

Meta-Assessment: The ARL Library Assessment Ecosystem Modified for Montana State University

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Abstract

How can we apply an assessment lens to our own assessment practices? To answer this question, we follow a mixed-methods approach by applying the assessment ecosystem design described in the recent ARL Assessment Program Visioning Task Force Recommendations (December 17, 2017). Our research synthesizes the evidence and insights gathered through three methods: a case study analysis, a comparative analysis, and a gap analysis.

First, we examined a case study of a UX and Assessment (UX&A) program recently developed at Montana State University (MSU). The vision of the UX&A program at MSU is to build and sustain a library that is useful, usable, and desirable for our diverse community of users. UX&A personnel work collaboratively with other library departments to continually measure, assess, and improve users' experience of library services and instruction, both physical and online. This new UX&A program was developed in tandem with a new library strategic plan, which is based on the Balanced Scorecard framework.

With the new assessment program and strategic plan in place, we conducted a second phase of research: a comparative analysis of the MSU UX&A program vis-à-vis the assessment landscape described in the ARL recommendations. In this analysis, we highlight which ecosystem elements are currently in place, which elements are in development, and which still need to be developed at MSU.

Next, we conducted a gap analysis comparing the ARL recommendations with established and emerging user experience and assessment programs in place at other research libraries to determine if there are additional elements outside of these recommendations that may be useful for describing, assessing, and improving a library's assessment framework.

Finally, we synthesized the insights gathered from our meta-assessment to create an enhanced version of the ARL ecosystem as applied to the MSU library. In terms of practical impact, this enhanced meta-assessment ecosystem can be applied to comprehensively evaluate and improve a library's user experience and assessment program. Our research ultimately demonstrates and models an approach for meta-assessment that can help inform the development of more effective and sustainable library UX and assessment programs for the ultimate benefit of our users.

Introduction

Just as library services can be improved through assessment, so too can assessment itself be improved through strategic, critical self-reflection. The research discussed in this paper represents a critical reflection of a User Experience and Assessment program recently initiated at Montana State University. We use the recently developed ARL Assessment Ecosystem as an initial guide for our meta-assessment. The ARL Assessment Ecosystem was developed in the spirit of reflecting critically on the long-standing traditional statistical gathering ARL has done over the years as well as on the more recent new measures initiatives that resulted in established library assessment protocols.¹ Additional self-assessment data was produced through qualitative interviews conducted with peer professionals at five different library organizations.

Project Context and Background

Library assessment has increased in prevalence and scope over time.² As assessment in libraries continues to develop, the practice has taken on a stronger intention around user-centeredness.³ Consequently, library organizational structures have begun to reconfigure in order to amplify and integrate user experience design, user-centered design, service design, and other newer approaches that complement traditional assessment practices. Notable examples include [University of North Carolina Chapel Hill](#), [Duke University Libraries](#), [Yale University Libraries](#), [Harvard University Libraries](#), the [University of Tennessee Knoxville](#), [University of Michigan Libraries](#), [Iowa State University Library](#), [Emory University Libraries](#), [University of Illinois Urbana-Champaign](#), the [University of Washington](#), and the [University of Virginia](#), among others. These programs demonstrate a collective intention towards a user-centered assessment practice.

An evolving assessment landscape has generated an understanding of barriers and opportunities and has also established a set of skills and competencies.⁴ The Association for Research Libraries (ARL) has also produced a report that presents recommendations for investment, maintenance, and disinvestment of assessment programs, services, and tools as well as for new service areas.⁵ From this place of assessing assessment, we posed the following meta-assessment research question: how can we critically reflect on our own assessment practices? To answer this question, we follow a mixed-methods approach described in detail below.

Research Methods and Results

Our research synthesizes evidence and insights gathered through three methods: a case study analysis, a comparative analysis, and a gap analysis.

Case Study

Created in December 2017, the Montana State University Library's User Experience & Assessment (UX&A) program was established to enhance our organization's understanding of the user and increase our collective capacity for assessment by providing leadership and support for user-focused assessment work throughout the library, for the ultimate benefit of our users.

This new UX&A program was developed in tandem with a new seven-year library strategic plan, which is based on the Balanced Scorecard framework and places the user at the center of the future library developments.⁶ Our vision is to build and sustain a library that is useful, usable, and desirable for our diverse community of users. Our mission is to achieve this vision by working collaboratively with all library departments to continually measure, assess, and improve users' experience of library services and instruction, both physical and online. UX&A staff comprises 1 FTE librarian and 0.5 FTE staff. We engage in the following activities that blend together the work of user experience and library assessment:

- Building and sustaining the library's organizational culture of faculty- and staff-led assessment, user-centeredness and user advocacy, and evidenced-based, data-informed decision-making;
- Collecting and analyzing data to evaluate the library's institutional impact and holistically understand the needs and priorities of library users;
- Proactively identifying and relieving "pain points" users may encounter in their experience with the library;
- Proactively identifying and amplifying "happy moments" users may encounter in their experience with the library;
- Amplifying the library's organizational culture of empathy and inclusion for faculty, staff, students, and the public through user-centered research, reporting, and trainings;
- Contributing to library leadership by providing user-centered analyses that inform decision-making and resource allocation;
- Contributing research and analysis that measures the library's progress towards meeting the goals and objectives of the library's strategic plan;

- Supporting library faculty, staff, and administration in aligning library effort around university and library strategic planning, and by crafting stories of value and impact for internal and external stakeholders; and
- Developing an organizational vision and practice for the collection, storage, usage, sharing, retention, and deaccessioning of user research and assessment-related data.

Recent accomplishments that highlight UX&A's local context and direction include strategic plan assessment, library learning spaces, and the Indigenous Participatory Design Toolkit.

Strategic Plan Assessment

With the MSU Library's seven-year strategic plan in place, UX&A's first major project was to refine and finalize the 26 measures that correspond to the plan's 12 objectives.⁷ These measures have been developed in collaboration with personnel identified as key stakeholders for each objective. In alignment with UX&A's user-centered ethos, a participatory approach has been employed for this process. UX&A staff have met with these key stakeholders in a series of meetings that have emphasized a generative approach that relies on the knowledge and experience of all staff that have an immediate relationship to develop the identified measure. In these meetings, UX&A staff ask participants to refine measures to take into account local knowledge and expertise; determine which extant and/or new data will be needed for this measure; and possible initiatives that the library could collectively engage in to improve the measure over time. This approach exemplifies the synthesis of user experience and assessment that UX&A aims to achieve. By blending the traditional, quantitative approach to library assessment with the knowledge and lived experience that comes from our users, the hope is that the MSU Library's strategic plan yields a library that is useful, usable, and desirable for our diverse community of users.

Library Learning Spaces

In spring 2018, UX&A was charged with creating a Learning Spaces Taskforce to examine the contemporary needs and desires of library learners and teachers within the context of one of the MSU Library's classrooms. The charge of the Learning Spaces Taskforce was to: (1) present a series of recommendations for remodeling classroom space to better fit with contemporary needs and desires, and (2) amplify and align the strategic plan to emphasize the learning spaces ecosystem of MSU Library. Through mixed-methods research that included a survey and design workshop with library staff and students, the Learning Spaces Taskforce developed a set of findings and recommendations that ultimately informed recommendations for improving the MSU Library's classrooms and the overall library spaces ecosystem.⁸ These recommendations are being taken into consideration as the MSU Library prepares to undergo a major remodel of its entire second floor over the next year. This project highlights the user-centered character of our assessment program, along with the range of methods that we employ for generating evidence that can inform decision-making.

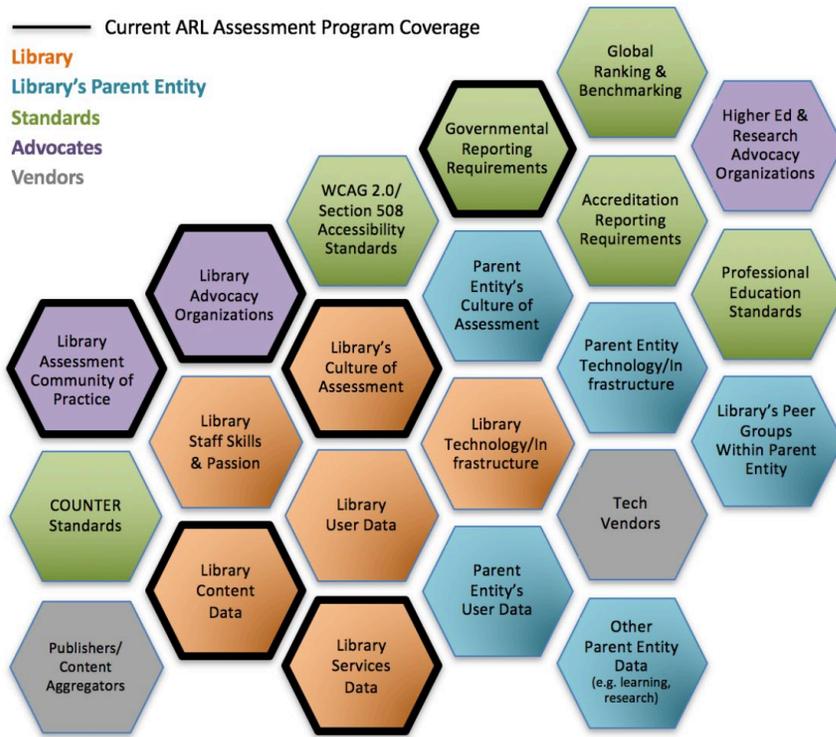
Indigenous Participatory Design Toolkit

UX&A spearheaded the development of an Indigenous Participatory Design Toolkit with a desire to create a safe space for creative and critical thinking around the real challenges and strengths of Native students.⁹ The purpose of this toolkit is to help generate dialogue and understanding across diverse populations, as well as to generate ideas for new services in support of Native student success. This project highlights our attunement to inclusion and equity for our library's diverse community of users.

Comparative Analysis

With the new assessment program and strategic plan in place, we conducted a comparative analysis of the MSU UX&A program vis-à-vis the assessment framework described in the ARL Assessment Ecosystem (Figure 1).¹⁰

Fig 1. ARL Assessment Framework.



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Table 1 shows an overview of our analysis of the ARL Ecosystem compared against the MSU UX&A program. We classify the framework elements into three distinct categories: established, emerging, non-existent. In our analysis, “established” indicates those components that are in place and actively practiced in our assessment program. “Emerging” indicates those components that are represented in strategic goal-setting or are under development. “Non-existent” components are those that are not actively practiced in our program. To help guide our analysis, we also produced a set of self-assessment prompts for each component of the ARL Assessment Ecosystem. These prompts provided a useful frame of analysis for each component.

Table 1. Evaluating MSU UX&A practice via the ARL Assessment Ecosystem.

Ecosystem Element	Self-assessment prompts	Established	Emerging	Non-existent
Library's Culture of Assessment	<ul style="list-style-type: none"> - Assessment is evident in our planning documents such as strategic plans - Assessment is a campus priority - Administrators/managers are committed to supporting assessment - Staff accepts responsibility for assessment activities - There is support and rewards for staff who engage in assessment 		X	

Ecosystem Element	Self-assessment prompts	Established	Emerging	Non-existent
	<ul style="list-style-type: none"> - Policies and procedures are designed to enable, not inhibit, fulfilling user information needs - Collaboration and cooperation exists among individuals and departments - My library considers user needs when allocating resources - My library actively cultivates a positive relationship with its users - Assessment leads to results in my library - My library routinely collects, uses, and disseminates meaningful user data/feedback - My library evaluates its operations and programs for quality - Staff have expertise and skills in assessment 			
Library Staff Skills and Passion	<p>ACRL Proficiencies for Assessment Librarians and Coordinators:</p> <ol style="list-style-type: none"> 1. Knowledge of Assessment in Libraries and Higher Education 2. Ethics 3. Assessment Methods & Strategies 4. Research Design 5. Data Collection & Analysis 6. Communication & Reporting 7. Advocacy & Marketing 8. Collaboration & Partnerships 9. Leadership 10. Management 11. Mentoring, Training & Coaching <p>RIPL Community of Practice</p>		X	
Library Content Data	<ol style="list-style-type: none"> 1. Collections 2. ILS 3. Institutional Repositories 4. Special Collections 		X	
Library Services Data	<ul style="list-style-type: none"> - What every library employee does and the effects of his/her actions on library users 			X
Library User Data	<ul style="list-style-type: none"> - What every library user does and the effects of these interactions in relation to learning, research, civic engagement and entertainment 		X	

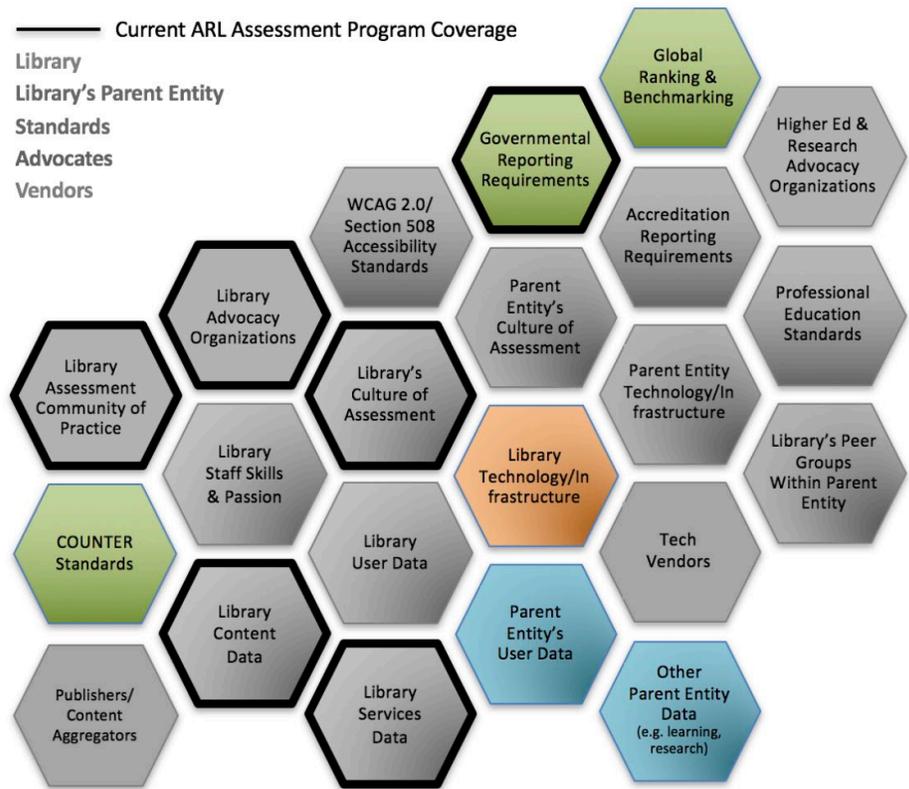
Ecosystem Element	Self-assessment prompts	Established	Emerging	Non-existent
Library Technology/ Infrastructure	- The management of system-generated (or computer-generated) data from library employee and library user interactions	X		
Parent Entity's Culture of Assessment	- Accreditation - Assessment is evident in our planning documents such as strategic plans - Assessment is a campus priority - Administrators/managers are committed to supporting assessment - Staff accepts responsibility for assessment activities - There is support and rewards for staff who engage in assessment - Policies and procedures are designed to enable, not inhibit, fulfilling user information needs - Collaboration and cooperation exists among individuals and departments		X	
Parent Entity Technology Infrastructure	- The university has a technology plan that supports its strategy and assessment goals.			X
Library Peer Groups within Parent Entity	- Universities may define their peer groups based on the mission of similar institutions, the extent of their resources, or the educational and citizenship outcomes of the people they service			X
Parent Entity's User Data	- Student data - Faculty data - Facilities use	X		
Other Parent Entity Data (e.g., learning, research)	- F&A Financial data - Student retention and graduation - Faculty research and publication data	X		
Global ranking and benchmarking	- Which ranking services are relevant for the institution? - e.g., USA Today best colleges and universities for veterans (Veteran services rankings)	X		
Governmental Reporting requirements	- IPEDS - ALS	X		

Ecosystem Element	Self-assessment prompts	Established	Emerging	Non-existent
Professional education standards	<ul style="list-style-type: none"> - Faculty status? - Campus-wide training/certifications for assessment, diversity, etc. 		X	
WCAG 2.0 / Section 508 Accessibility Standards	<ul style="list-style-type: none"> - Has the institution conducted an accessibility audit in the last three years? - Does the institution hold itself accountable to meeting WCAG 2.0 / Section 508 Accessibility Standards? How is this happening? 		X	
COUNTER standards	<ul style="list-style-type: none"> - Does the institution incorporate COUNTER statistics into decision making? - Does the institution utilize software that compiles easily COUNTER compliant statistics? 	X		
Library assessment community of practice	<ul style="list-style-type: none"> - Publishing in relevant peer-reviewed publications - Participating and presenting at established venues such as the Library Assessment Conference, Performance Measurement and Metrics (UK), Evidence-based Library and Information Practice (EBLIP), Library Research Seminar (LRS), NISO Webinars, CNI, Code4Lib, etc. - Coaching and training the next generation of assessment professionals 		X	
Library advocacy organizations	<ul style="list-style-type: none"> - Membership in library advocacy organizations such as SPARC or the Library Publishing Coalition 		X	
Higher Ed & Research advocacy organizations	<ul style="list-style-type: none"> - Does the institution participate, for example, in the Council of Higher Education Management Associations in the US, etc. 			X
Tech Vendors	<ul style="list-style-type: none"> - How does the library manage and interact with products and services provided by third-party technology companies? - How do library employees or library users manage and interact with products and services provided by third-party technology companies? (This really includes all technology vendors across the board even specialized ones such as technical, health, business, legal and other infrastructure components) 			X

Ecosystem Element	Self-assessment prompts	Established	Emerging	Non-existent
Publishers / content aggregators	- How does the library manage and interact with products and services provided by third-party entities (vendors, publishers, consortia) for provision of content where library employees or library users interact			X

After reviewing the ARL Ecosystem, we prepared additional iterations that highlight the classification of each component: Figure 2 shows the ARL Assessment Ecosystem with highlighted parts showing which components are “established” at MSU; Figure 3 shows highlighted parts according to which components are “emerging” at MSU; Figure 4 shows highlighted parts according to which components are “non-existent” at MSU.

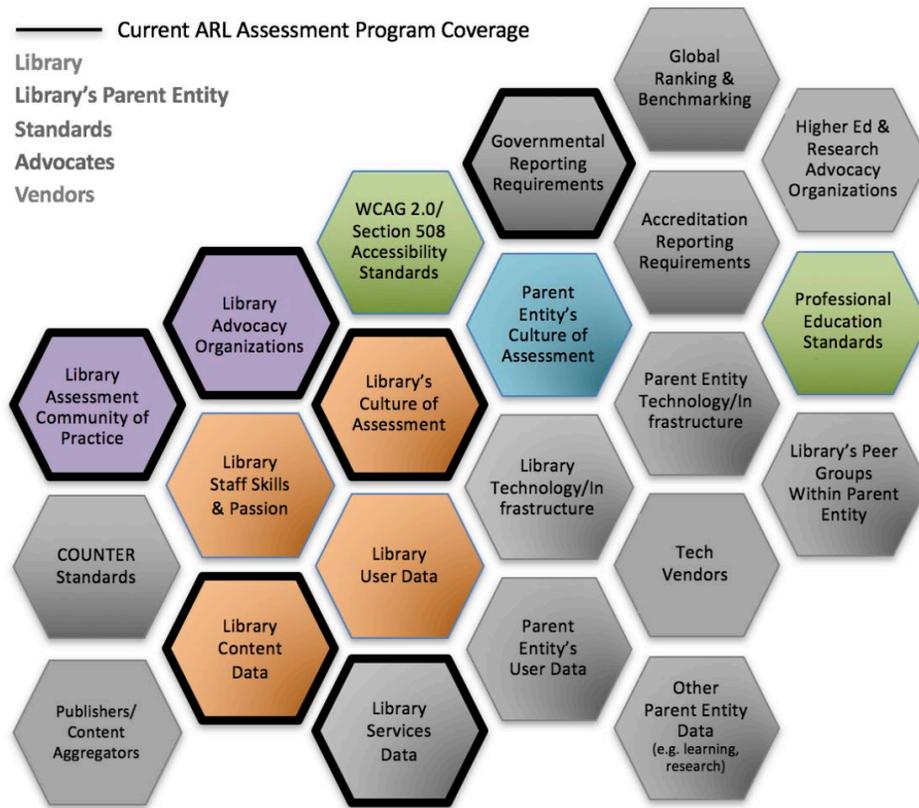
Fig 2. ARL Assessment Ecosystem showing components marked “established” in the MSU User Experience & Assessment program.



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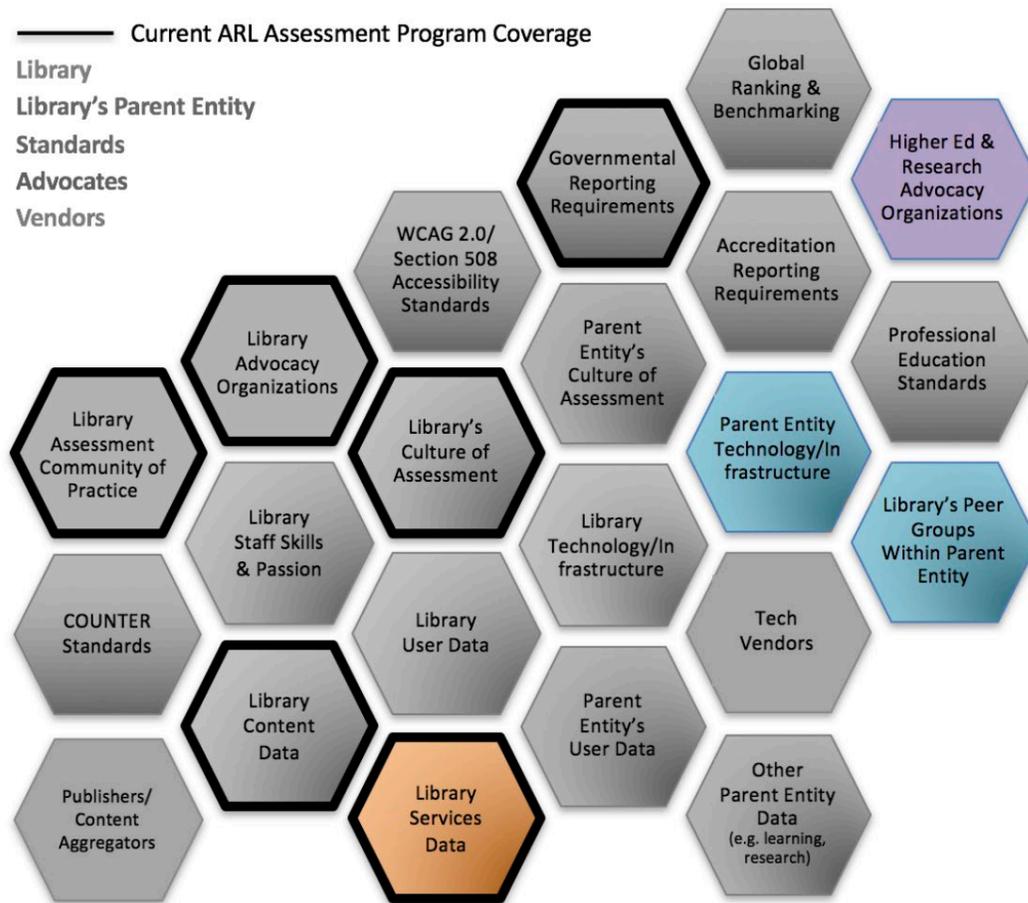
Fig 3. ARL Assessment Ecosystem showing components marked “emerging” in the MSU User Experience & Assessment program.



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Fig 4. ARL Assessment Ecosystem showing components marked “non-existent” in the MSU User Experience & Assessment program.



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The process of applying the ARL assessment ecosystem to our assessment practice produced a number of useful insights. Most critically, this process allowed us to identify areas of strength and growth. Following the components of the ARL assessment ecosystem, members of the MSU UX&A program engaged in dialogue around the challenges and opportunities of our particular program. Our discussions revealed that our assessment practice is conditioned strongly by local factors, such as our **Library Staff Skills & Passions**, which are emerging and show promise, and our **Library Services Data**, which does not yet exist as such but will be essential for understanding our impact and value. We also discerned that the ecosystem components had various levels of relevance for our program. For example, **Higher Ed & Research Advocacy Organizations** did not have obvious influence for our practice, but **Library Technology/Infrastructure** plays a crucial role in our data collection and analysis. In sum, we found the process of comparing our practice to the ARL assessment ecosystem to be a worthwhile exercise, in that it provided a useful point of reference for self-assessment.

Gap Analysis

Next, we conducted a gap analysis comparing the ARL recommendations with established and emerging user experience and assessment programs in place at other research libraries. We conducted interviews with five different librarians working at four different institutions, each representing a user experience and assessment program in place at an R1 academic library. The interviews revealed common practices, opportunities, and challenges. In our presentation of the results, we focus on four main areas: overall themes, success factors, barriers, and future goals. Analysis was conducted following a content analysis methodology.¹¹

Overall Themes

Two common threads tied together our five interviews. First, assessment and user experience programs are in the process of ongoing evolution and transformation. Many programs have been newly formed or recently revised, reflecting the innovative direction of combining user experience with assessment. Within a broader context of organization-wide evolution, assessment and user experience programs are working to establish stable identities and strategic impact areas. Second, programs continue to seek integration across the organization through regular consultation and communication with stakeholders. With a focus on building the culture and the capacity for assessment and user experience, the programs in our study maintain a view towards strategic alignment, staff-led assessment, and data-informed, evidence-based decision-making.

Assessment Success

We posed the following questions related to assessment success: “What does success look like for you?” We received a range of answers, paraphrased below:

- Success looks like people coming to our unit early in their thinking.
- Success is enjoying what you do and feeling you are making a difference. A project is successful when it impacts people.
- Success is when our work contributed to organizational objectives and change.
- Helping stakeholders store data and create reports that leads to consistent success.
- Success is completing the assessment lifecycle: see a problem, study it, develop recommendations, implement recommendations, and then study the implementation to validate recommendations.

Participants were then asked: “What helps success happen?” Three leading factors emerged across the interviews: leadership support, communication, and the integration of assessment into units throughout the organization. Participants were also asked: “What prevents success from happening?” The leading responses—lack of leadership support, lack of data, and poor or no communication—revealed an inversion of the success factors.

In comparing the programs represented in our interviews with the MSU UX&A program, we find useful commonalities and differences. Notably, the assessment programs in our study are similarly challenged in the area of data collection and analysis. Data often resides in different silos that render collection and analysis difficult. Telling a consistent story with inconsistent data is an ongoing challenge to overcome. In terms of difference, we reflected on the various levels of organizational integration and communication. Many of our interviewees expressed a philosophy of empathetic, consultative, and communicative assessment. At MSU, we strive to emulate these characteristics, noting their connections with assessment success.

Recommendations for Practice

Our conclusions are drawn from our case study self-analysis, the comparative analysis vis-à-vis the ARL Assessment Ecosystem, and the gap analysis via the interviews. A synthesis of this evidence allows us to propose a revised, context-aware ARL Assessment Ecosystem for the purposes of a self-assessment (see Figure 5).

- Our library seeks to reflect our organizational mission, vision, and values through all facets of our work, including assessment. Adding this new component signals that these important aspirational and guiding statements are including in our assessment planning and practice.
- Organizational Capacity for Diversity & Inclusion
 - Diversity, inclusion, and equity are notable values for our library and our university. Striving to understand and achieve diversity and inclusion is a key strategic goal for our assessment program, and we deemed it essential to include in our revised, context-aware picture.
- Peer Programs in Assessment and User Experience
 - This new component was inspired by our interviews with other assessment programs. In planning the future development of our relatively new program, we have looked to other organizations for guidance and inspiration. We have also compared our work with advertised positions within our practice area, which has helped to provide insight as to job scope and goals. Comparisons with published assessment proficiencies have also generated useful insights in this area.¹²
- Data and User Privacy
 - In our analysis, we found the issue of privacy to be a notable omission from the original ARL Assessment Ecosystem. Considerations of data security, user privacy, library values, and professional ethics are central to our practice of assessment. This new component is closely related to the existing component for *Library Technology/Infrastructure*, as it influences our negotiations with third-party vendors.
- Stakeholder Participation
 - Our assessment program values participation across stakeholder groups, especially library users. Through a participatory practice, we seek a critically-aware attunement to power and justice in our library assessment practice.¹³

Conclusions and Future Direction

For this project, we conducted a self-assessment of the Montana State University User Experience and Assessment program by comparing our practice to the ARL Assessment Ecosystem and to other peer programs. We found that this process of meta-assessment generated critical reflections and stimulating discussions within our team. The process led to useful insights about our local practice that has informed further development of our new program. In our program, the other 0.5 FTE of the half-time assessment coordinator is dedicated to grant management and submission. Also, the librarian position has faculty status and is engaged in theoretical and applied research. Our 2 FTE program may therefore be better conceptualized as a UX&R (User Experience, Assessment and Research) program as a result.

We also intend to reflect on our practice in relation to the [ACRL Value of Academic Libraries](#) and the five research topics presented in the [ARL Assessment Framework](#) prompts:

1. (How) does the library help to increase research productivity and impact?
2. (How) do library spaces facilitate innovative research, creative thinking and problem solving?
3. (How) does the library contribute to equitable student outcomes and an inclusive learning environment?
4. (How) do the library's special collections specifically support and promote teaching, learning, and research?
5. (How) do the library's collections play a role in attracting and retaining top researchers and faculty to the institution?

In terms of practical impact for other programs, our process of revising and contextualizing the ARL Assessment Ecosystem for our local assessment practice can be replicated and applied to evaluate and improve a library's user experience and assessment ecosystem. Even though we asked libraries to reflect on what elements of the ARL assessment ecosystem are reflecting internal strengths, we will need to pursue a conceptualization that would allow other institutions to categorize their activities as established, emergent, and non-existent in future studies. Our project ultimately demonstrates and models an approach for self-assessment that can help inform the development of more effective and sustainable library UX and assessment or UX, assessment, and research programs, for the ultimate benefit of our users.

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3. Hansen and Swedman, "What Do They Need?"
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