PROJECT MUSE®

An Analysis of Music E-Journal Usage at McGill University

Joseph Hafner, Andrew Senior

Fontes Artis Musicae, Volume 67, Number 2, April-June 2020, pp.
99-118 (Article)

Published by International Association of Music Libraries, Archives and
Documentation Centres

DOI: <https://doi.org/10.1353/fam.2020.0008>

➔ *For additional information about this article*

<https://muse.jhu.edu/article/758644>

AN ANALYSIS OF MUSIC E-JOURNAL USAGE AT MCGILL UNIVERSITY

Joseph Hafner and Andrew Senior

Introduction

McGill University is a research university with approximately 39,000 full-time students, including undergraduates, graduates, doctoral and post doc students, and medical residents¹. The McGill Library supports the university through nine branches on its downtown and suburban campuses. The Marvin Duchow Music Library supports around 900 students in the Schulich School of Music.

Increasing challenges with space and the global shift to an online world were, in part, reasons why at the McGill Library we, like so many other libraries, transitioned most journal subscriptions from print to electronic journals in the past decade. At the same time, libraries around the world have been facing significant increases in the cost of journal subscriptions and McGill Library is no exception. This inflationary trend is hardly recent and affects many music libraries to some extent. Indeed, Richard Griscom in his 1983 citation study of Indiana University School of Music theses and dissertations began by highlighting the challenges due to the rise in journal subscriptions². When facing budgetary constraints, it is important for the Library to ensure that funds are spent appropriately to build and maintain the collection.

Citation studies and usage statistics analysis have long been considered tools for analysis, but what constitutes usage? In the online era, usage often means page clicks and downloads. For large institutions like McGill Library with over 30,000 students and 1,800 faculty, many journals are offered on multiple platforms so aggregating usage from multiple vendors can be time consuming. Usage can also mean journals in which faculty are publishing, or references that they are citing when writing. Assigning an article to a course reading list also impacts the usage of a journal.

Joseph Hafner is the Associate Dean, Collection Services, McGill University Library & Archives located in Montréal, Québec, Canada, where he has worked in several different roles since arriving there in 2004. He serves on the HathiTrust Program Steering Committee, is the Chair of the IFLA Linked Data Technical Subcommittee, Editor of Recent Publications in Music for the International Association of Music Libraries, Archives and Documentation Centres (IAML) and a member of the Chief Collection Development Officers of Large Research Libraries. He was previously a Vice President of IAML, Co-Chair of the Canadian Linked Data Initiative, Chair of the IFLA Acquisition and Collection Development Committee, Member of the America's Regional Council for OCLC. Co-Editor of *Space and Collections Earning Their Keep: Transformation, Technologies and Re-tooling* published by DeGruyter for ILFA. Presented "*Does the Data Ring True: An Analysis of Electronic Music Journals at McGill University*." He and co-author, Andrew Senior, thank their colleagues for their support in the original presentation of this research at the IAML Congress in 2018, especially Dawn McKinnon.

Andrew Senior is Coordinator, E-Resources and Serials at McGill University Library. His research focuses on linked data and modeling of continuing resources, journal usage analysis, and electronic resources workflows.

1. McGill University (2019), *Enrolment Reports*, <https://www.mcgill.ca/es/registration-statistics>, accessed 30 May 2020.

2. Richard Griscom, "Periodical Use in a University Music Library", *The Serials Librarian* 7, no. 3 (1983): 35–52, https://doi.org/10.1300/J123v07n03_05, accessed 30 May 2020.

These are all different types of factors that librarians conducting collection development activities must consider. Employing four different analysis tools to learn more about “usage” of e-journals in the Music collection (and keeping in mind the make-up of McGill University’s Schulich School of Music during the period of analysis), the following research questions were considered:

- Does the Library have access to the journals that support the Music Library and Music Faculty?
- Are there gaps in the electronic journal collection?
- Where are our faculty publishing?
- What are the journals with the highest usage, lowest usage and zero usage?
- Are these the right data points for making these collection development decisions?

Book chapters written by Fling³ and Gottlieb⁴ covering collection development guidelines and sources for music periodicals (Fidler and James’s bibliography of music journals is an example⁵) can inform collection assessment of music journals. Specific citation studies in the field of music, however, are not extensive. A study by Kuyper-Rushing used citations from the bibliographies of music doctoral dissertations published in 1993 to create a tool to help music librarians select core music journals⁶. Journals were ranked according to number of citations and then compared to the lists contained in Griscom’s 1983 study of citations from theses and dissertations. Kuyper-Rushing found that just 5.5 percent of listed journals represented 50 percent of total citations and there was overlap between her citations list and that of Griscom, when journals’ publication histories aligned. With particular note for this article, Kuyper-Rushing’s findings supported the notion that core journal lists created by studying multiple institutions’ citation results would be more reliable than a list generated from a single institution’s results, due to the impact of local curricular strengths and institutional interests.

Knievel and Kellsey compared the results of a citation analysis from eight Humanities fields, of which music was one⁷. They studied other aspects of citation information including the average citations per article and the number of citations to foreign-language sources. Monograph citations (80.6 percent) were greater than the Griscom or Kuyper-Rushing studies and they noted higher percentages of citations to French and Italian sources⁸.

In terms of online usage assessment using Counting Online Usage of Networked Electronic Resources (COUNTER) statistics, Angela Pratesi studied the changing levels of searches in RILM Abstracts of Music Literature and the Music Periodicals Database fol-

3. R. Michael Fling, “Periodicals”, in *Guide to Developing a Library Music Collection* (Chicago: American Library Association, 2008).

4. Jane Gottlieb, “Periodicals, Periodical Indexes, and Literature Databases”, in *Music Library and Research Skills*. 2d ed. (New York, NY: Oxford University Press, 2017).

5. Linda M. Fidler and Richard S. James, *International Music Journals*. Historical Guides to the World’s Periodicals and Newspapers (New York: Greenwood Press, 1990).

6. Lois Kuyper-Rushing, “Identifying Uniform Core Journal Titles for Music Libraries: A Dissertation Citation Study”, *College & Research Libraries* 60, no. 2 (1999): 153–163, <https://search.proquest.com/docview/199364446?accountid=12339>, accessed 30 May 2020.

7. Jennifer Knievel and Charlene Kellsey, “Citation Analysis for Collection Development: A Comparative Study of Eight Humanities Fields”, *Library Quarterly* 75, no. 2 (2005): 142–168, <https://www.journals.uchicago.edu/doi/pdfplus/10.1086/431331>, accessed 30 May 2020.

8. Ibid.

lowing a switch in discovery layer indexing coupled with the implementation of a new COUNTER release.

For studies using mixed methodologies for assessment, we had to look outside the field of music. Wical and Vandenbark used a mixed-method approach combining citation and faculty publications analysis together with usage statistics from four subject areas (nursing, chemistry, biology, and mathematics), noting, “focusing on titles that appear in both the publications and citations lists can serve as an indicator of how well the library supports core areas of faculty research”⁹. Their research questions, particularly those asking in which journals are faculty publishing and what titles they are citing, align with those of this article, such as in assessing usage statistics against the backdrop of faculty research interests. McKinnon and Tummon adopted a similar approach. They used the same McGill University 1Science and Canadian Research Knowledge Network (CRKN) Journal Usage Project (JUP) Faculty Survey reports used in this paper—as well as faculty publications lists—to analyse McGill’s social work journal collection for faculty support and to identify potential gaps¹⁰. In their collection analysis, one finding was that “each tool and usage measurement provided a different set of ‘top’ journals with minimal overlap between them”¹¹. The authors highlighted the usefulness of identifying an up-to-date list of social work journals, as well as the transferability of their methods to other subject areas¹². In a similar manner, 1Science, JUP, and Measuring the Impact of Networked Electronic Services (MINES) data for McGill Library were combined to analyse usage, publications, and faculty interest in journals from the field of dentistry in a presentation by Hafner, McKinnon, Morris and Senior¹³, and preliminary findings of an analysis of music journals usage were presented by Hafner, Leive, McKinnon, and Senior at the IAML (International Association of Music Libraries, Archives and Documentation Centres) Annual Congress in 2018¹⁴.

The most recent study of a MINES implementation is by Lewellen and Plum who reported on surveyed users accessing e-resources at the University of Massachusetts, Amherst¹⁵. Their data recorded the same data points as McGill’s MINES survey, namely, user group, affiliation, location, purpose, and reason but implemented an additional step

9. Stephanie Wical and Todd Vandenbark, “Notes on Operations: Combining Citation Studies and Usage Statistics to Build a Stronger Collection”, *Library Resources & Technical Services* 59, no. 1 (2015), 33–42, at 39, <https://doi.org/10.5860/lrts.59n1.33>, accessed 30 May 2020.

10. Dawn McKinnon and Nikki Tummon, “Measuring Usage: A Comprehensive Analysis of a Social Work Journal Collection”, *Serials Review* 45, no. 1–2 (2019): 26–38, <https://doi.org/10.1080/00987913.2019.1611293>, accessed 30 May 2020.

11. *Ibid.*, 32.

12. *Ibid.*, 34.

13. Joseph Hafner, Dawn McKinnon, Martin Morris, and Andrew Senior, “Is There a (Data) Point? Are All of these Measures Useful?”, in *Proceedings of the 2018 Library Assessment Conference* (2018), <https://www.libraryassessment.org/wp-content/uploads/2019/10/Proceedings-2018-rs.pdf>, accessed 30 May 2020.

14. Joseph Hafner, Cynthia Leive, Dawn McKinnon, and Andrew Senior, “Does the Data Ring True? An Analysis of Electronic Music Journals at McGill University”, *IAML (International Association of Music Libraries) Annual Congress* (2018), Leipzig, Germany, https://www.iaml.info/sites/default/files/pdf/does_the_data_ring_true_an_analysis_of_elecelectr_music_journals_at_mcgill_university_leipzig_2018.pdf, accessed 30 May 2020.

15. Rachel Lewellen and Terry Plum, “Assessment of E-Resource Usage at University of Massachusetts Amherst: A MINES for Libraries® Study Using Tableau for Visualization and Analysis”, *Research Library Issues: A Report from ARL, CNI, and SPARC*, no. 288 (2016): 5–20, <http://publications.arl.org/rli288/>, accessed 30 May 2020.

of combining MINES data with one vendor's COUNTER statistics. They argued this would lead to a better understanding of resource usage in order to inform library decision making¹⁶.

Methodology

This research draws on data from four collection methods: COUNTER reports, the Association of Research Libraries MINES protocol, a 1Science institutional report, and the CRKN Faculty Survey Journal Usage Project Report. Using the same 1Science and Faculty Survey reports, it shares many aspects of the methodology from McKinnon and Tummon's study—as well as the aforementioned analyses of McGill's dentistry and music journal usage—and is subject to some of the same limitations concerning the source data.

COUNTER

COUNTER is a non-profit organisation supported by libraries, publishers, and vendors that ensures the consistency of online usage statistics across vendor platforms through their Code of Practice¹⁷. Several types of COUNTER reports are available but both 1Science and CRKN JUP reports methodologies used Release 4 of the Code of Practice with JR1 COUNTER statistics supplied to them by McGill Library. JR1 COUNTER statistics represent the number of successful requests for full-text journal articles downloaded over a given period¹⁸.

MINES

MINES is a protocol offered by the Association of Research Libraries as a method to survey users at the point of access to an electronic resource (triggered at a determined time when a user clicks on an online resource URL). Through customisable questions, MINES allows libraries to assess usage by university affiliation, location, and the reason the patron selected the resource¹⁹. Significant technical knowledge is required to implement MINES, however, both in the delivery of the survey and the storage of responses. McGill University Library used OCLC's hosted EZproxy server and added EZproxy configuration files that triggered the survey every hundredth time a user clicked on a library online resource, storing the anonymous responses in a separate Apache database. The survey ran from September 2015 to September 2016. McGill asked users to provide information about five areas:

1. Their university status (faculty, staff, undergraduate, or postgraduate student)
2. Their faculty or departmental affiliation
3. Location (off campus, on-campus, and whether in a library)
4. Their primary purpose for that particular search
5. The reason the particular e-resource was selected

1Science Report

1Science is a Montreal-based company (now owned by Elsevier) that supports analysis of institutional publications and subscriptions as well as indexing and facilitating access to

16. *Ibid.*, at 18.

17. Project COUNTER, "COUNTER Code of Practice for E-Resources, Release 4", <https://www.projectcounter.org/wp-content/uploads/2016/02/APPD.pdf>, accessed 30 May 2020.

18. *Ibid.*

19. Association of Research Libraries, "MINES for Libraries", <http://www.minesforlibraries.org/home>, accessed 30 May 2020.

peer-reviewed scholarly content²⁰. 1Science created a custom report for McGill University Library using Web of Science citation data to produce the number of McGill-affiliated publications in listed journals, as well as the number of times McGill-affiliated researchers cited those journals from 2006 to 2015. 1Science used McGill-supplied COUNTER JR1 reports to produce usage statistics for 2015. To identify music titles for inclusion in this research, the authors selected journals using the ‘Music’ subject subfield in the field of ‘Visual and Performing Arts’ contained within the domain of ‘Arts & Humanities’. This resulted in a set of fifty-six journals—a smaller sample than the almost 400 titles identified in the CRKN JUP data.

Journal Usage Project (JUP) Survey

The Canadian Research Knowledge Network (CRKN), a Canadian consortium for licensing content, ran the ‘Journal Usage Project’ (JUP) survey with faculty across Canada to gauge the impact of journal publishing consolidation on libraries²¹. The McGill faculty (including Ph.D. students and post-doctoral fellows), was surveyed in January 2017 for a total of six weeks. The JUP survey asked respondents to list the top ten journals in their field for both research and teaching. The report combined these responses with COUNTER JR1 usage statistics for the years 2011 to 2015 from all platforms combined, as well as using Web of Science data for the number of times faculty cited those journals, where this figure was available.

From the final report, we identified music journals for inclusion by searching for known titles, and various music-related keywords in different languages, as well as titles indexed in the *International Index to Music Periodicals*. In this manner, we identified almost 400 titles for inclusion, representing a far wider focus than the data set from the ‘music’ subject 1Science report titles.

Results

MINES

The McGill Library MINES survey collected 4,143 responses during the year sampling period. There were 134 respondents from the Schulich School of Music, which represented 3.04 percent of the total responses.

Table 1 gives the breakdown of university status for respondents identifying as affiliated with the Schulich School of Music.

Table 1. MINES Breakdown of University Status for Schulich School of Music.

Schulich School of Music	Number	Percentage of Group
Academic Staff	12	8.96
Master’s or Doctoral Student	69	51.49
Medical or Dental Resident	1	0.75
Postdoc	4	2.99
Research or Administrative Staff	1	0.75
Undergraduate Student	47	35.07
Total:	134	100%

20. 1Science, “About Us”, <https://www.1science.com/about-us-2/>, accessed 30 May 2020.

21. Canadian Research Knowledge Network (CRKN), Journal Usage Project, <https://www.crkn-rcdr.ca/en/journal-usage-project>, accessed 30 May 2020.

The results for the Schulich School of Music differ somewhat from the composition of status for respondents from all faculties. The Music academic staff percentage is not too dissimilar—around 9 percent versus 13 percent for all faculties—but there are differences between undergraduate and graduate numbers. Just over half of the Music respondents were at the master’s or doctoral student level; followed by undergraduate students at just over one third (Figure 1).

Fig. 1. MINES Status with Schulich School of Music Affiliation.

This contrasts with the total McGill responses for the same two statuses which are inverted, with undergraduates at 42 percent and master’s/doctoral students at 30 percent (Figure 2).

Fig. 2. MINES Status for All McGill Responses.

Two locations indicated by music respondents match almost exactly the total response percentages, namely 'off campus' (61.94 percent versus 63.77 percent) and 'on campus, not in a library' (14.18 percent versus 13.62 percent for McGill total). Only one music-affiliated respondent indicated they were at a hospital location (0.75 percent), whereas the total frequency by location for hospitals was ten times greater (10.61 percent). However, music results for 'on campus, in a library' (23.13 percent) are virtually twice that of the total figure (12.01 percent) (see Table 2).

Table 2. Locations of MINES Respondents at Time of Survey.

Schulich School of Music	Number	Percentage of Group
McGill-Affiliated Hospital	1	0.75
Off Campus	83	61.94
On Campus, in a library	31	23.13
On Campus, not in a library	19	14.18
Total:	134	100.00

When it came to indicting the purpose of use for the e-resource, 48 percent of music respondents selected 'coursework or assignments', which was more than double the next highest given purposes ('other activities' 17.91 percent and 'thesis or dissertation' 16.42 percent). When asked the reason for selecting the e-resource, 50 percent of respondents said it was an 'important resource in my field' (see Table 3).

Table 3. Reason for Selecting the Resource.

Schulich School of Music	Number	Percentage of Group
Important resource in my field	68	50.75
Linked from an Internet search	4	2.99
Linked from a course syllabus/reading list	14	10.45
Linked from the library catalogue	22	16.42
Recommended by a librarian	4	2.99
Recommended by a professor/colleague	14	10.45
Reference or citation from another source	8	5.97
Total:	134	100.00

From these results, we can see certain trends: music users accessing e-resources have a higher likelihood of being at the master's or doctoral level; of being off-campus or on-campus in a library; and using an important resource for their field of study.

1Science

Based on the ‘synthetic usage’ ranked scores in the 1Science Report for McGill Library for the music subject domain, there were 68 McGill faculty music publications with 129 citation references for the period 2006 to 2015. Table 4 gives the 1Science results of music journals in which McGill faculty published the most articles, along with the corresponding number of McGill faculty references. The top twenty-five journals by COUNTER JR1 download from 2015 are presented in Table 5.

Table 4. 1Science Results of Music Journals in which McGill Faculty Published the Most Articles.

Music Journals in Which McGill Faculty Publish	Number of McGill Articles (2006–2015)	Number of References by McGill Researchers
Computer Music Journal	11	16
Journal of New Music Research	8	21
Early Music	6	4
Organised Sound	5	7
International Journal of Music Education	3	
Acta Musicologica	2	1
AJS review, Association for Jewish Studies	2	
Black Music Research Journal	2	2
Early Music History	2	1
Journal of Mathematics and Music	2	1
Journal of Research in Music Education	2	7
Journal of the American Musicological Society	2	2
Leonardo Music Journal	2	3
Music Analysis	2	
Music Theory Spectrum	2	3
Musical Quarterly	2	

Table 5. 1Science Top 25 Music Journals by COUNTER JR1 Downloads.

1Science Top 25 journals by COUNTER JR1 Downloads in 2015	Downloads
Music Quarterly	1,098
Music and Letters	969
Popular Music	610
Music Analysis	605
Journal of Music Theory	563
Computer Music Journal	543
Journal of Research in Music Education	428
Contemporary Music Review	387
Journal of the Royal Musical Association	379
Journal of Popular Music Studies	252
Acta Musicologica	229
Journal of New Music Research	228
International Journal of Music Education	203
International Review of the Aesthetics and Sociology of Music	202
Revue de Musicologie	200
Bulletin of the Council for Research in Music Education	200
Opera Quarterly	195
College Music Symposium	173
AJS review. Association for Jewish Studies	172
Opera News	172
Fontes Artis Musicae	164
Organised Sound	139
Journal of Musicological Research	132
Music Education Research	132
Early Music History	107

Journal Usage Project

McGill University received 429 responses, of which 154 were from the domain of Social Sciences and Humanities (the highest level of discipline granularity requested). The Journal Usage Project (JUP) 2015 COUNTER statistics for the most part match the number of downloads from the 1Science report for equivalent titles, with a few notable exceptions, such as *Early Music*, where COUNTER statistics for this title in the 1Science report for 2015 equal only two downloads, and *The Journal of the American Musicological Society* which had only ninety-one downloads for 2015 in the 1Science data (compared to 1,103 in the JUP data) (see Table 6).

Table 6. Journal Usage Project Top 25 Music Journals by COUNTER JR1 Downloads.

JUP Top 25 Journals by COUNTER JR1 Downloads in 2015	Downloads
Sight and Sound	3,307
Shakespeare Quarterly	1,736
Journal of Popular Culture	1,613
Early Music	1,455
Music and Letters	1,335
The Musical Times	1,152
Journal of the American Musicological Society	1,103
The Musical Quarterly	1,098
Nineteenth Century Music	1,056
The Journal of Voice	1,032
Modern Judaism	1,000
Music Perception	931
Educational Theatre Journal	914
Film Quarterly	843
Music Library Association. Notes	836
The Journal of Musicology	759
Perspectives of New Music	738
Popular Music	683
Music Educators Journal	616
Music Analysis	605
Leonardo & Leonardo Music Journal	591
Journal of American Folklore	588
Journal of Research in Music Education	574
Cinema Journal	567
Eighteenth-Century Studies	565

Table 7. Journal Usage Project Top 25 Journals by Number of Mentions.

Title	Number of Mentions
Journal of the American Musicological Society	10
Nineteenth Century Music	6
Early Music	5
Music and Letters	5
The Musical Quarterly	5
Theatre Survey	5
Music Theory Online	5
Educational Theatre Journal	4
The Journal of Musicology	4
Eighteenth-Century Studies	4
Journal of Music Theory	4
Journal of Popular Music Studies	4
Eighteenth-Century Music	4
Modern Judaism	3
Music Perception	3
Popular Music	3
Journal of Research in Music Education	3
Cambridge Opera Journal	3
Psychology of Music	3
Journal of New Music Research	3
The Opera Quarterly	3
Women and Music	3
Research Studies in Music Education	3
Medical Problems of Performing Artists	3
Shakespeare Quarterly	2

Table 8. Top JUP usage combined with 'Mentions' and 1Science Publications and References.

Titles highlighted in grey also have the subject subfield speciality of 'Music' in the 1Science data. No entry in a box means no data was contained in the report.

G = Title included in Griscom's 1983 ranked list of top 50 journals by citation frequency

K-R = Title included in Kuypers-Rushing's 1999 ranked list of top 53 journals by citation frequency

JUP Top 25 Downloads 2015	JUP Mentions	JUP References (2011–2015)	1Science McGill Publications (2006–2015)	1Science McGill References (2006–2015)
1. Sight and Sound (3,307)	0	0	0	
2. Shakespeare Quarterly (1,736)	2	1		
3. Journal of Popular Culture (1,613)	0	1	2	
4. Early Music (1,455) [K-R]	5	5	6	4
5. Music and Letters (1,335) [G, K-R]	5	2	1	2
6. The Musical Times (1,152) [G, K-R]	0	1		
7. Journal of the American Musicological Society (1,103) [G, K-R]	10	9	2	2
8. The Musical Quarterly (1,098) [G, K-R]	5	2	2	
9. Nineteenth Century Music (1,056) [K-R]	6	3	1	
10. The Journal of Voice (1,032)	2	149	8	53
11. Modern Judaism (1,000)	3	7	1	
12. Music Perception (931) [K-R]	3	285	15	111
13. Educational Theatre Journal (914)	4	10		
14. Film Quarterly (843)	0	5	1	

Table 8 continued

15.	Music Library Association. Notes (836) [G, K-R]	2	0		
16.	The Journal of Musicology (759) [K-R]	4	1	1	
17.	Perspectives of New Music (738) [G, K-R]	0	2		
18.	Popular Music (683)	3	0		1
19.	Music Educators Journal (616) [G, K-R]	0	5		
20.	Music Analysis (605) [K-R]	1		2	
21.	Leonardo Music Journal (591)	0	10	2	3
22.	Journal of American Folklore (588)	0			
23.	Journal of Research in Music Education (574) [G, K-R]	3	52	2	7
24.	Cinema Journal (567)	2		2	2
25.	Eighteenth-Century Studies (565)	4			

Table 9. Titles Ranked by Number of McGill Publications (1Science) Compared with JUP Data.

Journal Title	1Science: McGill Publications (2006–2015)	1Science: References by McGill Researchers (2006–2015)	JUP References (2011–2015)	JUP Mentions	JUP Top 25 Usage in 2015	JUP Top 25 Average Usage (2011–2015)
Music Perception	15	111	285	3	Y	N
Computer Music Journal	11	16	37	2	N	Y
Journal of New Music Research	8	21	55	4	N	N
Journal of Voice	8	53	149	2	Y	Y
Early Music	6	4	5	5	Y	Y
Organised Sound	5	7	8	2	N	N
International Journal of Music Education	3			1	N	N
Acta Musicologica	2	1	1	2	N	N
AJS review. Association for Jewish Studies	2				N	N
Black Music Research Journal	2	2	6		N	N
Early Music History	2	1	1	2	N	N
Journal of Mathematics and Music	2	1	1		N	N
Journal of Research in Music Education	2	7	52	3	Y	Y
Journal of the American Musicological Society	2	2	9	10	Y	Y
Leonardo Music Journal	2	3	10		Y	Y
Music Analysis	2		0	1	Y	N
Music Theory Spectrum	2	3				
Musical Quarterly	2		2	5	Y	Y

Discussion

Data analysis

There are some immediate observations concerning the JUP and 1Science source data and how journals were selected for inclusion in these results. Generally, the majority of the fifty-six journals listed in the 1Science music subfield are focused, scholarly refereed publications with only a handful of professional music magazines mentioned (such as *Opera News*, *Sacred Music*, and *The Strad*). The JUP data includes many more interdisciplinary journals, in such areas as music perception or music and medicine, as well as additional non peer-reviewed ‘specialist subject’ magazines. In addition to the above-mentioned interdisciplinary type journals, the JUP data also contains titles (due to their indexing in the *International Index to Music Periodicals*) that are more on the outlying edges of the music domain and whose principal focus is another subject. Film or theatre studies are two examples, both of which accounted for the highest usage (*Sight and Sound*, and *Shakespeare Quarterly* in 2015).

Neither classification method of the datasets is therefore without criticism. Employing the Music subject facet, 1Science is almost too focused in its music subject area, leaving such titles as *Music Perception*, *Journal of Voice*, or *Journal of Popular Culture* in other subject areas and not included in the music selection. Using the yardstick of inclusion in the *International Index to Music Periodicals* for the JUP data means the net is cast widely, resulting in a journal list almost eight times greater than the 1Science list. There are also discrepancies in between the data sets for what ostensibly should be identical, or at least comparable, figures. For example, in the 1Science 2006–2015 citation data, the number of times a McGill-affiliated researcher referenced an article in *Music Perception* was 111, but the same measurement in the JUP totals 285 citations from 2011 to 2015 alone. The differences in COUNTER statistics between tools for the same publications align with McKinnon and Tummon’s findings concerning different journals results according to the tool and collection method employed.

From the MINES data, we see that half of all respondents considered their selected resource to be ‘important in their field’ where one might expect ‘reading lists’ or ‘recommended by a professor’ or librarian to have higher numbers. There is also no way to correlate how many of those respondents were also part of the 50 percent who selected ‘assignment’ as the purpose of their study. However, it was the opinion of the then Head of the McGill Music Library, Cynthia Leive, that this spoke to how course work is often set up at the Schulich School of Music, with students being required to find resources on their own rather than using reading lists. Additionally, that master’s and doctoral students are the ones most frequently using library electronic resources due to their dissertation research which might account for the higher number of graduate students compared to the McGill total. Although one respondent answered that they were located in a McGill-affiliated hospital, this is less surprising when one considers that some faculty and students are engaged in interdisciplinary work in music perception and cognition, or research related to playing musical instruments and the effects on the body.

The higher rate of MINES respondents selecting the ‘important resource in my field’ answer also raises interesting questions when juxtaposing it against usage statistics and JUP ‘mentions’ data. One might expect with such high usage figures for publications such as *Sight & Sound* or *Journal of Popular Culture*, there would be more ‘mentions’ from JUP

respondents listing it in one of their ten most important journals to their field. Likewise for *Shakespeare Quarterly*, with the second-highest usage but with only two mentions and no 1Science figures for McGill faculty publications or citations. There is also no way to know if these two mentions came from someone from the Schulich School of Music or from another department within the humanities.

Even though these data points are combined using different tools, there are nonetheless trends that emerge from these data that help answer the research questions posed in the introduction.

Supporting McGill Music Faculty and Library

Does the Library have access to the journals that support the Music Faculty and McGill Library? In short, yes. High usage and high mentions do not always align, but Journal Usage Project ‘mentions’ results demonstrate that we have access to the journals our faculty consider important to their research and teaching, and to date, we did not identify any titles that were highlighted in the surveys but missing from our collection. It is interesting to note that the three most-highest downloaded titles in the JUP data are tangentially related to Music—*Sight and Sound*, *Shakespeare Quarterly*, *Journal of Popular Culture*—which serves to demonstrate that interdisciplinary work or special-focus projects are being supported by the Library’s subscriptions.

McGill-affiliated publications

The combined MINES, 1Science, and JUP data present a picture that journals containing the most McGill-affiliated publications and most-cited journals frequently differ from the highest usage titles most downloaded by McGill users. Areas of known fields of interest at the Schulich School of Music show a general alignment between publications in the journal, references by McGill researchers to those journals, and JUP ‘mentions’ as being important to teaching and research. Examples of this are the areas of new and electronic music composition (*Computer Music Journal*, *Journal of New Music Research*, *Organised Sound*), early music and voice studies (*Early Music*, *Journal of Voice*), musicology (*Journal of the American Musicological Society*, *Music & Letters*, *The Musical Quarterly*, *19th Century Music*, *Music Theory Online*, *Journal of Music Theory*), music perception (*Music Perception*), and music education (*International Journal of Music Education*, *Journal of Research in Music Education*). Nevertheless, while these journals generally show healthy usage, they have not always made it into the top twenty-five most-downloaded titles (either from 2015 alone, or averaged over the five years from 2011 to 2015) (see Table 9).

One clue to explain this may lie in the MINES results. From the MINES data, we see a stronger representation of postgraduate usage of electronic resources, compared to the rest of McGill. Journal publications figures are likely driven by faculty members with greater publishing experience and over a greater time period (2006–2015), whereas usage—and this seems supported by MINES results—may be driven more by graduate students with fewer published articles and different research interests during more recent periods (2011–2015). Factor in the MINES undergraduate usage and it seems not implausible that longitudinal publication history opposed to newer study or research interests explains some of the discrepancy seen between publication figures or ‘mentions’, and journals with the highest usage.

These results also highlight the longevity and prestigious nature of some music journals that have maintained their usage over many years. Comparing McGill music journal

titles contained in Table 8 with Richard Griscom's list of fifty most-frequently cited periodicals from 1983 and Kuyper-Rushing's 1999 list of fifty-three journals most cited by music doctoral students, there is not insignificant overlap. For example, eight of the top twenty-five most downloaded music journals at McGill in 2015 (JUP data) also feature in both Griscom's and Kuyper-Rushing's lists, including the fifth to eighth McGill positions by highest usage. When narrowed to Kuyper-Rushing's list only, there is a match with thirteen journals in McGill's most-downloaded titles (including McGill's fourth to ninth most downloaded titles). Unsurprisingly, the *Journal of the American Musicological Society*, *Musical Quarterly*, *Music & Letters*, and *The Musical Times* are among these most downloaded and overlapped titles. Even allowing for publications in new areas of musical research that were not in existence in 1983 or 1999, and for titles that have ceased in the intervening years since these studies took place, it is nonetheless striking to see the continued impact of a core set of music periodicals over time.

Journal usage and data points for collection development decisions

While our initial focus of the study was towards journal titles with the highest usage, low usage and zero usage titles were considered from a collections point of view. The data showed there were not many current subscriptions with such low usage that would necessarily inform subscription cancellation decisions and we found no zero-use music titles in our current subscriptions. Where zero usage was apparent, it was for titles that had already been discontinued. Conversely, some of the high-use journals did not feature in 'mentions' data but their heavy usage indicates a continued need for these titles at the McGill Library.

These data points did provide sufficient information for us to conclude that we have access to the journals our faculty and students need for their teaching, learning, research, and publishing. Having data from several sources to back up assumptions is helpful, especially in a time of tight budgets, and when necessary helps to make better-informed cancellations decisions than if only one data source were used.

Limitations of the data

The MINES survey only captures people using the library's e-resources through the library's EZproxy system and will not capture resources whose URL does not contain the McGill proxy prefix. As professors frequently place articles in the McGill course management system, this usage may fall outside of our EZproxy system and was not captured in the results. Additionally, the MINES survey did not capture the type of electronic resource being accessed so it was not possible to distinguish between online journal, e-book, or database. While this study is concerned with access and usage of journal titles, other types of e-resources will undoubtedly have been included in the MINES results data.

Web of Science publications and citations data do not capture the full spectrum of online journal usage in Music; neither do they include the breadth of citations of publications in non-English languages. The 2005 study by Knievel and Kellsey highlighted the proportionally higher citations to foreign-language publications, particularly French and Italian²², and this important facet is less likely to be included in Web of Science data. The scientific

22. Jennifer Knievel and Charlene Kellsey, "Citation Analysis for Collection Development: A Comparative Study of Eight Humanities Fields", *Library Quarterly* 75, no. 2 (2005): 142–168, <https://www.journals.uchicago.edu/doi/pdfplus/10.1086/431331>, accessed 30 May 2020.

focus of Web of Science suggests that citation data is not being captured as frequently for humanities publications in general. For example, *Shakespeare Quarterly* contains three scholarly criticisms published between 2008 and 2013 by an emeritus professor of McGill University that do not appear to have been included in the 1Science report and would seem to support the notion that Web of Science citation data is less reliable for the humanities, and by extension, for music.

Reproducing this methodology for smaller institutions

Music libraries might not always have the resources available to them to request or run surveys of a similar reach, however, smaller-scale options could be employed to garner similar data points. Faculty surveys similar to the Journal Usage Project run by CRKN might feasibly be reproduced at a reduced scale with targeted surveys to departmental faculty members to enquire about their perceptions of the most important journals in their field for teaching and research. Faculty curriculum vitae could be analysed to assess in which journals faculty are publishing and the results could be compared with their perceptions of important journals for their field and compare their results against usage statistics.

Reproducing a survey similar to MINES might be achieved in a less tech-heavy manner using targeted e-mail surveys to the institution's distinct user populations (for example faculty, staff, and students). An initial question might be to 'think about the last time you selected an electronic resource to use as part of your research', with follow-up questions about why, and from which location, the person selected the resource. Targeting specific user populations at different times in the year might help get a broader picture of usage trends and approximate the methodology used by MINES.

Getting access to your library's usage statistics either from your collection development department or directly from vendors will be necessary in order to explore usage patterns. A knowledge of all the implicated platforms would also be required in order to ascertain total usage. For example, various coverage of the *Journal of the American Musicological Society* is available to McGill users from three platforms: University of California Press, ProQuest, and JSTOR. Separate COUNTER statistic downloads would be required for each platform to obtain a rounded picture, and some form of collaboration with electronic resources or collections librarians would likely be necessary in order to pull the complete sets of usage data for each journal.

It is possible to extract COUNTER reports from journal platforms through an automated harvesting process named SUSHI (Standardized Usage Statistics Harvesting Initiative). The advantage for libraries with limited financial resources is that COUNTER usage data can be obtained and assessed without the need for purchasing additional—and frequently more expensive—data products and services. The benefits to obtaining COUNTER reports programmatically have to be weighed against the time investment required to set up SUSHI harvesting, and to extract, compile, and analyse the data.

For this study, McGill was fortunate to have report results provided to them by 1Science and CRKN. For institutions looking to reproduce this methodology and without recourse to assistance from member consortiums, obtaining usage statistics will entail an important initial time investment.

Conclusion

Having multiple ways to assess collections brings about a stronger review and analysis process. It helps us not only better understand our faculty's needs, but also how the students and faculty are using the collections, where they publish, and the most important titles for our institution. These assessment tools enable a more confident approach to collections management, such as selecting which titles might be dropped if budgets are tight or if changes in institutional research mean having to purchase new ones. While McGill Library employed two report tools that entailed associated costs, there are lower cost or no-cost options that can be used to find similar results to help understand an institution's faculty.

English Abstract

From 2014 to 2016, McGill University collected data about music e-journals using a variety of tools, including: 1. Association of Research Libraries (ARL) Measuring the Impact of Networked Electronic Services (MINES) for Libraries survey that asked library patrons why they selected specific e-journals and how they are applying the knowledge; 2. 1Science publishing and citation report that compared faculty publications with the library's e-journal holdings, and revealed publishing trends for the McGill faculty and for faculty worldwide; 3. An analysis from a Canadian Research Knowledge Network (CRKN) survey on the top journals preferred by faculty for research and teaching; 4. Vendor-supplied e-journal usage statistics through Counting Online Usage of Networked Electronic Resources (COUNTER) data.

Looking at the results of this data, we considered the following research questions: Does the Library have access to the journals that support the Music Library and Music Faculty? Are there gaps in the e-journals collection? Where are our faculty publishing? What are the journals with the highest usage, lowest usage and zero usage? Are these the right data points for making collection development decisions?

The use of multiple data sources can provide a basis for a more holistic approach to understanding usage of e-journal collections as well as Music faculty and patrons' preferences and practices. There are also recommendations about gathering this sort of information by lower cost methods at other music libraries.

French Abstract

De 2014 à 2016, l'Université McGill a recueilli des données sur les revues musicales en ligne à l'aide de divers outils, notamment 1. Association of Research Libraries (ARL) Measuring the Impact of Networked Electronic Services (MINES) for Libraries (Mesurer l'impact des services électroniques en réseau pour les bibliothèques), une enquête qui demandait aux usagers des bibliothèques pourquoi ils choisissaient des revues électroniques spécifiques et comment ils appliquent les connaissances ; 2. Un rapport sur les publications et les citations scientifiques qui comparait les publications de la faculté avec les fonds de revues électroniques de la bibliothèque et révélait les tendances de publication pour la faculté de McGill et pour la faculté dans le monde entier ; 3. Une analyse d'une enquête du Canadian Research Knowledge Network (CRKN) (Réseau canadien de documentation pour la recherche) sur les principales revues préférées de la faculté pour la recherche et l'enseignement ; 4. des statistiques sur l'utilisation des revues électroniques fournies par les fournisseurs grâce aux données de Counting Online Usage of Networked Electronic Resources (COUNTER) (Compter l'utilisation en ligne des ressources électroniques en réseau).

En examinant les résultats de ces données, nous avons considéré les questions de recherche suivantes : la bibliothèque a-t-elle accès aux revues qui soutiennent la bibliothèque de musique et la faculté de musique ? Existe-t-il des lacunes dans la collection de revues électroniques ? Où notre faculté publie-t-elle ? Quelles sont les revues les plus utilisées, les moins utilisées et celles qui ne le sont pas ? Ces données sont-elles bonnes pour prendre des décisions concernant le développement de la collection ?

L'utilisation de plusieurs sources de données peut servir de base à une approche plus globale pour comprendre l'utilisation des collections de revues électroniques ainsi que les préférences et les pratiques des professeurs de musique et des usagers. Nous proposons également des recommandations concernant la collecte de ce type d'informations par des méthodes moins coûteuses dans d'autres bibliothèques musicales.

German Abstract

In den Jahren 2014 bis 2016 sammelte die McGill-Universität mit einer Vielzahl von Werkzeugen Daten zu elektronischen Musikzeitschriften. So fand z.B. zunächst eine Umfrage der *Association of Research Libraries (ARL)* zur Messung der Auswirkungen von vernetzten elektronischen Diensten (MINES) für Bibliotheken statt, in der Bibliotheksbenutzer gefragt wurden, warum sie jeweils spezifische e-Zeitschriften auswählen und wie sie die gewonnenen Erkenntnisse anwenden. Außerdem wurden im *1Science publishing and citation report* Veröffentlichungen wissenschaftlicher Mitarbeiter mit den E-Journal-Beständen der Bibliothek verglichen und so Veröffentlichungstrends für den Lehrkörper der McGill-Universität wie auch weltweit aufgezeigt. Drittens erfolgte die Analyse einer Umfrage des *Canadian Research Knowledge Network (CRKN)* zu den Top-Zeitschriften, die von den Lehrenden für Forschung und Lehre bevorzugt wurden. Schließlich lagen auch vom Anbieter *Counting Online Usage of Networked Electronic Resources (COUNTER)* bereitgestellte E-Journal-Nutzungsstatistiken vor.

Bei der Auswertung der Ergebnisse dieser Daten haben wir die folgenden Forschungsfragen berücksichtigt: Hat die Bibliothek Zugriff auf die Zeitschriften, die die Musikbibliothek und die lehrenden Musikwissenschaftler benötigen? Gibt es Lücken in der Sammlung der E-Journals? Wo veröffentlichen unsere Lehrenden? Welche Zeitschriften werden am meisten, welche am wenigsten und welche überhaupt nicht genutzt? Sind dies die richtigen Datengrundlagen, um Entscheidungen zur Bestandsentwicklung zu treffen?

Die Verwendung mehrerer Datenquellen kann die Grundlage für einen ganzheitlicheren Ansatz zum Verständnis der Nutzung des Angebots an elektronischen Zeitschriften sowie über die Vorlieben und Herangehensweisen der Musikwissenschaftler und der Benutzer bilden. Zusätzlich werden Empfehlungen ausgesprochen, wie derartige Informationen mit kostengünstigeren Methoden von anderen Musikbibliotheken ermittelt werden können.