

OPEN ALL HOURS? INSTITUTIONAL MODELS FOR OPEN ACCESS

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Open Access and Scholarly Communication Futures

It seems likely that scholarly publishing will evolve along two distinct paths in the near future: one in which large multinational commercial publishers increase their dominance of the global STM market, and the other in which a variety of Open Access (OA hereafter) initiatives emerge and become commonplace.

OA is here taken in its widest sense of making scholarly research available to readers through the Internet free of charge, notably through the mechanisms of placing research outputs in Institutional/Subject Repositories, the 'Green' strategy, and the 'Gold' route of meeting publisher article costs to ensure OA.

Institutional Settings and Open Access

Initially a wide perspective needs to be adopted in the context of institutional settings, for example, consideration of institutional budgets in terms of public good input and output information costs, before addressing the specifics of OA initiatives

Major research universities spend hundreds of millions of dollars in each first world country on acquiring information in acquisition programmes which are far from "business like" in terms of cost benefit analyses. Much of the material acquired, moreover, is often not used or is little used, as evidenced by various print collection use statistics in the twentieth century and by digital download analyses of the twenty-first. The UK NESLI analyses reveal the relative low use of material acquired under the JISC 'Big Deals' serial purchases and that a comparatively small percentage of the titles generated high use. (Woodward and Conyers, 2005)

Reed Elsevier publications cost the University of California Library half its budget in 2002 for online publications, yet Elsevier titles accounted for only a quarter of the journal use. (Willinsky, 2005) Candee has noted that the University of California annual budget for licensed content by 2005 was \$27 million. (Candee quoted in Poynder, 2005) One wonders in that context how many of the articles purchased are actually used/read/downloaded and how was "value for money" defined.

It is disingenuous for publishers to criticise universities for using free infrastructure for OA initiatives when they benefit from similar infrastructure for researcher's submissions. Much of the research from universities in the major STM journals is provided "free" by the institution, through "free" laboratories, offices, IT infrastructure, academic refereeing, etc. Maybe institutions should 'dig up the pitch' in terms of resource allocations and start again?

University libraries employ a "merchant model" in dealing with publishers and a "community model" in dealing with staff and students. The institutional dysfunctionality of the scholarly communication system is heightened by the "Jekyll and Hyde" syndrome of the academic researcher who adopts one set of values as a creator of knowledge and one markedly different as the reader of research

publications. The researcher in many cases bears little, or no, responsibility for the purchasing of the scholarly information which he or she has “given away”.

Increasingly, the sentiment is being expressed globally that publicly funded research should be publicly and freely available. In Australia, Dr Mike Sargent, Chair of the national e-Research Coordinating Committee has stated that, “the Government regards publicly funded research as a public good” and that “as a general statement of principle, researchers ought to be able to find out what research is going on and gain access to that research Use of OA regimes and institutional repositories will be critical to both the development of the AF (Accessibility Framework) and the RQF (Research Quality Framework).” (Sargent, 2005)

Open Access- Institutional Repositories and Open Access

Institutional Repositories (hereafter IRs) have potentially significant benefits for institutions if they are integrated holistically into university frameworks. Proberts and Jenkins in their analysis of seven IRs have reaffirmed the importance of collaborative activity in institutions by academics and relevant University departments. (Proberts and Jenkins, 2006) The place of the IR within the University’s mission and strategic plan is a crucial first step.

As Lynch has cogently stated: “At the most basic and fundamental level, an institutional repository is a recognition that the intellectual life and scholarship of our universities will increasingly be represented, documented, and shared in digital form, and that a primary responsibility of our universities is to exercise stewardship over these riches: both to make them available and to preserve them”. (Lynch, 2003)

While the OA debate has largely focused on the deposit in IRs of peer-reviewed articles, particularly in the sciences, it should be noted that IRs are often much wider in practice than just e-prints, for example, hosting institutional datasets and digital cultural objects. OA carries also the responsibility for curation of digital material. A repository can also be an important element in collaborative learning environments and university marketing initiatives but these aspects are not the focus of this chapter.

The 2004 UK PALS study indicated the following main IR uses: scholarly communication, education, e-publishing, collection management, long term preservation, institutional prestige, knowledge management and research assessment exercises. (Mark Ware Consulting, 2004) The “gather once and use many times concept” provides administrative efficiency for institutions.

Jones, Andrew and MacColl note the advantage of IRs in that they allow the free sharing of information and increase the visibility and impact of UK education and research. (Jones, Andrew, MacColl, 2006) What distinguishes IRs “is the idea that an internal database can serve more than an administrative purpose, and can constitute a building block in a distributed international service.

IRs can hold the intellectual record of the universities output, increase access to institutional research and thus its impact and provide input to national research outputs, as has been evidenced by the DARE initiatives in the Netherlands. (Heijne, 2005) Kircz believes an institutional repository can become “a research tool in itself”

and, for the institution, becomes “the central metabolic organ for knowledge”. (Kircz, 2005)

Institutional Repository Cost Settings

The “Value Proposition” in IRs has been analysed by Blythe and Chachra, who conclude that IRs will yield “maximum value to institutions only if economies of scale and economies of scope are fully leveraged”. (Blythe and Chachra, 2005)

The following IR cost figures are simply indicative as IR costs will depend on the individual structure of the IR within a particular institution. Swan and Brown note that “an average-sized research-based university can set up a functional archive for, say, 10,000 US dollars” and “for all the benefits such an archive brings to an institution represents excellent value for money”. (Swan and Brown, 2005) Kemp quotes costs from ten libraries from the USA, UK, Canada and Ireland revealing a range from circa \$7k to \$1million for IR setup costs. (Kemp, 2005)

Swan and her colleagues have also reported the following costs for two institutional repositories. (Swan, Needham et al, 2005) MIT D-Space, which is at the upper end of the complexities of repositories, was set up with a \$1.8 million grant, with annual staffing costs of \$225,000, \$35,000 for systems equipment and \$25,000 for operating costs. Queens University in Canada, with its Q-space incurred \$50,000 for set up programming and \$50,000 annual staffing costs. Rankin (2005) in his New Zealand study has suggested that IR staffing could require one to three FTEs for setup costs, with ongoing support thereafter requiring less than one FTE.

These figures are still relatively low cost figures in a total institutional budgetary setting. IRs can also be relatively easily incorporated into library and ICT support programs. Hong Kong University of Science and Technology, for example, has indicated the benefits of spreading the workload among systems staff and reference/subject librarians who do faculty liaison tasks, while collection development librarians resolve copyright issues and support staff become involved in data input. (Chan, 2005)

HKUST Library saw its 2000 IR papers downloaded ten thousand times, in October 2005 - an impressive figure. Even more impressively, the University of California had 2,421,218 full-text downloads by late January 2006 from its eScholarship Repository [<http://repositories.cdlib.org>], which offers faculty on the UC campuses a central facility for the deposit of research or scholarly output in a variety of forms.

Some institutions, usually smaller ones, have preferred not to get involved in the downloading and support of IR software. Proquest offer commercially their ‘Digital Commons@’, based on the University of California’s bepress software. Proquest charges between \$19k to \$33k pa depending on university EFTSU’s, with database service; data entry and recruitment of content costs borne by the university. (Sale, 2005). In the United States, where eprint IRs were “late developers”, Proquest has been the predominant force.

Institutional Barriers to Open Access

Institutions certainly need effective OA leadership. The Australian Group of Eight Vice-Chancellors issued a significant statement on Open Access in 2004 but very little direct action ensued because no-one was designated to take responsibility in the senior academic arena within those universities. Queensland University of Technology “success” in increasing its rate of deposit is partly due to the leadership of the Deputy Vice Chancellor in that university. Callan and Cleary have described the QUT policies in terms of “soft” mandatory frameworks and how marketing and novel policies can bring reward in an institutional setting. (Callan and Cleary, 2005)

Many researchers are still unaware that most publishers give them the right to self-archive their work, or that their institutions house an IR for this purpose. Sparkes has noted that the majority of respondents in all groups that she surveyed did not know if their university had an IR, although more had awareness of subject based repositories. (Rightscom, 2005) The highest proportion of respondents depositing was in the physical sciences and the lowest in arts and humanities.

The number of humanities documents in IRs is currently far lower than that in STM disciplines. (Allen, 2005) This result has been confirmed by the recent major German study, which in a survey of one thousand researchers, found that more doubts were expressed about OA publications by researchers in the social sciences and the humanities compared to those in the sciences. (Deutsche Forschungsgemeinschaft, 2005)

Yet it is arguable that IRs and OAs have much greater potential for scholarly distribution and access in the social sciences and the humanities than for the sciences, which by and large have a well defined distribution system for their research, albeit often at high prices.

“Faculty resist all attempts to force them to publish’ in different formats and venues unless they can see the advantages clearly indicated and incorporated in reward systems”. (Pete, 2005) *Institutional business plans are not the issue here but rather institutional and national reward systems.* Copyright and plagiarism concerns are also a major issue for scholars, yet these concerns can easily be defused if researchers are contacted directly. Libraries have a major advocacy role to play with their academic communities

Many North American University Councils and Faculty Boards have issued statements in recent years calling on scholars to change scholarly communication practice. However, few major practical changes seem to have resulted. The various ‘White Papers’ issued in December 2005 by the University of California Senate promise, however, promises to contain more “teeth” for institutional action. (University of California, 2005)

Open Access Article and Journal Funding and Institutional Policies

There is less institutional activity in the context of OA article financial support than in IR activity. The issues in setting up an OA journal, or converting an established journal to OA, or providing institutional funding models for OA subsidies are significantly more complex than simply depositing articles in IRs.

OA journals are not free journals; they are only free to the reader. There are significant costs in publishing which have to be met such as the peer-review process and distribution mechanisms. The term “author pays” is, however, an extremely misleading one. The author is not intended to pay personally, but rather to have the costs of the publication of an article met through a variety of funding mechanisms such as research grant funding, foundations, institutional support or revenue generated from advertising or related services.

A number of commercial publishers allow for OA article provision in a variety of ways, for example, making the contents of their journals freely available after a period of time in OA mode, e.g. after six or twelve months. Others charge a fee which can range from \$500 to \$3,000 per article. Such funding derives from the various funding sources mentioned above.

Costs related to publishing in OA journals, perhaps should be considered as charges related to institutional access to scholarly information. In this context, there has been some initial activity. Some universities like Columbia University Library have offered to pay the Columbia author OA fees. Others have modelled scenarios whereby the average cost of OA article provision is projected against the library acquisition vote.

Davis and his colleagues concluded at Cornell that this would not bring about savings given an average cost of around \$1500 per article. (Davis 2005). A more likely initial path for institutions to tread is to lobby research funding bodies, both individually and collectively, to incorporate the cost of making research available in OA outlets as has been the case with the Wellcome Trust in Britain.

Open Access and Institutional Research Impact

OA publishing can increase early advantage and impact of articles. (Hitchcock, 2005) Antelman has shown that OA articles receive more citations than non-OA articles but notes that care still needs to be taken in stating overall that OA status causes citation advantage. (Antelman, 2005)

OA, apart from the major considerations of increased access and impact, also allows for the provision of enhanced methods of citation analysis, which can also link into performance indicators, both of researchers and institutions. Day has outlined how repositories can support the UK RAE (Research Assessment Exercise). (Day, 2004)

Harnad has proposed that institutions should mandate the self-archiving of all peer reviewed research in order to maximise research effectiveness. (Harnad 2003) A number of universities are working with their Research Offices to streamline the collection of data and its inclusion in IRs, thereby providing a systematic collection of an institution's research output. Edinburgh and Southampton University's work to develop solutions for integrating D-Space and E-Prints IRs and their workflows into institutional research assessment activities is relevant here.

Scholars, by making their work available globally, will undoubtedly gain broader distribution of their ideas through global harvesting by search engines. (Getz 2005) Professor J J Fox, Director of the Research School of Asian and Pacific Studies at the Australian National University had significant and unexpected international responses to his article, 'Currents in Contemporary Islam in Indonesia' after placement in the ANU e-prints IR, not least its translation into Italian and wide distribution in Italy.

While the brief of this chapter was OA articles, the benefit of OA for scholarly monographs, particularly in the social sciences and humanities, is equally if not more significant in the long term. It makes little sense for researchers to spend many years writing a monograph (still the "gold standard" for tenure in US Ivy League Universities), only to find either that there is no outlet for their publication or that their monograph is published in such a small edition that global or local penetration is extremely limited. The evidence of some of the new e-presses, eg the ANU E-Press and the University of California's eScholarship editions have shown that placing institutional monograph material free on the net (with print on demand copies purchased as required) is an effective public good research OA output mechanism for an institution.

Conclusion

In H G Wells's 'Country of the Blind' the "one-eyed man is king", while Canadian author Margaret Atwood has said, "an eye for an eye only leads to more blindness"! Many in the academic community remain "blind" to OA issues and are often constrained in taking action by historical practices, and more importantly by reward systems, both perceived and real. They thus occupy the academic institutional "country of the blind".

Informed institutional leadership, combined with vibrant advocacy programmes and enhanced reward systems, is required for relevant eyes to be opened to the nature and benefits of OA. Institutions now have the chance to accelerate the OA scholarly communication process. Such "action does not require total agreement with the OA movement's beliefs and proposals, but it requires an active engagement with them."(Bailey, 2005) This "engagement" with individual researchers in institutions will be the key to scholarly communication change.

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Bio

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