



Evidence Summary

Self-archiving to Institutional Repositories Is Improved by Assisted and Mandated Deposit; Disciplinary Culture is not a Factor

A Review of:

Xia, Jingfeng. "Assessment of Self-Archiving in Institutional Repositories: Across Disciplines."
The Journal of Academic Librarianship 33.6 (Dec. 2007): 647-54.

Reviewed by:

Gaby Haddow
Faculty Librarian, Humanities, Curtin University Library
Perth, Western Australia
Email: G.Haddow@curtin.edu.au

Received: 01 March 2008

Accepted: 25 April 2008

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Abstract

Objective – To test the assumption that authors familiar with subject-based repositories are more likely to self-archive to institutional repositories.

Design – Comparative content analysis.

Setting – Institutional repositories (IRs) from the following seven universities: Queensland University of Technology (QUT), University of Melbourne, University of Queensland, Lund University, University of Glasgow, University of Southampton, and University of Strathclyde. The IRs included in the study were selected on the basis of repository size and use of EPrints software. Faculty size data and IR deposit

policies were drawn from universities' Web sites.

Methods – Each IR was searched to determine the number of deposits in the disciplines of chemistry, physics, economics and sociology. Physics and economics were selected because these disciplines have established internationally renowned subject-based repositories, in contrast to chemistry and sociology, which have not. Deposits from the disciplines were identified from subject terms, keywords and departmental names in metadata records. A "deposit rate" for the four disciplines in each IR was calculated. The metadata records were examined for name of the depositor, date of deposit, full-text availability, item type, and format. Information in the field "Deposited By" was

used to identify the extent of self-archiving (that is, deposited by the author).

Faculty size for the four disciplines at the seven universities was established from departmental Web site information. For the purposes of making comparisons between the IRs, these data were converted into “rates of faculty” size by dividing the number of faculty in the department by the total number of faculty at the institution.

A weighted rate of deposits by discipline was calculated by dividing the rate of faculty size by the deposit rates. To take into account disciplinary differences in publication productivity, these rates were subjected to further analysis. Using an “average publications per year” calculation for each discipline (from a 1977 paper), a final weighted rate of depositing was calculated for the four disciplines in the seven IRs.

Main Results – Without weighting for faculty size, deposit rates vary greatly between disciplines. In most institutions, deposit rates for chemistry and sociology were higher than rates for physics and economics. When faculty size is controlled for, the highest deposit rates in five IRs were for chemistry and sociology. Only two IRs were found to have the highest deposit rates for physics and economics. These results did not change overall when the weighting for publishing productivity was applied: the same five IRs had highest deposit rates for chemistry and sociology.

Exceptions to these findings were the IRs at University of Melbourne and University of Queensland, where the highest deposit rates were for economics and physics. On examination of depositor information, it was found that only 2.3% of economics deposits in the Melbourne IR were self-archived. Administrative assistants and other staff were responsible for depositing 97.7% of the

IR’s economics holdings. Self-archiving of physics items to the Melbourne IR was 90%; however, these deposits comprised student theses and dissertations only.

Self-archiving practices were examined for: chemistry, physics and economics deposits at the University of Melbourne; chemistry and economics at the University of Queensland; and chemistry, physics and sociology at Queensland University of Technology (the only IR in the sample with a mandatory deposit policy).

Like Melbourne, self-archiving of economics deposits at the University of Queensland was also low, at 17%. Of the remaining economics deposits, a librarian was responsible for depositing 68%.

Chemistry deposits at both Melbourne and Queensland had much higher self-archiving rates, 76.2% and 100% respectively, than those found for physics and economics.

At QUT, where deposit into the IR is mandatory, self-archiving rates are high for the three disciplines for which findings are reported. The self-archiving rate for chemistry was 68.3%, sociology 46.3%, and physics 42.9%. A librarian was responsible for the majority of the remaining deposits.

Conclusion – This research tested the proposition that disciplines familiar with subject-based open access repositories, such as physics and economics, are more likely to contribute to IRs. Its findings did not support this view. Instead, the study found no particular pattern of deposit rate across the four disciplines of chemistry, physics, economics and sociology in the seven IRs.

Operational aspects of IRs, such as assisted and mandated deposit, appear to have a more significant effect on deposit rates. Assisted deposit, either through departmental administrative staff or

librarians, accounted for relatively high deposit rates for economics in the Queensland and Melbourne IRs. Deposit date information in the Queensland IR suggests administrative staff of the economics department deposit to the IR on an ongoing basis. Students showed a high rate of self-archiving for theses and dissertations.

It might be speculated that a mandate policy at Queensland University of Technology is responsible for the high self-archiving rates seen for economics, chemistry and sociology. However, librarians have assisted in the process, depositing over half the items for physics and sociology.

The author recognises the value of both assisted and mandated deposit, but raises questions about how this will affect faculty use of IRs. For example, in cases where faculty have no role in contributing to an IR and therefore no familiarity with it, will they in fact use it? Another important consideration is the policy approach taken to temporary faculty and a mobile academic workforce. In conclusion, the author states, "Institutional repositories need a mandate policy to ensure success".

Commentary

Increasingly, research is indicating that placing a publication in an open access environment will increase its impact in the scholarly community. For this reason, it is important for those involved in developing open access systems to have as much information as possible to ensure success in their endeavours. Xia's research contributes to the growing number of studies with this aim. See, for example, a recent paper by Davis and Connelly (2007), summarised in this journal.

Xia's sample for analysis was limited to seven IRs using the same software, EPrints,

which includes a field for depositor name. This meant the researcher was able to gather data about archiving practices without the necessity of conducting a survey of academics at the institutions. In terms of reliability of raw data, it is difficult to imagine a better method for gathering quantitative information about archiving practices. By checking this data against departmental Web site information, the study produced useful findings about those responsible for depositing to IRs. However, the questionable reliability of Web site information relating to faculty and discipline areas, acknowledged by Xia, affects the confidence with which we can view the findings for deposit rates by discipline. Exacerbating this concern is the lack of information about how deposit rates were calculated. It might be assumed the numbers presented are a percentage of the total holdings of the IR, but the reader is faced with a three-digit decimal with no raw data to provide context for the results. Furthermore, the calculation for final weighted deposit rates for each discipline relies on publications productivity estimates published in a 1977 paper. Ultimately, these deficiencies in the study, as it is reported, do not diminish the most interesting aspect of the study, which is the results relating to archiving practices.

The snapshot of archiving practices at Queensland, Melbourne and QUT provides IR managers with important information with which to develop policy. In essence, self-archiving to IRs is not widely practised by academics unless mandated, as at QUT. Even with mandated deposit, a large proportion of items were deposited by people other than the author. No explanation is given in the paper as to why an analysis of Strathclyde's self-archiving practices was excluded, despite very high deposit rates for chemistry in the IR.

With some clarification from the researcher, this study could be expanded to explore deposit rates in a larger sample of IRs and discipline groups. It is an area of increasing interest as institutions establish and develop open access systems to promote research undertaken by their staff and students. While quantitative studies of self-archiving practices raise some difficulties due to the depositor name data required, reliable findings about effective strategies to encourage archiving to IRs (other than mandated deposit) would be most welcome. And if mandated deposit policies are widely implemented, research will be needed to identify effective processes to monitor policy and appropriate methods to impose in cases of non-compliance.

As this is one of three papers by Xia stemming from research on self-archiving, details of the companion papers are listed below for interested readers.

Works Cited

- Davis, Phillip M., and Matthew J.L. Connolly. "Institutional Repositories: Evaluating the Reasons for Non-Use of Cornell University's Installation of DSpace." D-Lib Magazine 13.3/4 (2007). 2 May 2008
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