Pre-budget submission to the

House of Commons'
Standing Committee on Finance
2015 Federal Budget

Submitted by

The Canadian Association of Research Libraries (CARL)

August 6, 2014

Executive Summary

The Canadian Association of Research Libraries (CARL) recommends that the federal government:

1. **Invest $2 million per year for the next five years (2015-2019) in enabling access to research data,** representing approximately ten percent of the US National Science Fund investment. This would allow the Canadian research data community to develop the skills and infrastructure necessary to harness and exploit the wealth of research data in Canada which would strengthen Canada's competitiveness in the global arena in areas of research, innovation and commercialism.

2. **Continue to invest in the digitization of Canada's rich documentary heritage**, such as the Héritage Project. Not only does this resource provide valuable services and resources to researchers and the general public, it is also important on the national and international stages to build and provide access to Canada's history as we approach the 150th birthday of our country in 2017.

3. **Support open access to Canada's publicly-funded research results**, especially by supporting the move to open access business models by Canadian journal publishers.

We thank the Committee for considering our recommendations.

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Introduction

Who we are:

The Canadian Association of Research Libraries (CARL) is the leadership organization for Canada's research library community. The Association's members include 29 major university libraries from across the country. Our mission is to enhance the capacity of Canada's research libraries to partner in research and higher education, seeking effective and sustainable scholarly communication and public policy encouraging of research and broad access to scholarly information.

CARL thanks the House of Commons Standing Committee on Finance for seeking the views of Canadians on their priorities for support through the 2015 federal budget. We are pleased to submit three recommendations we deem worthy of federal government budgetary consideration. The government has designated this year to focus on sustained economic growth, the creation of quality sustainable jobs, improving Canada's taxation and regulatory regimes, supporting Canadians through effective health care, education and training, ensuring prosperous and secure communities, and enhancing Canada's competitiveness through research, development, innovation and commercialization.

This submission aims to address how Canada's Research Library community can contribute to the attainment of these goals over the coming years.

Recommendations

1. Enabling Access to Research Data

Canada's three major research funding councils each invest roughly $2.5 billion dollars yearly to support Canadian researchers and their research activities. When investigating a question, researchers generate a tremendous amount of research data - most of which can be reanalyzed and

applied to new research questions. The value to Canadians of the research conducted could be considerably increased with sustained investment in a national infrastructure for research data management. A national infrastructure would provide access to research data that is collected and preserved digitally across the country. Other researchers, besides the original creators or compilers, could re-purpose the properly curated and archived research data to answer new research questions.

Unfortunately a national research data management infrastructure does not currently exist in Canada, and therefore vast amounts of research data are being lost. In 2011 a group of stakeholders comprised of universities, institutes, libraries, granting agencies, and individual researchers held a summit to discuss the current state of research data management in Canada. Based on the outcomes of the summit, Research Data Canada (RDC) was launched in 2013[1]. RDC's mandate is to develop a shared national strategy to address the challenges and opportunities for maximizing the benefits of Canada's collective investment in research data. A group of stakeholders is currently funding this collaborative initiative, primarily through in-kind contributions. In order for RDC to be sustainable and effective in its mission, it is imperative that sufficient and continued funding be available.

Globally, there are a number of countries already investing in the development of their national research data management infrastructures. For example, in its 2009 federal budget, the Australian government allocated $48 million over two years to develop an Australian Research Data Commons[2]. This is in addition to $24 million allocated by Australia's National Collaborative Research Infrastructure Strategy (NCRIS). In the US, the National Science Foundation is currently providing $100 million dollars over five years (2010-2015) to support the development of a data management infrastructure under its S*ustainable Digital Data Preservation and Access Network Partners (DataNet) program*[3]. There are currently national research data management projects in development in both the UK and generally in the EU as well. For its research and innovation sector to remain competitive, it is imperative that Canada develop a national research data management infrastructure. Considerable planning ground work has already been done; what is necessary at this time is federal government funding.

Both the Social Sciences and Humanities Research Council of Canada (SSHRC) and the Canadian Institutes of Health Research (CIHR) have data archiving policies. Grant recipient compliance with these policies has been limited, however, because of a lack of appropriate repositories and of the necessary data handling skills. In 2005, the National Research Council of Canada (NRC) led a National Consultation on Access to Scientific Research Data (NCASRD)[4] which made the opportunities and the need for a research data management infrastructure clear.

In the 2010 Consultation Paper on a Digital Economy Strategy for Canada, the government noted that:

> Governments can help by making publicly-funded research data more readily available to Canadian researchers and businesses. Open access is consistent with many national strategies and holds great economic potential for Canadians to add value to machine-readable data, while ensuring that privacy rights are protected. In

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[1] See information about Research Data Canada and its partners at http://rds-sdr.cisti-icist.nrc-cnrc.gc.ca/eng/about/index.html

[2] On this allocation, see the Australian National Data Service page "ANDS attracts new funding" at http://ands.org.au/ardc.html.

[3] On the Sustainable Digital Data Preservation and Access Network Partners (DataNet) program, see http://www.nsf.gov/pubs/2007/nsf07601/nsf07601.htm.

[4] The 2005 *Final Report of the National Consultation on Access to Scientific Research Data* (NCASRD) can be found at http://data-donnees.gc.ca/docs/NCASRDReport.pdf.

many cases, data are already available but are difficult to locate. Consistent methods of access will be reinforced.[5]

CARL applauds this forward thinking policy initiative, and encourages the government to take concrete steps through the following recommendation.

We recommend that the government invest $2 million per year for the next five years (2015-2019) in enabling access to research data, representing approximately ten percent of the US National Science Fund investment. This would allow the Canadian research data community to develop the skills and infrastructure necessary to harness and exploit the wealth of research data in Canada which would strengthen Canada's competitiveness in the global arena in areas of research, innovation and commercialism.

2. <u>Investing in the digitization of Canada's documentary heritage</u>

Canada's major research libraries including Library and Archives Canada (LAC) hold vast documentary collections that are vitally important for supporting research about the history of our great nation and its people. Although many students and researchers will sometimes need to consult physical documents, digitization promotes teaching, learning and research by enabling Canadians anywhere with an internet connection to access historical and cultural documents. Investment in a robust, coordinated digital network to both access and preserve our documentary heritage would also provide a further return on investment as it would also serve as a platform for value-added services and products. Investing in digitization has clear research, educational as well as economic benefits for Canada. In the lead up to the country's 150th anniversary, sustained investment in digital preservation of our rich documentary and cultural heritage will also help to promote national pride and unity.

For a national digitization initiative to succeed, sustained funding and support for the organizations that preserve and provide access to research collections are critical, as is ongoing investment in both the human and technical resources needed to preserve and provide enduring access to digital documents. Digitization presents a significant undertaking in terms of resources – financial, human and technical – that is best achieved through partnerships.

The Héritage Project[6] is a partnership between Library and Archives Canada, the Canadian Research Knowledge Network, and Canadiana.org. It is a 10-year initiative to digitize and render accessible online some of Canada's most heavily-used archival collections, including government documents, aboriginal history, and personal papers to name a few. The collection amounts to roughly 60 million pages of primary-source documents chronicling the country and its people from the 1600s to the mid-1900s, and represents a vast and unique resource for Canadian historians, students, and genealogists.

We recommend that the government continue to invest in the digitization of Canada's rich documentary heritage, such as the Héritage Project. Not only does this resource provide valuable services and resources to researchers and the general public, it is also important in the national and international stage to build and provide access to Canada's history as we approach the 150th birthday of our country in 2017.

3. <u>Support broadening communication in open access of Canada's publicly-funded research results</u>

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[5] *Improving Canada's Digital Advantage: Strategies for Sustainable Prosperity* (Government of Canada, 2010) http://de-en.gc.ca/wp-content/uploads/2010/05/Consultation_Paper.pdf, page 14.
[6] The Héritage project http://heritage.canadiana.ca

In October 2013, the three federal research granting agencies initiated a consultation on a draft harmonized open access (OA) policy for research grant recipients. The policy will require grant recipients to make the results of their funded research publicly available within 12 months of acceptance for publication in a research journal. The Canadian Institutes of Health Research (CIHR) has had an OA policy in place since January 2008, and it is anticipated that the Natural Sciences and Engineering Research Council (NSERC) and the Social Sciences and Humanities Research Council will bring their harmonized policy into effect in January 2015.

Providing broader, free access online to the results of publicly funded research enables the granting councils to achieve a better return on the investments they make in research. Unrestricted access to research information enables researchers to build on the discoveries of other researches, and it increases the pace of scientific discovery thus benefitting not only the scientific community but the general public and industry as well through new products, patents and numerous other benefits.

Research libraries have invested, for over ten years, in a national network of open access research repositories across the country. In 2009, Canadian research libraries helped found the Confederation of Open Access Repositories (COAR) which now includes 35 countries from around the world working together to develop a global knowledge infrastructure for institutional repositories to provide free and open access to scholarly articles and findings from anywhere around the globe.

Hand in hand with this initiative is open access to journal articles and journals as a whole. The journal publishing community is an important stakeholder in the research community, and constitutes a vital piece of the research dissemination mechanism in Canada.

We recommend that the government support open access to Canada's publicly-funded research results, especially by supporting the move to open access business models by Canadian journal publishers.

We thank the Committee for considering our recommendations. We would be pleased to expand upon any or all of these matters in an appearance before the Committee if invited to do so. For further information, we invite the Committee to contact:

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