

The Key Things to Know

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Abstract

This document contains all the things I would like to be able to say at the New Zealand Institutional Repository Workshop regarding open access repositories, but will not have time to say. Please read it carefully (several times). The perspective is that of an active researcher, and indeed the Research Coordinator of the School of Computing. The last section (Suggested Implementation Plan) and the Appendixes are of especial importance.

1 Introduction

At the time of writing, New Zealand had no institutional repositories (IRs) holding research publications (journals articles and conference papers). Australia had 11 active repositories in its universities; globally there were about 476 (this is under the 3% of global research that Australia claims; source: *Institution Archives Registry* <http://archives.eprints.org/eprints.php>). Similarly Australia had 29 thesis repositories from 38 universities feeding metadata to the *Australian Digital Thesis Program* (ADTP <http://adt-beta.library.unsw.edu.au/>); New Zealand had none but CONZUL has recently signed an agreement for universities to participate in ADTP.

This is a situation that demands redress, and quickly. The recent study <http://wiki.tertiary.govt.nz/~InstitutionalRepositories/Main/ReportOfFindings> by the National Library of New Zealand and others is a consequence of this realization, as is this workshop. There is no reason why *all* New Zealand research-active institutions (universities and Crown research institutes) cannot *all* have open access repositories (or share repositories by agreement) within six months. The costs are small; the barriers are minor; all that is needed is the will to do it.

The remainder of this paper focuses on the key things an institution needs to know, in order to catch up fast and to use the accumulated experience of others who have trodden the same path. I have categorized the issues under eight headings:

- *Impact* – Why are we doing this?
- *Researcher participation* – How do we get researchers to populate the repositories?
- *Accountability, competition and content* – what are the consequences for early and late adopters?
- *Value-adding* – What innovative services open up?
- *Papers and ETDs* – The digital convergence of research publications and research theses
- *Copyright* – What are the legal constraints?
- *New role for libraries* - consequences
- *A suggested implementation plan* – including an assessment of costs and choice of software

2 Impact

There is now a considerable amount of evidence that providing a refereed publication available for open access on the Internet (whether this be on a personal website, an institution website, or an institutional repository) increases the research impact of the publication. Citations are measured to increase by 50% to 250% depending on the discipline as compared with papers in the same journal but not online. Downloads of the full text can also be measured (of course only for online articles), and there is a growing body of evidence that downloads translate into citations after a delay, and there is even some evidence of citations of works appearing before the journal issue in which they appear is published!

Some of this greater impact is derived from a competitive advantage (online works are more likely to be cited since they are more accessible than others), but not all. A citation benefit will remain even when open access archiving approaches 100% since researchers will have greater access to the literature to choose the best works to cite, rather than selecting from those from journals that his or her institution can afford. No institution in the world can afford all the world's journals.

The following works are listed as primary sources to convince yourself of this key argument. It is the principal reason why universities are rapidly moving to establish open access repositories for their research output: it positions them better relative to their competitors, be they in New Zealand or internationally. Researchers benefit too by greater use being made of their work. If it is not cited, was it worth doing? The only refuge is in hoping it was made use of in another way.

Harnad S & Brody T (2004). 'Comparing the Impact of Open Access (OA) vs. Non-OA Articles in the Same Journals'. *D-Lib Magazine*, **10**(6), ISSN 1082-9873. Available from <http://webdoc.sub.gwdg.de/edoc/aw/d-lib/dlib/june04/harnad/06harnad.html>

Antelman K (200x). 'Do Open-Access Articles have a Greater Research Impact?'. Xxx. Available from http://www.umoderna.pt/lisboa/do_open_access_CRL.pdf

Brody T, Stamerjohanns H, Vallieres F, Harnad S, Yves G and Charles O (2004) 'The Effect of Open Access on Citation Impact.' Unpublished. Available from <http://eprints.ecs.soton.ac.uk/9941/>

Harnad S (2003). 'Open Access to Peer-Reviewed Research through Author/Institution Self-Archiving: Maximizing Research Impact by Maximizing Online Access'. *J Postgrad Med*, **49**,337-342. Available from: <http://www.jpgmonline.com/article.asp?issn=0022-3859;volume=49;issue=4;spage=337;epage=342;aulast=Harnad;year=2003>

Kurtz MJ, Eichhorn G, Accomazzi A, Grant C, Demleitner M, Henneken E, Murray SS (2005). "The effect of use and access on citations". *Inf. Processing & Management* **41**(6): 1395-1402.

Bollen J, de Sompel HV, Smith JA, Luce R (2005). "Toward alternative metrics of journal impact: A comparison of download and citation data". *Inf Processing & Management* **41**(6): 1419-1440.

3 Researcher participation

Creating a institutional repository is cheap, convenient, and takes little effort. It takes about \$A3 000 to \$A10 000 for hardware, nothing for the software since it is open-source, and say two to three week's work to get the repository up and running. For the next two years, it may require say a half-time commitment by a librarian to manage and promote the repository, but thereafter the time requirement should be easily absorbable into the university's budget. Of course, there is a major thinking re-orientation needed: the university library needs to get itself inserted into the scholarly research authorship process.

However, none of these issues are the key problem, even if they loom high on a librarian's or vice-chancellor's mind when thinking about institutional repositories. *The key problem is that of populating a repository with content.* This problem is so serious and so difficult, that I have put it near the front of this paper so that I can address it from the start.

There is overwhelming evidence that voluntary lodgment by authors (academics and graduate students) does not work. Repositories with voluntary lodgment policies collect a small fraction of an institution's research output, generally under 10%, and the size of the database grows only slowly. Despite every effort to convince authors to deposit electronic copies of their research, they generally do not do it. The reasons are to be found in the extra work involved, slight though it is; in ignorance and confusion about copyright; and in ignorance of the literature on the value of self-archiving. Interestingly, researchers who become self-archivers seldom look back. The value of what they are doing becomes self-evident, especially through feedback and citations.

There is no possibility that New Zealand is any different. The solution is however straightforward: *researchers must be required to deposit their research publications in a repository.* A key paper that is compulsory reading is 'Authors and Open Access Publishing' [Swan & Brown, 2005, <http://www.ingentaconnect.com/content/alpsp/lp/2004/00000017/00000003/art00007>] where a JISC-funded (UK) research project analysed these attitudes, and showed that researchers would willingly comply with such a requirement where it existed. The extra work was not seen as large, but without a requirement it was avoidable and was avoided.

I can demonstrate this at Queensland University of Technology (QUT), which is the first university in Australia to adopt such a policy. Figure 1 shows the growth in documents in the QUT repository <http://eprints.qut.edu.au/>. For comparison, I have also plotted the annual DEST-reportable research output for 2003 (as a proxy for 2004/5), starting 12 months back from the present and assuming it to grow linearly.

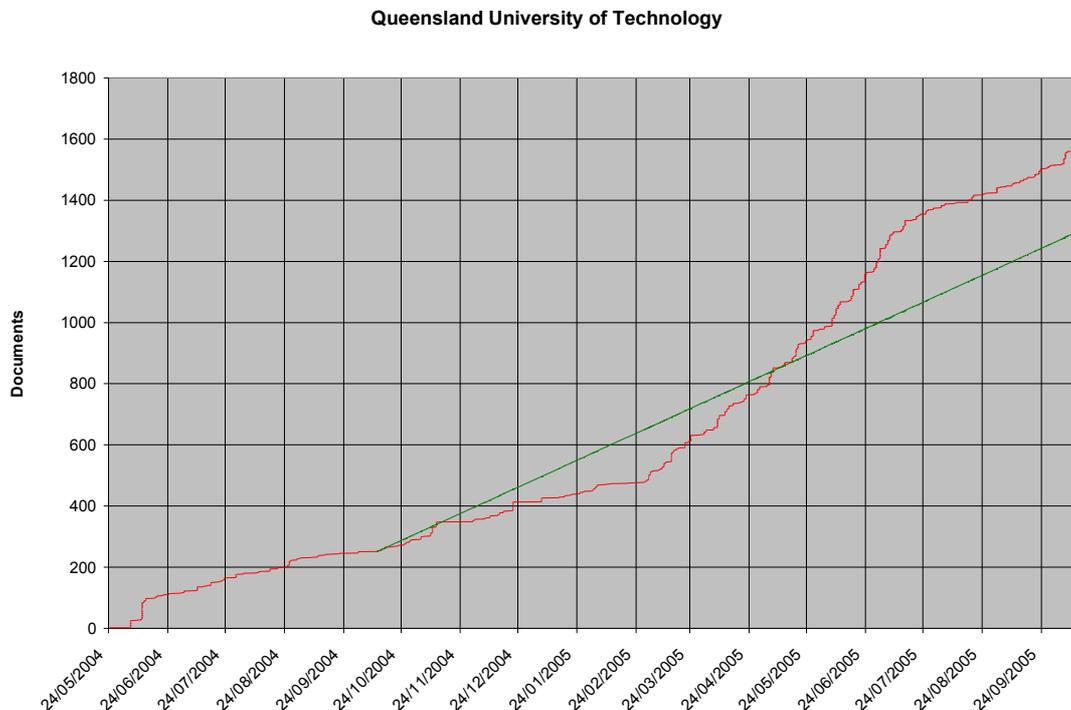


Figure 1 Archive Growth for QUT

Red = actual documents, **Green** = Linear DEST-reportable papers from a year ago

For comparison, a similar graph for the University of Queensland (UQ) <http://eprint.uq.edu.au/> shows the effect of a voluntary policy. The data for UQ presents the best case for any university in Australia with a voluntary submission policy, and yet it falls far below 100% acquisition. With a mandatory policy from the start, the UQ archive would have 5 000-10 000 documents by now, instead of 2 200.

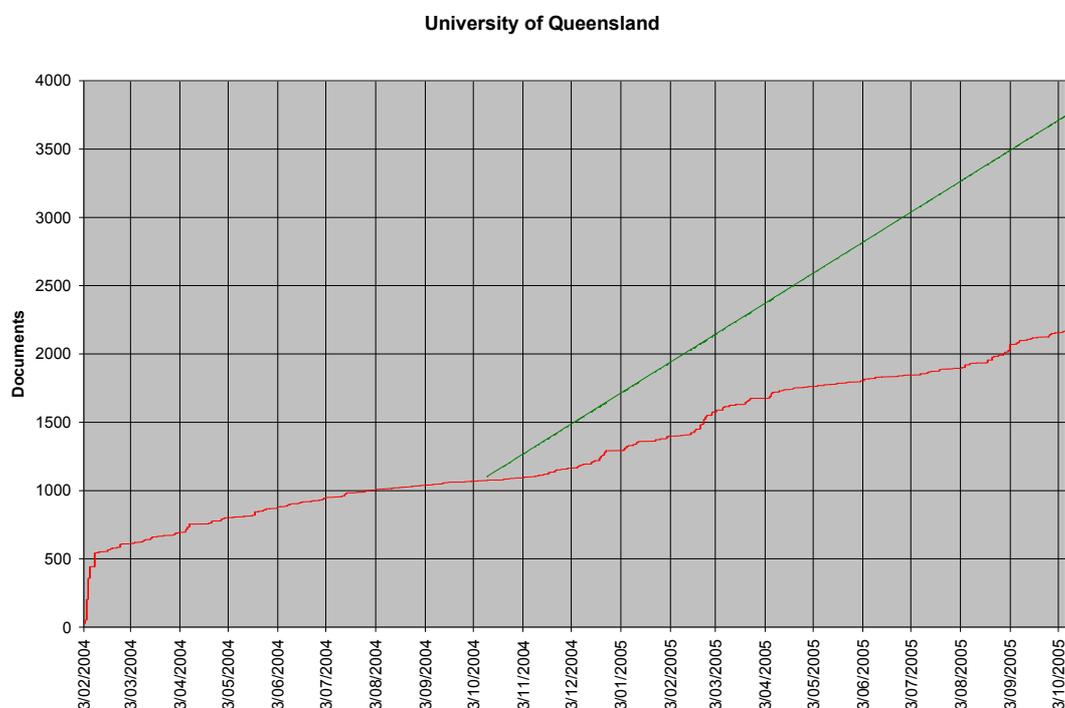


Figure 2. Archive Growth for UQ

The conclusion is inescapable: any institution setting up an institutional repository should have the policy that all its researchers are required to deposit their refereed publications. This applies equally to journal articles, conference papers and higher degree theses. The appropriate time is when the author’s manuscript is finally frozen, as this is when the author has it to hand and self-archiving is the least burden. In the case of journal articles and conference papers, this instant is on submission of the final accepted manuscript (called the *postprint*); for theses it is at the instant of submission of the print version of the final accepted thesis, prior to the award of the degree.

I have not filled in all the details, because *deposit* is all that is really required. Even if the publication is not ‘open-access’, its metadata is still exposed to the Internet, and interested researchers can contact the author via email for a reprint.

In some jurisdictions, the requirement stems from a grant-giving body rather than the institution itself. The National Institute of Health (USA) and the Wellcome Trust (UK) have various forms of a requirement policy (<http://grants.nih.gov/grants/guide/notice-files/NOT-OD-04-064.html> and http://www.wellcome.ac.uk/doc_WTD002766.html respectively); the Research Councils in the United Kingdom (RCUK) are considering one at the present <http://www.rcuk.ac.uk/access/index.asp>. A New Zealand Government might put self-archiving requirements on its future research grants or postgraduate awards (and this is highly desirable); however an institutional requirement policy is still important to cover publications not associated with grants.

4 Accountability, competition and content

In the short term, there is a competitive advantage in research impact within New Zealand for the early adopters of IRs, and a corresponding loss for late adopters. This advantage will disappear once all universities provide open access to their research; however a comprehensive OA adoption across New Zealand will continue to provide a global competitive advantage to NZ research for many years into the future. As well, IRs provide greater impact than simple paper-based publication indefinitely, through the greater availability.

It is highly probable that once the prime opportunity to self-archive is lost, the digital files that IRs require will be lost in academic filing practices or lack of them. A delay of a year therefore probably means that the research output of that university or research institution is lost forever to Open Access. Access to it, if available, will remain at the wish of the journal or conference publisher. The time has therefore arrived for a decision to start collecting now, whatever the access provisions (open or restricted).

This brings me to discuss accountability. Since almost all research publications and theses (maybe 99.9%) are now produced on a computer, it is trivial and almost costless for the researcher to provide these files to the university for preservation. It is equally easy for the institution to provide global open access to this research where copyright allows. *I therefore argue that any university or research institution that does not provide open access to its research output is delinquent in meeting standards of public accountability.* It is not that the public demand to read scientific papers, but they expect that the research they fund as taxpayers is available to anyone competent to read them.

Of course, where legal restrictions intervene, or commercialization issues demand otherwise, such publications would be exempt from open-access but not from electronic deposit and metadata access. In other words, their existence is known through exposure of the metadata and an interested person can inquire to see if they can get access to a copy.

5 Value-adding

Researchers are notoriously lazy, as are most people. They ask to see what the value is to them in self-archiving. Citations are a major incentive, but they seem a bit nebulous to many researchers, as the evidence that OA increases them is in meta-literature that the average researcher does not read, and citations are often a year or more past the publication date. However, researchers are both curious people and responsive to their future research prospects. Both attributes can be exploited.

Feedback

Researchers are often curious about the fate of their research. In the University of Tasmania we have exploited this by providing writing software to provide on-demand on-line access to data about the download history of each paper over time, its breakdown by country of enquiry, and the relation between current activity and the past. Really interested researchers can delve into more detailed information.

This data is accessible from the IR home page, or from each document metadata page. Some researchers have been observed to look at the data on a regular basis (and even to contact the moderator about unexpected events or report emails from readers). I conclude that this is a major motivator, once the researcher has been inducted into the OA regime.

This software is available to any institution on an open source license. It operates off the access logs, so is portable to any archive. A DSpace version is in development and a Fez version may also be possible once Fez is released.

Promotion and Grants

Researchers need to be made more aware of the value of citations to their curriculum vitae, and their use in cases for promotion and in research grant applications. Research impact assessment has moved from crude measures such as simple publication counts, to weighted counts on assessed quality, to basing weights on ISI journal impact indexes (themselves based on citation count averages) and seems inevitably to be moving to count actual citations now that these are readily available online. This greater precision seems to have bypassed the ordinary researcher by, but it is possible to build awareness of online citation counts into the reward system of institutional repositories. Work is in progress to see how this can be facilitated.

Professional development of researchers

The act of self-archiving offers an opportunity to actively engage in the research process by providing educational opportunities to researchers. Providing links whereby researchers can access their own download and citation history is an example. These links expose researchers to a wider range of search techniques than they might have been using; the same can be true of search engine exposure.

It has been estimated ('Australia is not Maximizing its Research Investment', Harnad 2005, <http://eprints.comp.utas.edu.au:81/archive/00000204/>) that each citation has a marginal value of \$A113-\$A2492 to a researcher depending on field and number of citations, either in increased promotion opportunity or in improved chance of grant success. The promotion of individual citation data (which the Internet has also made available) has many benefits, instead of the older and cruder measures of publication count and journal impact factor. It will also involve the researcher actively in the dissemination and ongoing use of their research.

6 Papers and ETDs

In much of the literature, blogs and wikis, an institutional repository (IR) is construed to be an archive for mainly refereed research publications, with other research publications (reports, keynote addresses, etc) having a subsidiary role. I have argued [Sale 2005a, 2005b] that electronic forms of research degree theses such as PhDs and Master by research should be stored in the same repository. The University of Tasmania and the University of Melbourne have adopted this practice in Australia. The contents of their repositories are open to the Internet, while at the same time a selective view of the metadata is sent to the Australian Digital Theses Program (ADTP: a gateway for Australia's theses).

The only reason that electronic theses and dissertations (ETDs) have tended to be stored in separate repositories is history – in paper based collections they are special collections of unique documents requiring special preservation. In the electronic era, theses are simply another form of research output by the graduate, the supervisors and the university, refereed by two or more examiners.

I will spend no more time on this obvious development except to remark that in New Zealand there is the opportunity to adopt this practice from the start, saving money and support effort. The interface software to ADTP written in Tasmania is available on request on an open source license and works on the EPrints software; similar views could be provided for DSpace or Fez.

7 Copyright

Researchers are confused about what they have signed away in copyright and therefore often choose not to self-archive as a fail-safe safety measure. At the same time the legal office of the university worries about whether it is opening itself to litigation by allowing self-archiving. Both fears are mostly groundless, but it is difficult to convince the participants otherwise. They simply do not understand the policies of publishers (nor generally want to), and the self-archiving copyright of scholarly articles are often (wrongly) conflated with music, video and other general public pirating issues.

The policies of almost all the major publishers are recorded in Sherpa [2005, <http://www.sherpa.ac.uk/romeo.php>]. If any New Zealand publishers are not covered, they should be encouraged to provide the necessary information. If you prefer to look at the policies by journal, this is available too at Romeo [2005, <http://romeo.eprints.org/>], covering 1800+ journals. It is a simple matter for anyone with online access to check the policy for any journal or publisher. Over 90% of journals permit the self-archiving of articles on an institutional repository. Note for emphasis: *over 90% of journals*.

It remains a difficult task to educate researchers regarding these facts *a priori*, though already self-archiving authors seem to have little trouble. Simply put, researchers don't want to be copyright lawyers. A simple solution is being implemented at QUT: the author self-archives the article; the moderator from the Library checks the journal permissions and if allowed makes the article open-access. If not, it remains archived, the metadata is open to the Internet, but the full-text is restricted to authorized users only (ie the librarians) without special permission. The author is happy that his or her legal liability is being looked after, the university legal office is delighted to delegate such a high-volume set of queries, and everyone is happy. The cost: the Library has to expend a little more effort to check copyright issues – but not much.

8 Expanded role for libraries

University and research centre libraries have for a long time been involved with research, even if in the case of universities the dominant role has often been seen as being in support of teaching. However, the research involvement has been in support of the researcher as 'searcher', not wearing their hat as 'author'. The distinction is critical. The searcher, as with the undergraduate learner, is in an active mode, thus allowing the Library and library staff to adopt what is called the 'passive customer service mode'. In the passive customer service mode, the organization is delighted to provide high quality service, but only when approached by the customer. There is no attempt to go out and recruit clients to service involvement.

The Internet has not just changed the scene for libraries by electronic journals, databases, websites and all the like, which all still fall within the passive customer service model. It has made it possible, even imperative, that libraries should engage with the client actively, even when they don't approach the library. This is essential when the researcher is 'author' since they don't see the Library as having any role in helping them in this role.

9 Suggested implementation plan

Suppose that I have convinced you to establish an institutional repository, or perhaps you have been convinced before you came to this workshop and are simply looking

for help and information. What should you do? Here is an implementation plan, with a six-month up-and-running target (you might better that if you try).

1 *Top-level backing*

Immediately when you get back home, get the senior executive group (Vice-Chancellor, etc) to endorse the setting up of an eprints archive. I can't predict what will work in your context, nor who the key people are to convince, but you should have ample evidence from this paper, the NLNZ wiki and the other presentations. Emphasize the research impact: citations, meeting public accountability standards, knowing what happens to research, and contribution to knowledge dissemination. Emphasize the library getting into supporting the creation of research output. Don't promise to reduce the library budget or the pressure on it, because you won't. Don't try to sell the feel-good aspects of opening your research to third-world countries – these arguments simply do not wash. Keep the message simple: an IR is in the University's self-interest through increasing its research impact.

2 *Hardware*

In parallel with this, identify a server that you already run which has enough disk space for a few years' worth of research output. If you haven't got enough capacity, you may need to buy a special server (you will anyway later on). If you need to buy a server, almost any cpu capacity will do. The load is not great. The server needs to run a Unix or Linux *operating* system. The key issue is the disk space. Estimate how many papers and theses your university creates per year (p and t respectively). Assuming 5 years is a sufficiently long time to run a server without replacement, each research paper takes 200 kB on average, and each thesis takes 3.5 MB on average (range 1-10MB). Then allowing 1GB for the OS and the software (over-estimate), the disk space you need will be:

$$\text{Disk space} \leq 5 \times ((p \times 0.2) + (t \times 3.5)) + 1$$

For the University of Tasmania ($p=1500$ and $t=130$) this evaluates to 40GB. A suitable machine is an Apple iMac G5 (160MB disk) costing \$A1999 retail or an Apple PowerMac G5 (160MB disk, without monitor) costing \$A3444 retail, both running OS/X (unix) ready installed. You can go more upmarket than this and go for Solaris or RedHat Linux, but it would be impossible to justify more than \$10 000. (Remember that the initial machine cost can be zero if you use an existing server with a reasonable amount of free disk space.)

This data is based on actual measurements on our repository. The disk space would need to be expanded if retrospective thesis conversion is to be implemented as scanned theses run to 100MB easily. If a mandatory policy is not implemented the repository will be at most 20% full and the estimate is far too generous.

3 *Software choice*

This is a no-contest decision when you look at it sensibly. There are really only two widely used *packages*: *EPrints* and *DSpace*. *Fedora* also enters the picture because ARROW has chosen to implement a sample repository based on it; otherwise it would be below the horizon of packages in common use.

EPrints, *DSpace* and *Fedora* are all open source free software.

All comply with OAI-PMH protocols; all are supported by a source university or two (*EPrints* in the UK by Southampton University, *DSpace* by MIT in the USA, and *Fedora* by the University of Virginia & Cornell University in the USA). The cost of the ARROW *Fedora* adaptation has not been announced, but it involves a commercial front-end from VLTS so there may be some cost. The relative numbers of current installations of *EPrints*, *DSpace*, and *Fedora* are shown

in Figure 2. Unknown, minor, and in-house software have been excluded. All of these three software solutions are viable.

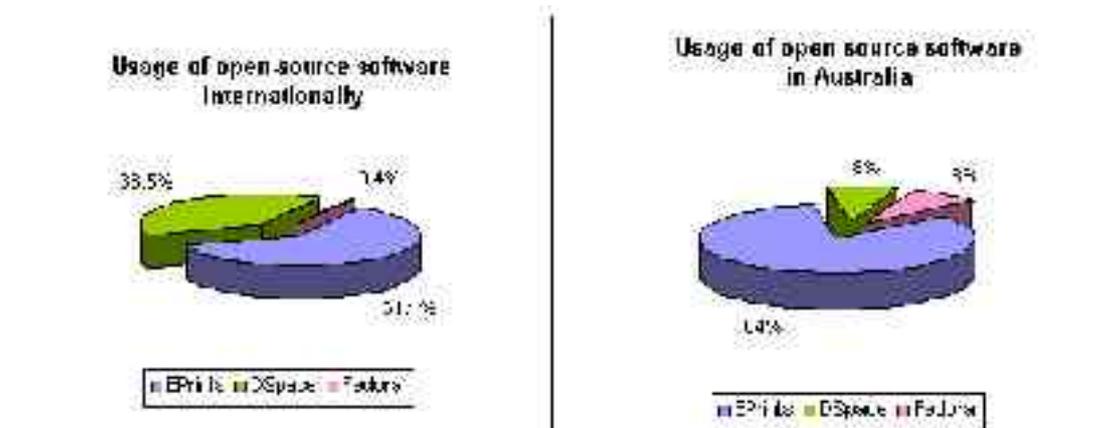


Figure 2. Relative installations in institutional repositories

World's Best Practice for an institution commencing an institutional repository is *EPrints* <http://www.eprints.org/>. The software is quick to install, easy to configure, and needs minimal maintenance. Once installed, it simply works without fuss. Over a year, no maintenance has been required to the UTas server apart from updates. There simply isn't a contest.

It is quite probable that if you choose an EPrints solution, you will not want to change in the foreseeable future. However, large institutions bigger than any Australian or New Zealand university, or institutions that want to develop other uses of their repository software, and which have the funds to devote to significant ICT support of complex packages, might contemplate DSpace or Fedora solutions. They should be prepared for more significant manpower costs. Both DSpace and Fedora are really *digital library* packages (not *institutional repository* packages) and require customization to provide IR (or indeed any) functionality.

Regardless, I continue to recommend that the first repository any institution establishes should be an EPrints one as you can be up and running in a week or two. This also has the advantage that you can immediately make use of the add-ons mentioned in clause 5. All of the OAI-compliant software has the ability to do bulk transfers of the databases, should you wish to change in the future.

4 *Software installation*

Assuming you take my advice, you download the EPrints software from <http://www.eprints.org/>, and install it on your server. The instructions will tell you that it needs Perl to run, and uses the MySQL database software (also open source and free). Probably within one day you have an out-of-the-box EPrints server running; at most a few days if you run into an incompatibility of versions that requires a bit of work.

Now take a week or two to customize the web pages to your liking. You will want to put your institution's name and logo on the pages (there are html banner headings and footers to edit). You'll probably want to play around with the html layout on the html pages to generate the look-and-feel of your university. Have a look at other EPrints sites to get some ideas of what is possible (of course you can always look at and copy their source html too). All Australian and many other sites are listed in the Institution Archives Repository

<http://archives.eprints.org/eprints.php>. Put up one or two documents you've collected beforehand so the repository is not empty. Try out the interface. You are ready to go live, but I suggest that you enhance your site before you do.

5 *Add-on software*

Assuming you are going to put your PhD and research Master theses on to the server (as I recommend), you'll also want to install the free open source University of *Tasmania* software *that* links to ADTP. Contact me Arthur.Sale@utas.edu.au, and we'll send the software, information and a licence. Less than a half-day job for you and you'll be serving up theses to ADTP. Ask Tony Carneglutti at ADTP or Eve Young at the University of Melbourne for testimonials.

I also recommend that you install our statistics package and the open source package *awstats*. The former will inspire your researchers; the latter will give you as manager access to useful server management information. Again, contact us and we'll send our software, information on installing and a licence. This software is running on our server <http://eprints.comp.utas.edu.au:81/>, and will shortly be adopted by several other Australian universities. An older version runs at the University of Melbourne <http://eprints.unimelb.edu.au/>.

6 *Registration*

If you've got all *this* running, the time has come to go live. Check that your server is open to the Internet. Get someone outside the firewall to access it to check.

- (a) Now register the server with the *Institution Archives Registry* <http://archives.eprints.org/eprints.php>. The registration procedure is accessed via the **Register an Archive** link on the header. Several search engines will find your repository via the IAR, particularly Yahoo and OAIster.
- (b) *Google* and *Google Scholar* might find your repository on their own, but it is better to make sure. Go to each, and register your repository URL (<http://www.google.com.au/addurl/?continue=/addurl> and <http://scholar.google.com/scholar/publishers.html>). Also send an email to *Scirus* to register your repository (<http://www.scirus.com/srsapp/submiturl/>).
- (c) If you are going to be an ADTP contributor, you'll want to email ADTP and give them the URL of the /ADT directory, as described in our add-on software documentation.
- (d) ADTP will commence harvesting your repository overnight; the other search engines may take up to a month to visit your repository and you will become visible on them only then. There is nothing else you can do except check at intervals, or watch the *awstats* if you implemented them.

7 *Mandate*

While you have been doing all this hard implementation work (steps 2-6), you should have been working in parallel on the equally important policy issues. Without them *your* repository is *destined* to be a white elephant. The three important policies you need to have your institution endorse are:

- (a) An institutional directive that the postprint of each refereed publication must be deposited within a month of the postprint (final accepted manuscript) being forwarded to the journal or conference. A model policy is attached as Appendix 1.

- (b) A similar institutional directive that an electronic copy of each PhD and research Master thesis which has been accepted after examination must be lodged at the same time as the paper copy of the thesis is lodged with the university. See Appendix 1.
- (c) A policy describing what documents can be deposited beyond the directives mentioned earlier, what the quality control procedures are

There is a lot of evidence already referred to that you can use in your arguments. The key arguments are (a) that without a directive the repository will acquire at most 30% of published documents or probably less, and (b) citations increase by at least 50% and in some disciplines by 250% thereby increasing research impact and quality measures measured globally. The directive can be administered softly; the key concept is that researchers and heads of departments come to realize that this is a regular and routine part of doing research. The evidence at QUT is that after only one year, compliance is up to 50%. In the following years we will probably see that approach 100%, as for example at the University of Southampton.

8 ***Quality control, training, promotion and exploitation***

These are all longer-term goals.

- (a) You will need to establish what can and cannot go into your repository. A draft policy is in Appendix 2, for you to adapt to your circumstances. You may need this to get the important things approved.
- (b) An IR offers an opportunity for an institution (and its library) to be proactive in the support of its research output especially in professional development. Researchers are always interested in responses to their research (why do they do it apart from ‘publish or perish’?). Provide them with feedback on the fate of their publications (for example the UTas download statistics). Contact them or run seminars on analyzing the data that is available to them. Educate them in the value of citation data (if it is not cited, was it worth doing?). Provide as much bibliometric data in simple formats digestible by researchers as possible. Publish statistics in the university or institution magazine.
- (c) By the way, some researchers may complain that they are getting too much email from downloaders/readers about their publications. Ask them whether they’d prefer to be ignored.

In any case, you personally should subscribe to ozeprints@library.uq.edu.au, and the AMSCI forum AMERICAN-SCIENTIST-OPEN-ACCESS-FORUM@LISTSERVER.SIGMAXI.ORG; two mailing lists which will inform you about what is going on in Open Access in this region and globally. The former is currently low-activity; the second is high activity but much of the heat can be scanned and ignored. However it is important that you monitor the pulse of the OpenAccess movement unfiltered by special interests. I also invite you to look at and become a contributor to the *AuseAccess wiki*, viewable at <http://tully.comp.utas.edu.au/AuseAccess/>. This is a resource for all Australasian Open Access practitioners.

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Appendix 1 – Model Deposit Policy

Open Access Policy

- 1 All members of <name of institution> are required to deposit an electronic copy of the final draft of a refereed research publication in the <institution repository>, not later than one month after the final draft of the accepted manuscript is sent to the publisher or conference.
- 2 All candidates enrolled in <name of institution> for PhDs or research Master degrees are required to provide the <institution> with an electronic copy of their thesis at the time that they lodge a printed copy for the <institution>'s Library. Candidates will note any third-party material in the thesis outside 'fair-use' provisions and whether they have permission to republish it.
- 3 In either case, the authors will affirm that the copyright in the work originally resided with them and any co-authors, and may specify that
 - the Library should examine the copyright provisions applying and make a determination about whether the document should be granted open access, restricted for <x> years, or restricted until further notice;
 - the document should be granted open access on the Internet; or
 - the document should be restricted for <x> years, or restricted until further notice.

The above policy can be adopted and amended freely by any institution. Citation of this source is appreciated but not required.

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Appendix 2 – Model Collection Policy

1 Purpose of the Collection

The primary aim of the <name of university> eprint collection is to increase the research impact of the University's research, and to provide feedback to the researchers, the University, and other stakeholders. The eprint Collection will be a digital repository of papers and e-theses that contains the research and scholarly output of the University across all subjects and disciplines. The Collection will provide free, searchable access to this research and make possible its long-term archiving and preservation.

2 Scope of the Collection

The Collection will consist of the following types of material:

- Journal articles, communications and short papers (online or print).
- Conference papers. Long versions of papers and poster presentations are acceptable.
- Theses accepted for graduate research degrees.
- Theses of a high standard accepted for other degrees.
- Official University documents that require global accessibility and indexing.
- Technical reports, commissioned reports, and other unrefereed research output.
- Proceedings or papers of conferences held at the University if not otherwise published.
- Newsletters of significant research groups.
- Documents associated with the eprint collection itself, such as policies, procedures, annual reports, etc.

3 Authorized contributors

Any academic staff member of the University, or any graduate research degree candidate (or graduate) may contribute works. Other staff members can be designated as responsible for contributing works on behalf of others. All graduate research degree theses should be submitted following the rules set down by the <Board of Graduate Research or equivalent> and the Library. Contributors will be required to declare that they originally held copyright to the material submitted.

4 Quality Assurance

As the material in the collection will have a bearing on the reputation of the University, the collection will only contain material that satisfies one of the following criteria:

- DEST reportable publications produced by University staff;
- Material that can be demonstrated to have undergone a recognised referee process;
- Material forming the whole or part of work examined and accepted for a University graduate research degree;
- Material produced at the University or another acceptable institution (or published or funded by the University) and approved by the University Librarian;
- Other student work approved by the head of department(eg first class honours theses, coursework Masters theses of a high standard, etc);
- Other material produced by academic staff and approved by the head of department.
- <if relevant> Material produced by federated, regional or associated research bodies and appropriately authorized <for example local historical societies, Royal Societies, Museums, Herbariums, etc>.

5 Editorial Rights

The University Librarian will retain the right to exclude any item submitted. The librarian in charge of the collection will be able to make minor edits, return items for amendments for technical and indexing purposes, determine accessibility based on copyright agreements, and convert files to commonly used formats, etc. The Library may add or edit metadata for cataloguing and indexing.

6 Changes to this policy

This Policy will be determined by the University Librarian on approval from the <title of the responsible member of the Senior Executive>.

The above policy can be adopted and amended freely by any institution. Citation of this source is appreciated but not required.

Arthur Sale, University of Tasmania

Appendix 3 – Model Procedures

Whoever administers the eprint repository, some internal procedures will be needed. It is assumed that a mandatory submission policy is in place. Voluntary submission policies are sub-optimal and require many more concessions and incentives to achieve even modest content upload.

- 1 Authors may upload their own papers or theses to the repository themselves (this is encouraged), or submit them to a departmental or local support person, or submit them to a central person or unit. The points of entry and any constraints should be specified. Any digital file format should be accepted – maximizing content is far too important to compromise with convenience. Quality controls should exist *after* this point, not at it.
- 2 Authors should be required to specify whether they want
 - the Library to examine the copyright provisions applying and make a determination about whether the document should be granted open access, restricted for <x> years, or restricted until further notice;
 - the document to be granted open access on the Internet; or
 - the document to be restricted for <x> years, or restricted until further notice.
- 3 The administrators should convert text files in MS Word, OpenOffice, Postscript, XML, etc format into pdf files for Internet download convenience, and add them. The native format and any unusual files (eg programs, images) should be left untouched though included.
- 4 If the authors leave the decision as to access to the administrators (and this should be encouraged), the administrators should check publisher/journal policies on Sherpa, Romeo and the AUSEAccess website, and if possible make the document open to the Internet.
- 5 The administrators should check the metadata and correct any obvious minor omissions or errors. Major issues should be referred back to the authors.
- 6 Annually, Heads of Department may be asked to certify that the list of document submitted (supplied in print) is the complete list of publications by the department. [Sanctions are not warranted, just gentle pressure.]

The above policy can be adopted and amended freely by any institution. Citation of this source is appreciated but not required.

Arthur Sale, University of Tasmania