Learning from Experience: Librarians as Research Partners

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Given current discussions in the field about librarians' engagement in research partnerships, this study examines the experiences of librarians at The Ohio State University, a doctoral university with very high research (R1), to better understand their preparation for the collaborations, the knowledge and skills they contributed, their roles on project teams, their motivation for joining teams, and the subsequent criteria they have adopted for determining participation on future projects. Interview and post-interview survey findings indicate librarians have developed their own strategies for determining their roles on research teams based on their individual strengths and that they have benefitted from the experiences overall. This study also reveals inconsistencies in support for this form of engagement and makes recommendations for libraries related to scoping involvement and establishing criteria for participation of librarians on research teams.

Introduction

Librarians support researchers by offering best practices, brainstorming approaches, and locating resources. In this way, they are connectors between expertise, services, resources, and users. In recent years, there has been a growing trend of librarians participating on research teams. From the initial trend of librarians contributing to research teams to those who have become full partners in research projects, librarians are viewed as collaborators instead of merely a resource or connector in the process (Batten, 2020; Bell, 2021; Mazure & Alpi, 2015). Andrew Cox, in *Evolving Academic Library Specialties*, finds optimism in librarians' ability to extend their reach beyond their traditional support for scholarship and "into specialties embedded in academic departments and research teams" (2013; p. 1526.). OCLC reported that its expertise at building partnerships and their ease with social interoperability across the university is one set of skills librarians can bring to a research team (Bryant et al., 2020).

Tenure-track librarians are often expected to produce scholarship to fulfill promotion and tenure requirements. At the authors' institution, for example, all tenure-track librarians have faculty status and are expected to meet requirements in the areas of librarianship (80%

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of time) and service and research (20% of time) for promotion and tenure. Librarians' research agendas can be based on disciplinary background or librarianship roles, contributing new ideas or extending previous research. Librarians publish practitioner-informed research that shares case studies, informs services, or models emerging trends within the profession. In this way, research in librarianship informs ongoing practice, approaches, and strategies.

Librarians often span departmental boundaries that are inclusive of several disciplines, regularly connect with other units, and serve as a lynchpin for recognizing faculty strengths. With an increasing push at many universities to grow and diversify research dollars, libraries are supporting these endeavors and encouraging librarian engagement on research teams from project onset. Deeper engagement and integration at any point in the research process—particularly during the planning phase—allows librarians not only to connect researchers to services and resources but also to contribute their own skills and expertise to research teams. Many librarians are adept at navigating university or research processes, serving as facilitators, or interrogating underlying assumptions embedded in research approaches. Librarians' broad subject knowledge, understanding of reference interview strategies, and ability to connect users to resources aligns naturally with work on a research team. These skills can be valuable to any research team, but particularly to interdisciplinary teams where members' skills and expertise vary.

Each of this study's authors has been involved in research partnerships with disciplinary faculty. Digital Humanities Librarian Leigh Bonds has collaborated on several projects, contributing her disciplinary knowledge and skill sets (e.g., technical, research, project management, data management). Head of Research Services Meris Longmeier joined an interdisciplinary research team focused on translating research into application and contributed campus connections, her understanding of the publishing cycle, and understanding of research support available on campus to the partnership. English Librarian Jennifer Schnabel partnered with a disciplinary faculty member at a previous institution on a book chapter and has been included on several grant applications submitted by disciplinary faculty at Ohio State. Our involvement in these projects and knowledge of other librarian colleagues' activities position us well to investigate the topic of research partnerships.

In light of discussions in the field—from professional conferences and in the literature review—as well as our own varied experiences, we were curious about the experiences of colleagues who have participated on research teams, and about what their contributions were to those collaborations. We also wondered what recommendations our colleagues would have for library organizations considering prioritizing librarian engagement on research teams. Therefore, for this study, the research questions we developed included:

- What roles do librarians have when involved as part of research teams and in research partnerships with other faculty outside of library and information science?
- How do individual expertise and specific skill sets (e.g., collaboration, project management, communication, networking, facilitation, and follow-through) the librarians possess impact the research partnership?

Literature Review

Recent articles and reports examine librarians' participation in research partnerships explicitly (Brandenburg et al., 2017; Borrego et al., 2018; Bright, 2019; Batten, 2020; Borrego & Pinfield, 2020; Evidence Base, 2021; Rabasa & Abrizah, 2022; Mihram & Miller, 2022). Several other

articles published since 2011 address the topic of research partnerships in articles about librarians' roles and librarianship models. Those focusing on librarians' roles mention research partnerships within the context of evolving roles of subject and liaison librarians (Auckland, 2012; Johnson, 2020; Kranich et al., 2020; Resnis & Natale, 2020), transforming subject and liaison librarian roles (Jaguzewski & Williams, 2013; Rockenbach, 2018; Baker & Miller, 2019), or developing new academic librarian roles (Ducas et al., 2020). Those framing research partnerships within librarianship focus on the embedded (Carlson & Kneale, 2011; Monroe-Gulick et al., 2013; Inuwa & Abrizah, 2018; Shin, 2021), liaison (Kenney, 2014; Diaz & Mandernach, 2017), engaged (Gibson, 2020), and "inside-out" (Simons & Smith, 2020) models.

Knowledge and Skills
Overwhelmingly, the literature selected explores the knowledge and skills librarians contribute—or potentially could contribute—to the research enterprise. As Auckland (2012) explains,

> A shift can be seen which takes Subject Librarians into a world beyond information discovery and management, collection development and information literacy training, to one in which they play a much greater part in the research process and in particular in the management, curation and preservation of research data, and in scholarly communication and the effective dissemination of research outputs (p. 5).

Like Auckland, most researchers on this topic note contributions related to scholarly communications, data management, and information literacy. References to scholarly communications include publishing, disseminating, and preserving research outputs; open access; and repositories (Auckland, 2012; Jaguzewski & Williams, 2013; Kenney, 2014; Diaz & Mandernach, 2017; Borrego et al., 2018; Inuwa & Abrizah, 2018; Rockenbach, 2018; Batten, 2020; Ducas et al., 2020; Gibson, 2020; Johnson, 2020; Kranich et al., 2020; Resnis & Natale, 2020; Shin, 2021; Rabasa & Abrizah, 2022). Librarians possess core skills related to discovery, evaluation, use, and management of resources, information, and collections, often resulting in expertise for literature reviews or systematic reviews (Auckland, 2012; Monroe-Gulick et al., 2013; Jaguzewski & Williams, 2013; Brandenburg et al., 2017; Diaz & Mandernach, 2017; Borrego et al., 2018; Inuwa & Abrizah, 2018; Rockenbach, 2018; Bright, 2019; Batten, 2020; Borrego & Pinfield, 2020; Ducas et al., 2020; Johnson, 2020; Kranich et al., 2020; Resnis & Natale, 2020; Evidence Base, 2021; Shin, 2021; Rabasa & Abrizah, 2022). Librarians also bring data management skills and knowledge (Carlson & Kneale, 2011; Auckland, 2012; Monroe-Gulick et al., 2013; Jaguzewski & Williams, 2013; Kenney, 2014; Borrego et al., 2018; Inuwa & Abrizah, 2018; Rockenbach, 2018; Bright, 2019; Borrego & Pinfield, 2020; Ducas et al., 2020; Johnson, 2020; Kranich et al., 2020; Resnis & Natale, 2020; Evidence Base, 2021; Shin, 2021; Rabasa & Abrizah, 2022), and/or subject and disciplinary expertise (Auckland, 2012; Diaz & Mandernach, 2017; Inuwa & Abrizah, 2018; Rockenbach, 2018; Bright, 2019; Ducas et al., 2020; Gibson, 2020; Johnson, 2020; Kranich et al., 2020; Resnis & Natale, 2020; Evidence Base, 2021; Mihram & Miller, 2022). Other areas of domain knowledge are technical skills and expertise with tools, applications, and emerging technologies (Auckland, 2012; Brandenburg et al., 2017; Bright, 2019; Ducas et al., 2020; Gibson, 2020; Kranich et al., 2020; Resnis & Natale, 2020; Evidence Base, 2021; Shin, 2021; Mihram & Miller, 2022; Rabasa & Abrizah, 2022), and soft skills that

include relationship building, communication, negotiation, presentation, interpersonal, networking, collaboration, and leadership (Carlson & Kneale, 2011; Auckland, 2012; Jaguzewski & Williams, 2013; Diaz & Mandernach, 2017; Johnson, 2020; Resnis & Natale, 2020; Evidence Base, 2021; Shin, 2021; Rabasa & Abrizah, 2022).

Benefits

Relatively few articles discuss the benefits of librarians' participation in research partnerships. Evidence Base's report for Research Libraries UK (2021) provides the most comprehensive discussion, specifying the benefits of research partnerships for librarians, researchers, libraries, and institutions. Librarians benefit from the skills and knowledge development, "increased recognition" of their skills and knowledge, building "new professional links and networks," "personal satisfaction," "greater confidence to get involved in research activities and communities," and "learning about different perspectives and ways of working" (Evidence Base, 2021, p. 21). Researchers benefit from "alternative perspectives that can help to shape" research; "enhanced reputation of the university thorough involvement in quality research, awareness of important collections and being seen as innovative within the sector;" developing "further networks and research opportunities;" and "opportunities for public engagement/impact activities" (Evidence Base, 2021, p. 20). Libraries benefit from "greater knowledge" and use of collections in research and teaching, "development and preservation of collections," "improved access to collections," "equipment that could be reused for future projects," "changing perceptions of libraries," "credibility within the university and greater integration within the academic community," "potential for better staff retention (through involvement in interesting work and development opportunities)," "raised reputation and profile for the service—nationally and/or internationally," and "development of networks and new contacts that could have broader benefits for the library service" (Evidence Base, 2021, p. 21). Institutions benefit from "better staff retention through access to opportunities they may not get elsewhere," "enhanced reputation of the university thorough involvement in quality research, awareness of important collections and being seen as innovative within the sector," developing "further networks and research opportunities," and creating "opportunities for public engagement/impact activities" (Evidence Base, 2021, p. 19).

Among the other articles that mention benefits, the focus is primarily on the benefits to librarians. For example, relationship building with researchers and departments (Carlson & Kneale, p. 169; Kranich et al., p. 299), and knowledge and skill development (Monroe-Gulick et al., 2013; Borrego et al., 2018). Benefits to the libraries include librarians' increased knowledge and expertise in research methods and subject content (Monroe-Gulick et al., p. 386) and improvement of "the image of library services" (Borrego et al., p. 663). Researchers benefit from reciprocal engagement and "mutual benefit" (Gibson, p. 15) and "interdisciplinary research teams" benefit from interdisciplinary librarians (Jaguzewski & Williams, p. 4).

A key benefit to all involved in the research enterprise, of course, lies in increased competitiveness for research funding:

> Within this environment, academic and research libraries already play a valuable role within the research and scholarly landscape in the arts and humanities and beyond. The potential value of libraries, archives, special collections, museums, and galleries as research partners has increasingly been recognised by research

funders. These conditions provide an opportunity for library staff to further contribute as active collaborators and leaders in research (Evidence Base, p. 6).

Of course, all these benefits necessitate the shift in perceptions of librarians from "service providers" to "research partners" as discussed by Varner and Hswe (2016), Brandenburg et al. (2017, p. 278), and in Research Libraries UK's report (Evidence Base, 2021, p. 7).

Challenges
In the *Chronicle of Higher Education* article "The Librarians Are Not Okay" (2023), Dolezal poses the question, "Why is it that academic librarians are rarely viewed by their faculty colleagues as experts, collaborators, and equals?" The view of librarians as "supporting faculty" (Bright, p. 551, Brandenburg et al., p. 278),) or "service providers" (Evidence Base, p. 37) with different status from faculty researchers (Bright p. 551; Evidence Base, p. 39) was among the challenges, barriers, and threats to librarians' participation in research partnerships identified in a few articles. Research Libraries UK's report discusses many of the barriers mentioned in other articles, such as capacity, prioritization, and institutional support (Evidence Base, 2021, pp. 41, 40). Other articles specified include revising job descriptions to include research partnerships (Carlson & Kneale, p. 168; Rockenbach, p. 62) and lacking "pathways to engagement" (Carlson & Kneale, p. 170) or "guidelines or manuals" (Shin, p. 472).

Gaps in the Literature
Based on our literature review, which only uncovered 24 articles on the topic, it is unsurprising that gaps in the literature remain related to specific aspects of research partnerships. Only three articles discuss librarians' motivations for participating in research partnerships. Among those, Inuwa and Abrizah observed that "embedded librarians engaged in these practices in order to meet their institutional service needs" (p. 743), and the Research Libraries UK report states " it is more usually personal motivation, rather than external impetus from the library services or wider institution" with those personal motivations being "to develop new skills and knowledge; gain confidence in undertaking research; widen their professional networks and perspectives; and gain personal satisfaction" (Evidence Base, p. 22). None of the articles discussed librarians' criteria for choosing to participate in research partnerships and their perceptions of research partnerships' impact on other areas of their work; only one discusses how they would advise colleagues considering participation (Borrego & Pinfield, 2020). Therefore, based on the relatively few articles on the topic and our own experiences on research teams, we sought to understand if our colleagues had similar experiences.

Methodology
For this study, we interviewed and surveyed 11 tenured and tenure-track faculty librarians at the authors' institution, The Ohio State University, to examine what enabled or influenced their collaboration on research teams as part of their research endeavors or librarianship or both (American Council on Education). We limited our study to research partnerships in which the librarian was an active collaborator on a team with researchers outside of library and information science to understand their motivations for joining the research team, the specific skills they leveraged or developed as part of the partnership, and the impacts of the

research partnership on other areas of their work such as librarianship and research. With these parameters in mind, we invited colleagues whom we thought may have participated in such partnerships to talk with us in semi-structured interviews. The post-interview survey gathered additional insights and demographic information (see Appendix A for the interview questions and survey tool). This study qualified for and was approved as Institutional Review Board-exempt research by The Ohio State University (IRB #2002E0120).

Once approved to move forward, we identified and invited 18 librarian colleagues to be interviewed. Eleven accepted and were interviewed via Zoom, and nine completed the post-interview survey. Interviewees included seven subject librarians, three special collections curators, and two digital research method specialists; one holds a PhD, eight have a master's in library science or archives, and eight hold an additional master's in another field. At the time of the interviews, six colleagues were tenured and five were untenured.

Each interview had two of the study's authors present: one who asked questions (see Appendix A) and the other who took notes later used to help identify colleagues' answers that addressed common themes. Interviews were recorded to gather specific quotations and to create auto-generated transcriptions used for the qualitative analysis. The interviews were semi-structured using the questions, but additional questions may have been asked to clarify points. At times questions were skipped if answered completely previously in the interview. Following the interviews, the transcripts and survey responses were input into NVivo for analysis. Each author coded three different transcripts independently, merged the individual files into one master file, and refined our code structure by merging and defining the parameters of common themes. We then coded the remaining interviews using the code structure in the master file. Using this qualitative method, we were able to quantify the number of responses that addressed common themes in our colleagues' answers.

The post-survey captured quantitative data about our colleagues' education level and research partnership experiences (see Appendix A). Several questions in the survey asked colleagues to rate the importance of specific considerations, resources, and impacts using a 5-point Likert scale. Respondents could also add comments to clarify their responses.

Findings

Commonalities among our colleagues' responses emerged in the analysis of the 11 interviews and nine post-interview surveys in the key areas of focus: motivations for research partnerships, criteria for choosing research partnerships, preparations for research partnerships, contributions to research partnerships, impact of research partnerships, and advice to librarians considering research partnerships. The unique responses reflected our colleagues' individual knowledge and skill sets, positions (e.g., subject librarians, special collections curators, and digital research method specialists), and the priorities of their respective departments or divisions within the library organization. When considered holistically, participant responses in these key areas clarify the roles librarians fill on research teams and the impact their individual expertise and specific skill sets have on the research partnerships.

Motivations for Research Partnerships

When asked what motivated them to join research partnerships (see Table 1), over half of our colleagues equally cited their interest in the project topic and/or the methodology being used and their desire to fulfill tenure and/or annual review expectations. "Initially, I was interested

because I was just starting as a junior faculty member and I needed to have a research project," a colleague remarked. The project partnership was "right in line with my teaching activities and there were people in the college that were interested in [the] idea [of] doing a research project alongside the class. [It] seemed to be in line with my librarianship … as well as my research interests." In equal number, our colleagues (n = 4) also named benefits to the libraries and collections, building and strengthening relationships with the department or researcher(s), their own expertise and knowledge, and opportunities for learning and development. This was the case for one colleague approached by a researcher who "had a very specific need" that was related to an area they "needed to learn more about." "I find one of the easiest ways for me to learn the tools that I use in research librarianship is to have [a] messy project and totally immerse myself in it." When discussing what motivates their continued participation in an ongoing research partnership, one of our colleagues remarked, "Honestly, it's one of the major things that gives me professional satisfaction and joy."

TABLE 1 Motivations for Participating in a Research Partnership	
Responses	**Number of Interviewees (n = 11)**
Project Topic/Methodology	6
Tenure/Annual Review	6
Benefits Libraries/Collections	4
Building/Strengthening Relationships	4
Topic Expertise/Knowledge	4
Learning, Development	4
Research Interests	3
Benefits Communities	2
Alignment with Teaching	1
Benefits Funding Proposal	1
Impact to Field	1
Professional Satisfaction, Joy	1

Criteria for Choosing Research Partnerships

As for the criteria our colleagues used to determine which research partnerships to join (see Table 2), our colleagues' interview responses seemed more individualized. The majority did, however, pinpoint two key criteria: their relationship(s) with the partner(s) (n = 7) and whether they have expertise in the subject or discipline to contribute (n = 6). "The primary thing is the subject if it's something that someone else is initiating [and] they're seeking collaborators. If it's something that is of interest, that's one thing," a colleague shared:

> The individuals involved are another. Depending on the type of partnership, I may or may not know a lot about the way people work. There are people who I am happy to work with over and over again, and people that I'll [not work with] again. And then some people are new to me to work with, so that's a risk that I'll take sometimes, but it gives me information for the future.

Again, nearly half of our colleagues cited interest in the research topic and/or methodology (n = 5), and many consider the time commitment involved (n = 5). For one colleague, "what kind of time commitment it's going to be" was their first consideration. "I have been asked to be listed on like grant applications before because they think it'll look good," and when the grant is awarded, "I'm on the study" and need to know "how much time is this actually going to require me to take."

TABLE 2	
Criteria for Choosing Research Partnerships	
Responses	**Number of Interviewees (n = 11)**
Relationship(s) with Partner(s)	7
Subject/Disciplinary Expertise/Knowledge	6
Topic, Methodology Interest	5
Time Commitment	5
No Set Criteria	2
Research Interest	2
Collections Use	2
Benefits Libraries	1
Impact on Other Colleagues' Workload	1
Relationship Building	1
Role	1
Connections to Leverage	1

In the post-interview survey, colleagues rated the importance of each consideration from a provided list for joining a research partnership using a 5-point Likert scale (Appendix A, post-interview survey question #2). "Available time in your schedule" and "Clear contribution expectations of you" receive the highest mean ratings (mean = 3.8) as considerations of most importance in deciding to join a research partnership. Those who chose "Other" specified "Relationship with person making the request," and "Appropriate expectations around authorship or acknowledgment" as most important (mean = 4). Those who consulted resources when making this decision rated "Your supervisor" (mean = 1.83) and "A colleague in the library" (mean = 1.8) as slightly to very important (see Appendix A, post-interview survey question #3).

Preparation for Research Partnerships
When asked specifically how the librarians prepared for research partnerships, our colleagues most often responded in their interviews that they do preliminary research themselves: they read the potential researcher partner's publications or about a specific methodology, tool, or technical terminology; they conduct searches on the topic; or they consult best practices and guidelines from peer institutions. Table 3 highlights the coded interview responses around preparation for the research partnership. For one specific partnership, our colleague explained,

There's a lot of supplemental work that I have to do to educate myself on a lot of the technical vocabulary that's thrown around in a lot of those meetings. […] I have

to do some background reading or have background conversations with folks so
I can keep up to speed with some of that language because that's not my area.

With equal frequency, study participants responded that they rely on their own academic training and disciplinary expertise, on training in specific methodologies and tools, or on prior experiences in their librarianship or their own research. "I suppose I prepared," a colleague reflected, "in the extent that I have all the background knowledge already," and knew the work in which the researchers were interested because it is their research area. "I suppose, if I didn't already have that background knowledge, I would have had to dig into the literature a little bit to understand where that importance was [and] why that was the focus of the research."

TABLE 3 Preparation Librarian Completed for Research Partnerships	
Responses	**Number of Interviewees (n = 11)**
Preliminary Research	7
Academic/Subject/Disciplinary Training	5
Research Methodology, Tool Training	5
Prior Experiences, Research Area	5
Collection Knowledge	2
Knowledge in the Researcher's Area	2
Management Skill Training (Project or Data)	2
Librarianship Training	1
Previous Work Experience/Position	1

Contributions to Research Partnerships

As noted in most of the literature reviewed, our colleagues tended to discuss their contributions to research partnerships in terms of skills or roles (see Tables 4 and 5). Seven identified disciplinary knowledge and skills as a contribution, and several specified information literacy skills, such as searching for literature and citation data, identifying and accessing collections materials, and citation development and management. A few responded that they contributed technical skills (3) and skills in specific research methodologies. (3) "I think it's [the] personal contact where they realize the range of what I can offer them," a colleague told us. "It sort of violates their preconceptions of what a librarian is. And for them, the strong point is my access to materials."

As for roles, five interviewees identified themselves as filling the role of resource researcher and reviewer, contributing to the literature reviews, systematic reviews, or scoping reviews. Many identified themselves as connectors to networks, communities, the campus, and resources. For one of our colleagues, being a connector is of the utmost importance: "My end goal and why I'm participating in the project from the beginning to end [is] to give a platform to [a community] that is often talked *about*, but they don't get to have the agency about what they do." Our colleague sees their role as helping members of that community navigate

academia, "helping them get through those hoops." "Because that's really why I became a librarian," they explained. "That's the role I saw for myself when I signed up to be a librarian. I'm going to help researchers and people from these communities reach these audiences, and so my goal is to like tear through all of those walls."

TABLE 4	
Contributions by Librarians to Research Partnerships: Skills	
Responses	**Number of Interviewees (n = 11)**
Disciplinary Knowledge/Skills	7
Information Literacy	5
Technical	3
Research Methodology	3
Project Management	2
Networking	2
Pedagogy	2
Writing/Editing/Proofing	2
Soft Skills	1
Data Structuring/Analysis	1

TABLE 5	
Contributions by Librarians to Research Partnerships: Roles	
Responses	**Number of Interviewees (n = 11)**
Resource Researcher/Reviewer	5
Network/Campus/Resources Connector	3
Collaborator	2
Curator, Collections Manager	2
Funding Opportunities Researcher	1
Scholarly Communications	1

In the post-interview survey (n = 9), most participants categorized their research partnership as "Research" (n = 8), many considered it "Librarianship" (n = 6), and just over half (n = 5) considered it both "Research" and "Librarianship."

Impact of Research Partnerships
Several participants described how engaging in research partnerships impacted their librarianship and/or research, especially how they build relationships in both academic and non-academic communities, approach research consultations, design and teach courses and workshops, and build library collections in their disciplinary areas. One colleague commented, "there's more awareness about the capability that I have as a librarian" after they participated in a research partnership. Another noted that their overall reference interview skills improved after they had to ask questions to understand what their research partners intended to accomplish. Another shared how participating in a research partnership framed

discussions that they lead as an instructor of a credit-bearing course, and "informed some of the ways that I talk to students about the topic."

One librarian shared, "every time [I've participated in—or contributed to—a research partnership], I learned about a different area of research or a course. It has really informed how I do collections [work]." Several interviewees noted a specific partnership that fulfilled both a librarianship and a research goal. One colleague knew a partnership "was going to have an outcome that was positive for me, in both of those spheres." Although this study did not include interviews with collaborators to assess librarian impact on the research partnership, most librarians perceived their participation was beneficial to the team.

The post-interview survey asked participants to rate the level of importance in areas of their work that research partnerships influenced using a 5-point Likert scale (see Appendix A, post-survey question #5). Overall, colleagues rated "Librarianship" (mean = 2.67), "Teaching" (mean = 2.57), and "Consulting" (mean = 2.56) the highest, followed by "Advising" (mean = 2.0) and "Mentoring" (mean = 3.0). Those who chose "Other area" (mean = 3) specified "Coaching" and "Future research" as the most influential areas of their work.

As for aspects of collaborations that proved most valuable to them, respondents rated "Lessons learned of what not to do in the future," "Establishing clear boundaries," and "Having consistent and clear communication throughout the project" the highest (mean = 3), and then "Research output (paper, presentation, exhibit)" (mean = 2.88), "Skills gained through the partnership" (mean = 2.78), "Connections made with others on campus" (mean = 2.43) (see Appendix A, post-survey question #6). Participants rated "Supporting library priorities" (mean = 1.71) and "Change in approach to other areas of work" (mean = 1.5) as the least valuable aspects of their participation as research partners.

Advice for Librarians Considering Research Partnerships

During our interviews, several librarians offered advice to other colleagues who might consider participating in a research partnership, including general suggestions such as "make sure that you're taking ownership of your time and your scholarly profile," and "[consider] how much this is going to improve [your] relationship with the [disciplinary] department." Interviewees also advised colleagues to establish boundaries and communicate clearly about them; understand the time commitment involved with each project; consider the benefits of participation for tenure and promotion; ask or negotiate how credit will be awarded; define roles; identify communication preferences for everyone on the research team; consider one's own passion for the topic and potential enjoyment of the project; and determine the availability of institutional support. Finally, one participant recommended, "you should not feel like you're obligated to say yes to someone's research project because you have your own agenda and your own research goals."

Discussion

Overall, the librarians in this study filled multiple roles in research partnerships. As noted in Table 5, those roles include literature searching expert, campus connector to services and resources, or mediator of library collections or datasets. Due to their librarianship and disciplinary training, some participants defaulted to performing literature searches and authoring literature reviews; however, as previously noted, they advise that libraries ensure from the

onset that they are acknowledged as research collaborators rather than filling roles otherwise delegated to graduate research associates.

In this study, individual expertise is often leveraged to add value to the research partnership. Table 4 lists the specific skills librarians contributed to the research partnerships, indicating that 63% (n = 7) of those interviewed mentioned that their disciplinary knowledge or specific skills were reasons they joined. Also high on this list was adding to their technical skills and their grounding in information literacy knowledge and pedagogy. Tables 1 and 2 highlight the librarians' rationale for joining research partnerships, with top reasons including exploring topics of interest, and understanding the methodology or wanting to grow in a particular methodology. Librarians in this study also pointed out that a strong motivator was research interest or producing scholarship to meet tenure requirements. Empowering librarians to decide which partnerships they enter and the role they play on the team based on professional and personal goals helps to establish boundaries. Recognition from partners, as well as organizational support of librarian contributions, can make participation a valuable experience.

Interestingly, very few mentioned specific soft skills when discussing impact on the research partnership. Only two participants mentioned project management skills or leveraging connections around campus as roles they took on in the research partnership. In some cases, it could be that the principal investigator for the project would take responsibility for these aspects of the research partnership, and the librarian would join the project to contribute other areas of expertise. Alternatively, it could be that librarians naturally take on these roles but underplay their importance in the overall success of the project, viewing their work as just part of their job duties. If that is the case, providing training or guidance for librarians to help them highlight the impact of these skill sets and build on existing areas of expertise could be an area for professional development for those considering joining research partnerships. A third possibility is that librarians are concerned that an administrative or project management role would overshadow specialized research skills they could bring to the partnership. This would correspond with our colleagues' who recommended librarians be considered research collaborators and not assistants when entering partnerships.

Defining Scope and Establishing Support

Based on our findings, establishing clear expectations for roles, communication, time, and credit factors into the success of research partnerships. Each of these considerations will prove important for libraries or librarians interested in research partnership engagement. As our library has not yet defined the scope or established programmatic support for librarian involvement on research teams, our colleagues developed their own criteria for making decisions about joining partnerships and determined for themselves whether they considered their partnership to fall within the scope of their librarianship or their research. In the absence of clear guidance, our colleagues reported consulting with their supervisor or a colleague in the library when considering whether to join a research partnership; however, they varied greatly in how they rated its importance. Similarly, in the absence of assessment metrics, the benefits of participation in research partnerships to our library organization are anecdotal.

As libraries consider institutionalizing research partnerships as Research Libraries UK (Evidence Base, 2021) has advocated, defining scope and establishing support will be essential.

However, librarians should be empowered as much as possible to determine if, how, why, and when they want to participate in a research partnership to ensure both the individual and the organization benefit from the time and effort expended. In short, in an ideal situation, guidance from library administrators and supervisors would be available for the librarians who want to be involved in a research partnership. This guidance would help to examine the balance of the partnership's impact and the effort of librarian contributions as well as alignment with library organizational strategic goals before librarian time is committed.

Some examples of libraries that have piloted research support programs include the University of Minnesota and the University of Central Florida. At Minnesota, research sprints offered ways for librarians to support research teams through short, fast-paced interactions (McBurney, et al., 2020). Their approach, based on one implemented at the University of Kansas (2024), was paused during the COVID-19 pandemic but was restarted with a tighter focus in 2023. Some key takeaways that researchers noted were the librarians' contributions toward project management, team dynamics, and specific expertise on digital scholarship tools (McBurney, et al., 2024). Librarians in the same study noted that their expertise was underutilized, and the time-intensive nature of the work may not provide enough benefits to justify participation. Similarly, the University of Central Florida libraries, which has used an embedded librarian approach since 2012, paused their endeavors just before the COVID-19 pandemic to examine if the time involved provided enough benefits for the libraries' continued support (Arthur & Tierney, 2013).

Recommendations for Other Libraries

Other libraries that want to support this level of engagement should articulate the value of research partnerships internally, determine the alignment of research partnerships within the expectations of librarianship and/or research, and define assessment metrics to gauge the impact and benefits of research partnerships for the organization and for individuals. In addition, libraries should clarify whether participation in a research partnership is an individual decision or an organizational decision; integrate expectations or limitations around research partnerships into the onboarding process for librarians; and provide support for additional work that might arise (e.g., grant management or publication fees). Addressing these matters will also help organizations determine if specific language should be added to position descriptions for librarians participating on research teams as part of their job duties.

Furthermore, libraries should establish guidance to help those either seeking to join potentially time-intensive research partnerships or managing the capacity challenges arising from participating in multiple partnerships. They should also develop a template that individuals can use to create a research partnership agreement or a memorandum of understanding (MOU) that can be renegotiated if needed during the partnership. Even organizations that recognize the value of these partnerships but opt to support it on an ad hoc basis should provide guidance about scoping research partnerships into librarians' positions, defining levels of engagement, and determining credit expectations.

In cases where libraries want to support this type of work, they should examine various approaches for leveraging librarian skill sets, such as providing support on systematic reviews as a scalable service. For example, the University of Minnesota Libraries offer boot camps for librarians outside the health sciences who want to build this skill set (2024). Both the

University of Minnesota and Cornell University have librarians participating on systematic review teams, where they are engaging and highlighting librarians' information literacy expertise to add value to the research partnership (Kocher & Riegelman, 2018).

Based on our findings, librarians interested in engaging in research partnerships should assess their own knowledge base and skill sets to determine what, specifically, they may bring to the partnership, what additional professional development they might need, and whether they have the time and capacity to actively contribute. Namely, librarians need to account for the balance between library strategic priorities and their own individual expertise to determine the value of the required time commitment. Our interviews indicate that campus partners did not always know individual team members' strengths, and, in some cases, the librarian spent time educating them about skills or expertise beyond the traditional view of librarianship. Defining the expectations for a librarian partner's contributions and role from the outset will attend to matters of capacity, time commitment, and boundaries, as well as prevent "role creep." In some instances, librarians may be better off consulting or referring research teams to others within the libraries or in other campus units rather than committing to a time-intensive collaborative project, especially if there are no tangible benefits to the individual (e.g., internal or external collaboration experience, publications, grant funding, time-release from primary job responsibilities, or alignment with expertise). Transparent expectations for contributions and outcomes for all involved in the research partnership are crucial throughout the partnership to ensure balance as the project progresses.

Some limits of this study include a limited sample size from a single institution. However, we ensured consistency of questions and interviewed individuals with a variety of different experiences with research partnerships. The intent of this study is not to generalize beyond our specific context, but to understand themes present at a research-intensive institution; our findings indicate that there is alignment with other research in the field.

Conclusion

Research partnerships continue to be discussed in the field of librarianship as beneficial to librarians for increasing awareness of their existing knowledge and skills, developing new knowledge and skills, and building relationships and networks. Motivated by these ongoing conversations, our study findings revealed that our colleagues benefitted in these, and other, ways, such as including lessons learned from the experience about setting boundaries and communication. Overall, our colleagues' experiences validate the conversations in the field on the overall value and benefits of participating in research partnerships.

Additionally, our study suggests that more conversation is needed to structure research partnerships in libraries through defining scope and establishing support. Having clarity and guidance will inform librarians' decision-making, management of time and capacity, and categorization of the work. Our study illustrates the disparate criteria considered in making decisions, the lack of resources for librarians to consult, and the inconsistent classification of their participation as either research or librarianship (or both). This ultimately has implications given the small percentage of their time allotted for research. Moreover, having clarity and guidance will better enable libraries to assess the benefits of this engagement to both the organization itself and its impact on the campus research community.

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Appendix A

Interview and Survey Instruments
Interview Questions
1. When you choose partnerships, what are the criteria you are using to decide whether or not to join a research project?
2. Did you prepare yourself for research partnerships? If so, how—webinars, courses, workshops, conference presentations, publications?
3. Think of ONE research partnership when answering ALL of these questions. It could be recent, most impactful, strongest outcome, greatest learning experience, etc. Discuss the project/partnership parameters. Follow up: How did it start? How has it evolved? Themes we asked interviewees to address:
   o Why are you interested in being involved in research partnerships?
   o How do you approach communication with a team?
   o How were expectations determined?
   o Boundaries on time/resources–How did you decide to join the research partnership/MOU?
   o Roles–Did they change over the time of the project?
   o What skills did you bring or were you able to leverage your expertise or what additional skills are needed?
   o Credit/Publications
4. What did you learn that informs future decision making around research partnerships?
5. What advice would you give a colleague who is considering a research partnership?
6. How have research partnerships influenced other areas of your work?

Post-Interview Survey
1. Degrees that you have. (Check all that apply):
   o Masters in library science or archives
   o Masters in another field (MBA, MFA, MS, MA)
   o PhD
2. Rate the importance of each consideration in your decision-making process for joining a research partnership: Not at all important (0), Slightly important (1), Moderately important (2), Very important (3), Extremely important (4).
   o Available time in your schedule
   o Amount of time the project will take
   o Expertise you possess (how closely does the project match to your knowledge)
   o Aligns with library priorities
   o Who the person inviting you to the team is (is it a dean, someone important to your liaison area, etc.)
   o Team compatibility/dynamics (you say yes because of the other people involved on the project)
   o Career advancement for you
   o Interest in learning a new area
   o Long-term impact of the project
   o Campus priority alignment

  ○ Clear contribution expectations of you
  ○ Other area (1)
  ○ Other area (2)
3. Rate how importance of consulting each resource when making a decision about join-
    ing a research partnership: Not at all important (0), Slightly important (1), Moderately
    important (2), Very important (3), Extremely important (4).
    ○ A mentor
    ○ A colleague in the library
    ○ A colleague outside the library
    ○ Your supervisor
    ○ Library strategic priorities
    ○ University strategic priorities
    ○ Other area (1)
    ○ Other area (2)
4. Which facet of your work did this research partnership fall under? (Check all that
    apply):
    ○ Librarianship
    ○ Service
    ○ Research
5. What areas of your work have being a part of research partnerships influenced? Not
    at all important (0), Slightly important (1), Moderately important (2), Very important
    (3), Extremely important (4).
    ○ Teaching
    ○ Librarianship
    ○ Advising
    ○ Mentoring
    ○ Consulting
    ○ Other area (1)
    ○ Other area (2)
6. What proved most valuable to you from the collaboration? Not at all important (0),
    Slightly important (1), Moderately important (2), Very important (3), Extremely
    important (4).
    ○ Connections made with others on campus
    ○ Research output (paper, presentation, exhibit)
    ○ Lessons learned of what not to do in the future
    ○ Supporting library priorities
    ○ Change in approach to other areas of work
    ○ Skills gained through the partnership
    ○ Establishing clear boundaries
    ○ Having consistent and clear communication throughout the project
    ○ Other area (1)
    ○ Other area (2)