Scholarly Communications

Who should read this?

This is likely to be of interest to all those associated with the creation and management of data and the administration of research.

What do we mean by scholarly communications?

The term *scholarly communications* is generally taken to cover all the activities we associate with research: from the collection and analysis of data (including published information) through its transformation into publications or other outputs, and its dissemination and preservation for subsequent use by others. Different people take different roles in these processes which involve researchers, publishers, librarians and data managers.

Scholarly communications was initially thought of as concerning publications only. More recently, there has been recognition that data is not a waste product of research, but as important an output of research as any other. Indeed, for some disciplines, the data is the primary research output.

So what's the problem?

The scholarly communications system is generally considered to be not working as effectively as it could. This in turn has an impact on the productivity and efficiency of the research effort.

There are four main issues: cost, access, copyright and quality.

Cost: Recent investigations suggest that barriers to information access create a significant impediment, and thereby added cost, to scholarly productivity. It would seem reasonable to assume that this applies not just to information resources but also to data, and that making data more readily available would enhance scholarly productivity. Scholars not working in research institutions face considerable cost barriers to acquiring information, and those in poorer countries are at a greater disadvantage. Some journals charge for publication, adding to research costs. Other costs are incurred if paying for the use of data or the use of copyright-protected materials. There are also costs associated with the preservation of materials, especially if digital, and often a lack of commitment to sustainability.

Access: In order for scholarly communications to proceed unhindered, scholars need to be able to find and access all the resources they need. Searching for resources is both time-consuming and difficult; there are many sources to be searched (Google is only a beginning) and some materials, especially data, have no searchable records. Once found, not all materials are then available; because of cost (unless the scholar's library has access via subscription or ownership), or being out of print, or needing special software for access (as in the case of some data). Research datasets pose particular problems as they are often poorly curated and may no longer exist even if known about. Similarly there is no guarantee that access to digital resources will be possible in the future without good digital preservation programs. Access is sometimes limited for ethical or privacy reasons, which is as it should be.

Copyright: Scholars often are not aware of how best to manage their copyright. Many scholarly journals ask scholars to transfer their copyright to the journal owner. This prevents the re-use of the material in other forms and for other purposes such as teaching, limits access to journal subscribers and prevents access by the public which has, in many cases, funded the research.

Quality: It is important for scholars that the information resources they use are trustworthy and of high quality. The main mechanism for quality control of publications is peer review, whereby journal articles are subject to assessment by other scholars. In the case of monographs, publishers and editors have an important role to play. In the case of datasets, data integrity is maintained through good curation and management. Data must be well described and not corrupted in any way to ensure reliability.

What can be (and is being) done about it?

There are a number of initiatives which are designed to improve scholarly communications. Briefly,

- Scholars are being encouraged to make their publications available as open access. This means that potential readers have free and open access to publications, most often in digital form. The significant benefit for scholars of making their work available as open access is an increase in citation rates. There are many alternative publication models which allow for open access, while still maintaining quality control through peer review.
    - self-archiving of journal articles in institutional repositories
    - original publication in journals which permit open access, either because the journal is available without subscription or because the author has paid for the article to be made available as open access in a commercial journal which offers the service (so-called hybrid publishing)
    - original publication of monographs through an electronic press which supports open access. One example is the ANU EPress, supported by the University and designed to facilitate staff publishing (see http://epress.anu.edu.au/).
- Access to data to enable re-use, verification or checking has government and institutional support through initiatives designed to improve data management and storage. There are increasing requirements from researcher funding bodies or from journals for data to be made public, or at least its existence known. There are sometimes legitimate reasons for data not to be made available, e.g. for privacy reasons.
- Copyright and intellectual property issues are being addressed through developments such as the Creative Commons (see http://www.creativecommons.org.au/). Creative Commons licences allow the creators of copyright to make their content available to others under conditions which cover attribution, use for non-commercial or commercial purposes, the creation of derivative products and their use.

Australian Government's Response

- The Australian Government is supporting open access to public sector information, which includes all government reports, scholarly publications and data. The recent Gov 2.0 report recommends that all government information should be "open, accessible and reusable".

  (see Department of Finance, Government Response to the Report of the Government 2.0 Taskforce Report, Engage: Getting on with Government 2.0, May 2010 http:/www.finance.gov.au/publications/gov20taskforcereport/index.html)

For further information

ANDS Guides and other Resources: www.ands.org.au/guides

There is much written about the scholarly communications lifecycle and the issue of open access. These two studies were conducted under the auspices of JISC (http://www.jisc.ac.uk/).

Swan, A. (2008). *Key Concerns within the Scholarly Communication Process*: Report to the JISC Scholarly Communications Group. http://www.keyperspectives.co.uk/openaccessarchive/reports.html

Houghton, J., B. Rasmussen, et al. (2009). *Economic Implications of Alternative Scholarly Publishing Models: Exploring the costs and benefits*, Loughborough University. http://www.jisc.ac.uk/media/documents/publications/rpteconomicoapublishing.pdf

The following report is written more from the perspective of the library.

Palmer, C. L., L. C. Teffeau, et al. (2009). *Scholarly Information Practices in the Online Environment: Themes from the Literature and Implications for Library Service Development*, ARL. http://www.oclc.org/research/publications/library/2009/2009-02.pdf

Thanks are due to Alma Swan for her permission to adapt some of her concepts.