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# Developing a Sustainable Collection Assessment Strategy

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## I. The Need for a Collection Assessment Strategy

Assessing collections is becoming increasingly important to academic libraries. Most college and university libraries spend a significant portion of their funds on online resources, often to license large journal packages and databases. In addition to online resources purchased independently, libraries provide e-books and other resources acquired from local consortial memberships, larger national consortia such as the Center for Research Libraries, and with partnerships such as HathiTrust. Another growing trend among academic institutions is for the libraries to acquire and offer users a wide range of online items made available from the Open Access (OA) and Open Educational Resources (OER) initiatives. By acquiring and making available to users a veritable glut of online resources that often are interdisciplinary, multidisciplinary, and in some cases transdisciplinary, academic libraries are stretching the parameters of what was once considered traditional collection building. This creates a challenge for librarians in large academic libraries as they define and assess the holdings or resources offered for a specific subject discipline (e.g., astronomy). Librarians must also wrestle with how to assess the cost benefits of a subject collection when often a large percentage of the library's material budget is used to purchase large journal packages and databases that support multiple subject collections. Thus, it is imperative for academic libraries to develop sustainable and comprehensive strategies for assessing collections of all sizes and subject areas, particularly as many libraries are dealing with restrictive material and resource budgets. The results of collection assessment studies can provide evidence to improve budget allocations, revise collecting policies, and develop more appropriate acquisitions priorities.

To meet this goal, the authors launched an assessment project to review one large subject collection located within the University of Florida's Marston Science Library. To simplify the process and make assessing a collection a more organized,

standardized, and sustainable methodology, a step-by-step checklist was created by librarians at the University of Florida (UF). Part of the project also included performing a survey of faculty and graduate students from UF's Marston Science Library and Health Science Center Libraries. The findings to date of the pilot as well as the survey are included in this paper.

## II. The Collection Assessment Project

The authors devised a collection assessment strategy and created a simplified "Checklist to Assess a Collection" as a guide to keep the project organized and on track. The checklist contains six phases, with each phase containing a varying number of steps to analyze in detail a collection and users (Appendix 1). One of the authors is a collection manager of multiple subject areas within the science library, including the multidisciplinary subject area of natural resources. Natural resources in this context includes incorporating sections of agriculture, ecology, fisheries (which is in the UF Department of Forestry), environmental sciences/policies, and the UF School of Natural Resources and Environment (Table 1). The subject area of natural resources was selected as an example for the project as it encompasses many call number ranges and subject headings. Gathering and analyzing data such as journal, database, or e-book usage for such a broad subject area can be very problematic.

### Phase 1

Phase 1, "Identify users and user needs for subject areas," focuses on the user base (i.e., clientele served) that the collection supports. A broad and interdisciplinary subject area such as natural resources obviously supports many users from various departments and colleges at UF. It is not by accident the first phase of assessment begins with the user base, as the primary goal of collection development at UF is to serve its users. By keeping track of the number of faculty, researchers, and students—and monitoring their instructional and

research needs—an academic library can update or create relevant collection policies and more accurately distribute the materials budget across multiple subject areas.

### **Phase 2**

Phase 2, “Define collection and budget profiles,” comprises steps designed for librarians and collection staff to employ when delineating both the numeric count of tangible items held in a specific collection or subject area and the number of online resources being acquired to support the collection’s primary user base. This phase includes steps for listing material budgets, research grants, and endowments allocated to support the collection. To assist in this phase of the project, a “Collection Profile and Resource Support Template” was constructed by the authors as a centralized place to keep the data as it is being collected (Appendix 2). The template was used to record and highlight many of the descriptive, numeric, and budgetary components of the natural resources collection. Although rather difficult to identify and gather, the template includes space to record the number of online resources received from large multidisciplinary journal packages databases, memberships, consortial deals, or acquired via Open Access.

During this phase, statistical information was gathered for both the physical and online resources supporting the natural resources collection. This data is the base for much of the qualitative assessment undertaken, with analysis performed using usage and circulation data pulled from vendor and the library’s integrated library system (Ex Libris Aleph) reports. It should be noted that reports generated on the size of a collection and its holdings are separate from reports generated on costs or usage often provided by a library’s Acquisitions Department or e-resources librarian. In many libraries, gathering numeric and cost information will require report generation from more than one area of operation.

### **Phase 3**

Phase 3, “Conduct quantitative analysis,” contains three steps for the quantitative analysis of a collection. In this phase, a collection manager will need to incorporate data from circulation studies for print and other tangible items held in the collection, cost figures for all resources spent on the collection, and usage statistics for online resources whether

purchased or received from Open Access sources. As it can be rather labor intensive for library staff to gather usage and cost figures for a specific subject area or collection, it is advisable to request usage and cost reports from vendors whenever possible. Fortunately, many vendors and publishers do provide a variety of reports that compile usage and costs for the online resources provided to libraries. Due to limits found in prebuilt vendor reports, often the collection librarian or library staff must compile and sort the data to determine intricate cost per use and other detailed metrics for a targeted subject discipline or broad subject area.

The value in conducting usage and cost analyses is twofold: one, usage can show the value of a collection to stakeholders—for example, if the print or e-books in a subject area show high usage, the cost to purchase or license the content is easier to justify. Two, only by doing cost and usage evaluation can a library determine if the material budgets are being allocated correctly. Cost per use evaluations can be conducted by dividing the overall or specific title usage by the cost of the resource(s). It is also necessary to incorporate the cost figures for resources received in large journal packages and databases that serve multiple disciplines. Publishers can supply cost and usage figures for each title in a package, so it is possible, if sometimes labor intensive, to determine subject disciplines served by journals using subject designations or call number ranges. Subjects supported by various databases can also be tricky, since statistics vary from vendor to vendor and subject areas are often defined in broad scopes (e.g., engineering), not necessarily by specific subject disciplines (e.g., mechanical engineering). In these cases, it is best to designate the resource as “multidisciplinary” and make a narrative note of its importance to the subject collection.

### **Phase 4**

Phase 4, “Conduct qualitative analysis,” has only two steps, yet the importance of this phase cannot be overstated. While quantitative reports are derived from usage, circulation, title counts, and other numeric-based metrics, qualitative assessment takes the form of surveys, interviews, and user studies with the aim to gather user and usability feedback. During the assessment project, the authors conducted a qualitative survey<sup>1</sup> to determine how faculty, researchers, and graduate students access the science collection and the online resources being offered by the library. The 14-question survey included five questions focusing on the importance

of OA/ER in their disciplinary fields. The survey was created and made accessible to respondents for three months using the software Qualtrics. E-mail messages with links to the survey were distributed by the science librarian collection managers to their respective departments, although the authors cannot confirm how many departments or respondents received the e-mail solicitation.

The survey was begun by 68 users, but not all finished. A clear majority of respondents, 67% (n=42), came from UF faculty. To the question “How do you incorporate information from library resources in your research/scholarly activities? (select all that apply),” an overwhelming percentage of users selected the options “publishing in journals or books” (93%; n=51) or “grant activities” (82%; n=45), which is understandable as UF is a tenure-accurring institution and the science departments place a premium on grant writing for faculty. To the question “How do you incorporate library resources into instruction? (select all that apply),” both “class assignments” (60%; n=32) and “e-learning system” (59%; n=31) were by far the two most popular responses. This is also understandable, as the science libraries’ course reserves system is heavily used by faculty and students. Three free text questions asked the users to provide feedback on the essential resources in their work. The first asked users to list the “most important journals provided by the libraries,” the second asked them to list the “most important databases provided by the libraries,” and the third asked them to list the “most important resources you would like to see the libraries provide.” All three questions received a wide variety of responses but also many overlapping cited resources, both for what the libraries are providing and what the libraries are not providing. This information might be highly valuable to science librarians during selection or deselection projects and in selecting priorities for acquisitions.

The last five questions centered on obtaining feedback on resources being used that are acquired through Open Access (OA) and Open Educational Resources (OER). To the question “Do you use library provided OA/OER resources?” 51% of the respondents said no (n=23) and 49% said yes (n=22). Based on a 2015 study on usage statistics from OA resources being offered by the University of Florida Smathers Libraries (434,215 uses), one might conclude that the faculty and graduate students who do use open resources provided by the libraries use them repeatedly. The importance placed on open

resources for some users of the collections is also apparent in the responses to the question “How important are OA/OER resources to your work or field of study?” Exactly 80% of the respondents either selected “extremely important” (20%; n=4) or “very important” (60%; n=12). Although the small number of responses to the OA/OER questions, or to the survey in general, does not provide sufficient sample size for scientific validity, the survey did provide useful information from users on how the collection is used and what resources are most valued.

### **Phase 5**

Phase 5, “Revise parameters/fund management,” is comprised of steps to revise collection-building efforts using the results of the first four phases. Therefore, Phase 5 is the practical and direct application of the collection profile review and assessment studies. It is anticipated the information and feedback garnered from the assessment project will provide more evidence in hand to assist the Marston science librarians as they address budget allocations and set resource priorities in the next fiscal year.

### **Phase 6**

Phase 6, “Communicate to stakeholders,” is a crucial element to any effective assessment strategy. An essential duty for collection librarians is to communicate information and results from assessment studies to stakeholders. There are many benefits to be gained by reaching out to stakeholders, particularly to the users themselves. Sharing survey results with users will encourage users to participate in future qualitative studies; and by reaching out to faculty, students, and researchers with information from assessment efforts, it can provide opportunities to discuss collection objectives, resource prioritization, and budgeting for a specific subject area.

To be an effective communicator requires that you know your audience and tailor what is presented accordingly; the presentation a librarian gives to faculty or students may differ in content and style to what is provided to administrators. It can be helpful to think of the presentation of assessment results as a story, and every successful story has these basic three components:

1. Be accurate and use evidence to tell the story of what happened, how it happened, why it happened, and what happens next.

2. Be clear in your message and determine how much evidence is enough.
3. Be concise and stay on message.

For academic librarians, it is likely that there will be three main audiences towards whom to target your presentation: library colleagues, library administrators, and institution administrators. When communicating with colleagues, it is permissible to provide lots of information and less background with a focus on more time for new information and what it means—putting content into context. When communicating with library administrators, it is recommended to use more story and data with explanations of key points and comparisons to collections at peer institutions. When communicating with institution administrators, it is best to provide a simpler story or overview and create a scaffold for more advanced understanding. Often it is advantageous to include comparisons to similar institutions, but note that institution administrators may have a different list of peer institutions than library administrators. And never include raw data in a presentation; create summarized tables, graphs, and figures for exactly the point being made and highlight only what the audience really needs to see. Many administrators only want to know how assessment findings are relevant and how the information gathered on a specific collection will benefit the institution or users. Constructing a compelling assessment story will hopefully gather support from all stakeholders.

### III. Conclusion

The collection assessment project described in this paper was beneficial for many reasons. The first was the development of the “Checklist to Assess a Collection” as a simplified method to track and keep an assessment project on target. Second was the creation of the “Collection Profile and Resource Support Template,” which offers collection managers a one-page method for recording cost and metrics, summarizing the physical and virtual attributes of the collection, and documenting the primary user base for the collection. Once filled out, the template can easily be shared with stakeholders, and for collection managers who spend only a portion of their annual assignments on collection building and assessment activities, the checklist and templates are especially helpful guides for a project that might take several weeks to complete.

Another value to performing a comprehensive assessment of a subject collection was the qualitative survey the authors conducted with library users. Useful information was gathered from the survey that has provided additional insight on users’ preferences and views of the collection. While it is true that survey responses are subjective and not scientific by nature, qualitative results are meaningful to an assessment project. Supporting the users is a core mission of most library collections; thus, it is vital for librarians to conduct qualitative research and apply the feedback to improve the collection and the resources being offered users.

A final benefit gained from conducting this project is a better understanding of what is required in developing an effective collection assessment strategy. For an assessment strategy to be successful, it must be sustainable and comparable from one year to the next. The strategy should not be overly complicated to perform for collection librarians and staff, despite the fact that report generation and data sorting can be labor intensive. The methodology for gathering holdings and resource counts, cost and usage, and other data should be documented and repeatable, so specific subject collections or broad subject areas can be analyzed and compared across the library (STEM vs. humanities). In addition, a comprehensive collection assessment strategy should incorporate both quantitative and qualitative assessment strategies. Finally, an effective strategy needs to incorporate a phase for communicating information gathered during the assessment project. Assessment results should be presented in succinct, informative, and understandable ways to administrators, librarians, and other stakeholders.

For the authors, developing a checklist and template to use as project guides for collection assessment provided a methodology that will ensure an annual collection review and assessment is replicated across libraries for multiple disciplines. The results from annual assessment reviews will then become comparable and meaningful, and provide a sustainable assessment strategy to improve collection building and budgeting in the future.

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**Table 1. Natural resources call number ranges based on CM liaison responsibilities**

<b>LC Range</b>	<b>Subject</b>
GB 651-2998	Hydrology/Water Resources
GC-GE	Oceanography/Environmental Sciences/ Human Ecology
HC	Environmental Policy
QE	Geology
QL 386-394, 461-599	Entomology & Nematology
S	General Agriculture
S 590-599	Soil Sciences
SD	Forestry
SH	Fisheries
*excludes engineering	



Appendix 1. Checklist to Assess a Collection		
<b>Phase 1</b>	<b>Identify users and user needs for subject area</b>	
	a) College/department to support	<input type="checkbox"/>
	b) Number of faculty	<input type="checkbox"/>
	c) Number and type of students	<input type="checkbox"/>
	d) Number and type of researchers	<input type="checkbox"/>
<b>Phase 2</b>	<b>Define collection and budget profiles</b>	
	a) Summary statement/collection goals	<input type="checkbox"/>
	b) Call number ranges/related subject areas	<input type="checkbox"/>
	c) Budgets for monos/serials/other resources	<input type="checkbox"/>
	d) Number of monos/serials/other resources	<input type="checkbox"/>
	e) Resources received annually via:	<input type="checkbox"/>
	<i>i. Multidisciplinary packages and databases</i>	<input type="checkbox"/>
	<i>ii. Open access/OER</i>	<input type="checkbox"/>
<i>iii. Memberships (e.g., HathiTrust)</i>	<input type="checkbox"/>	
<b>Phase 3</b>	<b>Conduct quantitative analysis</b>	
	a) Circulation and usage stats	<input type="checkbox"/>
	c) Cost-effectiveness studies (e.g., cost per use)	<input type="checkbox"/>
	d) Open access/OER usage	<input type="checkbox"/>
<b>Phase 4</b>	<b>Conduct qualitative analysis</b>	
	a) User surveys/interviews	<input type="checkbox"/>
	c) Use studies	<input type="checkbox"/>
<b>Phase 5</b>	<b>Revise parameters/fund management</b>	
	a) Set new objectives/reallocate budgets	<input type="checkbox"/>
	c) Revise approval plan/dda profiles	<input type="checkbox"/>
	e) Prioritize databases/resources and wishlists	<input type="checkbox"/>

<b>Phase 6</b>	<b>Communicate to stakeholders</b>	
	a) Know your audience—tailor the message	
	<i>i. Library colleagues</i>	☐
	<i>ii. College/university faculty and deans</i>	☐
	<i>iii. Students</i>	☐

## Appendix 2. Collection Profile & Resource Support Template

Subject Discipline:

Budget Center

Selector Liaison/Curator:

Location/Branch:

Fiscal Year:

Manager/Chair:

### Funds managed or co-managed

Fund name(s):

Endowments:

Total allocation: \$

### Description of collection

Call number range(s):

Holdings Location(s):

Scope/Depth/Collection Level:

Languages:

Imprint years in holdings (print and online versions)

Percentage of print vs. online (monographs and journals)

Related subjects/interdisciplinary areas:

Approval plan and/or blanket orders:

Standing orders:

Just in Time/Use-Driven Acquisition plans: Type \_\_\_\_\_ Formats \_\_\_\_\_

Strengths/Weakness of collection:

Peer libraries/collection peers:

Grant activity:

### Resources acquired through purchases

Number of print monographs:

Number of print serials (subscriptions) received:

Number of media (DVDs, music scores, mforms, etc.):

Number of e-books:

Number of online journals received through subscription or large packages:

Number of online journals received through memberships:

Number of databases:

Number of streaming videos:

Other:



**Resources acquired through Open Access (include OER)**

Number of e-books:

Number of online journals:

Other:

**Number of online journals received through memberships**

Number of databases:

Number of streaming videos:

Other:

**Resources acquired through Open Access (include OER)**

Number of e-books:

Number of online journals:

Other: