manager-tools/repository-software).

The small number of repository managers in Australia and New Zealand has allowed a high level of collegiality amongst the community of repository managers in Australia (and now New Zealand). The regular face-to-face meetings are held under the Chatham House Rule, which allows members to speak freely about the issues they are facing in their institution, and to discuss failures, which can often be more instructive than simply describing successes. The electronic discussion list is active, and despite universities effectively "competing'" against one another for government funding in the reporting process, the community of repository managers openly discusses problems and provides solutions to particular policy and workflow challenges.

AUSTRALIAN THESES

There have been recent changes to the way open access theses have been collated and displayed in Australia. Australia began a system of sharing PhD theses over the Internet in 2000. Called the Australasian Digital Theses (ADT) (http://www.caul.edu.au/caul-programs/australasian-digital-theses) program, the system was a central registry and open access display of theses, which were held in self-contained repositories at each university using a shared software platform that had been developed for the purpose. The first theses were made available in July 2000. By 2002, approximately 500 theses were available through the program (Borchert, 2002); by July 2004, 2,373 theses were available (Green, 2005).

In 2009, all Australian universities began the process of decommissioning the ADT by transferring all theses across to their own institutional repositories, or by making the version held in ADT simultaneously available through their own repository. The ADT was completely decommissioned in 2011. Centralized searches for the Australian theses available can be conducted through the National Library of Australia's discovery platform, Trove at a pre-populated search page, found at http://trove.nla. gov.au/result?l-australian=y&l-format=Thesis&l-availability=y. A recent internal (unpublished) survey of the CAIRSS members has established that the number of full text Australian theses available in repositories is now over 30,000.

The Australian holding of open access theses compares favourably to Japan, which had 74,854 theses available in July 2012, produced by 213 organizations, according to the Japanese Institutional Repositories Online website (http://jairo.nii.ac.jp/en). Based on the figures cited above, we can determine that in July 2012, Australia held 41% of the theses that Japan did, but these were produced by only 18% of the number of institutions. It is likely these comparatively high numbers of available Australian theses reflect the early establishment of a national collection of digital theses.

Data

The management of data as a scholarly output is, in some ways, "the elephant in the room" worldwide. Increasingly, research data is being recognized as a valid research output and deserving of similar curation and recognition as scholarly publications. There is evidence to show that the benefits of public sector organizations changing their data access system from user-pays to an open access system considerably outweigh the costs (Houghton, 2011); however, this requires the organized registration, ongoing management, and sharing of datasets.

Researchers in Australia work under a Code for the Responsible Conduct of Research[5] that incorporates a comprehensive section about the management of research data and primary materials and defines the responsibilities of both researchers and their institutions. To support these goals, the Australian government is investing tens of millions of dollars in developing the frameworks to allow Australian researchers to share their data. The Australian National Data Service or ANDS (http://www.ands. org.au/) has responsibility for supporting public access to as much publicly funded research data as can be provided within the constraints of privacy, copyright, and technology.

While the availability of research papers through subscription-based publication and the sale of conference proceedings have a centuries old history, the sharing of data through organized means is nascent concept in terms of the open access debate. Data itself as a scholarly output is a relatively new concept. Partially as a result of this, the concept of systematic registration of data to allow for its discovery by others is not yet widely embraced.

Disciplinary differences come into play here (Kingsley, 2008a). Traditionally in some disciplines, the supporting data has been made available to researchers who request it. In other disciplines, particularly those where data involves human subjects, issues of de-identification of data and permissions required from the subjects pose significant

barriers. Systematically providing access to this type of data will require institutions to consider the issues and encourage their researchers to make data available. To that end, ANDS has recently released a guide to assist with this workflow development (Australian National Data Service, n.d.).

In an attempt to provide a platform for sharing information about data, ANDS has developed a discovery service for data resulting from Australian research, called Research Data Australia (http://researchdata.ands.org.au), which is a mesh of searchable web pages describing Australian research data collections supplementing published research. Records in Research Data Australia link to the host institution, which may (or may not) have a direct link to the data. At the time of writing, 37,500 data collections were listed.

The work of ANDS reflects the broader government position in Australia of making public data publicly available. The Declaration of Open Government was announced on July 16, 2010.[6] This policy position is in the process of practical implementation across the country, providing access to information about locations of government services, for example. The level of engagement between government areas and different levels of government varies. The compilation website provides "an easy way to find, access and reuse public datasets from the Australian Government and state and territory governments" (Australian Government, n.d., para 1), Note that at the time of writing, the site contained fewer than 1,000 data sets, representing about 10% of the amount of data available under the equivalent British data site (http://data.gov.uk) and less than 0.003% of the amount of data available at the US data site (http://data.gov).

While data is not the focus of this article, this information is relevant in the context of explaining the level of Australian government support for open access across a wide range of research outputs.

Policy landscape

Funding body mandates

A primary argument for open access is that publicly funded research should be publicly available. In Australia, therefore, the centralized government funding of research is the main focus of this article. The funding for research provided and undertaken by industry and private benefactors does not fit into this category and is not discussed here, nor is the accessibility of the research output from government research conducted out of individual departments included in this analysis.

There are two primary government funding bodies for research in Australia, the Australian Research Council (ARC), which funds research and researchers under the National Competitive Grants Program (http://www.arc.gov.au/ncgp/default.htm), and the National Health and Medical Research Council (NHMRC), which funds health and medical research under several schemes respectively (http://www.nhmrc.gov.au/grants/). The grant application process is gruelling with a low success rate. The NHMRC success rate for Project Grants increased from 22% in 2003 to 27% in 2009 (National Health & Medical Research Council, 2010) but dropped back to 23% in 2011 (National Health & Medical Research Council, 2012a).

Until 2011, both funding bodies held an almost identical position on open access, where the grant conditions encouraged researchers to "consider the benefits of depositing their data and any publications arising from a research project in an appropriate subject and/or institutional repository wherever such a repository is available to the researcher(s)" (Australian Research Council, 2007, p. 13). This position was considered by many in the open access community to be relatively weak.

However, both funding bodies are moving from this position. The ARC Discovery Projects Funding Rules for funding commencing in 2012 state that researchers may use up to two percent of their grant for publication and that the ARC "strongly encourages publication in publicly accessible outlets and the depositing of data and any publications arising from a Project in an appropriate subject and/or institutional repository" (Australian Research Council, 2010, p. 8). It also states in clause 13.3.2 in the Rules:

> The Final Report must justify why any publications from a Project have not been deposited in appropriate repositories within 12 months of publication. The Final Report must outline how data arising from the Project has been made publicly accessible where appropriate. (Australian Research Council, 2010, p. 16)

The NHMRC has recently revised their policy on the dissemination of research findings, which has strengthened their open access position to a mandate. The revised policy includes the words:

> NHMRC wants to ensure the widest possible dissemination of the research supported by NHMRC funding, in the most effective manner and at the earliest opportunity … NHMRC therefore requires that any publications arising from an NHMRC supported research project must be deposited into an open access institutional repository within a twelve-month period from the date of publication. (National Health & Medical Research Council, 2012b, paras. 4–5)

While there has been some disquiet expressed in the blogosphere about the 12-month delay (Poynder, 2012), the NHMRC mandate distinguishes itself from many funding mandates because it focuses on institutional repositories. These recent changes to the funding rules of both large government research-funding bodies in Australia indicate a renewed focus on open access.

Institutional mandates

On an institutional level, mandates in Australia are becoming more prolific. Unfortunately, hard data is difficult to solidify in this area. The international mandate listing webpage, the Registry of Open Access Repositories (ROARMAP) (http://roarmap.eprints.org/) was very out of date at the time of writing. Anecdotally, the number of Australian universities with open access mandates is considerably higher than the seven listed on the website.

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Australia – a world leader?

The background described in the first part of this article indicates that the infrastructure for open access in Australia is healthy. Due to government support and requirements for reporting to ERA, every Australian university has developed a repository. The annual HERDC process means information about all research output is being collected within universities. Repository managers are supported with a strong community and have access to centralized professional advice. In addition, most universities have, at minimum, a statement about open access, and many have mandates. One of two main government funding bodies mandates open access and the other encourages it.

However, while Australia has the appearance of a solid infrastructure for open access, this is not necessarily translating to a comparatively higher open access presence. The remainder of this article is a deeper analysis of some of the infrastructure described in the first section of the article.

Room for improvement

OPEN ACCESS CHAMPIONS

While Australia has many supporters of open access amongst the academic, administrative, and government communities, it does not have any central champion or advocacy body for open access. Unlike the UK, which has JISC (http://www.jisc.ac.uk/), and the US, with ARL SPARC (http://www.arl.org/sparc/), Australia has had to rely on individuals to promote the movement. One of these individuals, Colin Steele, Emeritus Fellow at ANU commented "While the Australian government has espoused open access to government information, the relevant department — Department of Industry, Innovation, Science, Research and Tertiary Education — has not been significantly engaged in this policy area" (Poynder, 2012, para. 61).

In addition, there is no centralized open access web presence. While CAUL does have a sub-committee — the CAUL Open Scholarship Initiative Advisory Committee (COSIAC), which provides some resources for open access advocacy online[7] — the terms of reference of the committee limit the scope of this group. Another issue is that the funding for the current iteration of CAIRSS will end in 2012 and CAUL has decided to create a new committee that will have broader responsibilities, including the current roles of both COSIAC and CAIRSS, which will both disband at the end of 2012. For Australia to take full advantage of the open access structures in place, it will require a strong centralized advocacy body into the future.

ISSUES WITH INSTITUTIONAL MANDATES

Despite institutional open access mandates increasing in number and strength, there are still issues that need to be addressed before Australia has a strong overall policy position on open access.

There appears to be some confusion in some institutional mandates about what the word "mandate" means. Many of the "mandates" listed in ROARMAP are in fact encouraging (not requiring) researchers to make their work open access, so are not

actually mandates. Another apparent confusion is whether requiring researchers to provide their work to the university (to be used for reporting purposes), but not requiring the work to be made open access, is an open access mandate. It isn't.

Another issue with institutional mandates is that they often need to be stronger to be effective, and Australia is no exception. It is not uncommon for mandates to have a provision that allows for publishers' restrictions. One example is the Macquarie University policy that states: "These manuscripts will be made open access, available to anyone on the Internet, except where this is restricted by publisher policy"(Macquarie University, 2008, para. 7). Considering that publishers are increasingly restrictive and often state that authors making work available under a mandate are subject to a "separate agreement," it becomes clear that institutional mandates, which include a caveat for publisher policy, are effectively useless in many situations.

Removing the publisher policy caveat from the Macquarie University mandate, for example, would mean that any work from the university would be published on the proviso that it can be made open access, thereby preventing researchers from signing their copyright completely over to the publishers in their agreements. At least one university in Australia is currently revising their open access policy to reflect this stronger position.

Issues with funder mandates

These challenges also exist when we turn our attention to the funding mandates. While the recent NHMRC mandate is an excellent step, the focus on institutional repositories creates some interesting questions for compliance. For example, as explained above, some publishers allow the "voluntary" upload of work to a repository, but if that repository is under a mandate then the researcher must have a "separate agreement" between the repository and the publisher. This is the default policy for Elsevier journals[8] and a clause in the Wiley Blackwell Copyright Transfer Agreements.[9] Often these "separate agreements" involve the researcher paying an article-processing fee to make the paper openly accessible under a hybrid program. In addition, these hybrid services sometimes do not subsequently allow researchers to put a version of their work into an institutional repository. The question for the mandate is: in the instance where the author pays an author processing fee, has the researcher complied with the mandate as they have made their work open access notwithstanding that they have not placed it in an institutional repository? The NHMRC position appears to be that providing the work is openly available, and there is metadata information about the work in the institutional repository, it will be compliant. This one example demonstrates the complexity inherent in what can appear to be a simple mandate.

The issues are greater with the revised ARC position, which is problematic for four reasons. First, the wording in the rules is confusing — it is unclear whether ARC is encouraging open access through publication of a work in an open access journal or by submitting work to a repository. Secondly, ARC considers that the allocation to a grantee of 80% of the amount requested in an ARC grant constitutes a fully funded project (Rowbotham, 2008), and there is no budget line in the report for publication costs. These factors decrease the likelihood researchers will use the allowable two per cent of their grant money for open access publication.

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Thirdly, the process by which ARC communicates to the university sector is through direct communication with a designated member of the executive of the university, such as the Deputy Vice Chancellor who then has the responsibility of sharing information with their wider university community. The changes to the rules allowing payment for open access publishing within the grant was not highlighted in any communication by ARC at the time of publication in December 2010, and the only official communication on the topic appears to be an email from ARC sent to the Deputy Vice Chancellors of Research on March 22, 2012, which was a clarification of a response to a direct query.

However, the greatest issue with the ARC position is that it does not monitor compliance with its requirement to justify why a researcher has not made funded research available in a repository. In the email of March 22, 2012, the explanation for clause 13.3.2 of the Rules was:

> Researchers supported by ARC funding, in consultation with their administering organisation's research office, are best placed to exercise judgment as to the repositories that are appropriate in seeking to achieve compliance in this area. The ARC will not necessarily be in a position to offer guidance or advice in relation to individual repositories or sites, but accessibility to the wider community is an important consideration (ARC, personal communication, March 22, 2012).

This effectively leaves the monitoring of compliance to clause 13.3.2 to the institution. In reality, this monitoring is unlikely to be undertaken, particularly as any finding that a research team had not complied with the funding rules could potentially have a negative impact on the ability for the researchers to gain another grant.

The confusing wording about open access in their funding rules, the "encouragement" rather than "mandate," and the lack of any compliance checking means that the ARC position on open access remains weak. There is a need for ARC to come into global line; they could take their lead from the Research Council UK's Policy on Access to Research Outputs, which does not allow for embargoes of more than six months (Research Council UK, 2012). Given that "government should also minimize differences among public-access rules for federal agencies to promote access and decrease the cost of compliance for both public and private sector entities" (Maxwell, 2012, p. 6), the best approach would be for ARC to align its policy with that of the NHMRC. To have a truly strong open access position, ARC must address both their open access policy and requirements for funding grants.

ERA — a hindrance or a help?

The requirement to collect information about research output in Australia for ERA and HERDC reporting is a double-edged sword. The research community in Australia has adapted to providing this information, albeit not without frustration at the high level of administration involved in compliance. And while some universities consider

ERA to have helped the awareness of their repository and open access, overall, the evidence seems to indicate ERA has been detrimental to the promotion of open access in Australia.

It is a challenge to ascertain what percentage of research is available via open access, but a recent estimate approximates the figures worldwide as 20% of all articles available through repositories (Poynder, 2011). In Australia, CAIRSS holds an annual survey of activities in Australian (and now New Zealand) repositories. The findings of these surveys show an interesting trend. The results of the CAIRSS Repository Managers Surveys conducted over the past three years (2009–2011) show that the "percentage of material in repositories that is open access" across Australian universities has fluctuated. It started strongly with 44% in 2009, dropped to 33% in 2010 and rose back up to 37% in 2011 (CAUL Australian Institutional Repository Support Service , 2011).

These percentages would appear to indicate that Australian repositories are comparatively very successful; however, it is worth noting that the total number of open access items in Australian repositories includes "archive" items that may be scans of rare materials or images, theses, and research outputs including grey literature, such as working and discussion papers. Given this mixture of open access content, it is difficult to ascertain what percentage of research articles are available via open access, which is what is measured in the worldwide study.

In terms of raw numbers, the termination of the ADT program and the subsumption of a collated webpage called Australian Research Online into the Trove service means it is now very difficult to determine how many open access items exist in Australian repositories. However, the recent internal (unpublished) survey of the CAIRSS members has established that the number of full text Australian research outputs available in repositories was over 200,000 in June 2012.

The 2010-drop in the percentage of open access content in repositories demonstrated in the CAIRSS survey can be directly tied to the first round of ERA. University libraries in Australia are under-resourced, and many universities have a crossover of repository and reporting staff, so the focus of these staff members was, by necessity, on complying with ERA reporting rather than on open access during that year, suggesting that open access has become a secondary consideration to reporting requirements. It will be interesting to see if a parallel dip in open access content occurs in 2012, the second ERA reporting year.

As an example of the impact of ERA, one Australian university commented that their university repository held approximately 50% of all the preprints of work at the institution, but since the ERA reporting process had begun, very few had been deposited, despite the university having a mandate (Anonymous personal communication, 2011).
The way some repository deposit processes have been established means that some systems have to "double handle," meaning that they have to remove the accepted version when the publisher's version becomes available. A repository manager at a different university stated:

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All items in the [University name] Repository have been collected for HERDC purposes and this collection is done by the [Unit name], not repository staff. They are now informing us when records are being removed so that [repository staff] can ensure the repository record is also removed. This double handling and the lack of accepted manuscripts coming our way meant that it has just become simpler and more straightforward for us to include published and fully verified materials only. (Repository manager, personal communication, 2011)

Some institutions have bypassed this issue by creating a separate "dark" repository that sits alongside their open access repository. This "darkive" (as they are often referred to) in some cases duplicates material in the open access repository and in others acts as the only repository for the institution. While ERA has resulted in repositories in all institutions, the emphasis on compliance and the published version seems to have had a deleterious effect on open access uptake in Australia.

Research reporting can help open access

However, there is a way the reporting process could support open access. A simple change could ensure repositories are being used to enhance access to research, which was the original intent of the ASHER funding. The single largest factor that affects the amount of material that can be made open access in Australia is the version of work that must be collected. According to the SHERPA RoMEO site (http://www.sherpa.ac.uk/romeo/), in almost all cases, the version of work that publishers permit to be made open access is the accepted version, not the published version.

Currently, universities are collecting the published version of work for ERA and HERDC reporting. This means that within the current reporting systems, the appealing concept of "submit once, use many times" can only be, at best, "submit two versions, and the university will try not to bother you again."

One possible solution requires a simple change to the version of work required for reporting. If the reporting requirements are changed so that it is mandatory that the only version that is submitted is the accepted version, then each university would have a full complement of research output that could potentially be able to be made open access through the institutional repository. Each institution could choose to make the work open access or not, depending on their own mandates or rules and the copyright situation for the works (Kingsley, 2011).

There are some glimmers of hope. The section of the Submission Guidelines for the 2012 round of ERA referring to which version of work is acceptable for peer review lists the "Accepted Manuscript" before the "Version of Record" (Australian Research Council, 2011b, p34). While this is a welcome development, this is unlikely to greatly change the behaviour of those who collect the copies of papers on behalf of the academics at Australian institutions. ARC, responsible for both the administration of ERA and funding allocation, welcomed a new CEO in July 2012. The ARC is now in correspondence with Australian university vice chancellors about the potential impact of introducing a mandate that reflects that of the NHMRC. It will be interesting to maintain a watching brief on these developments.

Conclusion

Australia appears to have all of the necessary structures in place to encourage widespread access to research, including a repository in every institution, established behaviours of reporting published work, and a reasonable number of institutional and funding mandates. Despite this, the country does not appear to have experienced a higher uptake of open access than the rest of the world. While barriers to the uptake of open access are generally broader than simply not having access to infrastructure (Kingsley, 2008b), one result that is certainly clear from the limited figures available is that the current reporting process for ERA is causing a drop in the amount of open access material held in Australian repositories. Some simple changes, such as the development of an open access advocacy body, altering the wording of mandates, and the introduction of a requirement to provide the accepted version for reporting, would allow Australia to take full advantage of the policy and technical infrastructure already in place and to experience a large increase in open access to Australian research.

Notes

1. For more information on these schemes, see Department of Industry, Innovation Science, Research, and Tertiary Education (2012b; 2012c; 2012d).

2. See http://www.innovation.gov.au/Research/ResearchBlockGrants/Pages/HigherEducationResearchDataCollection.aspx

3. See http://www.timeshighereducation.co.uk/world-university-rankings/

4. See http://www.shanghairanking.com/ARWU2011.html

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CAIRSS Australian Institutional Repository Support Service, List of repository software platforms. http://cairss.caul.edu.au/cairss/repository-manager-tools/repository-software

CAUL Open Scholarship Initiative Advisory Committee. http://www.caul.edu.au/caul-programs/open-scholarship/cosiac

Code for the Responsible Conduct of Research – National Health and Medical Research Council. http://www.nhmrc.gov.au/guidelines/publications/r39

Declaration of Open Government – Department of Finance and Deregulation. http://agimo.govspace.gov.au/2010/07/16/declaration-of-open-government/

Elsevier default copyright policy. http://www.elsevier.com/wps/find/authorsview.authors/rights

Higher Education Research Data Collection. http://www.innovation.gov.au/Research/ResearchBlockGrants/Pages/HigherEducationResearchDataCollection.aspx

HM Government data.gov.uk. http://data.gov.uk

Japanese Institutional Repositories Online. http://jairo.nii.ac.jp/en/

JISC. http://www.jisc.ac.uk/

National Competitive Grants Program – Australian Research Council. http://www.arc.gov.au/ncgp/default.htm

National Health and Medical Research Council (NHMRC) grants. http://www.nhmrc.gov.au/grants/

Registry of Open Access Repositories (ROARMAP). http://roarmap.eprints.org/

Research Data Australia. http://researchdata.ands.org.au/

Shanghai Jaio University Academic Ranking of World Universities. http://www.shanghairanking.com/ARWU2011.html

SHERPA RoMEO. http://www.sherpa.ac.uk/romeo/

Times Higher Education World University Rankings. http://www.timeshighereducation.co.uk/world-university-rankings/

Trove - National Library of Australia's Discovery Platform. http://trove.nla.gov.au/result?l-australian=y&l-format=Thesis&l-availability=y

United States Government Data. http://data.gov

Wiley Blackwell copyright transfer agreement. http://media.wiley.com/assets/1540/90/ctabglobal.pdf

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