Changing the Conversation: Using Agile Approaches to Develop and Assess Collections Holistically

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[http://dx.doi.org/10.5703/1288284316248](http://dx.doi.org/10.5703/1288284316248)

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Changing the Conversation: Using Agile Approaches to Develop and Assess Collections Holistically

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Abstract

In 2013–2014, James Madison University (JMU) Libraries embarked on an endeavor to create a flexible, holistic model for developing, managing, and assessing collections. The effort began by surveying what qualitative and quantitative data was being collected that could inform big-picture questions about whether library collections were meeting evolving campus research needs. The investigation included an in-depth literature review, the launch, evaluation, and adoption of several pilot projects, and ultimately the construction of an evaluation rubric and disciplinary subject snapshots that articulate both the impact of collections and potential gaps within them at institutional and departmental levels.

In order to remain agile as the pieces were built, JMU took an iterative pilot approach that included collapsing siloed funds, revising allocations, and implementing a structured multi-year campus-wide continuing-resources review. The process also included the adoption and evaluation of contemporary content development methods, including a consortial DDA program, curation of local digital collections, and hosting of campus research and open access publications.

These proceedings detail the results of this two-year venture and the mechanisms developed for expressing a holistic value of collections to stakeholders.

Introduction

It is no surprise to hear that the content scholars are producing and relying on has been rapidly changing, as have scholarly communication norms throughout disciplines. Although there is still a strong reliance on traditional materials in many disciplines, including monographs and journal articles, today’s researchers also rely on datasets, digital libraries, open access publications, streaming video, visualizations, and the ability to use, reshape, and re-share the products of their scholarship in new ways.

Academic libraries and librarians are striving to meet both emerging and traditional needs. To do this they are being asked to wear many hats, from bibliographer to data visualization specialist, from intellectual property expert to grant reviewer. Rarely in this environment is there time to pause and reflect on whether or not current approaches are meeting campus needs holistically. Without this time and space, more often than not librarians are applying traditional collection development and assessment strategies to a changed environment, and are unable to clearly link the efforts put into the development of collections to the current goals and aspirations of their institutions. The professional literature of the past few years, with one notable exception, bears this out, focusing primarily on the assessment or development of a specific tool or format, rather than attempting to examine collections as a whole (Duncan & O’Gara, 2015).1

At James Madison University (JMU) the Libraries are committed to flexible collection development to meet emerging needs, but struggle, like many institutions, with deciding what to discontinue in order to meet those needs, how to measure success, and how to articulate the value and impact of collections to stakeholders. In

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1 A notable exception was the article “Challenges and Possibilities for Collection Management in a Digital Age” (Horava, 2010), and the literature was only reviewed through July 2014.

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http://dx.doi.org/10.5703/1288284316248
preliminary efforts toward more flexible and holistic collection development JMU had begun the process of retraining and reallocating staff, streamlining processes, and developing workflows for ingesting content that supported new research needs. In the spring of 2013 the Libraries were ready for the next level of this endeavor and embarked on the development of a tool to better assess as a whole where collection development efforts were succeeding or falling short.

**Background**

JMU is a comprehensive, four-year public university with an emphasis on undergraduate research and engagement. Collection development is accomplished through several channels. Local and rare collections are developed by the digital and special collections units and consist of JMU-authored publications, ETDs, manuscripts, and archival collections. Circulating collections are developed by subject liaisons, primarily through one-time purchases and approval plans. Continuing resources, including journals and database subscriptions, are reviewed by four groups of affiliated subject librarians (referred to as clusters) and then recommended to the Collection Development Committee (CDC), which approves new resources. An elected representative from each of the four subject clusters (social sciences, arts and humanities, sciences, and applied health sciences) sits on the CDC, as well as the Director of Collections. This group is also responsible for reviewing general resources and recommending and implementing new collection development practices.

Like many libraries, JMU has struggled with expanding resource costs and flat materials budgets. A scholarly communications task force\(^2\) had documented changing disciplines on campus, and yet there had been little room, either in the budget or in the current workload and workflows of librarians, to meet emerging needs while continuing to develop more traditional collections (Brantmeier et al., 2013).

**The Pilots**

With the goal of freeing some of the materials budget to meet new campus demands, and to experiment with new methods of content development, the CDC began examining allocation models. Conversations about alternate approaches led to some immediate pilots, including identifying a subject cluster to pilot a collapse of siloed firm funds in interdisciplinary fields, the development of collection snapshots, a review of all continuing resources, and streamlining the development and assessment activities leveraged on JMU collections. These pilot projects, approached iteratively, helped to shift the organization’s overall approach toward collection development.

With these projects underway, the development of a collections evaluation rubric also began. Beginning the work on the rubric simultaneously ensured a mechanism to gauge the impact of new approaches, while deliberately evaluating for a holistic value of collections in meeting the needs of stakeholders.

**Collections Snapshots**

Collections snapshots were developed to support subject librarians in conversations with faculty about what collections supported specific disciplinary work and how these collections were being used. These one-page documents were created upon request—a significant change from the previous practice of compiling massive spreadsheets with usage and title information for monographs, journals, and databases within each subject area. Although the statistical and financial information found in this previous document was valuable, it was a large amount of work for a fairly underutilized internal tool. It also didn’t include information about more specialized content that might be important only within a particular discipline.

The primary purpose of the snapshot is to represent collections in specific disciplinary areas

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\(^2\) “Scholarly Communication Taskforce: Final Report and Recommendations” (Brantmeier et al., 2013) details the findings of the group.
more fully and visually, by both use and format, and to not isolate particular resources. For example, a one-page document might include information on print, e-book, and journal holdings distributed across identified Library of Congress classifications and aligned with specific programs. Corresponding use percentages are included in the form of overlaid graphs and other data visualizations (Figure 1). Snapshots are customized by discipline, so a science snapshot may include the impact factors of journals, and the media snapshot might include streaming statistics. These one-page documents are outward facing, and attempt to reflect what is valued and used by a particular discipline.

Figure 1. Example of 2015 engineering collections snapshot.
Continuing Resources Review

In order to create greater flexibility for new types of continuing resource needs, meet the inflationary costs of current subscriptions, and prepare for a projected state budget reversion, a review of all continuing resources was implemented. Structured in two parts, the libraries began with a database review designed to leverage qualitative and quantitative data in the decision-making process. Information about resources was presented to subject librarians for review through an internal SharePoint form that included costs; past, current, and projected subscription charges; and use information represented graphically and numerically (Figure 2). Subject librarians were asked to contribute to the form information on the ease of use, the audience resource, the availability of consortial products, and faculty feedback.

Clusters of affiliated subject librarians reviewed the resources and identified approximately 10% in cancellations from combined subject areas for the CDC’s review. This approach took the burden off of individuals and allowed for multidisciplinary decision-making.

The second part of the process was a journal review that included many of the same data points as the database review, but additionally contained aggregated rankings and comments from faculty. In order to obtain this information, the Journal Review Tool (Figure 3) was built. This web tool allowed faculty to record and submit responses to a proposed cancellation list that represented the top 25 percent of highest cost per use subscription titles, distributed across the clusters’ broad subject areas. The methodology for processing the feedback was approached in two ways. First, the rankings of the users who provided feedback were weighted based on how closely research and teaching subject areas matched the journal subject areas. For example, a weight of 1 was given for direct associations between users and journal subject areas, a weight of 0.5 was given for partial associations, and a weight of 0.1 for tangential associations.

Rankings of must keep, keep if possible, and can cancel assigned points (10, 5, and 1), and these points were multiplied by association weight factors, and summed and averaged over the total number of rankings for each title. This surfaced titles that closely associated users had ranked as vital to the collections. Other data points, such as impact factors, cost-per-use, and JMU authors within a publication, were also considered. The formula to combine these data points is detailed more fully in the 2015 article “Building holistic and agile collection development and assessment” (Duncan & O’Gara, 2015).

<table>
<thead>
<tr>
<th>Use Summary</th>
<th>Trends in use over the past 3 years:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Searches</td>
<td>FY11: 1,202 FY12: 2,356 FY13: 4,112</td>
</tr>
<tr>
<td>Sessions</td>
<td>FY11: 433 FY12: 598 FY13: 1,113</td>
</tr>
<tr>
<td>Other Use</td>
<td></td>
</tr>
<tr>
<td>O.U. Description</td>
<td></td>
</tr>
<tr>
<td>Other Use 2</td>
<td></td>
</tr>
<tr>
<td>O.U. 2 Description</td>
<td></td>
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</tbody>
</table>

Figure 2. Example of use represented over time in the JMU database review.
As with the database review, clusters of affiliated subject librarians reviewed the results and made recommendations for cancellation to the CDC. This multi-pronged review allowed for the incorporation of individual feedback and quantitative data, provided information in a manageable way to selectors, and gave campus stakeholders an active voice in the process.

**Collapsed Funds**

The Collapsed Fund pilot was identified early on as a way to break down collecting silos, encourage interdisciplinary selection, give liaisons more flexibility, and align subject selection with the University’s college structure. JMU’s subject liaisons were already divided into four subject clusters to support collaborative collection development, but the applied health sciences (AHS) cluster was deemed the best group to pilot this due to several factors, including the increasing college enrollment and an interest in new curricular tools to support emerging career opportunities within health sciences fields. Therefore, finding creative solutions to meet the program’s expanding needs was a priority for this cluster. In this model the slips previously reviewed individually would now be available for the group to review, and the fund lines for individual slips collapsed into one. This allowed librarians to spend more widely in new areas that needed additional support or to decide collectively to put the funds towards one-time purchases that would support all areas.

Results of the first year of the pilot were compared to the previous year’s patterns and initial evaluation pointed to success. Spending patterns during the collapsed model year stabilized and fiscal year deadlines were consistently met. This had the added benefit of reducing some of the end-of-year spending blitz for acquisitions, and helped to alleviate some of the pressure librarians sometimes felt to “spend it or lose it,” which was detrimental to thoughtful collecting decisions. In visualizing expenditures across departments in comparison to full-time equivalent students (FTE), spending appears to now be more aligned with departmental FTEs. The pilot was successful enough that two additional clusters adopted the approach, and it is expected to become business as usual for all clusters next year. A more in-depth examination can be found in the 2014 Charleston Proceedings: “Moving Librarian Collecting from Good to Great: Results from the First Year of a Librarian Liaison Collaborative Monographic Purchasing Project” (O’Gara, Schubert, Sapp, & Mungin, 2014).

**Evaluation Rubric**

While the new approaches initiated by these pilots and projects enabled JMU to more easily select, manage, and promote collections as one
entity, the question of how to evaluate disparate content holistically remained. How do libraries
determine that all of the collections, taken as a whole, support the mission of the libraries and educational technologies (LET), and in supporting
this mission, promote JMU’s aspirations? How do we make decisions grounded in data? Is there a way to see at a high level where future efforts should focus? Can we do this without adding additional data collection efforts to already

<table>
<thead>
<tr>
<th>Collections . . .</th>
<th>Baseline</th>
<th>Developing</th>
<th>Excelling</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>are responsive</td>
<td>2 of 4 clusters agree that spending shifts by department are in response to changing demographics/new programs</td>
<td>3 of 4 clusters agree that spending shifts by department are in response to changing demographics/new programs</td>
<td>4 of 4 clusters agree that spending shifts by department are in response to changing demographics/new programs</td>
<td>5 of 4 clusters agree spending shifts are in direct response to changing demographics/new programs</td>
</tr>
<tr>
<td>meet evolving campus needs</td>
<td>Report detailing departmental needs has been completed</td>
<td>Subject librarians have reviewed the report and advocated for new resources/collections services</td>
<td>Where appropriate, L&amp;ET collections/services have been developed in response to these articulated needs</td>
<td>Biannual Scholarly Communication Task Force reports: Use as a framework to examine campus needs</td>
</tr>
<tr>
<td>are user focused</td>
<td>Review and develop ratios based on current make up of departments and profiles</td>
<td>Modify the profiles that are the most “skewed” in terms of their ratio of readership to disciplinary demographics</td>
<td>Biannual review to ensure that readership to disciplinary demographics are aligned across fund codes</td>
<td>OIR demographics: Evaluate disciplinary approval profiles alongside FTE at graduate and undergraduate level for readership levels</td>
</tr>
<tr>
<td>are accessible in users’ physical and virtual spaces</td>
<td>Perceived mean of 6.50/libqual lite</td>
<td>Perceived mean of 7.00/libqual lite</td>
<td>Perceived mean of 7.50/libqual lite</td>
<td>LibQual Lite: Results from Question 8, “Print and/or electronic journal collections I require for my work”</td>
</tr>
<tr>
<td>align with campus research and curricular foci</td>
<td>&gt; 30% of departments have current subject snapshots</td>
<td>&gt; 50% of departments have current subject snapshots</td>
<td>&gt; 90% of departments have subject snapshots and/or representation in multidisciplinary snapshots</td>
<td>Collections snapshots by discipline: used to solicit feedback from departments</td>
</tr>
<tr>
<td>are resourced</td>
<td>50% of liaisons report do not note additional resources needed</td>
<td>&gt; 25% of liaisons report additional resources needed</td>
<td>0 liaisons report no additional resources needed</td>
<td>Liaison reports: Noted additional fiscal resources needed</td>
</tr>
<tr>
<td>include local collections and campus</td>
<td>&gt; 30% of departments are represented</td>
<td>&gt; 50% of departments are represented</td>
<td>&gt; 90% of departments are represented</td>
<td>Institutional repository adoption:</td>
</tr>
<tr>
<td>research outputs</td>
<td></td>
<td></td>
<td></td>
<td>Adoption by college (e.g., every college has a</td>
</tr>
</tbody>
</table>

Figure 4. Partial view of the JMU rubric.
overburdened library staff? These questions led the Libraries to consider how “the temperature” of collections might be taken, without starting on a massive new data collection effort, and while still ensuring that the collections were directly supporting the big picture goals of the campus community. To do this the Libraries began testing potential “temperature taking methods,” which ultimately led to the development of a rubric to frame this work.

Although every academic library is different, there are some common elements to be considered when creating a rubric, including: the larger institution’s values and strengths, community demographics, college and department foci, research outputs, budgets, resource diversity and depth, campus scholarly communication practices, and any consortial or collaborative collecting.

JMU’s rubric (Figure 4) is based on these elements, as well as on concepts drawn directly from the mission and purpose statement. Evaluation is based on factors (temperature takers) that measure some aspect of the priority concepts (e.g., Collections are . . . ) statements. This approach relies on data and activities that are already being collected, focuses efforts at a high level that aligns with the mission, and facilitates timely reactions to evolving collection needs.

As noted, these particular elements are based on local priorities, as are the measures and the data sources. The rubric is meant to be a living document, and other objectives, measures, and data sources may be selected for future inclusion. For example, LET has been working with JMU’s Office of Access and Inclusion on ensuring that collections are inclusive and support a diverse community of learners; therefore, the Libraries may choose to include this as an objective within future rubrics. Mission and focus of the university and libraries may also change over time and the rubric would be adjusted to reflect changing priorities. As a living tool, the rubric must be malleable if it is to serve as a mechanism for evaluating the Libraries collections holistically. Targets and results, both quantitative and qualitative, should be visualized to better understand gaps, and focus organizational efforts when discussing campus’s resource needs.

The intention of the rubric is not to be prescriptive, but rather to serve as a framework for a community conversation about the purpose of the collections as a whole at a given institution. Many different evaluation points, data sources, and measures exist, and these will necessarily differ from institution to institution, subject area to subject area, and as new data sources become available. As institutional aspirations evolve, objectives too may be expected to change. The hope is the rubric is flexible enough to accommodate this change and stable enough to show areas of strength and gaps in resources.

Next Steps

JMU continues to move forward in broadening the initial pilots, reducing content and format silos, and more fully applying and testing the rubric. Currently, collection snapshots for over two-thirds of JMU’s academic departments have been made available to liaisons, and an externally facing collections-wide snapshot has been created for a holistic overview. Future versions of this document will include visualizations from the rubric to highlight LET’s progress.

In context of the more traditional collecting methods, the Libraries’ approval profiles are being further collapsed and revisited, PDA and POD opportunities are being reviewed, reference resource development has been distributed among the clusters, and remaining single funds are being merged into shared cluster funds.

spaces, both virtual and physical, in support of the Libraries’ mission to build learning and information environments where people connect with ideas and each other to discover, create, and share knowledge.”
Simultaneously, in light of the changing approaches to collecting and ongoing efforts to revamp JMU’s liaison program, the subject clusters are being reexamined with the goal of structuring these groups to focus on broader academic support needs and to include services such as instructional technology support, data curation, and digital publishing.

These, and other assessment efforts within the libraries, have jump started the development of a statistical hub that will facilitate the submission, storage, querying, and reporting of all the Libraries’s raw statistical data. This will increase the consistency and efficiency of statistical reporting across the organization and provide a greater number of data sources for the rubric.

Those pieces of the rubric itself which have not been fully applied will be employed in their entirety over the next year. JMU plans to use the rubric to track the progress of its collections to ensure focused support of the University’s mission and aspirations.

**Conclusion**

JMU will continue to implement what works, and equally as important, be willing to walk away from practices and measures that fall short, are no longer applicable, or don’t directly support mission and vision. The Libraries now have a framework for making these decisions that allows big-picture user needs to be addressed more promptly, and ensures good stewardship of the University’s resources. Managed change for collections and content that garners the buy-in and active participation of library staff and campus entities has fostered a more collaborative, flexible, and holistic approach to collection development at JMU.

**References**


