



# Benchmarking and evaluation of a dentistry collection using the OCLC Collection Evaluation tool

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## The Context

- Benchmarking is an effective method for analyzing library collections. It can:
  - Increase the effectiveness of library operations;
  - Reduce costs;
  - Highlight collection deficiencies and determine necessary funding [1,2]
  - Enable service expansion [3]
- OCLC's WorldCat Collection Evaluation tool (previously WorldCat Collection Analysis) helps librarians
  - Benchmark collections against peer institutions and authoritative lists [4]
  - Generate data on collection overlap and uniqueness with peer institutions [4]
  - Discover collection weaknesses and currency [5]
  - Ensure library collections reflect strategic goals of the institution [6]
- The literature contains numerous articles to guide librarians on collection benchmarking with OCLC's WorldCat Collection Evaluation tool [7-11,2], however no specialised guidance has been developed for health sciences libraries, such as on:
  - How well the tool's conspectus maps to NLM subject headings
  - Special issues encountered when benchmarking a health sciences collection against peer institutions and authoritative lists
  - If the WorldCat Collection Evaluation tool can be used to inform collection development practices in health sciences libraries

## Research Questions

- Q1 How does McGill's dentistry collection compare against those from peer institutions?
- Q2 Is OCLC Collection Evaluation a suitable tool for health sciences collections?

## Method

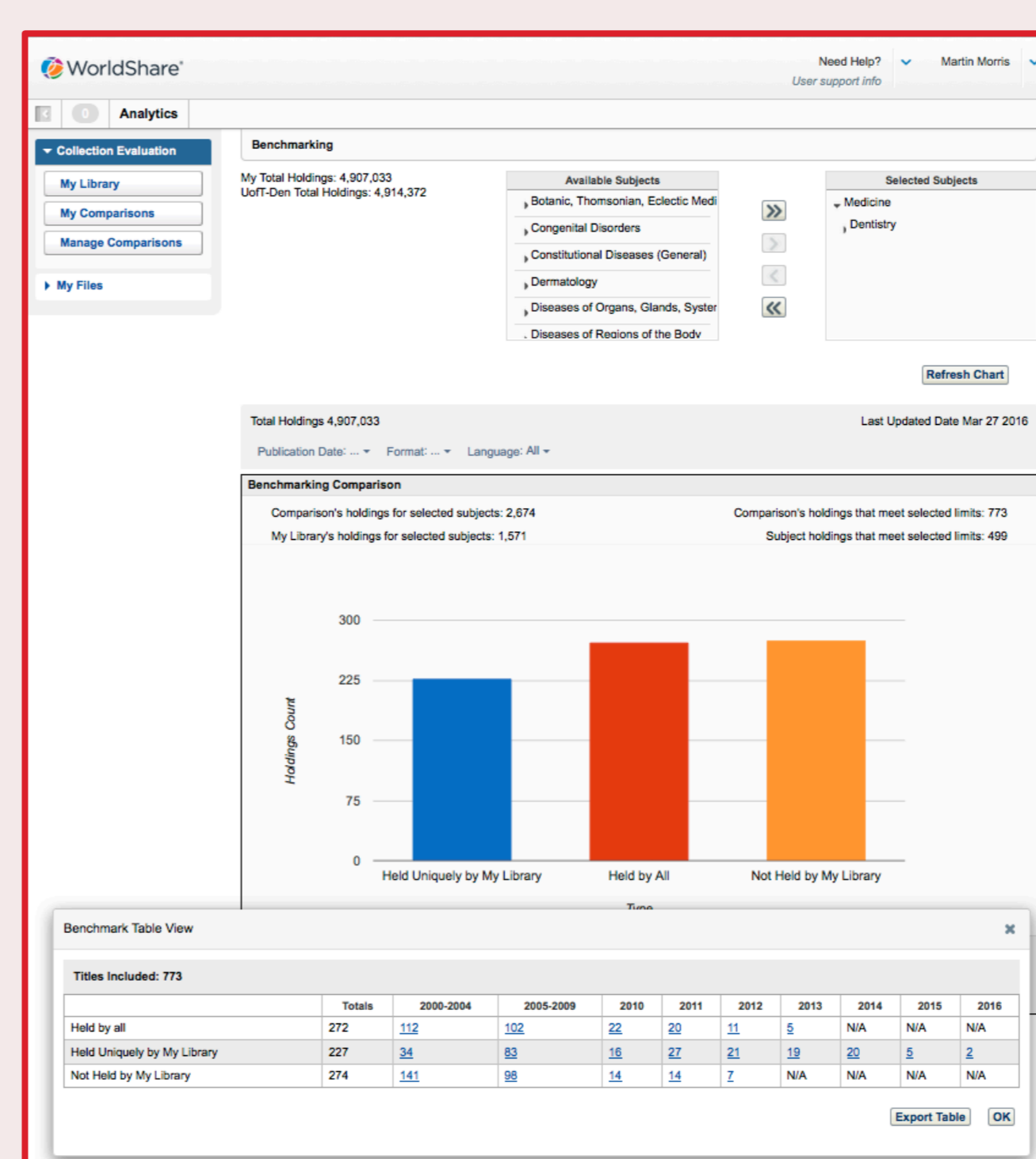


Figure 2: Screenshot demonstrating collection benchmarking between two peer institutions.

While the tool allows for relatively easy comparison between two institutions, it is not possible to compare more than two at the same time without downloading very large spreadsheets which are technically difficult to manage.

## Selection of Peer Institutions

- Cross-comparison between two lists: U15 research intensive universities, and Canadian Dental Association/American Dental Association dental schools.
- Selected 6 schools, balancing between Canada and the US, private and public, with a range of student numbers.
- Contacted each institution to request permission to use their holdings data.

## Creation of Peer Comparisons

- Comparisons were then set up in advance, as data generation takes 1-2 days.

## Analysis of Data

- We adopted Hubbard's [10] method, and also added our own comparative analysis of print/e-book purchasing in dentistry between institutions.
- Problems arising from use of the OCLC tool were recorded as they arose and analyzed by theme.

## Results

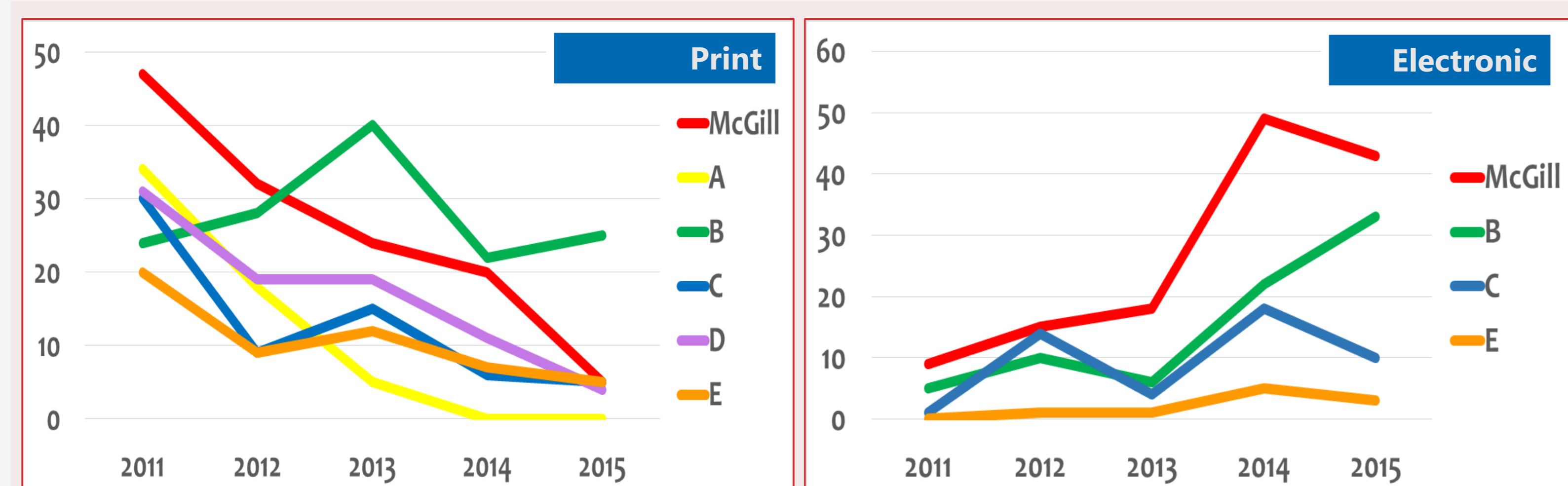


Figure 1: Comparison of growth in collection between McGill and peer institutions (A-E = peer institutions)

- Q1 While data for print collections appears reliable, in many cases we were unable to locate the equivalent data for electronic resources.
- Print vs. electronic collection trends at McGill corresponds to broader trends in academic libraries.
- Q2 Data had to be extracted manually for more complex analysis. This process is inefficient and impractical.
- Results could very possibly be inaccurate. (see Discussion)

Electronic	Mean	SD	Median	Maximum	Minimum	McGill #
ALL DENTISTRY	80.5	78.7	64.0	180 McGill	14 E	180 1
RK350-369 Dental Disease - Endodontics, Periodontics, etc.	15.5	16.4	11.0	39 McGill	1 E	39 1
Dental Education and Research	0.0	0.0	0.0	0 All	0 All	0 1
Dental Examination, Diagnosis & Therapeutics	2.8	2.2	2.0	6 McGill	1 C	6 1
Dentistry	28.3	24.3	24.5	59 McGill	5 E	59 1
RK29-RK41 Dentistry - History and Biography	0.3	0.5	0.0	1 McGill	0 B/C/E	1 1
RK529-535 Oral Surgery	4.5	2.6	4.0	8 McGill	2 C	8 1
RK520-528 Orthodontics	7.5	8.7	5.0	20 McGill	0 E	20 1
RK60.5 Other Special Types of Nursing	1.3	1.0	1.5	2 McGill/B	0 C	2 1
RK58/59 Practice of Dentistry, Dental Economics	1.0	0.8	1.0	2 McGill	0 E	2 1
RK641-667 Prosthodontics	15.8	13.3	13.5	34 McGill	2 E	34 1
Restorative Dentistry	3.8	3.8	3.0	9 McGill	0 E	9 1

Table 1: Benchmarking analysis of electronic collections between McGill and peer institutions (n=3)

Print	Mean	SD	Median	Maximum	Minimum	McGill #
ALL DENTISTRY	450.7	73.3	461.5	545 A	350 D	497 2
RK350-369 Dental Disease - Endodontics, Periodontics, etc.	65.0	11.3	64.0	83 McGill	52 D	83 1
Dental Education and Research	3.7	1.5	4.0	6 A	2 C/D	4 2
Dental Examination, Diagnosis & Therapeutics	23.8	3.8	24.5	28 E	17 D	26 2
Dentistry	152.3	33.9	154.0	202 A	108 D	152 4
RK29-RK41 Dentistry - History and Biography	6.5	6.6	3.0	15 McGill/A	1 B	15 1
RK529-535 Oral Surgery	20.3	4.7	20.0	27 McGill	15 C/D	27 1
RK520-528 Orthodontics	39.2	7.0	41.0	47 A	27 C/D	43 2
RK60.5 Other Special Types of Nursing	11.0	7.9	8.5	21 E	2 McGill	2 6
RK58/59 Practice of Dentistry, Dental Economics	10.0	3.5	9.0	16 A	7 D/E	8 4
RK641-667 Prosthodontics	92.3	10.9	91.5	108 McGill	80 B	108 1
Restorative Dentistry	24.8	4.9	25.5	30 A	17 D	29 2

Table 2: Benchmarking analysis of print collections between McGill and peer institutions (n=5)

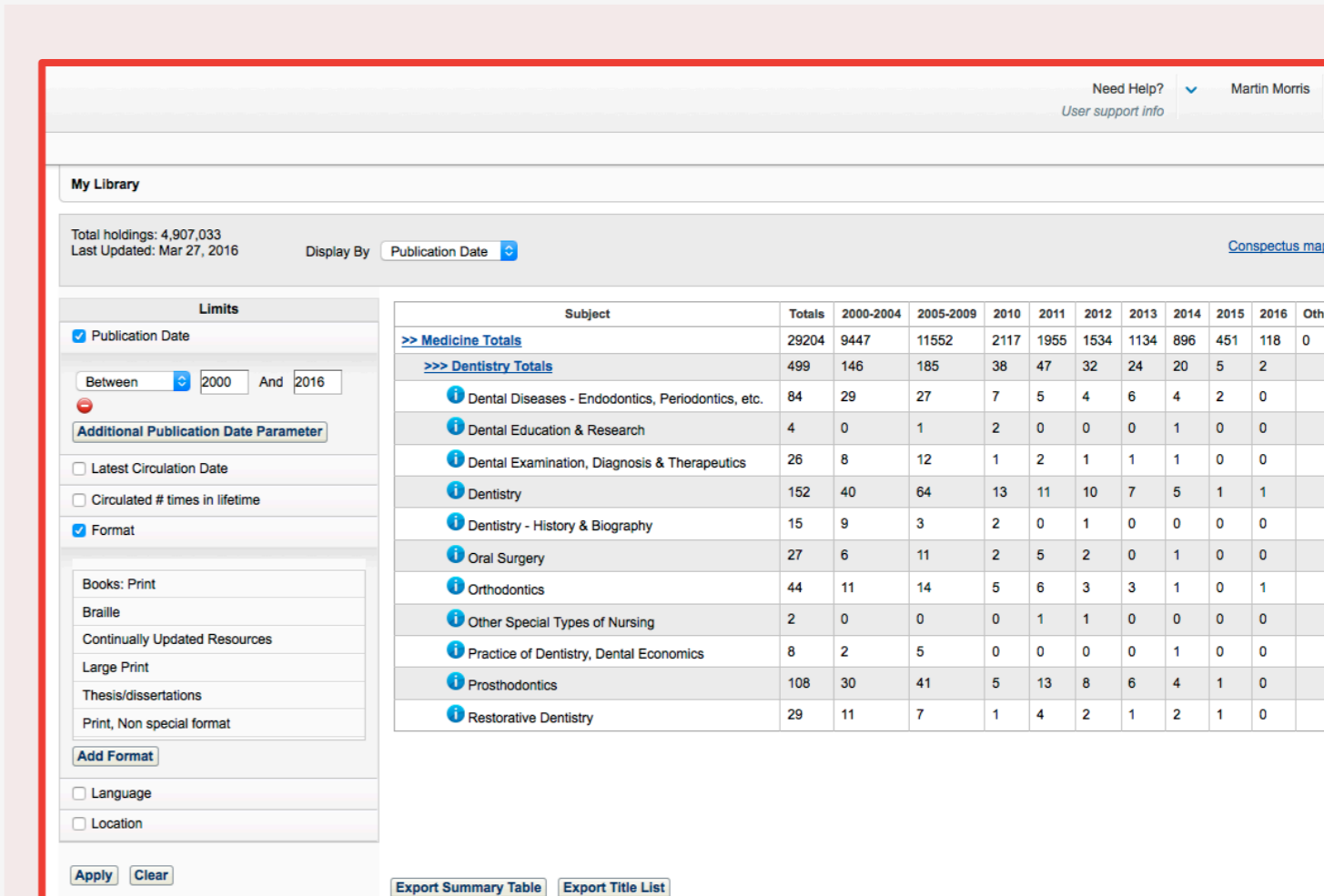


Figure 3: Screenshot of the conspectus, showing dentistry.

Although the conspectus is relatively easy to navigate, it can be hard for health sciences librarians to know which part is classified by LC and which by NLM.

## Discussion

### CHALLENGES

#### Conspectus

- For health sciences subjects, the distinction in the conspectus between NLM and LC is not clear
- The dentistry collection could not be evaluated with the conspectus' NLM subject divisions - it reported low, inaccurate numbers
- We used the LC section of the conspectus for our evaluation, sacrificing granularity in order to have accurate collection figures.
  - e.g. Periodontics/Endodontics listed together
- The conspectus does not directly map to LC and NLM subject headings for dentistry

#### Data extraction

- Holdings numbers fluctuated considerably, so all data had to be extracted on one day
- Unable to easily download comparison figures so data had to be manually copied from the tool
- Title comparisons are only available for entire library, not by subject - resulting in huge data sets - 2 GB spreadsheets.

#### Interface

- No indication is given when limits are applied to data, causing user anxiety
- Doody does not have any eBook titles catalogued under Dentistry.

### BENEFITS

- Enables cross-institution cooperation with easy access to collection data
- Comparing two institutions is simple, multi-peer comparisons are harder.
- Very comprehensive help section

## References

- Masuchika G. Building by benchmarking: A method of creating and evaluating an Asian American Studies collection. *Library Collections, Acquisitions, and Technical Services*. 2012 Jan 1;36(1-2):1-7.
- Powers A. A collection development plan for art and art history at the University of South Florida. *Art Documentation*. 2011 Apr 1:69-73.
- Todd-Smith B, Markwell LG. The value of hospital library benchmarking: An overview and annotated references. *Medical reference services quarterly*. 2002 Mar 1;21(3):85-95.
- Orcutt D, Powell T. Reflections on the OCLC WorldCat Collection Analysis tool: we still need the next step. *Against the Grain*. 2006;18(5):44.
- Machovec G. Shared print archiving—Analysis tools. *Journal of Library Administration*. 2014 Jan 1;54(1):66-76.
- Sneary A. Moving towards data-driven development: WorldCat Collection Analysis. *Against the Grain*. 2006;18(5):12.
- Benedetto Beals J, Gilmour R. Assessing collections using brief tests and WorldCat Collection Analysis. *Collection Building*. 2007 Oct 9;26(4):104-7.
- Genoni P, Wright J. Assessing the collective wealth of Australian research libraries: measuring overlap using WorldCat Collection Analysis. *The Australian Library Journal*. 2010 Jan 1;59(4):197-207.
- Henry E, Longstaff R, Van Kampen D. Collection analysis outcomes in an academic library. *Collection Building*. 2008 Jul 4;27(3):113-7.
- Hubbard DE, Neville BD. Benchmarking mechanical engineering collections using the WorldCat Collection Analysis tool. *Library Collections, Acquisitions, and Technical Services*. 2012 Jan 1;36(3-4):59-68.
- Monroe-Gulick A, Currie L. Using the WorldCat collection analysis tool: Experiences from the University of Kansas Libraries. *Collection Management*. 2011 Oct 1;36(4):203-16.

## Conclusion

Q1 McGill appears to compare well against peers, but this is based on uncertain data. Further investigation is suggested.

Q2 (a) The tool has deficiencies regarding health sciences collections. (b) Many libraries do not submit all of their holdings information to WorldCat. We encourage them to consider doing so.

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