



## ***Portage: Supporting Canadian innovation through shared expertise and stewardship of research data***

May 6, 2015

Over the past year, the Canadian Association of Research Libraries (CARL) has led a project intended to help advance the state of research data management in Canada. The result is Portage, a national library-based network leveraging the expertise of multiple stakeholder groups.

The need for research data management support is clear. Billions of dollars are invested every year in research, an investment that generates vast and diverse amounts of data. If properly managed, these data have virtually limitless potential to be re-used in innovative ways. Sound research data management, with respect for confidentiality and intellectual property, accelerates progress by allowing researchers to access and re-use others' data for their own purposes, thereby adding value to those data and speeding up the rate of innovation. It also leads to greater efficiencies in research by preventing duplication in data creation, and enables greater transparency and verification of research findings.

Many countries including Australia, Netherlands, United Kingdom, and United States are investing in national policies, infrastructure and services to support more comprehensive research data management (RDM). In Canada, the federal government has recently published *Canada's Action Plan on Open Government 2014-16*<sup>1</sup>, which contains a section on Open Science. The Plan includes deliverables aimed at improving access to publications and data resulting from federally funded research activities. It also calls for the development and adoption of policies, guidelines and tools to support effective stewardship of research data. Meanwhile Canada's three federal granting agencies have been consulting with the research community about RDM policy implementation that would improve the way research data is managed in Canada.

In order to derive maximum benefits from research data, it must be managed appropriately across the data lifecycle. This means we need services and infrastructure for researchers throughout and beyond the lifespan of a project. Without this holistic kind of support, the majority of research data will be lost or inaccessible to others. In Canada there are gaps in the current landscape. A recent environmental scan published by the tri-councils asserts, "Canada still lacks infrastructure, services and funding mechanisms to support widespread RDM. Infrastructure funding remains focused on domain-based solutions that support research excellence, rather than data sharing and preservation after the lifespan of the project."<sup>2</sup>

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<sup>1</sup> <http://open.canada.ca/en/content/canadas-action-plan-open-government-2014-16>

<sup>2</sup> Shearer, Kathleen (pre-publication). Comprehensive Brief on Research Data Management Policies, May 2015. To be published soon.

Efforts to address these gaps in Canada have resulted in significant progress over the past several years. Research Data Canada (RDC), now funded through CANARIE, has been raising awareness with important stakeholder communities about the importance of RDM, and CANARIE will be investing further in research data management activities in the coming year. CARL, Compute Canada and RDC have been working on several pilot projects to develop tools and workflows for RDM. The roles and relationships between these organizations will certainly evolve over time.

## **Project ARC**

In March 2014, CARL launched a one-year project to lay the foundation for implementing a national library-based research data management network. The project involved participation from a wide variety of stakeholders in the community including all four regional academic library associations, as well as CRKN, CARL, Compute Canada, and RDC, and involved some of Canada's foremost research data management experts. The project had four objectives:

1. Provide support for institutions to deliver data management plans (including adoption of tools for the Canadian environment and providing a single access point to information resources).
2. Develop a plan for the implementation of a network of expertise for the curation of research data in Canada.
3. Undertake a pilot to create an exemplar for a research data preservation service, built on existing technologies currently in use in different regions.
4. Develop an organizational framework and operational plan for the network.

## **Portage**

As of March 31, 2015 these objectives have been achieved and Project ARC has come to a conclusion, with the establishment of the Portage network. Portage will become a full-fledged service for research data management and build on the previous years' work. It will have two components:

1. Network of Expertise: The Portage Network of Expertise will provide access to a comprehensive set of resources that point users to the most up-to-date, relevant and trusted sources about research data management. In addition, Portage is developing a national bilingual data management planning tool that will be hosted by the University of Alberta and launched in June 2015. The tool will be available to all researchers in Canada and provide support for planning, organizing and managing their research data. Consulting services will also be provided, drawing on the expertise from across the country. The service will be targeted at the following areas: privacy, security, and confidentiality; skills and training; data management plans, data discovery, data preservation and data curation.
2. National Preservation and Discovery System: Portage has also been working to connect the various infrastructure and service components needed for a national preservation and discovery network. The ultimate aim is to enable all interested research institutions to participate, whether or not they have their own local

infrastructure, by coordinating shared repositories and services under a cost model that recognizes varying institutional investments and needs.

Over the past year, CARL has funded a part-time coordinator to guide Project ARC, but most significant have been the in-kind contributions from participating organizations. An ARC working group with representatives from library consortia across Canada has provided strategic leadership for all activities. The University of Alberta, Simon Fraser University, Ontario's Scholars Portal and the University of Prince Edward Island have all been contributing staff towards the development of the preservation and discovery network, as has Compute Canada, and RDC has assisted with funding for some aspects of the development. And, librarians from universities and consortia across the country (University of Alberta, University of British Columbia, Concordia University, University of Guelph, McMaster University, University of Montreal, University of Ottawa, Queens University, Ontario's Scholars Portal and Simon Fraser University) have been contributing to the development of the information resources and a data management planning tool. Collectively these individuals constitute the core of the network of expertise for Portage, which will expand over time, as the initiative builds capacity at the local level.

### **Transition**

It is anticipated that there will be a three-year transition period for Portage to expand its activities and become fully operational. The ARC working group has been disbanded, but task-specific groups such as the Portage DMP Experts Group and an infrastructure working group continue to make progress on various parts of network. The intention is to continue in those directions, while establishing the governance structure and funding streams as we implement Portage services over the next three years.

The proposed organizational framework for Portage (see Appendix 1 for more details) will be a mixed model of institutional membership fees, as well as external funding contributions. This will ensure long-term sustainability of the infrastructure and services over time, while also enabling the network to develop more quickly with targeted investments in priority areas. In addition to these funding sources, it is also expected that some in-kind contributions will continue to support the work of Portage during the transition to full fledged operations and that it will always be a collaborative endeavor leveraging the expertise of its members. The organizational framework will be refined in the coming months with input from key stakeholder communities.

### **Next Steps**

Several immediate next steps will be undertaken in order to support this transition:

1. Appoint an inaugural Portage Director, seconded from a CARL member library. The Director will advance the vision of a national research data management network that serves CARL member institutions and other Canadian research organizations, and is developed in partnership with other key stakeholder groups such as CANARIE and Compute Canada. This will be a two-year appointment of an experienced individual who will mentor others and establish the leadership roles and relationships required for the ongoing success of the network.
2. Liaise with CANARIE as it establishes the role of Executive Director, Research Data Canada. It will be important for Portage to maintain strong communication

and coordination with other important stakeholder organizations, in particular RDC. CANARIE plays an important role in building national digital infrastructure and policy, working with government, funding agencies and institutions. CANARIE will rely on the RDC Executive Director for advice about the needs and priorities for national research data management in Canada. The RDC Executive Director will play an important convening and facilitation role with the Canadian research data community and represent it in international discussions. It is anticipated that while CANARIE will have a strong working relationship with Portage, potentially even a funding partnership, the RDC Executive Director will not be directly involved in Portage's service development or delivery.

3. As a first step in implementing the Portage organizational framework, establish the Portage Steering Committee, potentially including:
  - 4-6 representatives of participating institutions
  - CARL President
  - CANARIE President and CEO or RDC Executive Director
  - Compute Canada representative
  - Vice-President Research of a U15 institution
  - Canadian Association of Research Administrators representative
  - Canadian University Council of Chief Information Officers representative
  - The Portage Director and CARL Executive Director are ex officio
  - Persons with specific subject expertise may also be appointed to the Steering Committee at the discretion of committee

The Portage Director, with input from the Steering Committee, will further define the parameters, scope and governance of the network, seek the resources for it, and oversee the development of both a technology-based preservation and discovery network and the pan-Canadian network of expertise.

For more information please contact Kathleen Shearer, CARL Research Associate, Martha Whitehead, CARL Vice-President or Susan Haigh, CARL Executive Director.

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