

## Spectrum, Concordia University's Open Access Research Repository

Fourteenth Annual Report, 2023

October 2024

### Overview

Concordia University's open access institutional repository, Spectrum, houses a diverse range of scholarly works by members of the Concordia community, including book chapters, articles, conference papers, datasets, videos, theses, and graduate research projects. Built on the open-source [EPrints](#), Spectrum provides a robust platform for access and digital preservation of these works.

During 2023, we continued to support the Concordia community's use of Spectrum through outreach on open access issues and direct consultation. These efforts continue to build on the 2010 Concordia Senate resolution,<sup>1</sup> encouraging Concordia researchers to deposit their peer-reviewed articles in Spectrum.

This fourteenth annual report summarizes progress and achievements from January 1, 2023 to December 31, 2023, and outlines developments for Spectrum's 15th year.

### Growth and usage of content in Spectrum

Between January 1, 2023 and December 31, 2023, 826 deposits were made to Spectrum. Deposits have averaged 822 per year over the last five years.

Deposit Type	Number Deposited	Percentage of Total Deposits
Thesis	732	88.6%
Article	57	6.9%
Non-Thesis Graduate Project	13	1.6%
Conference Paper	7	0.8%
Monograph & Book	12	1.5%
Monograph Chapter	4	0.5%
Dataset	1	0.1%
<b>Total</b>	<b>826</b>	<b>100%</b>

Table 1. Number of deposits added to Spectrum in 2023 by type and percentage of total.

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<sup>1</sup> Concordia University Senate Resolution on Open Access, 2010,  
<https://library.concordia.ca/research/open-access/SenateResolutiononOpenAccess.pdf>

A total of 20,102 documents were deposited in Spectrum from September 1, 2009 to December 31, 2023.

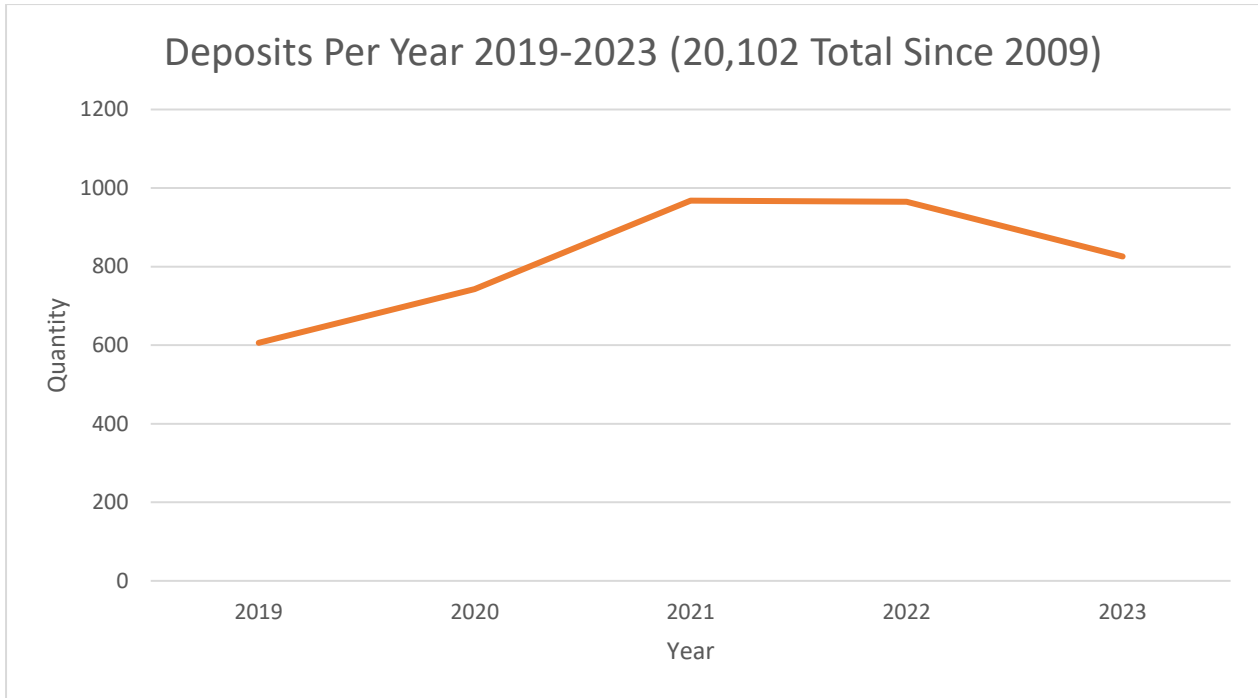


Figure 1. Number of deposits in Spectrum per year from 2019 to 2023.

Access to Spectrum’s full text content between January 1, 2023 to December 31, 2023 was 545,446 downloads. Total or cumulative downloads of Spectrum materials from September 1, 2009 to December 31, 2023 was 7,330,148.

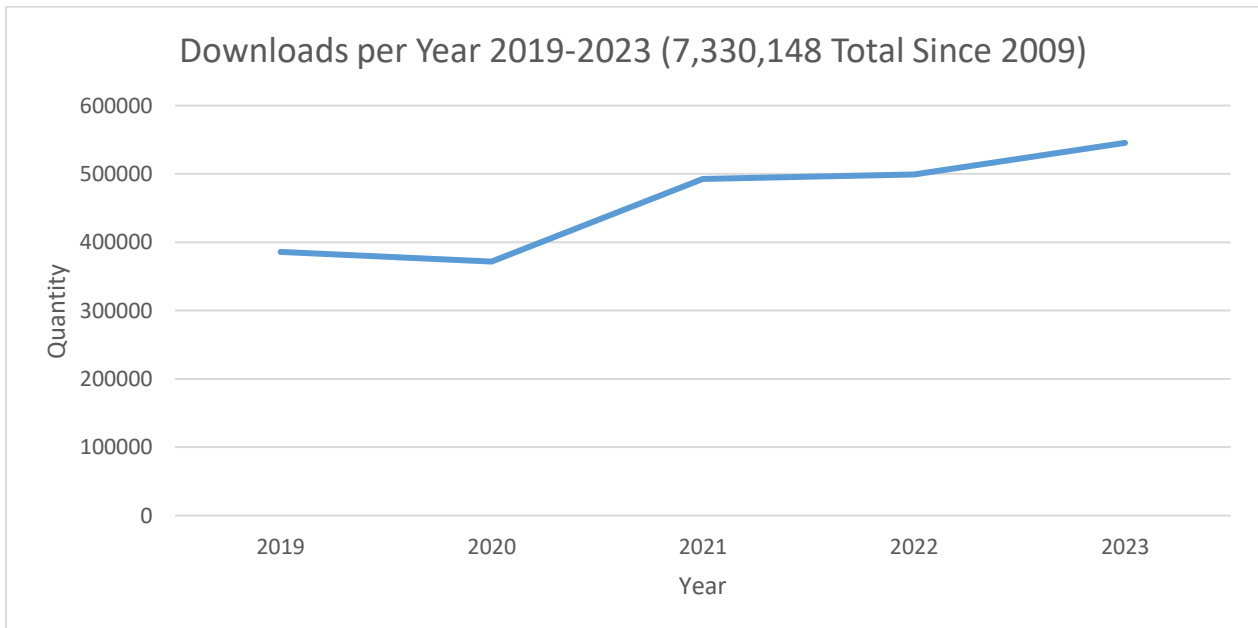


Figure 1. Number of downloads from Spectrum per year from 2019 to 2023

Spectrum was accessed by users from across the globe.

The top ten countries represented by sessions for the year covered in this report are (in descending order).

1. United States
2. Canada
3. China
4. United Kingdom
5. France
6. India
7. Germany
8. Australia
9. South Korea
10. Russia

Spectrum’s download statistics track information about individual authors and deposits. The works of the following authors were among the most downloaded in 2023:

Author	Department/Faculty	Downloads
Cicchetti, Umberto	Religion	16,007
Kite, Suzanne	Individualized Program	7,112
Harrell, D. Fox	Computer Science & Artificial Intelligence Laboratory at MIT	6,999
Lewis, Jason Edward, et al. <sup>2</sup>	Design and Computation Arts	6,988
Ryder, Andrew G.	Psychology	5,159
Desai, Bipin C.	Computer Science & Software Engineering	3,880
Laroche, Michel	John Molson School of Business	3,832
Valverde, Raul	John Molson School of Business	3,803
Jurcik, Tomas	Psychology	3,297
Reilly, Rosemary C.	Applied Human Sciences	2,764

Table 2. Most downloaded Spectrum authors, 2023.

The following 10 documents in Spectrum received the most full-text downloads from January 1, 2023 to December 31, 2023.

Author	Document Type	Title	Downloads
Cicchetti, Umberto	PhD Thesis	Ibn Qutayba et l’islamisation de la science de l’interprétation des rêves en Islam; Suivi d’une traduction de l’oneirocriton d’Ibn Qutayba (m.276/889) et une présentation inédite du texte intégral arabe de l’oneirocriton	16,007

<sup>2</sup> The following co-authors all shared 6,988 downloads associated with the [Indigenous Protocol and Artificial Intelligence Position Paper](#): Lewis, J.E., Abdilla, A., Arista, N., Baker, K., Benesiinaabandan, S., Brown, M., Cheung, M., Coleman, M., Cordes, A., Davison, J., Duncan, K., Garzon, S., Harrell, D. F., Jones, P., Kealiikanakaoleohaililani, K., Kelleher, M., Kite, S., Lagon, O., Leigh, J., Levesque, M., Mahelona, K. Moses, C., Nahuewai, I., Noe, K., Olson, D., Parker Jones, 'Ō., Running Wolf, C., Running Wolf, M., Silva, M., Fragnito, S., and Whaanga, H.

		attribué à Ibrāhīm B.'Abdullāh al-Kirmānī ( m.184/800)	
Lewis, Jason Edward, Abdilla, Angie, Arista, Noelani, Baker, Kaipulaumakaniolono, Benesiinaabandan, Scott, Brown, Michelle, Cheung, Melanie, Coleman, Meredith, Cordes, Ashley, Davison, Joel, Duncan, Kūpono, Garzon, Sergio, Harrell, D. Fox, Jones, Peter-Lucas, Kealiikanakaoleohaililani, Kekuhi, Kelleher, Megan, Kite, Suzanne, Lagon, Olin, Leigh, Jason, Levesque, Maroussia, Mahelona, Keoni, Moses, Caleb, Nahuewai, Isaac ('Ika'aka), Noe, Kari, Olson, Danielle, Parker Jones, 'Ōiwi, Running Wolf, Caroline, Running Wolf, Michael, Silva, Marlee, Fragnito, Skawennati and Whaanga, Hēmi	Monograph (Project Report)	Indigenous Protocol and Artificial Intelligence Position Paper	6,896
Desai, Bipin C.	Book	An Introduction to Database Systems	3,270
Testa, Silvia, Doucerain, Marina M., Miglietta, Anna, Jurcik, Tomas, Ryder, Andrew G., Gattino, Silvia	Journal Article	The Vancouver Index of Acculturation (VIA): New evidence on dimensionality and measurement invariance across two cultural settings	2,979
Okoli, Chitu and Pawlowski, Suzanne D.	Journal Article	The Delphi method as a research tool: an example, design considerations and applications	1,811
Subzwari, Khawer, Mokhov, Serguei A., Khalid, Outlioua, Gonzalez, Alex and Kadiri, Mutair M.	Workshop Item	TRIZ: A Theory of Inventive Problem Solving	1,699
Ahrabi, Tahereh	MA Thesis	Ukraine's crisis in 2022 through the lens of game theory	1,662
Laroche, Michel, Habibi, Mohammad Reza, Richard, Marie-Odile and Sankaranarayanan, Ramesh	Journal Article	The effects of social media based brand communities on brand community markers, value creation practices, brand trust and brand loyalty	1,582

Florence, Kathryn	MA Thesis	Tail/Tale/Tell: The Transformations of Sedna into an Icon of Survivance in the Visual Arts Through the Eyes of Four Contemporary Urban Inuit Artists	1,376
Zhang, Shuzhe	MSc Thesis	Color associations with masculine and feminine brand personality among Chinese consumers	1,337

Table 3. Most downloaded Spectrum documents, 2023.

## Developments in 2023 and Goals for 2024

In 2023, we increased the security of the Spectrum service with the addition of content security policy web headers, specifying precisely the domains that are allowed as sources. We configured additional notification emails for depositors: one at the moment of initial submission, and another when the thesis has been accepted for upload but remains in review until convocation. This automation of emails improves the efficiency of communication in the submission workflow.

We worked with Library and Archives Canada (LAC) to identify and correct metadata issues as we plan for the re-harvest of theses metadata for theses up to 2020 by LAC. The granting institution name prior to 1975 was “Sir George Williams University” and there have been several other faculty and department name changes that needed to be accurately recorded in the metadata. In 2024, we plan on completing the LAC harvest of theses up until 2020.

During 2023, we completed the planned upgrade of Spectrum’s MySQL database from version 5.7 to version 8. In 2024, we plan on upgrading the operating system from Ubuntu 18 to 22. In 2024, we are adding a routine disaster recovery testing for Spectrum, to demonstrate that we can recover using tape and disk backups.

During 2023, we have continued to monitor and refine the Spectrum digital preservation workflow. All new deposits to Spectrum are automatically processed for long-term digital preservation using our export plugin to Archivematica. In 2024, we plan to complete some important upgrades to our Archivematica infrastructure. This includes upgrading Archivematica to version 1.15 and upgrading our archival storage to a cloud-based system that meets the highest metric of digital preservation storage ([NDSA Level 4](#)). As a result of this work, Spectrum deposits will be archived in DuraCloud through the Ontario Library Research Cloud (OLRC), a service of Scholar’s Portal. OLRC data is replicated to three geographically separate storage nodes connected through the private ORION research network and housed in university owned and operated data centers across Ontario.

In 2023, we published recommendations for depositors whose research involves creating complex digital objects such as software applications or websites who [need additional guidance on file formats](#), to improve awareness of best practices to ensure that research will remain accessible and usable in the long-term.

At the [Open for Community: Across Platform Demos and Conversations on October 27, 2023](#), during Open Access Week 2023, we gained insights from Concordia researchers who spoke about the potential and challenges of research creation being made open access in research repositories.

In 2023, mediated deposit training with support staff commenced and continued with personnel shifts in 2024. In 2024, support staff will additionally be trained to support Spectrum email triage.

In 2024, we are working on improving and updating the user-facing side of the Spectrum documentation to facilitate the deposit process for graduate students and the work of the Thesis Office. We also aim to bolster ORCID uptake at Concordia. To measure future ORCID uptake through Spectrum, we will be including additional statistics in forthcoming Spectrum reports. For example, we verified that on September 4, 2024, 662 Spectrum creators had an ORCID.

Submitted by T. Neugebauer, R. Harris and S. Lake