Applying the Principles of Total Library Assessment to Inform Sustainable Collection Development

Michael Luther and Ana Guimarães
Kennesaw State University Library System, USA

Abstract
In 2015, the assessment librarian and director of collection development at Kennesaw State University Library System collaborated on a pilot project to assess the print holdings of the collection. The project was designed to roll out over five years, during which time the project coordinators, with support from library liaisons and other essential personnel, would evaluate all monographic collections of the library system. During the pilot year, project participants assessed four ranges of call numbers associated with the anthropology, information systems, interdisciplinary studies, and sociology subject areas. These four subject areas served as a manageable test bed to evaluate the efficacy of this approach. The project was an attempt to apply principles spelled out in a 2016 journal article: "Total Library Assessment."

Introduction
Collection assessment and collection management are two sides of the same coin. Librarians select some materials and withdraw others, but based on what information? Should one use a single metric of value—circulation, for example—or a survey to gauge user satisfaction? Or, recognizing that any single metric can be reductive, even misleading, is it more appropriate to assemble a variety of data to deepen collection knowledge and foster wiser decision making?

Over a one-year period, the assessment librarian and director of collection development at the Kennesaw State University Library System (KSULS) collaborated on a pilot project to assess the print holdings of the collection. In cooperation with colleagues, the project coordinators assembled and organized diverse data from around the organization and presented it to four participating members of the Undergraduate Faculty Liaison Program. These liaisons represented the anthropology, information systems, interdisciplinary studies, and sociology subject areas. The Library of Congress Classification System was mapped to KSU subject areas (for example, sociology was mapped to H, HM-HT, and HX). Participating liaisons completed reports that analyzed relevant data and recommended a future course of action for the collection. In future years, the project coordinators hope to incorporate a weeding phase in which liaisons use the gathered information to recommend a list of titles for withdrawal.

This project was an attempt to apply principles and methods spelled out in "Total Library Assessment" (TLA), a 2016 article published in the *Journal of Library Administration*. Libraries are complex organizations, consisting of diverse functions. Any claim to have assessed a library must in some way account for this complexity. To do otherwise is akin to going to the doctor for a physical, having your blood pressure checked, and being issued a clean bill of health (or not) on the basis of the results. A thorough investigation of a collection requires multiple tools and multiple research methods. It also requires an understanding that library assessment as commonly practiced seeks answers to a fairly short list of fundamental questions.

Background
Prior to 2013, a collection assessment project of this scale and complexity would not have been possible. For one, there was no assessment librarian to dedicate the required time, thought, and energy to such a large and complex endeavor. Secondly, there was no collection development program as such. There were able librarians who selected materials, but the hiring of a full-time collection development librarian allowed the structure, organization, and functional cohesion that would eventually make comprehensive collection assessment possible.

The year 2013 also saw the creation of a library liaison program. In addition to departmental outreach and specialized reference and instructional services, liaisons are responsible for monographic selection within assigned subject areas. Welldefined roles for assessment and collection development in combination with a liaison program provided necessary infrastructure to conduct collection assessment.

KSU's monographic collection is small in comparison to universities of its size, consisting of approximately 416,838 volumes. Yet even this modest collection must compete with other priorities, namely, seating. Current enrollment is about 35,000 students, placing KSU in the top 50 public institutions in the nation.[1] Enrollment encountered a large surge during the 2014–15 academic year, when KSU consolidated with the former Southern Polytechnic State University, bringing 6,200 new students and over 118,528 new volumes to the university.

Relevant Literature

"Total Library Assessment" posits that every assessment consists at minimum of a target, a question, and a method. The target could be something fairly small like the online chat service, or something large and complex in its own right like the collections of the library. For any given target, an assessment librarian may pose one or more questions relating to its use, the manner of use, how it is perceived, how it compares to peer libraries, if it is cost-effective, if it is efficient, and if it is having impact. Though this list is probably incomplete, it covers the bulk of the questions that assessment librarians regularly ask. Some questions are simple to answer and some are difficult, but it is important to understand that a convincing answer to one question makes no compelling statement about the other questions. Circulation (usage) could be going up while satisfaction with the collection (perception) is going down. Or perhaps both circulation and satisfaction are going up but there is no evidence of appreciable impact. Conversely, compelling evidence about the impact of your collection makes no statement as to its use or the ways in which it is used. All of this is to say that the questions are independent. After target and question, the final piece is method. A method is simply the means of asking a question and it can make a big difference in the answer that one receives.[2]

TLA also suggests various means to expand the reach of assessment and cover more ground. One way is to plot projects along an assessment timeline that is three to five years into the future rather than limiting one's attention to the current year. Another is to distribute in some degree the role of assessment. The project implemented at KSU employs both methods.[3]If all of a library's assessments target the instruction program, or investigate only the question of satisfaction, or exclusively apply survey methodology, this leaves a great many stones unturned. TLA hopes to inform a well-rounded assessment program that acknowledges and attempts to integrate diverse and potentially competing streams of information.

Perhaps the best recent example of similar work was published by Madeline Kelly of George Mason University in 2014. The author organized a variety of assessments into three tiers, each representing an increasing level of investigation.[4] These tiers were "stackable" in the sense that every step up included the tools and assessments of the lower tiers but added additional ones. If the university offers only a bachelor's degree in a discipline, a tier 1 level assessment is appropriate, but a PhD program would require a tier 3 level of investigation.

The most striking difference between the models at KSU and George Mason is the degree of project centralization. The George Mason approach gathers input from liaisons but in large part is implemented by a single individual, whereas the approach presented here is distributed among liaisons by design. This is in accord with the goals of the two projects. Collection assessment at George Mason was driven in large part by the desire to "Achieve Carnegie Very High Research classification."[5] At KSU, the goals were more pragmatic: to apply data-driven decision making to the selection and withdrawal of library materials.

Methodology

The collection assessment project integrates three functions of the KSULS: Assessment, Collection Development, and the Undergraduate Faculty Liaison Program. The plan was designed to be modular, meaning it was assembled from discreet parts, each able to stand on its own. This provides library professionals a working model that can be built on as time, capabilities, and new assessment tools become available.

Data Types

To answer different questions about a target (in this case, the target is a subset of the monographs collection) requires different sorts of data.

- Use: The question of use may readily be answered with circulation statistics and ILL titles lent to other libraries. Going forward, we hope to look at in-house use as well.

- Satisfaction: To address the question of satisfaction, liaisons reviewed LibQUAL+® data to see how the relevant user subgroup compared with all respondents in terms of their responses in the information control dimension. Liaisons also surveyed their faculty to determine levels of satisfaction with subject specific collections.
- Need: Liaisons examined the question of need in three ways. First, they pored over comments submitted by LibQUAL+ respondents from the corresponding user subgroup. Second, they surveyed their faculty on the extent to which library collections were meeting their research and teaching needs. Third, liaisons reviewed ILL books borrowed from other libraries, the belief being that a book lent out is a measure of use, but a book borrowed in is a measure of need.
- Authority Metrics: The question of authority refers to how well the collection complies with some standard or authoritative judgment. Liaisons consulted the Bowker Book Analysis System to review core title lists and compare them with library holdings. Bowker provides a percentage of core titles held by LC range as well as a title-by-title display of titles held and not held. Liaisons also used the Thomson Reuters InCites™ tool to identify the top 25 journals in a subject area and then determined the library's coverage for each.
- Benchmarking: The question of benchmarks was not part of the pilot year. In the future, the KSULS hopes to license the OCLC WorldShare® Collection Evaluation product for this purpose.

Timeline

The assessment cycle unfolded over a thirteen-month period beginning June 1, 2015 and concluding June 30, 2016. The cycle involved three phases. In Phase 1, the project coordinators worked with partners from the Technical Services, Virtual Services, and Access Services units to acquire and format data for participating liaisons to evaluate. This is a complex task requiring consistency and clear communication and so it was imperative for this function of collection assessment to be centralized, as opposed to the liaisons acquiring this data directly. Once library data was gathered and formatted, it was shared with participating liaisons via the library intranet, which is built in Microsoft SharePoint.

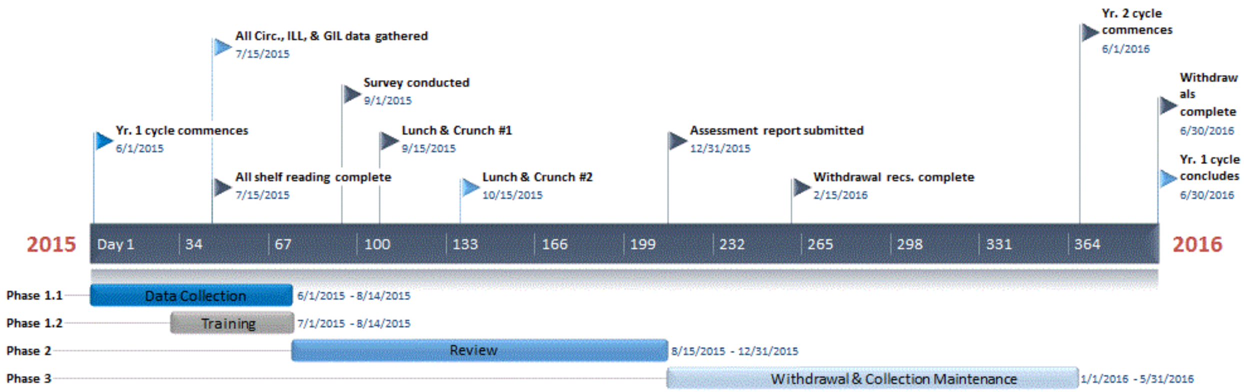
Phase 1 also included a training component. Project coordinators, participating liaisons, and other personnel attended a meeting informing them what they could expect over the coming year, their responsibilities, and what resources were available to help them.

Phase 2 occurred during the fall semester and was the review phase. Participating liaisons worked with the project coordinators to complete an assessment report for the call number range or ranges associated with their subject area. The report, consisting of twelve sections (discussed below), brings together a wealth of data from around the organization and provides the liaison with a chance to review the data, make sense of it, and plot a future course of action. Twice during Phase 2, participants met for "Lunch 'n' Crunch" sessions, where they gathered to complete their assessment reports under the guidance of the project coordinators.

Phase 3 took place in the spring semester and was focused on collection maintenance. Weeding projects fell heavily on access services personnel to physically remove materials from the shelf and on technical services personnel to remove the materials from the catalog. Due to this potential burden, lists of recommended withdrawals provided by the liaisons were held in reserve for future weeding projects. Though competing priorities interfered with the creation of these lists in the pilot year, all of the pieces are in place to do so in the future, pending the establishment of a set of guidelines.

The three phases of the assessment cycle complete an assessment year (see Figure 1). Within five years, the KSULS hopes to have assessed the entire monographic collection. At this point, the five-year cycle repeats, meaning that assessment for any subset of the collection would never be more than five years old.

Figure 1: 13-Month Collection Assessment Cycle



Results

In the fall semester of each assessment year, participating liaisons will create a report for their designated part of the collection. The report consists of 12 sections.

- **Section I: Who has a stake in this collection?** The purpose of this section is to identify other liaisons and graduate librarians (based on their collection areas) who have a stake in the collection. For example, the sociology report references the Master of Social Work program and the political science department. This report also includes enrollment numbers for each, providing a sense of weight for each stakeholder.
- **Section II: What are the recent investments in this collection?** In section II, the liaison inputs dollars spent during the past five years along with number of items purchased. Liaisons are also encouraged to spell out collection strategies that they have pursued.
- **Section III: Describe the collection.** In this section, the liaison describes the physical holdings of the collection. This includes item counts by relevant LC range, average publication date, physical location, and percentages of holdings published in the past 5, 10, 15, 20, and 25 years. In the future, we plan to gather similar information for e-books in this section as well.

Table 1: Table Age Summary (Section 3C)

LC Range	% <5 Yrs.	% <10 Yrs.	% <15 Yrs.	% <20 Yrs.	% <25 Yrs.
H	4.8%	11.2%	17.2%	25.1%	36.8%
HM	7.2%	14.8%	21.3%	27.8%	37.0%
HN	2.6%	7.7%	12.5%	19.1%	28.1%
HQ	4.5%	10.3%	16.2%	23.2%	35.7%
HS	4.2%	4.2%	6.3%	12.5%	25.0%
HT	5.7%	15.9%	24.3%	30.4%	36.9%
HX	0.6%	1.8%	3.3%	5.0%	11.4%

- **Section IV: What is the usage of this collection?** Section IV captures collection usage in terms of circulation statistics for each relevant LC range. The liaison also determines a ratio for the percent of the collection used and unused in the past five years. Section IV also includes numbers lent out using ILL and consortium borrowing. The collection assessment plan interprets a book lent out through ILL as a type of circulation, whereas a book borrowed in through ILL is a type of need. In the future, we plan to collect in-house use and e-book use statistics in this section as well.
- **Section V: What are the existing needs?** Section V captures numbers for relevant monographs borrowed in through ILL and the consortium borrowing program. Also included within this section are results from a survey of faculty on their collection needs for teaching and research.
- **Section VI: Are users satisfied?** Here, liaisons report results from survey items pertaining

to faculty satisfaction with subject specific collections. Liaisons also look at LibQUAL+ results to determine how collection satisfaction differs between the relevant subgroup and all respondents. The sociology liaison compared respondents who reported as humanities and social sciences with all LibQUAL+ respondents and discovered much lower adequacy means for the subgroup than for all respondents.

Table 2: Comparison of Adequacy Mans for Humanities/Social Science Respondents vs. All Respondents (Section 6B)

Item	Question Text	Adq. Mean	Overall Adq. Mean	Differ-ence	n
IC-1	Making electronic resources accessible from my home or office	0.13	0.58	-0.45	214
IC-2	A library web site enabling me to locate information on my own	0.23	0.50	-0.27	199
IC-3	The printed library materials I need for my work	0.33	0.62	-0.29	172
IC-4	The electronic information resources I need	0.48	0.79	-0.31	707
IC-5	Modern equipment that lets me easily access needed information	0.29	0.52	-0.23	211
IC-6	Easy-to-use access tools that allow me to find things on my own	0.26	0.48	-0.22	209
IC-7	Making information easily accessible for independent use	0.36	0.52	-0.16	163
IC-8	Print and/or electronic journal collections I require for me work	0.37	0.65	-0.28	246

- **Section VII: Identify areas of relative strength and weakness.** Using the Bowker Book Analysis tool, a library may compare its holdings against a list of core titles to determine where the collection is strong and where it weak. The tool gives a quantitative analysis as well as a list of core titles held and not held.

Table 3: Bowker Book Analysis for Sociology Ranges (Section 7A)

LC Classification	Core Titles in Library	Core Titles NOT in Library	Total # Core Titles	% of Core Titles Held
(H1-99)Social sciences (General)	**0**	**0**	**0**	**0.00%**
(H1-99) Social sciences (General)	34	52	86	39.53%
(HM401-1281)Sociology (General)	**0**	**0**	**0**	**0.00%**
(HM1-434) Sociology (General)	107	171	278	38.49%
(HM435-477) History of sociology. History of sociological	1	12	13	7.69%
(HM481-554) Theory. Method. Relations to other subjects	11	28	39	28.21%
(HM621-656) Culture	5	19	24	20.83%
(HM661-696) Social control	4	8	12	33.33%

- **Section VIII: How does the collection compare with that of our peers?** The plan for this section is to use OCLC's WorldShare tool to compare portions of the library's collection to like portions at peer institutions. To date, our library has not acquired this tool.
- **Section IX: Journal analysis.** Section IX uses the Thomson Reuters InCites tool to determine

the top 25 journals for a specific subject area. The liaison then documents our coverage for these top journals.

Table 4: Top 5 Sociology Journals by InCites™ Impact Factor with Library Coverage (Section 9A)

Rank	Journal Title	Provider(s)	Dates	Impact Factor	E, Print, Both	Abst. or FT
1	AMERICAN SOCIOLOGICAL REVIEW	SocIndex w/ Full Text	2/1/1936- one year ago	4.390	E	FT
2	Annual Review of Sociology	JSTOR; JStage	1/1/1975- 1/31/2009; 1988- present	4.080	E	FT
3	AMERICAN JOURNAL OF SOCIOLOGY	SocIndex w/ Full Text	1/1/1990- one year ago	3.545	E	FT
4	ANNALS OF TOURISM RESEARCH	Science Direct	1973- Present	2.685	E	FT
5	Sociological Methodology	JSTOR; Sage Journals	1/1/1969- 8/31/2012; 8/1/1999- present	2.450	E	FT

- **Section X: Database analysis.** Section X is reserved for a database analysis, but this is one module that we did not tackle in the pilot year.
- **Section XI: Librarian stakeholder feedback.** The liaison shares completed sections I through X with all stakeholders including fellow liaisons and graduate librarians. Their observations, comments, and concerns are recorded here.
- **Section XII: Goals and recommendations.** Based on information captured in the previous sections, the liaison spells out goals and recommendations for the coming five years.

Every section of the report has a place for comments so that the liaison can keep track of their observations as they go. These comments are helpful when writing the goals and recommendations section.

Conducting multiple microanalyses of a collection can yield very interesting results. For example, the Collection Age Summary in Section III found that, for the HX range of the LC classification system, which covers socialism, communism, and anarchism, only 11.4% of the KSULS's holdings had publication dates within the last 25 years (see Table 1). Similarly, thanks to the journal analysis section (IX), the sociology liaison discovered that the library was not providing access to the five most recent years of the third most highly ranked sociology journal. A Bowker analysis of HM 435–477, the History of Sociology, found that the library held only one of thirteen core texts in this area, probably unacceptable for a department of 402 majors and a variety of related graduate programs (see Table 3). Conducting the analysis in sections I–XII fosters rich collection knowledge.

Conclusion

The approach to collection assessment as described in this paper is not intended to end the conversation but rather to start one. Nor is it expected that another library could adopt this approach wholesale. The assessments were designed to be highly integrated and the nature of integration dictates that context (perhaps more so than content) is king. By engaging the liaisons so closely, the collection assessment plan aids the synthesis of facts and the creation of deep collection knowledge by the individual who needs it most: the librarians who are building the collection one resource at a time. The pilot year was a success but it will require several years to work out the kinks and to fully work these processes and workflows into the library culture. By doing so, the project coordinators believe that the library will have the capacity to provide more value to the Kennesaw State University community.

Notes

1. Jennifer Hafer, “KSU to Become One of the Largest Public Universities in the Country,” accessed December 2, 2016, http://news.kennesaw.edu/stories/2014/KSU-to-become-one-of-the-largest-public-universities-in-the-country.php.

2. Michael Luther, “Total Library Assessment,” *Journal of Library Administration* 56 (2016): 158–170, accessed December 2, 2016, doi:10.1080/01930826.2015.1116335.

3. Ibid.

4. Madeline Kelly, “Applying the Tiers of Assessment: A Holistic and Systematic Approach to Assessing Library Collections,” *The Journal of Academic Librarianship* 40 (2014): 585–591, accessed June 17, 2015, http://dx.doi.org/10.1016/j.acalib.2014.10.002.

5. Ibid.