Towards Open Scholarship:
A Canadian Research and Academic Library Action Plan to 2025
Introduction and Background

In the past several years, there have been a number of important developments in the open science\(^2\) / open scholarship landscape - both in Canada and globally - that warrant revisiting the Canadian Association of Research Libraries' (CARL) and the Canadian Research Knowledge Network's (CRKN) strategic approaches and a rearticulation of the role of Canadian research and academic libraries.\(^3\) These developments include:

- Significantly stronger open scholarship policies in Europe (the Council of the European Union statement in support of *High-quality, Transparent, Open, Trustworthy and Equitable Scholarly Publishing* in May 2023, a robust follow-up to the publication of *Plan S* in 2018) and the United States (*OSTP Nelson Memo* in August 2022), policies that eliminate the embargo period for making articles available, and in some cases also require researchers to retain the rights to their articles. ([FRQ](https://www.frq.qc.ca) joined Plan S in June 2021);
- Unanimous support from UNESCO member countries in November 2021 for the UNESCO *Recommendation on Open Science* which provides a framework for national open scholarship policies, centered around inclusivity;
- Research assessment reform activities in several countries, including the *Coalition for Advancing Research Assessment* (CoARA), a global coalition of research funding organizations, research performing organizations, national/regional assessment authorities, and agencies that plan to reduce the emphasis of journal-based metrics for assessing research performance;
- The successful negotiation of several cost-neutral read and publish agreements at CRKN, which have extended open access to Canadian-authored content with those publishers;
- A coordinated national approach to support for Canadian publishing infrastructure (e.g. [Coalition Publica](https://www.coalitionpublica.ca));
- Launch of the [Digital Research Alliance of Canada](https://www.drac.ca) in 2019 with a significant increase in national support for research data management;
- Increasing recognition of the importance of [diversity, equity, and inclusion](https://www.nsf.gov/od/pgd/diversity/index.jsp) in research, education, and scholarly communications and the [need to address global inequalities](https://www.elsevier.com/about/our-business/sustainability/reducing-inequality) into the system;
- Announcement by [cOAlition S](https://www.coalition-s.org) that it will withdraw financial support for Open Access publishing under transformative arrangements after 2024, with certain exceptions;
- The success of [rapid and open sharing of research outputs](https://www.nature.com/articles/d41586-020-02494-w) during the COVID-19 pandemic in 2019-2020;

\(^1\) In the CARL context, this document supersedes [CARL Scholarly Communications Roadmap](https://www.carl.ca/research/roadmap) (2017).

\(^2\) The concept of open scholarship, “also called Open Research, Open Knowledge, or Open Science is focused on inclusive approaches to producing, curating, disseminating and evaluating research and educational outputs; how individuals are rewarded for this; and how universities can make valuable offerings to Society as a result” ([University College of London](https://www.ucl.ac.uk)). For the purposes of this document, we will use the term open scholarship, although the term open science is also widely used.

\(^3\) In the CARL context, this document supersedes [CARL Scholarly Communications Roadmap](https://www.carl.ca/research/roadmap) (2017).
- The adoption of the **Tri-Agency Research Data Management Policy** in 2021 which requires researchers to prepare data management plans and that each postsecondary institution create an institutional RDM strategy by March 1, 2023;
- Adoption of **Declaration on the Rights of Indigenous Peoples Act (DRIPA)** as law in Canada in 2021;
- The publication of the **Roadmap for Open Science** by the Office of the Chief Science Advisor in 2020 that presents recommendations for making federally funded scientific and research outputs openly available;
- Establishment of **two national consortia** (ORCID-CA and DataCite Canada) to advance the adoption of persistent identifiers, improving the discoverability and tracking of Canadian research outputs.

**Shared Aims**

Canadian research and academic libraries seek to transform the scholarly research and communication system to open scholarship. This direction fosters timely, equitable, and enduring global access to and dissemination of knowledge, and increases the contributions of Canadian research to the advancement of science, scholarship, bibliodiversity, and the betterment of society. As such, Canadian research and academic libraries are committed to immediate, barrier-free access to Canadian scholarly research outputs (whether data, preprints, published works, software, and other outputs) through:

- Pursuing a multi-pronged strategy to achieve balance and sustainability within the scholarly research and communication system, recognizing the value that different stakeholders bring and the various pathways to open scholarship;
- Investing in community-governed open infrastructure both within Canada and globally;
- Advancing adoption of quality metadata and persistent identifiers for research outputs, and FAIR principles (findable, accessible, interoperable, reusable) to support research integrity and long-term discovery, access and use;
- Respecting and protecting Indigenous data in consultation with communities, reflecting CARE Principles (collective benefit, authority to control, responsibility, ethics) and the First Nations Principles of Ownership, Control, Access Possession (OCAP);
- Supporting French language publications;
- Nurturing multilingualism in scholarly communications;
- Ensuring long term preservation of Canadian cultural heritage and research outputs through collaborative, intentional, affordable, and sustained efforts centered around inclusiveness, openness and transparency, community-led partnerships, and capacity building;
- Strengthening technical and expert capacity and support communities of practice in order to scale the stewardship and preservation of Canadian research outputs;
- Striving to advance and promote Canadian research and scholarship through strategic alignment and collaboration both nationally and internationally;
- Contributing to research excellence and high quality research by supporting the adoption of open scholarship practices that introduce greater integrity, reliability and transparency.
in the research process.

### Vision
Our vision is one in which all researchers have access to the widest range possible of FAIR and trusted research outputs that are CARE compliant, openly available and actively preserved over time, with no access or publication fees. In an international context, Canada has strong national infrastructure for scholarly communications and Canadian research is highly visible. Collectively, Canadian research and academic libraries are a key stakeholder community who play a significant and essential role in the national and international ecosystem by contributing expertise, managing institutional services, and providing support for regional, national and international open infrastructures and services.

### Joint Action Plan
To help advance this vision, the research and academic library community, working with key stakeholders, will undertake the following priority activities over the next two years and beyond.

1. **Disseminate and preserve Canadian scholarly outputs**

   1.1. Strengthen the Canadian institutional repositories (IRs) network, including pursuing a shared, opt-in IR platform and a renewed community of practice. (Lead: CARL)
   1.2. Support Canadian publishing initiatives and leverage collective approaches (e.g. Coalition Publica, local journals). (Co-leads: CRKN and CARL)
   1.3. Redirect subscription costs to pay for Canadian authored content to be published in Open Access sustainably and aligning with the values of academic and research libraries. (Lead: CRKN)
   1.4. Collaborate around solutions for perpetual access to licensed content (e.g. Scholars Portal national journals TDR service). (Lead: CRKN with OCUL)
   1.5. Enhance the Canadiana collections and infrastructure to support Canadian researchers and facilitate large-scale content growth. (Lead: CRKN)
   1.6. Collect and provide access (e.g. via Lunaris) to Canadian research data in FRDR, Borealis and other appropriate data repositories. (Co-leads: Alliance, regional consortia, with support from CARL)
   1.7. Strengthen the relationship between digital preservation and open scholarship through a pilot national digital preservation coordination position (Lead: CARL)

2. **Improve the discovery and tracking of Canadian content**

   2.1. Participate in OpenAIRE for tracking of Canadian Tri-agency-funded research outputs, building toward comprehensive Canadian IR coverage in the
Canadian search portal based on increased IR compliance with the OpenAIRE metadata profile. (Lead: CARL)

2.2. Advance the adoption of PIDTs in Canada through a national strategy including sustained growth of Canadian consortia (ORCID-CA and DataCite Canada). (Lead: CPIDAC/CRKN with support from Alliance and CARL)

2.3. Explore and foster interconnection of research outputs across the Canadian ecosystem (e.g. between articles and their data). (Co-leads: CARL and CRKN with Alliance and Coalition Publica)

2.4. Under NIKLA leadership, collaborate to develop an open platform for respectful terminology (Lead: NIKLA with support from CARL, CRKN)

3. **Fund international open scholarship research platforms, infrastructures, and services**

3.1. Participate in SCOSS, SCOAP³, and other international initiatives to ensure rational opt-in Canadian support to selected key open, community-based infrastructures for open scholarship. (Lead: SCOSS: CARL-CRKN; SCOAP³: CRKN)

3.2. Prioritize full open access agreements with international publishers that reflect public investment in fair and sustainable economic models. (Lead: CRKN)

3.3. Working with our collective members, develop a mechanism to, where possible, redirect savings from traditional subscription agreements with international publishers towards smaller publishers, Canadian publishers, and open infrastructures and/or services that are advancing open. (Lead: CRKN)

4. **Influence policy developments in Canada**

4.1. Advocate for open scholarship policies and increased and coordinated investment in Canada. (Co-leads: CARL, CRKN)

4.2. Lobby for continued balanced copyright policy and author rights retention (including negotiating to support author rights retention within license agreements). (Lead: CARL)

4.3. Leverage work of the Marrakesh Task Force to increase accessible publishing and accessible resources’ discoverability and use across the ecosystem. (Lead: CARL)

4.4. Explore collective lobbying for a legislative requirement for deposit of publicly-funded research outputs in open repositories. (Lead: CARL)

4.5. Advocate for the expansion of digitization of heritage content, with other stakeholders across the GLAM (Galleries, Libraries, Archives, and Museums) sector (Lead: CRKN for CCDH with CARL)
4.6. Raise awareness with Canadian policy makers of international trends in research assessment reform, including the limitations of the current system. (Lead: CARL)

5. **Support innovation**

5.1. Promote forward-looking publishing processes and multi-model research outputs (e.g. preprints, open peer review, alternative publishing formats). (Lead: CARL)

5.2. Adopt novel open scholarship functionalities in the context of Canadian infrastructures and services (e.g. Overlay Journals, COAR Notify Initiative, etc.) (Lead: CARL, with Coalition Publica)

5.3. Engage with local and disciplinary communities and funders and other academic stakeholders to help advance and support the adoption of open scholarship practices. (Co-leads: CARL, CRKN)

5.4. Transform CRKN’s Canadiana research infrastructure to embrace open standards and community-led development. (Lead: CRKN)

5.5. Explore the implications of artificial intelligence systems and quantum computing on the future of the open scholarship landscape (Lead: CARL)