Comparison of content policies for institutional repositories in Australia

by Arthur Sale

Abstract
Seven Australian universities have established institutional repositories (containing research articles, also known as eprints) that can be analyzed for content and which were in operation during 2004 and 2005. This short paper analyses their content and shows that a requirement to deposit research output into a repository coupled with effective author support policies works in Australia and delivers high levels of content. Voluntary deposit policies do not, regardless of any author support by the university. This is consistent with international data.

Contents
Comparison
Summary

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Australian repositories
Seven of the 38 Australian universities have established institutional repositories (also known as IRs or eprint archives) that can be analyzed for content and which were in operation during both 2004 and 2005. Listed with their states or territories they are:

- The Australian National University (Australian Capital Territory)
- Curtin University of Technology (Western Australia)
- The University of Melbourne (Victoria)
- Monash University (Victoria)
- The University of Queensland (Queensland)
- Queensland University of Technology (Queensland)
- University of Tasmania (Tasmania)

The University of Southern Queensland also has a small established repository, but was excluded from the sample because it was not harvested by the ARROW Discovery Service (ARROW, 2005). Several other universities have repositories in the process of establishment or very recently established, and were also excluded since their content was not available over the period analyzed (AuseAccess, 2005).

Only the Queensland University of Technology (QUT) had a formal requirement for authors to deposit all research output in their IR during 2004 and 2005 (QUT, 2003). All the other universities had voluntary deposit policies, and still have. Some universities in the sample profess little or no interest in the self-archiving of postprints, and see their repositories as serving other functions, or are working on other activities.

Some universities are reported to have an Author Support (AS) approach to their authors; others do not. AS is defined as very supportive and appropriate library (or other repository
manager) interactions with the authors. It is difficult at this stage to disentangle AS from a requirement policy through lack of an AS metric, though it probably has a significant impact in combination. However the AS impact by itself is believed to be far less than that of having an effective and enforced deposit requirement, which is the justification for this analysis.

Procedure

The research output of all Australian universities, as assessed by the Australian Department of Education, Science & Technology (DEST) criteria, is available in the HERDC Time Series statistics (AVCC, 2005). The statistics are only updated to 2003 at present, so this year was used as the 2004/5 target for publication output. Universities with growing research output will therefore be overstated in the figure and in reality are performing poorer.

The content of all seven universities was searched for content with a publication date of 2004 or 2005. This was done (a) via a search on all the repositories; and, (b) a search on the ARROW Discovery Service, both on 3 December 2005. The highest number of documents reported from (a) and (b) was accepted; the maximum discrepancy was two documents. It is recognized that 2005 is not complete and self-archived 2005 documents might trickle in to the repositories until the first quarter of 2006 or later. Some of the content may also be outside the DEST reporting criteria. The results are however striking.

The following figure shows the percentage of the reported DEST output in each of the repositories for 2004 and 2005 publication dates.

![Graph showing % of DEST output for ANU, Curtin, Melbourne, Monash, Queensland, QUT, and Tasmania for 2004 and 2005.]

Analysis

No Australian university with a voluntary policy collects significantly more than 15 percent of the DEST reportable content and most much less. This is consistent with international data for which 15 percent is accepted as an average limit. The DEST reportable content is itself estimated at being only 50 percent of university research output.

QUT stands out at four times higher than its nearest competitor (2005 data, 2.4 times in 2004). Detailed analysis of QUT’s collection rates suggests that the deposit rate surged after March 2005, and that QUT can expect to have a final success deposit ratio for 2005 near 60 percent and a success ratio for 2006 documents nearer to 80 percent. The difference is attributed to the deposit policy coupled with good author support practices.

It is difficult to disentangle 2004 deposits of 2004 publications from 2005 deposits of 2004 publications, but in any case in this short timeframe even belated deposit is desirable and is indeed to be expected for publications in late 2004. The total number of deposits in either year is unreliable since it includes retrospective deposits outside this publication window.
Summary

A requirement to deposit research output into a repository coupled with effective author support policies works in Australia and results in high deposit rates, consistent with a major international study by Swan & Brown (2005). Authors are willing to comply with a requirement to deposit. Voluntary deposit policies do not result in significant content, regardless of any author support, again consistent with that study and other international data.

With this evidence, it is well overdue for the Australian Department of Education, Science & Training to rule that postprints of all research that Australian universities report to it must be deposited in an institutional repository, to take effect say for 2007. The costs to the universities are ridiculously small. The benefits from increased global research impact, and enabling Australians to access the research they fund through the public purse, are enormous.

About the author

Arthur Sale is currently Professor of Computing Research at the University of Tasmania, and Research Coordinator of its School of Computing. From 1993–99 he was a member of the University’s Senior Executive as Pro Vice-Chancellor, and from 1974–93 Chair of the Department of Computer Science. Arthur Sale has published extensively in the ICT literature, and is internationally known for his work on programming languages and computer architecture. His current research interests extend to bioinformatics, mobile computing, and Internet technologies. He has been described as Australia’s archivangelist for open access.

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This work is dedicated to the Public Domain.

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