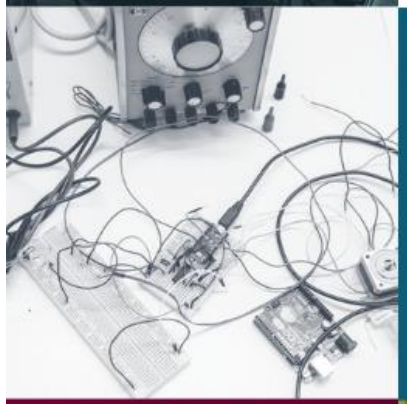
Tracking the Impact of Non-Traditional Research Outputs

Sherman Centre for Digital Scholarship

Wednesday, January 21, 2026

11:00am - 12:00pm **(Online)**

Sherman Centre for Digital Scholarship



Tracking the Impact of Non-Traditional Research Outputs (NTROs)

Jack Young, Research Impact & Bibliometrics Librarian

January 21, 2026

McMaster University Library

Land Acknowledgement

McMaster University is located on the traditional Territories of the Mississauga and Haudenosaunee Nations, and within the lands protected by the “Dish With One Spoon” wampum agreement.

Code of Conduct

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As a participant in this session, you agree to support and help cultivate an experience that is collaborative, respectful, and inclusive, as well as free of harassment, discrimination, and oppression. We reserve the right to remove participants who exhibit harassing, malicious, or persistently disruptive behaviour.

Please refer to our code of conduct webpage for more information: **scds.ca/events/code-of-conduct**

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This session is being recorded with the intention of being shared publicly via the web for future audiences. In respect of your privacy, participant lists will not be shared outside of this session, nor will question or chat transcripts.

Questions asked via the chat box will be read by the facilitator without identifying you. Note that you may be identifiable when asking a question during the session in an audio or visual format.

Certificate Programs

The Sherman Centre for Digital Scholarship Certificate of Attendance

The Sherman Centre's certificate program recognizes attendance at our workshops. It complements degree training, supports the development of critical competencies in data analysis, research data management, and digital scholarship, and formalizes core skills fostered by our workshops.

Participants are invited to attend seven workshops and receive a certificate of attendance. To verify your participation in today's workshop, we will provide a code and additional instructions at the end of the session.

You can learn more about the certificate program at **scds.ca/certificate-program**

The Canadian Certificate for Digital Humanities

This workshop is also eligible for the Canadian Certificate for Digital Humanities. To learn more about the certificate, visit **ccdhhn.ca**. You can also contact local liaison Alexis-Carlota Cochrane at scds@mcmaster.ca

Winter 2026: Upcoming Workshops

Data Analysis Support Hub

January 22: Conducting Meta-Analysis for Systematic Reviews Using R

January 29: Introduction to Data Analysis with SPSS

Digital Research

January 21: Tracking the Impact of Non-Traditional Research Outputs

February 11: Visualizing Bibliometric Networks with VOSviewer

Research Data Management

February 19: Communities Empowered by Data 101: Tools and Best Practices

May 12: Data Management Plan Bootcamp (In-Person)

May 19: Data Deposit Bootcamp (In-Person)

Do More with Digital Scholarship

January 27: Streamline Your Research Materials Photos with Tropy

February 6: Create a Digital Exhibition with Omeka S

February 9: Rethinking "Good" Data: Power, Vulnerability, and Queer Data Care

Register for Upcoming Workshops: https://u.mcmaster.ca/scds-workshops

Learning Objectives

By the end of this workshop, you will be able to:

- Communicate the value of NTROs for research integrity, knowledge mobilization, and impact assessment practices.
- Create persistent identifiers (e.g. DOIs) and metadata records for NTROs.
- Incorporate NTROs into existing researcher profile systems like ORCiD.

What Are Non-Traditional Research Outputs?

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What Are Non-Traditional Research Outputs?

Because NTROs cover such diverse outputs, it can be helpful to define them in relation to more traditional outputs:

Traditional Research Outputs	Non-Traditional Research Outputs
• Journal articles & books.	• Datasets*, code, research software, artistic works, performances, podcasts, policy, reports, applied research outputs, etc.
• Rely on robust publisher-based infrastructure for tasks like identification (e.g. DOI-minting), distribution, preservation.	• Rely on the researchers' / contributors' knowledge of, and access to, various scholarly communication tools for identification, distribution, preservation.
• Indexed widely, making them easily discoverable.	• Indexed in specialized sources and repositories, creating barriers to discovery.
• Quantitative indicators of impact (e.g. citations, downloads, media mentions) are readily available.	• Quantitative indicators of impact are scarce and dispersed.

*Research datasets require considerations beyond the scope this workshop. For data-specific resources, workshops, and consultations, visit McMaster's Research Data Management (RDM) page: https://rdm.mcmaster.ca/

The Value of Non-Traditional Research Outputs

Elevating NTROs benefits researchers, support staff, administrators, and the scholarly ecosystem, as whole:

- Helps ensure research integrity, transparency, and reproducibility.
- Increases the uptake of research findings by translating knowledge for different audiences.
- Recognizes the diverse research dissemination practices across disciplines.
- Ensures appropriate credit is given for the contributions to research projects.
- Enables more responsible research assessment practices.

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San Francisco Declaration on Research Assessment (DORA) [link]

“There is a pressing need to improve the ways in which the output of scientific research is evaluated by funding agencies, academic institutions, and other parties”

Released in 2012, DORA’s recommendations urge assessors to:

- “[C]onsider the value and impact of all research outputs (including datasets and software) in addition to research publications.”
- “[C]onsider a broad range of impact measures including qualitative indicators of research impact, such as influence on policy and practice.”
- “[C]apitalize on the opportunities provided by online publication (such as [...] exploring new indicators of significance and impact).”

DORA has since been signed by 69 Canadian Universities, journals, and funding agencies, including the tri-council (see the full list)

How to Capture Non-Traditional Research Outputs

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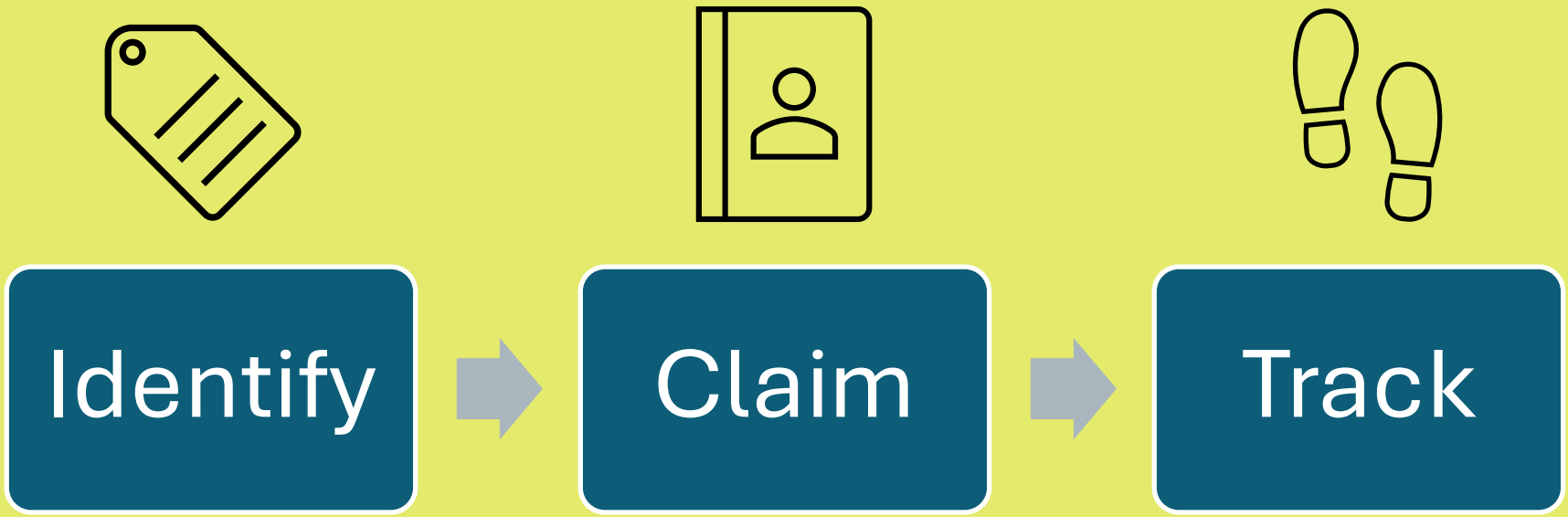
Capturing NTROs



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Identifying NTROs

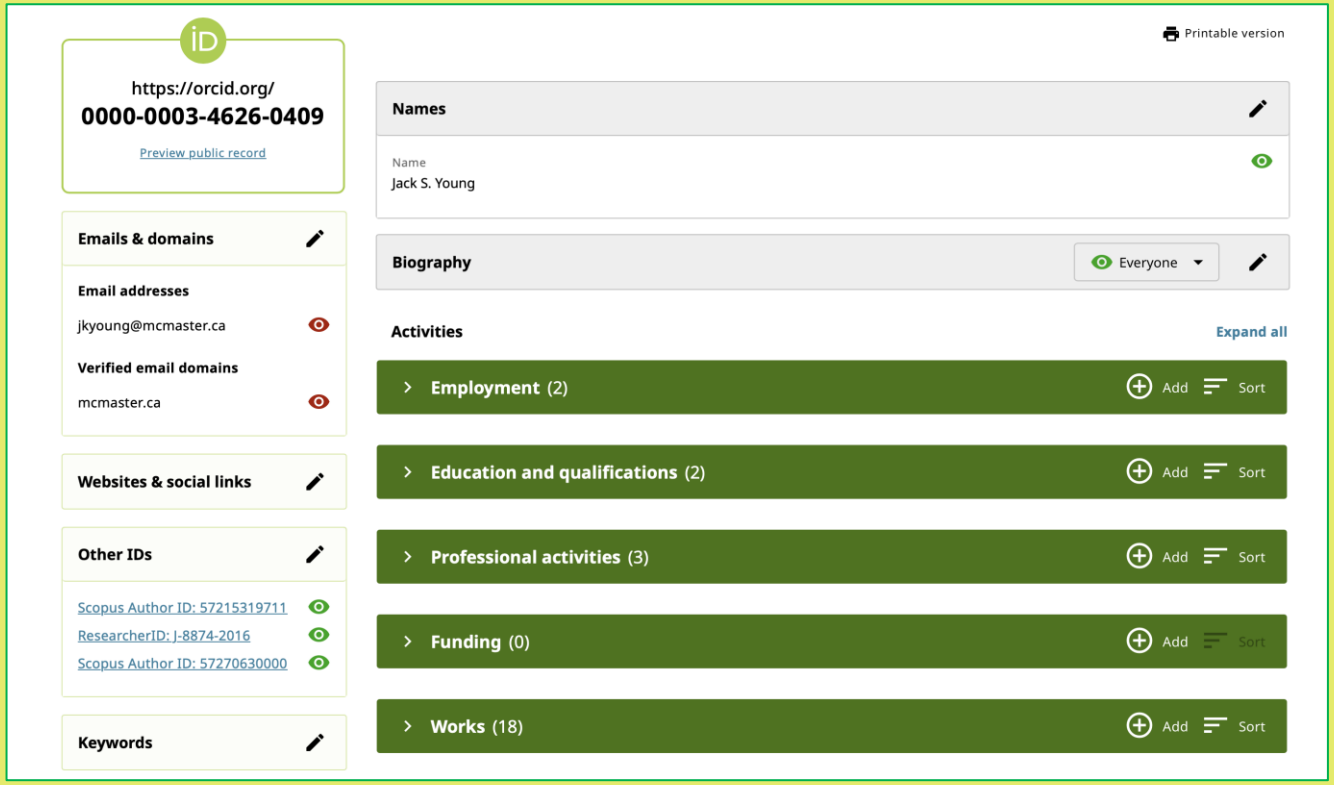
- Persistent identifiers like Digital Object Identifiers (DOIs) make your work discoverable and citable.
- For most NTROs, contributors will need to create a record for the output in a DOI-minting repository.

Zenodo	MacSphere
General purpose repository hosted by the intergovernmental organization CERN.	Institutional repository hosted by McMaster University Libraries for the preservation of McMaster-based research outputs.
Supports uploads of up to 100 files & 50GB per record.	8 GB per record (currently under review).
DataCite DOI minting available for all records	DataCite DOI minting coming in early 2026, with retroactive minting for existing records
Integrations include: GitHub & ORCID	Integration include: ORCID & McMaster Experts

*If you are interested in guidance on depositing research data, visit McMaster's Research Data Management (RDM) website: https://rdm.mcmaster.ca/

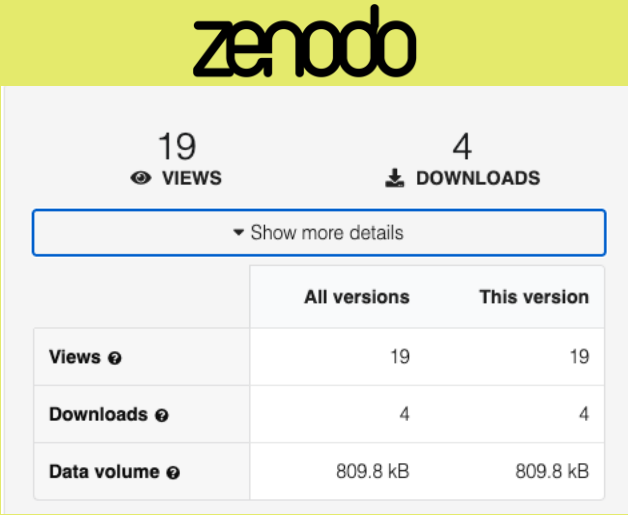
Claiming NTROs

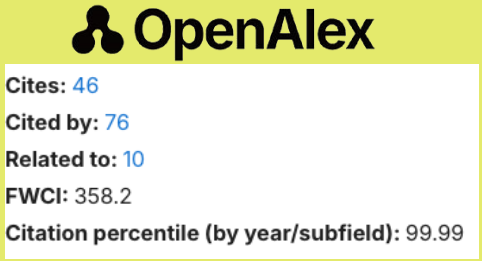
- Researcher profile systems (like ORCiD) can be used to assert your contributions to various NTROs.
- In addition to providing a persistent author identifier, ORCID offers a free online platform to showcase your work (shareable via a persistent URL).
- Users customize the visibility of every aspect of their profile.
- ORCIDs are well integrated into a variety of scholarly systems
  - Publishers
  - Funders
  - Research Organizations
  - Databases / Repositories



Tracking NTROs

- Being able to assess and express the impact of your work using both quantitative metrics and qualitative narratives is an essential skill for today's researchers.
- Tracking views, downloads, mentions, and citations of your NTROs can help you understand the impact your work is having.
- Current infrastructure for tracking the reuse of NTROs is dispersed across many tools and depends largely on the features of the individual repositories you use.
- By following best practices around identifying and claiming your NTROs, you will be well set-up to track this information as research infrastructure evolves (e.g. In November 2025, the open scholarly database OpenAlex expanded indexing to a wide variety of NTROs.)





Examples / Demonstration

Static Content (e.g. Documents, Reports, Slideshows, Visualizations, etc.)

1. Upload content and associated metadata to an online DOI-minting repository like Zenodo or MacSphere.
2. Claim output in ORCiD using the Datacite/ORCID “Search & Link” feature.
3. Track usage using repository-specific tools and OpenAlex.

This approach could also be used for digitized physical objects (like artworks).

Software & Code (GitHub)

1. Enable the GitHub / Zenodo integration from the Zenodo settings menu.
2. Every new release is assigned a versioned DOI.
3. Apply the DOI to your project README file on GitHub.
4. Track usage via GitHub and OpenAlex.

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Audio-Visual Content (e.g. Videos, Podcasts, Websites, etc.)

1. Non-repository platforms (e.g. YouTube, MacVideo, etc.) may be more valuable for sharing and tracking the usage of these outputs.

2. Consider uploading the original file to a repository like Zenodo for preservation purposes (provided you have the permission of the contributor(s) and the output's license allows it).

3. Apply the resulting DOI to all instances of the output.

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This session's verification code:
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Research Impact Questions?

Website: library.mcmaster.ca/services/research-impact

Contact: impact@mcmaster.ca

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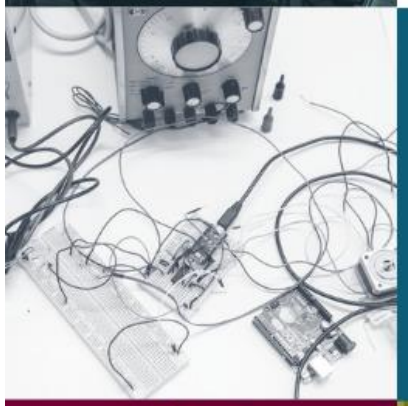

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