

**Spectrum:  
Concordia University Research Repository  
Seventh Annual Report, 2016  
March 2017**

**Spectrum: Concordia University Research Repository** was launched in October 2009. Built using EPrints open source software (<http://www.eprints.org/>), it contains book chapters, articles, conference papers, datasets, and other works authored or created by members of the Concordia community. After a wide-ranging discussion involving faculty from across the University, in the spring of 2010 the Concordia Senate passed a resolution encouraging all Concordia researchers to deposit their peer-reviewed articles in Spectrum.<sup>1</sup> It is also the repository for Concordia theses and dissertations. This seventh annual report summarizes progress and achievements from **January 1, 2016 to December 31, 2016**, and outlines developments for Spectrum’s eighth year.

**Usage of Spectrum**

Access to Spectrum’s full text content between January 1, 2016 to December 31, 2016 was **819,837** downloads. Total or cumulative downloads of Spectrum materials from September 1, 2009 to December 31, 2016 was **3,956,030**.

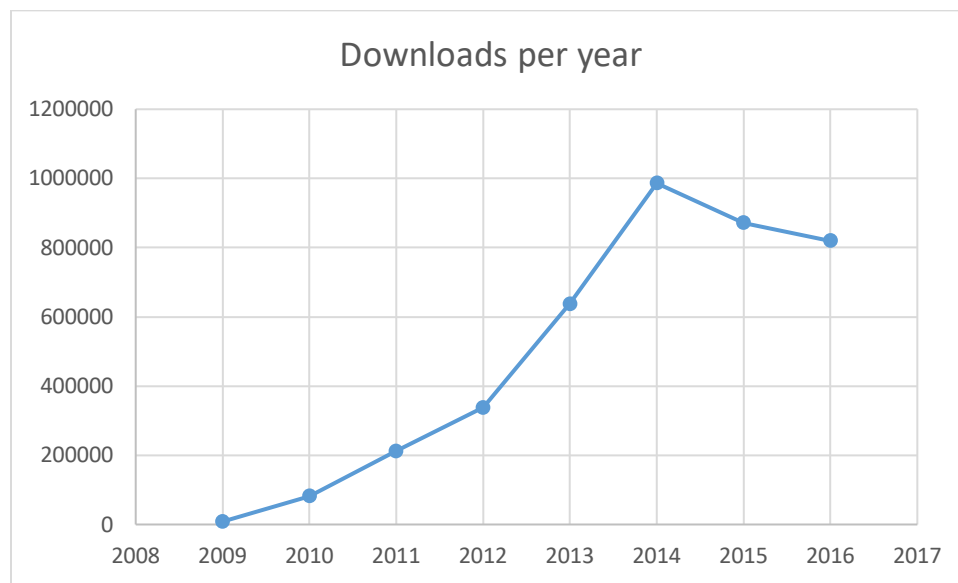


Table 1. Number of full-text downloads from Spectrum per year over a seven-year period.

<sup>1</sup> Concordia University Senate Resolution on Open Access, 2010, <http://library.concordia.ca/research/openaccess/SenateResolutiononOpenAccess.pdf>.

Spectrum is accessed by users from across the globe; the top ten countries represented by downloads for the period covered in this report are (in descending order): Germany, China, United States, Canada, United Kingdom, India, France, South Korea, Japan, and Australia.

Spectrum's download statistics track information about individual authors and deposits. The following authors' works were heavily downloaded during Spectrum's seventh year.

<b>Author</b>	<b>Department/Faculty</b>	<b>Downloads</b>
M. Laroche	John Molson School of Business	10,955
M.-O. Richard	John Molson School of Business	6,862
M. R. Habibi	John Molson School of Business	6,144
R. Sankaranarayanan	John Molson School of Business	6,028
C. Okoli	John Molson School of Business	4,963
M. J. Maduna	Special Individualised Program	4,461
P. Pillay	Electrical and Computer Engineering	4,225
J. Y. Zhou	Computer Science and Software Engineering	3,902
S. D. Pawlowski	John Molson School of Business	3,597
A. S. Radomsky	Psychology	3,459

Table 2. Most downloaded Spectrum authors, 2016.

The following 10 documents in Spectrum received the most full-text downloads from January 1, 2016 to December 31, 2016.

<b>Author</b>	<b>Document Type</b>	<b>Title</b>	<b>Downloads</b>
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	5,934
Maduna, Mamokhele Julia	M.A. Thesis	An analysis of the use of teaching aids and the implications for teaching and learning mathematics in Qwaqwa phase one schools (South Africa)	4,461
Zhou, Jun Ying	M.Comp.Sc. Thesis	Functional requirements and non-functional requirements : a survey	3,902
Okoli, Chitu and Pawlowski, Suzanne D.	Journal Article	The Delphi method as a research tool: an example, design considerations and applications	3,597
Ranjbaran, Arash	M.A.Sc. Thesis	Planning and control of high-rise building construction	2,452
Farah, Carlos Abou	M.A.Sc. Thesis	Ultimate bearing capacity of shallow foundations of layered soils	2,052

Hassanein, Ahmed	Ph.D. Thesis	Planning and scheduling highway construction using GIS and dynamic programming	2,003
Ben Moussa, Mohamed	Ph.D. Thesis	The Use of the Internet by Social Movements in Morocco: Implications for Collective Action and Political Change	1,899
Chintapalli, Sridhar	M.A.Sc. Thesis	Preliminary structural design optimization of an aircraft wing-box	1,758
Wang, Ruiping	M.A.Sc. Thesis	A study of vibration isolation of engine mount system	1,640

Table 3. Most downloaded Spectrum documents, 2016.

### Growth of Content between January 1, 2016 and December 31, 2016

Document Type	Number Deposited	Percentage of Total Deposits
Thesis	625	73.0
Article	149	17.4
Non-Thesis Graduate Project	52	6.1
Monograph	10	1.2
Monograph Chapter	10	1.2
Conference Paper	9	1.1
Book	1	0.1

Table 4. Number of documents added to Spectrum by type and percentage of total, 2016.

### Developments in 2016 and Goals for 2017

In April, the Department of Communications Studies received permission from the School of Graduate Studies for students to deposit Media Studies MA Research-Creation Projects in Spectrum (i.e. non-thesis graduate projects). In September, the Department of Mathematics and Statistics received permission from the School of Graduate Studies for students to deposit MSc/MA reports in Spectrum.

Document upload functionality is now consolidated into simple categories such as “text”, “video”, “audio” and “slideshow.” As a result, Spectrum can accommodate a much broader range of file formats while simplifying the upload process. Spectrum now uses automated tools to characterize uploaded files and generates image thumbnail previews whenever possible. For video and audio document formats, web accessible derivative files are generated and a video or audio player is included on the Spectrum interface, making it easier for users to access video/audio uploads without having to download the file.

The integration of [ORCID](#) (Open Researcher and Contributor ID) was introduced into Spectrum. Authors and contributors can now specify their ORCID in addition to their email address as an identifier that distinguishes them from other researchers on the web when Spectrum metadata is harvested.

The procedure for minting a [dataset DOI](#) for a Spectrum deposit is now automated, simplifying the process of registering DOIs. Items that do not already have a Digital Object Identifier (DOI) may be assigned one through Spectrum upon request.

The display of [Altmetrics](#) was introduced in Spectrum. Items in Spectrum with a DOI (Digital Object Identifier) now include a summary badge of mentions in [sources](#) such as news sites, Wikipedia, Twitter and more.

The planning for the development of upgrades to Spectrum’s preservation functionality will continue in 2017-18.

The [harvesting of theses](#) from university institutional repositories has been temporarily reduced until technology upgrades on the harvester are to be completed at Library and Archives Canada (LAC) in 2017. Therefore, the backlog of thesis harvesting is planned for 2017. The updated LAC harvester may require the development of upgrades to Spectrum’s OAI-PMH export functionality.

In addition, a quality control review of theses metadata deposited in Spectrum since 2012 is planned in 2017. Following the review, these records will be made available through the Library catalogue.

Submitted by D. Dennie and T. Neugebauer