

# Scholarly Publishing and Open Access

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 the primary means by which peer-reviewed knowledge is disseminated to professors, researchers, graduate students, and the public.

Unfortunately, scholarly publishing has entered a period of crisis. While the proliferation of research has encouraged a rapid increase in the number of scholarly journals and articles, the capacity of academic institutions to afford scholarly publications has declined. Journal subscription prices have risen dramatically in recent years, putting many journals out of reach for all but the largest of university libraries. Indeed, between 1990 and 2008, the cost of journals increased between 238 and 537 percent, with average annual increases of approximately 10 percent since 2008.

## Soaring Library Costs

The Canadian Association of Research Libraries (CARL) estimates that during the past twenty years the number of journals being purchased by member libraries increased by 51 percent while expenditures skyrocketed more than three-fold. The rising cost of “core” subscriptions means that researchers in all fields often have less access to material.

In 2008, the combined cost of library acquisitions for Canadian universities and colleges was more than \$300 million—a level of spending that is unsustainable in the wake of decreasing government funding for post-secondary education. This lack of funding has 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, in order to gain access to the research. User fees reduce access to information and slow the dissemination of research findings. As a result, the current system impedes research progress and innovation.

When research papers are submitted for publication in traditional journals, the copyrights are transferred to the journal’s publisher, rather than remaining with the authors. Largely as a result of commercial publishers leveraging their monopoly ownership of copyright to raise prices, the increasing costs of journal subscriptions have allowed larger commercial publishers to report profit margins of up to 40 percent.

## Key Issues for Change

Addressing the crisis in scholarly publishing will require significant changes to the existing system. Students, librarians, and researchers all agree that workable solutions to the crisis must include a strong peer-review process, be cost effective,

and allow for reliable archiving. Potential solutions must also seek to address the prevailing myth that equates quality with high-cost journals and those published on paper.

## Consortium Buying Groups

The formation of a Canadian buying consortium—where universities buy access to journals as a group—has been an attempt to temporarily relieve pressures on library acquisition budgets by allowing libraries to pay into a joint acquisition fund. While the program 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 U of T community to access their publicly financed libraries. The U of T libraries have become the only repository in Canada for some high-priced journals and were forced by the university administration to start paying these costs through user fees even though the collection was purchased using public funds.

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- The Canadian Association of Research Libraries (CARL)

## The Open Access Model

A fair model of distributing academic findings should be designed to maximise access and minimise costs to the public. With the new forms of publications 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 licences and Open Access repositories, access to and redistribution of scholarly materials without a user fee becomes possible. Open Access distributors provide the information and articles they distribute at no cost to the end-user. This is accomplished through a website 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 and paid for by grants provided by governments, their institution, or 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. Some research funding agencies are starting to provide specific funds for publishing articles in these Open Access repositories. The Wellcome Trust (UK), National Institute of Health (US), and 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 as the articles are more easily found. 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. 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

Using current copyright law, less restrictive licences have been developed that facilitate the copying and distribution of works. Most of these alternatives extend rather than limit the right to copy and distribute original works, and fall collectively under the heading of copyleft. Copyleft licenses are used by creators to release some or all of their 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. Software with a GNU-GPL license can be copied, altered, and redistributed freely so long as the user redistributes all "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 one of the Creative Commons licenses to their works, authors can grant users the right to copy, distribute, or alter their works, without permission or payment to the rights holder. For digital works, the presence of the Creative Commons logo will link the user to a license that indicates their rights to use, distribute and copy the work.

## Support for Open Access

In 2004 the Social Sciences and Humanities Research Council of Canada (SSHRC) adopted a policy supporting open access in principle, but has focused on awareness-raising activities rather than requiring that the results of SSHRC funded research be submitted to Open Access archives. On January 1, 2008, the Canadian Institute of Health Research (CIHR) implemented a 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. Additionally, the Canadian Cancer Society, the Canadian Heart and Stroke Foundation, and Genome Canada have adopted pro-Open Access policies.

Since 2007, the University of Ottawa, Athabasca University, Carleton University, Concordia University, Simon Fraser University and the University of Calgary have established funds for publishing in Open Access journals for their faculty and graduate students. In 2010, Concordia became the first Canadian university to require faculty members to file their published research with the university's open access repository.

## Conclusion

Students have an important stake in reforming scholarly publishing. As part of the research community, graduate students require access to scholarly publications to conduct their research and publish their 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.

## Further Information

Directory of Open Access Journals: [www.doaj.org](http://www.doaj.org)

Public Library of Science: [www.plos.org](http://www.plos.org)

CIHR Policy on Access to Research Outputs: [www.cihr-irsc.gc.ca/e/32005.html](http://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](http://www.sshrc.ca/web/apply/program_descriptions/open_access_journals_e.asp)

Scholarly Publishing & Academic Resources Coalition: [www.arl.org/sparc/](http://www.arl.org/sparc/)

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