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OPEN SCHOLARSHIP POLICY OBSERVATORY



Canada's Roadmap for Open Science

by Caroline Winter | 6 November 2020 | English, Observations, Observations and Responses | 0 comments



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This observation was written by Caroline Winter.

At a glance:

Title	Roadmap for Open Science
Creator	Government of Canada, Office of the Chief Science Advisor of Canada
Publication Date	February 2020
Keywords	Open science, scholarly communication, funding agencies

In February 2020, the Government of Canada released the *Roadmap for Open Science*, a set of principles and recommendations to guide federal scientific research in Canada. More specifically, the guidelines and recommendations in the Roadmap apply to research by federally employed researchers, as well as research contracted by federal departments and agencies (Government of Canada 7).

The *Roadmap* defines Open Science as “[t]he practice of making scientific inputs, outputs and processes freely available with minimal restrictions,” including peer-reviewed articles, research data, and public-facing communications (11), and notes that federal research should be “Open by Design and by Default” (7).

The *Roadmap* was developed as part of the commitments to Open Science outlined in [Canada's 2018–2020 National Action Plan on Open Government](#) (Government of Canada 2018). It also intersects with other policies related to open scholarship, including the [Directive on Open Government](#), the [Tri-Agency Open Access Policy on Publications](#), and the [Statement of Principles on Digital Data Management](#).

Recognizing their importance to open science, the *Roadmap* is guided by five principles: People, Transparency, Inclusiveness, Collaboration, and Sustainability (6).

In addition, the *Roadmap* includes 10 recommendations, summarized here:

1. Federally funded scientific research in Canada should be guided by an open science approach (7).
2. Policies and action plans should be developed in consultation with the scientific community (7).
3. Federal departments and agencies should have open science action plans in place by October 2020. All research outputs should be “Open by Design and by Default,” and the plans should address the sharing of legacy data. Centralized and common elements of the plans should be developed collaboratively, such as in relation to timelines, accessibility, official languages, and IT considerations (7).
4. All articles published in scholarly journals should be made open access upon publication as of January 2022, and all federal publications as of January 2023, possibly through tools and infrastructure shared across the federal science community (8).
5. Strategies for implementing [FAIR \(Findable, Accessible, Interoperable, Reusable\)](#) principles for research data and metadata should be in place by January 2023 and fully implemented by January 2025. This requires robust data management practices for research data and metadata and should be accomplished using a common approach across the federal science community (8).
6. The Chief Science Advisor should work with the federal science community to develop a framework for identifying research that should not be made openly available due to ethical, privacy, or security concerns (9).
7. Strategies developed in response to the [2018 Data Strategy Roadmap](#), the Open Science Action Plan, and open government directives should be well aligned, under the guidance of a Chief Scientific Data Officer (9).
8. In order to achieve a national open science strategy that includes federally funded research conducted outside of federal departments and agencies, an Open Science Steering Committee should be established to consult with federal, provincial, and territorial funding agencies and learned societies to guide this strategy (9).
9. By December 2021, the Chief Science Advisor should conduct consultations to develop an open science strategy for research funded through federal funding agencies, provincial and territorial funders, and learned societies (9).
10. The *Roadmap* and related open science strategies and plans must remain responsive to the evolving international context of open science, which should be monitored by the Chief Science Advisor (10).

Responses to the *Roadmap*

In its emphasis on making Canadian scientific research “Open by Design and by Default,” the *Roadmap for Open Science* is well aligned with INKE’s mandate of researching and supporting open social scholarship. It is also aligned with many of our partners’ and members’ open access mandates.

Upon the *Roadmap*’s release, it was met with approval by INKE partners on Twitter. [CARL–ABRC \(@carlabrc\)](#) [tweeted](#) in support of the *Roadmap*’s guiding vision, adding, “We are heartened to see included in the *Roadmap for Open Science* a recommendation that ‘an Open Science strategy for federally funded research conducted outside of federal government agencies and departments should also be developed.’”

Gabriel Miller, President of the Federation for Humanities and Social Sciences, [tweeted his congratulations](#) on the Roadmap’s publication, adding, “Good to see rec #9 calling for an OS plan for fed funded research – and even better to see learned societies named as key partners in that project.”

The American Institute of Physics noted the *Roadmap*’s release in its [weekly newsletter](#), highlighting that its recommendation for immediate open access is a departure from the Tri-Agency OA policy that allows a 12-month embargo (American Institute of Physics 2020).

In July, [a piece in *Canada’s National Observer*](#) cited the Roadmap as an example of Canada’s investment in science, one more important than ever before in the face of the COVID-19 pandemic, climate change, and other complex challenges the world is facing together (Bains 2020).

The Roadmap and Open Scholarship

As part of Canada’s national open science strategy, the Roadmap also has implications for open scholarship on a global scale. In its announcement of the deployment of [cognit.ca](#), a research discovery tool developed by the [U15 Group of Canadian Research Universities](#), [Universities Canada](#), the [Canada Foundation for Innovation \(CFI\)](#), the Tri-Agencies, and [Mitacs](#), the French Embassy in Canada emphasizes the importance of the Roadmap and Canada’s national open science strategy for facilitating international collaboration (French Embassy in Canada 2020).

Although the *Roadmap for Open Science* applies to scientific publications only, which it defines as including “fundamental and applied natural, physical, biomedical and social science, as well as engineering and mathematics” (11), its strong support of full and immediate OA suggests a shift in national policy that may affect other disciplines in the future as well.

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