

Scholarly Publishing and Open Access

Background

The production, dissemination, and preservation of knowledge are fundamental to all fields of research. Scholarly publishing, in the form of journal articles, conference proceedings, and monographs, is a primary means by which knowledge is distributed to professors, researchers, graduate students, and the public.

Unfortunately, scholarly publishing has entered a period of crisis. While the proliferation of research information has encouraged a rapid increase in the number of scholarly journals, the capacity of academic institutions to acquire scholarly publications has declined. Journal subscription prices have risen dramatically in recent years, putting many journals out of the reach of all but the largest university libraries. Between 1986 and 2006, the cost of journals increased by 180%¹.

As a result, the Association of Research Libraries (ARL) estimates that during the past twenty years, while the number of journals being purchased by member libraries has increased by 51%, expenditures have skyrocketed by more than 320%². The rising cost of “core” subscriptions means that researchers in all fields often have less access to material.

In 2006-2007, the combined cost of library acquisitions for Canadian universities and colleges was more than a quarter of a billion dollars³; a level of spending that is unsustainable in the wake of government cuts to post-secondary education funding. These cuts have played a major role in the scholarly publishing crisis by reducing budgets for university library acquisitions.

Since the majority of published research is funded by the public through government granting agencies, it is unreasonable for the public to pay again, through user fees and costs to public research libraries, to gain access to this research. User fees not only reduce access to information, they increase costs and slow the dissemination of research findings. Combined, this impedes research progress and innovation.

When research papers are submitted for publication, the copyrights are generally transferred to the journal’s publisher, rather than remaining with the authors. The increasing costs of journal subscriptions are largely the result of commercial publishers leveraging their monopoly ownership of copyright to raise prices.

Key Issues for Change

Addressing the crisis in scholarly publishing will require significant changes to the existing system. Stakeholders agree that workable solutions to the crisis must include a strong peer-review process, be cost effective, and allow for reliable archiving. In addition, potential solutions must address the myth that there is a relationship between the medium by which a journal is published, the prestige of the journal, and the quality of its articles

Consortia Buying Groups

The formation of a Canadian buying consortium has been an attempt to temporarily relieve pressures on library acquisition budgets by allowing libraries to pay into a joint acquisition fund. While the programme has helped university libraries cope, it fails to address the underlying problem of soaring journal prices. Buyers’ consortia mask the structural flaws of the current publishing system by using public money to subsidise the excessive profits of journal publishers and distributors. These structural problems once again came to light when, in the Fall of 2009, the University of Toronto started charging students from outside the UofT community to access their research library archives.

The Open Access Model

A fair model of distributing academic findings would both maximise access and minimise costs to the public. With the new forms of publication available online, it is now possible to have academic information openly available at minimal cost.

“Open Access” refers to a way of making material available on the Internet for anyone to read and use free of charge. For example, using Creative Commons licenses Open Access repositories and distributors allow access to and redistribution of scholarly materials without a user fee. Open Access distributors provide the information they distribute at no cost to the end-user. In most cases this is accomplished through a web site where articles or other works are stored in a database from which users can read and download material.

Open Access services are funded by fees charged to the creator of the work, or by grants provided by governments and other organisations. Many academic researchers have opted to use part of the public research funding they receive to pay for the services that Open

Access distributors and publishers provide. Several research funding agencies are starting to provide specific funds for publishing articles in these online Open Access repositories. The Wellcome Trust (UK), the National Institute of Health (US), and the Canadian Institutes of Health Research (Canada) have all introduced similar initiatives. Not only will this result in wider distribution of journal articles, but in significantly higher levels of citation.⁴ While users have the ability to access, copy, and redistribute original works at no additional cost, creators are still able to require attribution to mitigate commercial use (if desired). Harvard University Faculty of Arts and Science has recently mandated that all research published from that faculty will be available through Open Access.

Flexible Copyright Frameworks

Alternatives to current copyright law have been brought forward by creators who are seeking to facilitate the copying and distribution of their works through Open Access initiatives. Most of these alternatives, which broaden rather than limit the right to copy and distribute original works, fall collectively under the heading of “copyleft”.

A copyleft license may be attached to a work if the creator wants to release some or all of the rights. The framework is based upon current copyright law, but formalises the process by which creators are able to waive all or some of the rights over their own work.

One example of copyleft is the GNU General Public License (GNU-GPL) created to license free and open source software to be released into the public domain. The software under GNU-GPL license can be copied, altered, and redistributed freely so long as the user redistributes that “new” or altered code under the same license.

Creative Commons licenses are a flexible type of copyleft license that have been developed to allow distribution and modification of copyrighted works. By attaching a Creative Commons license to their works, authors are given the ability to grant users the right to copy, distribute, or alter their works, without requesting permission. For digital works, the presence of the Creative Commons (CC) logo will link the user to a license that indicates their rights to use the work.

Support for Open Access

In 2004 the Social Sciences and Humanities Research Council of Canada (SSHRC) adopted a policy supporting open access

to SSHRC funded research. However this policy stops short of requiring SSHRC funded research to be submitted to open access archives.

On January 1, 2008 the Canadian Institute of Health Research (CIHR) implemented a new policy requiring all research funded by the granting council be filed with an open access archive within six months of its original publication in order to ensure that the results of publicly funded research are distributed as widely as possible.

The Natural Sciences and Engineering Research Council (NSERC) has not yet made Open Access a priority.

“If research findings and knowledge are to be built upon and used by other scientists, then this knowledge must be widely available on the web, not just stored in published journals that are often expensive and not universally available.”

Arthur Carty, former National Science Advisor to the Prime Minister. *University Affairs*, November 2005

Conclusion

Graduate students have an important stake in reforming scholarly publishing. As part of the research community, graduate students require access to scholarly publications both for research and to publish their own work.

A comprehensive solution to the scholarly publishing crisis will ultimately require the co-operation of faculty, librarians, university administrators, students and publishers. Open Access provides a model for facilitating the distribution and sharing of information, without the financial and legal barriers that are employed by for-profit journal publishers. Open archives distribute some of the most

influential articles that are currently published and have already been established at dozens of post-secondary institutions, including the University of New Brunswick, Dalhousie University and McMaster University,

Further Information

Directory of Open Access Journals: www.doaj.org

Public Library of Science: www.plos.org

CIHR Policy on Access to Research Outputs: www.cihr-irsc.gc.ca/e/32005.html

SSHRC Policy on Open-Access Research Journals:

www.sshrc.ca/web/apply/program_descriptions/open_access_journals_e.asp

Scholarly Publishing & Academic Resources Coalition: www.arl.org/sparc/

Endnotes

1. Monograph and Serial Expenditures in ARL Libraries, 1986-2006*. www.arl.org/bm~doc/monser06.pdf
2. Monograph and Serial Expenditures in ARL Libraries, 1986-2006*. www.arl.org/bm~doc/monser06.pdf
3. Financial Statistics of Universities and Colleges 2006-07. Canadian Association of University Business Officers.
4. Online or Invisible? Steve Lawrence. citeseer.ist.psu.edu/online-nature01/

