



CANADIAN PUBLISHERS' COUNCIL

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Comments on the Draft Policy on Access to CIHR-funded Research Outputs

The Canadian Publishers' Council (hereinafter CPC) is pleased to participate in the consultation process on the CIHR proposed policy on access to research outputs. The publishing community is, of course, supportive of ensuring access to specialized research. We do not, however, agree that the route proposed by the CIHR is the route to achievement of such an objective.

CIHR's proposed policy has two main components:

1. A community of authors, being researchers funded in whole or in part by the Canadian Institutes of Health Research, shall be subject to a mandatory limitation of their rights to assign copyright in their works. Any participant in such research funding from CIHR will be required to agree to this limitation or be ineligible for future consideration.
2. All research outputs shall be archived and accessible for free.

We at the CPC worry that this policy could destroy the current journal publishing sector and result in a reduction of access to research – the precise opposite of the CIHR objective.

Access

CIHR states that its “policy promoting access to research outputs rests on the foundation of the CIHR Act and reflects the core values articulated in CIHR’s Blueprint for Health Research and Innovation”, the organization’s strategic plan which states that:

“the primary purpose of all research in the public domain is the creation of new knowledge in an environment that embodies the principles of freedom of inquiry and unrestricted dissemination of research results.”¹

We must question whether there is any lack of “access” to research outputs.

There are no concrete examples provided in this justification for the CIHR policy. There are no strategies or objectives in that same Blueprint relating to this purported part of CIHR’s mandate.

The policy seems to derive its *raison d'être* from the conviction that access to research outputs is deficient, that the current journal publishing model is impeding access. The following familiar arguments for access underlie the policy:

1. the library funding crisis;
2. that lack of access impedes research;
3. the right to access publicly funded research;
4. the needs of the developing world; and
5. the profits of scholarly societies and publishers.²

Access to scholarly journal literature has expanded exponentially with the publishers' investment in online systems that permit multiple users, including library guests, to access the same material at the same time. Non-subscribers can have desktop access from anywhere in the world for a small fee. So in today's world there is more access to research outputs and research material than ever before. To argue otherwise would not pass peer review. So is this really about access?

It seems that the real concern is that there is a clear cost to "access" with the current publishing models which may impede access to research outputs for all who cannot, or do not want to, incur that cost. Introducing the need to support public access adds an additional challenge. "The scholarly communication system is not designed for communication between researchers and the public...to subvert a system created to enable peer-to-peer communication is not doing patients, or their relatives, any favors, especially when 90 million people in the USA have trouble understanding and acting on health information."³

Although the policy simply purports to limit the duration of time that commercial publishers can exclusively distribute articles in its journals, it does so as if that would have no impact on publishing models. In fact, it will have a significant negative impact on peer review publishing, particularly if articles are made available at 6 or fewer months. Journals depend on revenues generated from sales for years after publication. If the commercial sector can no longer support the subscription model, a real possibility, then the costs and the management of the peer review and publishing processes will have to shift elsewhere.

Objectives of the Policy

If we look at this policy in relation to how we view its real purpose, which is to eliminate the consumption cost of access to research, then we need to ask some hard questions.

Does the public policy objective justify the proposed constraints on the research community and the current journal publishing community in order to eliminate the cost of access to research outputs for the consumers?

Can CIHR deliver the stated objective of enhanced access and more effective research with its proposed model of making the data "accessible"?

More simply, does the policy propose a workable model?

We submit that these questions must be answered with no and, therefore, there can be no justification for reducing the rights of a sector of the publishing community and irreparably damaging a viable business model.

What does the model look like?

The policy proposes a model for access based on the self-archiving of research outputs in “free” archives.

The part of the CIHR proposal for research output that most concerns CPC is that relating to peer-reviewed journal publications. [Book chapters, research monographs, editorials, reviews and conference proceedings are not included in the policy.]

CIHR grant and award holders are to make their peer-reviewed journal publications “freely available” i.e. at no cost under one of the following options:

1. Archive final peer-reviewed published articles or final peer-reviewed full-text manuscripts immediately on publication. Archiving involves deposition in an appropriate open archives initiative-compliant digital archive such as PubMed Central or an institutional repository. A publisher-imposed embargo on open accessibility of no more than 6 months is acceptable.
2. Submit the manuscripts either to a journal that provides immediate open access to published articles (if a suitable journal exists), or to a journal that allows authors to retain copyright and/or allows authors to archive journal publications in an open access archive within the six-month period following publication.

CIHR also recommends the retroactive archiving of articles published by grant and award holders.

The first option suggests that no change is expected in the publication of peer-reviewed articles but a version of that publication will be made available on a “free” archive no later than 6 months after publication.

How easy is self-archiving in a public archive like PubMed Central? It isn't clear that this is even an option independent of the original publishing journal being a member. The technical specifications for submissions to PubMed Central are complex – questionably conducive to obtaining compliance in self-archiving.⁴ Our journal-publishing members have reported difficulties in depositing materials on that site.

Institutional archives are another proposed option. During the recent Library and Archives Canada workshop series, *Toward a Canadian Digital Information Strategy*, there was considerable discussion about interoperability (or lack thereof), metadata challenges, establishing digitization standards and inadequate funding. The collaborative efforts required to address all these issues are still very much in the discussion phase. To put it bluntly, institutional libraries and repositories have not yet solved the issues of long-term archiving, “appropriate copy” determination and document integrity at anywhere near the level provided by publishers and demanded by researchers.

It would seem, therefore, that the archive environment CIHR is proposing for housing its research outputs is not ready to provide a stable and low-risk alternative to the current

distribution models. To move precipitously in this direction, putting the current models in jeopardy would seem to introduce the potential of reducing, not increasing, access.

Current Journal Publishing

Consider the publishing process and the revenue and cost components of journal publishing. These categories are reasonably applicable to all journal publishing but there are differences in the nature of research, the costs, the timelines and whether the publication is targeted domestically or internationally.

<i>Model</i>	<i>Media</i>	<i>Peer-review Process – Cost</i>	<i>Technical/ Publishing – Cost</i>	<i>Revenue</i>
Commercial Journal	<ul style="list-style-type: none"> • Print Journal • Online 	<ul style="list-style-type: none"> • Managed by Publisher 	<ul style="list-style-type: none"> • Technical editing • Data markup (usually XML) • Graphics • Version Management 	<ul style="list-style-type: none"> • Subscription • Transactional purchase of articles
Commercial Journal	<ul style="list-style-type: none"> • Print Journal 	<ul style="list-style-type: none"> • Managed by Publisher 	<ul style="list-style-type: none"> • Technical editing • Data markup (usually XML) • Graphics • Version Management 	<ul style="list-style-type: none"> • Same as above • Subsidized by advertising or sponsorship
Not-for-profit Journal	<ul style="list-style-type: none"> • Print Journal • Online 	<ul style="list-style-type: none"> • Managed by association or institution 	<ul style="list-style-type: none"> • Technical editing • Data markup (usually XML) • Graphics • Version Management • 	<ul style="list-style-type: none"> • Subscription and subsidization • Association or society membership dues
Author-pay	<ul style="list-style-type: none"> • Varies 	<ul style="list-style-type: none"> • Managed by Publisher, association or institution 	<ul style="list-style-type: none"> • Technical editing • Data markup (usually XML) • Graphics • Version Management 	<ul style="list-style-type: none"> • Open Access for users • Author or institution publication fees

Peer-Review Process

CIHR acknowledges the importance of peer-review in evaluating proposals for research funding. We believe that CIHR also acknowledges that it is just as important in the output phase of research.

Peer review is a critical part of scientific publishing. It gives authors feedback on and validation of their analyses from other experts in their field. It guides readers as they select research to study by assuring them that experts in their field have vetted it. It provides academic tenure and promotion committees with a vital tool to evaluate the quality of faculty work. It is a means by which librarians compare value across journals. A journal's reputation builds over time through its application of rigorous peer review and stringent editorial criteria, to transform raw manuscripts into documents of considerable value.⁵

Publishers provide the infrastructure for the peer-review process and absorb the cost of facilitating that process – electronic submission, reviewing, editing.

The CIHR policy fails to recognize the cost of managing the peer-review process.

Technical Editing

For the print and the online distribution of a journal the publisher provides copy editing, layout, graphics and branding.

The CIHR policy fails to acknowledge the investment required for editorial and production processes. The proposal is unclear as to whether the articles would be archived using the author's last version (prior to the publisher adding this value) or whether CIHR assumes that the published version will be archived.

Online

STM publishers have invested heavily in new technologies — particularly search engine development and linking as well as digitizing and archiving vast numbers of articles. All of this is supported by complex tagging and indexing systems thereby providing astounding access to valuable research. Will institutional repositories actively disseminate the research? Will the funds be available to drive continued interoperability, consistent standards and adequate metadata? Without these commitments does the model proposed in this policy actually put some research outputs at risk of being lost?

The CIHR policy fails to recognize that requiring the archiving of journals in a “free” repository would diminish the benefits currently delivered by journal publishers to facilitate access, being:

- coherent collections,
- proper citation,
- version control, and
- sophisticated taxonomies and indices.

Revenue

It has been estimated that the average scientific article costs \$3,000 to publish. Higher costs are associated with greater rigor and selectivity of the peer-review process, as well as with higher levels of technical review and copy editing. Such costs are traditionally recovered through institutional subscriptions, as well as from advertising, fees for author submissions and color figures, and reprint sales.⁶

Studies have documented that 70% or more of the lifetime usage value of a research article is realized years after its publication.⁷ Six months is far too short a time to deliver the revenue required for the current journal models.

The CIHR policy fails to recognize the resulting revenue loss from drastic shortening of the commercial lifecycle of articles and the consequent potential to damage the economic viability of the Canadian journals industry.

Illustration of Impact of Policy on Publishing Models

Publishers invest a considerable amount of money in the “business” of journal publishing. The infrastructure and process required to support a successful journal includes all of the following active elements:

- Organize and compensate editorial boards
- Launch new specialist journals - based on research initiatives
- Solicit and manage research article submissions
- Manage the peer review of those submissions
- Edit and prepare successful submissions
- Produce the article (data markup, graphics, metadata)
- Publish
- Marketing (updating internal sales and marketing information)
- Updating customer catalogues, physical and online
- Include in and/or revise enhanced access licenses
- Distribute/disseminate (including 3rd party aggregators like OVID and EBSCO)
- Archive (ensuring preservation and accessibility of print in online systems)

Obviously the justification for that investment is the expectation of a reasonable return. Revenue is generated through the full life cycle of a journal article, as follows:

- Active journal sales for 24 months – print and online
- Archive or backfile articles sales or online access for potentially several years.

CIHR's proposal would have the articles supporting that journal moved into a free access environment after all the costs have been incurred but little of the value has been realized.

How many subscriptions will continue to be purchased when the content will be available for free in 6 months or less? How many publishers of journals will continue to invest in the process above when even the basic subscription revenue is at great risk?

Standards, Credibility and Preservation

Publication in traditional journals is not compelled. Authors, scientists and researchers are free, until they have agreed otherwise, to post results and articles openly on the web. Many, however, recognize the value that publishers bring to the process (review, editing, distribution, enhancements, linking protocols) and they actively pursue publication of their work in traditional journals.

There are instances where the “quality” derives from over a century-worth of publishing. Traditional publishers do not “lock up” information. Copyright does not protect or include facts, data and raw results. The journal publishing business is built on dissemination and access and those businesses have earned significant credibility in the delivery of information.

All publishers do not adhere to the same business model. The options run the gamut from receiving payment from the authors or institutions to pure subscription models with hybrid models and advertising or sponsorship models also an option. **The draft policy proposes that researchers will be compelled to adhere to the newest, and least proven, model.**

In many cases authors and institutions are reluctant to pay for the cost of publication of research. Any funding required to support the publishing of research outputs will reduce the funding available for future research. The cost of access to users of that research will be reduced but many of those users are from the for-profit sector. If the publishing models fail or curtail investment, it will fall to research funding organizations, sponsors and government to support the dissemination of research.

Do we risk a reduction in the standards of peer-review and editorial input? Will the same level of investment go into technical enhancements for the archives and repositories? Should the taxpayer be expected to fund even more investment in the research process in order to also support publication and dissemination of outputs or will less money be available for research because some of the funds will have to be allocated to that activity?

Articles published in journals have more authority and credibility because of the editorial boards, established selection criteria, the peer review process and the long term involvement in particular disciplines. Pre-publication versions of research articles that are disseminated through Google, PubMed Central or archives have the potential to mislead and misinform users and diminish the value of the output.

The structure of journals, whether print or online, lends itself well to preservation. The loss of this arrangement will negatively impact the predictability of archiving and retrieval.

Conclusion

The members of the Canadian Publishers' Council firmly believe that the CIHR proposed policy as it is currently drafted will not increase access to high-quality results of CIHR-supported research. This policy is likely to seriously damage the existing publishing models thereby reducing access to first-rate research – the opposite of the stated objective.

We believe that CIHR needs to look at alternatives that complement, not compete with, the peer-reviewed journal model. We also believe that CIHR must be extremely cautious about creating government-supported competition to viable commercial publishers and electronic databases. In addition, funding directed to the proposed archiving will be funding not committed to actual research activity. The CIHR proposal has a high probability of failing in its inchoate objectives and it may take the peer-review journal publishing sector with it.

¹ Investing in Canada's Future: CIHR's Blueprint for Health Research and Innovation (2003/04 – 2007/08), Ottawa, January 2004. <http://www.cihr-irsc.gc.ca/e/20266.html>

² Robinson, A., Open access: the view of a commercial publisher, *Journal of Thrombosis and Haemostasis*. 4: 1454-1460

³ Robinson, A., Open access: the view of a commercial publisher, *Journal of Thrombosis and Haemostasis*. 4: 1454-1460

⁴ PubMed Central, <http://dtd.nlm.nih.gov/publishing/coding/pmc/style.html>

⁵ Letter re S.2695, the Federal Research Public Access Act. Professional & Scholarly Publishing (PSP) Division, Association of American Publishers

⁶ Frank, M., Access to Scientific Literature—A Difficult Balance, *New England Journal of Medicine*. April 13, 2006

⁷ Source: Tenopir & King, *Towards Electronic Journals*, Special Libraries Association, p. 189; 2000