

**Center Stage: Performing a Needs Assessment of Campus Research Centers and  
Institutes**

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**Abstract:** Outreach to research centers and institutes is often overlooked in academic libraries. This article discusses a needs assessment conducted by the Liaison Services Department at the University of Houston Libraries that reviewed library services to centers and institutes at the University of Houston's main campus. The assessment was conducted for two purposes: to build collaborations with centers and to determine how the libraries might create new services and/or market existing services to meet the centers and institutes' growing research needs.

**Keywords:** Collaboration, research centers, academic libraries, needs assessment

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## **Center Stage: Performing a Needs Assessment of Campus Research Centers and Institutes**

In 2013, the Liaison Services Department of the University of Houston (UH) Libraries assembled a team to investigate and gain a better understanding of the library-related research needs of the centers and institutes on the University's main campus. UH is a Carnegie Foundation Tier-One, public research university with more than 40,000 students enrolled in over 300 undergraduate and graduate programs. One way in which the university has worked to accomplish its research priorities was to form and revitalize research and scholarly groups into centers and institutes.

To align with this renewed emphasis, the Libraries identified a need to gather more information. Thus, the Liaison Services team was assembled. The team identified three goals:

1. To work together as an interdisciplinary team to build relationships with researchers affiliated with UH centers and institutes
2. To determine if there were new or existing research services that the Libraries could provide for centers
3. To identify opportunities to offer specialized or niche outreach to campus centers and institutes

The information gathered and shared here will discuss the overall success of this project while providing a broader understanding of existing center and institute relationships with the libraries and the establishment of new services and outreach to those groups.

## **Literature Review**

“Academic libraries ought to practice strategic alignment. That is, they should align their services and resources in support of their parent organization’s strategic goals” (Maxwell, 2016, p. 113). On many campuses, the strategic goals of the organization include greater recognition of research as well as interdisciplinary research and collaborative opportunities. There is a need for librarians to address the evolving information requirements of research centers and institutes. This exploration of the literature will focus on research center-specific needs and the collaborations that librarians and centers put into place to address these needs.

### **Center Interdisciplinarity and Librarians’ Roles**

Major research universities are seeing a steady increase in interdisciplinary research and in research that extends beyond the traditional boundaries of lab, department, or college. Libraries undoubtedly need to address this increase in research, much of which occurs in research centers. A review of the literature shows that health and medical sciences are leading the charge when it comes to practicing interdisciplinary research. Burnette (2015) states, “The increasing interdisciplinarity of science research creates both challenges and opportunities for librarians” (p. 645). Funding organizations, she notes, are likely to support research that includes a variety of disciplines. Librarians working with health- science researchers have come up with a variety of ways to address these unique needs.

In the early 1990s, the Houston Academy of Medicine-Texas Medical Center Library (TMC) recognized the need to be where the users were. TMC was then and is now unique in that it serves patrons from a number of medical schools, research

centers and institutes, and other organizations affiliated with colleges across Texas whose medical facilities are primarily located in Houston. Pratt (1991) describes a project to provide library services to a distant research center affiliated with one of the colleges that the library served. This program entailed physically locating a librarian in the research center for part of the work week in order to promote use of the library and to enable reference transactions to happen at a more rapid pace. The experiment was a success, although Pratt cautions that libraries must weigh “the expense in liaison time to provide services to a small client group” (p. 401).

Tennant et al. (2001) explore the re-organization of the Health Science Center (HSC) Libraries at the University of Florida (UF) along liaison-librarian lines and mention an effort to include research centers and institutes in this re-organization. Though research centers and institutes were considered early in the re-organization process, the committees planning the realignment ultimately opted against setting up formal liaison relationships with these groups. As Tennant et al. (2001) note, “nearly all faculty, students, and staff of the HSC institutes and centers have liaison coverage through their home departments. Non-HSC UF groups, although heavy users of the HSCL, are officially covered by other libraries on campus” (p.16). As UF found, many centers and institutes are already served by a liaison so appointing a separate centers and institutes liaison is redundant for some centers and institutes while at the same time offering only minimal coverage for the others (Tennant et al., 2001, p.16). Therefore, flexibility in defining the liaison librarian role is necessary to offer effective, systematic, and consistent outreach to research centers and institutes.

While the majority of centers and institutes discussed in the literature conduct STEM research, there are examples of centers-libraries collaborations in social sciences and humanities disciplines as well. One example is that of the University of Alabama and its outreach to the Alabama Entrepreneurial Research Network (AERN). . Pike, Chapman, Brothers, and Hines (2010) discuss the collaboration of various departments at the University of Alabama to reach out to and support the AERN, a system of centers which provide information and training to staff and the public who are looking to create or expand small businesses. The collaboration with AERN involves multiple units on campus, including research centers, service units, and the libraries. The role of the Bruno Library at the University of Alabama includes selecting resources, training partner staff and the public on the use of resources, and maintaining the AERN website (Pike et al., 2010). One of the benefits of this collaboration is aligned with a university strategic goal to increase focus on rural Alabama regions (Pike et al., 2010, p.198). Though challenging, the collaboration with AERN has proved beneficial for librarians.

Another example of collaboration beyond university units is the MaRS Discovery District and University of Toronto (UT) collaboration to provide business services to patrons in the Discovery District's programs. The UT librarians describe how the MaRS Discovery District approached the UT libraries to provide "market research and business planning resources and support the University's research commercialization strategy" (Fitzgerald, Anderson, & Kula, 2010, p. 189). The collaboration was successful and expanded significantly, adding another business specialist over time. Although academic librarians may not think of members of the general public as their

typical patron, when campus research centers request aid for these patrons, collaboration can be fruitful for both sides.

While not yet as prominent in the literature, digital humanities (DH) centers are increasing sources of interdisciplinary and center-based research in the humanities. Librarians are developing their roles at the same time as these centers are themselves developing, leading to collaborations far different than those envisioned in the liaison model. As Siemens (2009) explains, “Traditionally, research contributions in the humanities field have been felt to be, and documented to be, predominantly solo efforts by academics involving little direct collaboration with others...However, Humanities Computing/Digital Humanities (DH) is an exception to this” (p. 225). DH collaborations have significantly expanded to include researchers and experts outside of the traditional humanities disciplines. Projects often include computer programmers and developers, graduate students, and librarians, all of whom bring unique technical and research skills to DH.

In his article, Sula (2013) points out that the work of digital humanists shares skills with librarians including “managing data, ‘embedded’ librarianship, digitizations and curation, digital preservation, and discovery and dissemination” (p. 18). With these similarities in their work, the potential for increasing collaborations between humanities researchers and librarians should be high. Sula also notes that, with these skills and services available to them, “digital humanists may rely on libraries as much for access to digital collections and tools as they do resource instruction and preservation” (Sula, 2013, p. 20). DH centers are collaborative by nature. With the overlapping roles of researchers and librarians, DH projects lend themselves to fit into each project’s

working landscape. Identifying opportunities is the first step to increasing these collaborations.

### **Librarian and Center Partnerships**

In order for liaisons to successfully establish new, more collaborative partnerships with researchers who may cross disciplines or exist outside of the traditional university structure, librarians need to have a firm understanding of the existing research needs of their patrons and a willingness to change their service model to incorporate specific skills and services to support researchers. As Burnette (2015) states, “The liaison model may be inadequate for supporting campus research that represents multiple disciplines and geographically dispersed departments” (p. 645). It can be hard for a liaison librarian to understand the complexity of the work being conducted by these interdisciplinary or far-flung researchers, requiring the librarian to invest time in a research audit or another tool to map everything out.

The typical liaison model revolves around the central concept of outreach and engagement, with interconnected responsibilities in teaching and learning, collections, scholarly communications, and research services (Jaguszewski & Williams, 2013, p. 4). According to this model, general responsibilities include developing strong working relationships with faculty, seeking opportunities to collaborate and establish partners in research, teaching and advocacy, monitoring trends in teaching and scholarship in assigned disciplines, and promoting library services and resources. In order to achieve these goals, liaison librarians have traditionally been assigned to particular colleges or departments, and research centers added in an ad hoc way when needed.



Including centers and institutes in a liaison's patron base is a key concern. Although there are centers and institutes that are associated with particular departments or colleges, there may be others who report to the Division of Research or another campus entity that is independent of a given college. Dewey (2004) explains that, "A strategic effort to make consistent contact with specialized research centers ensures that researchers have the most thorough and current information resources and accompanying expertise to support their work" (p. 9). Systematic, consistent outreach in traditional liaison roles relies on the college and departmental divisions. However, if a center reports to a particular college or department, then liaisons may see the faculty in traditional outreach but may not focus on the unique needs of the center. It is important to balance the varying needs that a researcher may present to a liaison during an interaction so that research centers and institutes receive appropriate support.

Librarians and centers can develop successful and engaging partnerships that benefit researchers in a variety of disciplines and settings. To do so successfully requires librarian awareness of the unique needs and desires of the research centers and institutes. Lorenzetti and Rutherford (2012) explain that "building interdisciplinary research capacity within the information profession requires the identification of environments, conditions, skills and other factors that can best enable these collaborations" (p. 275). The building of library capacity through investigation into needs of researchers extends beyond interdisciplinary researchers and includes research centers broadly. Environmental scans and surveys allow a library to determine the needs and interests of this group and to make decisions about future library services

and outreach. The research team undertook a survey of campus research centers with such goals in mind.

### **Methods of Approach**

This project originated in the Liaison Services Department of UH Libraries as a way to develop new and established relationships with the researchers in campus centers and institutes. The research team also wanted to know whether the libraries were meeting the needs of the centers. In order to meet these goals, a project team consisting of the research support librarian and subject liaisons representing the three broad disciplinary areas (sciences, social sciences, and humanities) was assembled.

The project team chose to conduct 1-hour, semi-structured interviews. This format was chosen primarily for the outreach opportunities that a face-to-face interview could provide. Another benefit was that interviews allowed the project team the opportunity to gain context for the responses that would have been difficult, if not impossible, to gather in an email survey. Interview questions were developed to capture information about center demographics and centers' interactions with and perceptions of library resources and services (see Appendix 1).

The project team began by sorting through a comprehensive list provided by the university's Division of Research of over 100 centers and institutes. Centers were prioritized by perceived activity level as determined by website activity and recent news, grants, or publications. An effort was also made to maintain a representative sample of centers from the sciences, social sciences, and humanities. Fifty centers were selected from the initial list.

The centers selected were each assigned to a member of the project team for further research. Each team member gathered more information about the assigned centers and made initial contact with center leadership. From this process, an additional five centers were eliminated after being determined to be non-operational. Of the 45 centers still under consideration, 21 agreed to interviews.

The interviews were conducted over a 6-week period. Team members supplied respondents with the interview questions ahead of time in order to allow them time to think about the questions and prepare. Each interview included two project team members, the assigned liaison, and the Principal Investigator (PI), each of whom took handwritten notes that were later transcribed into a single Word document. Additional information from each center's website was added to the transcripts as necessary for clarity and/or to add additional detail.

Once all data had been gathered, the project team decided how best to analyze it. Methods for analysis used best practices from qualitative research methods. Data was organized using Survey Monkey to quickly identify quantitative responses while open-ended questions were coded based on conceptualizing themes that related to the libraries' existing structures or university priorities (Vaughn & Turner, 2016).

## **Discussion**

Centers and institutes at UH are most commonly considered a part of individual departments or colleges. A relatively small number of centers are officially recognized by the university's Division of Research (DOR), of which some are department- or college-based centers. The centers vary in mission and priorities, but most highlight

university research initiatives, and many are interdisciplinary. Centers also vary in their engagement with the Libraries and the types of services needed, although there are areas such as GIS and data services where there is significant cross-disciplinary need.

### Center Collaborations

As the literature highlights, research universities are seeing increases in interdisciplinary research. Many of the centers interviewed in this study were cross-disciplinary or interdisciplinary in nature; nine interviewed centers were affiliated with more than one college, often across broad discipline categories. For example, in one center brain research is conducted by researchers in a wide range of science disciplines as well as the social science discipline of psychology and the humanities discipline of philosophy.

**Figure 1.** Centers with interdisciplinary collaboration by discipline.

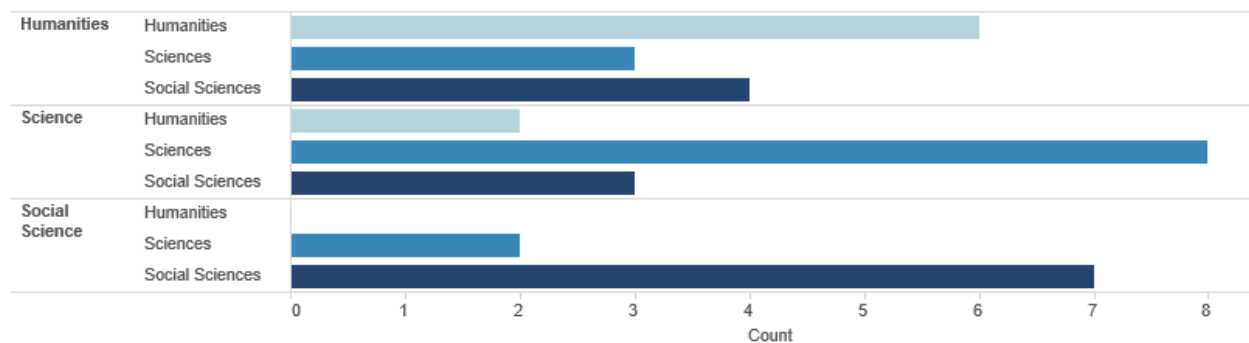


Figure 1 shows how the UH centers interviewed are collaborating with researchers in other broad discipline categories. The humanities centers in this study were the most broadly collaborative, collaborating more often with science and social science disciplines while science and social science centers collaborated mostly within their own discipline category. Interdisciplinarity is likely contributing to this phenomenon

as humanities researchers seek out collaborations with science and social science researchers to help address campus priority areas and to increase funding opportunities.

Two-thirds of centers interviewed received funding from grants, and many centers also received funding from companies, non-profit organizations, or the university itself. Eight of the centers in the study also provided commercial services of some kind, which supported their operating costs. The research team found the diversity of funding sources to be surprising, especially commercial services, but very helpful for context when librarians later partnered with centers to co-write grant proposals for continued funding.

### **Library and Center Partnerships**

Many of the challenges that were identified around building partnerships with centers revolve around effective communication. Even determining who should serve as liaison to these centers can be quite complicated. UH Libraries' subject liaisons are typically assigned to departments rather than colleges, so even centers affiliated with only one college might end up working with two or more librarians. In some cases, centers need support which requires that other liaisons are involved as well. One center interviewed is served by three liaisons: the Ethnic Studies Liaison for discipline expertise, the Education Liaison for research collaboration with education, and the Psychology Liaison for relevant language expertise. In such cases, although the intent of the library may be to offer liaison services through one librarian at the center level, the reality is that members of the center work with the librarian they are closest to in

terms of discipline or interest. This distributed support is often of benefit to the centers, but it adds some complications for the library.

These complicated relationships led us to ask ourselves the following questions:

- Which liaison should be responsible for outreach and maintaining contact with the members of the center?
- Should there be a center-specific contact, or does each member of the center work with the liaison who is assigned to their formal subject area?

Deciding which librarian should provide details about upcoming events, new library resources and services, and other relevant details requires ongoing coordination among the liaisons (and researchers) to ensure that information is being conveyed appropriately. At UH, librarians are striving to meet centers' needs while continuing our policy of having one point person formally designated for each center.

Maintaining good communication with everyone involved in each center is also a challenge. This could be at least partially addressed by making a point to form partnerships with center staff members. Many centers interviewed cited their center or departmental administrative support staff as a good point of contact for the library. Beyond regular contact with the rest of the center, these staff members are also often the first place that researchers look for help when they encounter a challenge in library access or use. By making sure that they are informed of library services and resources, librarians ensure that they know to reach out for help when needed. Cultivating relationships with administrative support staff aids in increasing knowledge of library services and provides opportunities for the UH libraries to work more closely with the research centers and institutes.

Apart from building partnerships through communication, librarians also focused on the ways that services may affect centers, many of which are using library services in research. The research team asked participants about their use of three specific library services that they might be interested in: the library website, interlibrary loan, and document delivery (a then-new service for delivery of library materials to faculty offices). While the majority of researchers frequently used the library website and interlibrary loan, only 25% of the centers used or knew of the document-delivery service. The centers expressed interest in the service, which led to the opportunity to identify marketing strategies with feedback from our interviewees.

The interviews also investigated needs for new services and training, including data management and GIS, literature reviews for grant proposals and papers, and services to support work in the digital humanities. In interviews, several centers indicated that graduate students in the centers were expected to do these tasks. This presented an opportunity to provide support for the centers through graduate-student training.

Forming strong partnerships with centers and institutes requires good communication, ideally both regular communication with key members of the center and point-of-need communication. Within the centers, this may mean treating administrative staff as a primary point of contact and reaching out to others as needed. In the libraries, this should include a point person who can keep track of the many ways that the center interacts with the library. By working to make outreach to centers more flexible, and by creating, modifying, and marketing services to address centers' needs, the libraries are able to support centers as effectively as possible.

## **Internal Library Collaborations**

To support the needs of the centers and institutes, UH librarians recognized that it often takes more than one library staff member or department to satisfy their needs. The interwoven structure of the UH Libraries Liaison Services Department is such that strong internal communication within discipline groups (humanities, sciences, and social sciences) has led to interdisciplinary collaborations. Many projects and working groups have been developed from these communications, leading to buy-in and stronger commitment from researchers as well as the Libraries' administration as these projects have proved themselves.

As the research team attempt to determine how the Libraries can support centers that provide commercial services, they have found that many other units within the library must be involved in this critical and ongoing discussion. For instance, many academic library vendors place tight restrictions on the use of their material in non-academic, commercial settings--particularly vendors in business and the sciences. These, naturally, are the two areas most likely to be of interest to centers engaged in commercial services. Because of the complexity of licensing and access issues, liaison librarians alone will not be able to determine what is appropriate. Additionally, when the support of a librarian could allow the center to earn money, the services provided should be carefully considered as well. This complex issue is made more challenging by the fact that most of these centers mixed commercial services with a non-profit and educational mission and services. The needs of these centers must be reviewed on a case-by-case basis; their needs reveal one facet of the changing scholarly conversation that librarians must address. As with other aspects of working with centers, there is a



great deal of collaboration both internal and external that is needed for success of these initiatives.

### **Current and Future Directions**

The Libraries made several significant changes as a result of the information gathered in this needs assessment. Some of these changes were actionable immediately, while others needed time, resources, and structural changes.

Following our information gathering, the UH Libraries hired a Data Librarian with GIS knowledge and experience from which all of the centers would benefit. The Data Librarian served as co-PI on a grant and provided training and consultations to humanities centers, created data visualizations, was invited to teach a course in the social sciences, and explored possible joint outreach with science centers. In providing niche services such as these, libraries must consider how to sustain expertise in order to meet demand.

To support the increasing campus emphasis on funding through high-impact grants, the position of Research Support Librarian was re-configured. The current Research Support Librarian takes the lead in working with the university's research division to coordinate library support for researchers, works with centers that do not have an identified liaison on specific projects that cross disciplines, and provides support to researchers across campus on data management and data repository needs. As the Data and Research Support librarians collaborate with researchers, they are well placed to help the libraries identify additional services.

Research support traditionally has focused on sciences and social sciences; however, interest in digital humanities research has intensified at UH and the UH

Libraries recognize opportunities to successfully collaborate with digital humanities centers. The libraries have already become involved in multiple aspects of this research. From co-writing grant applications to training graduate assistants on various data visualization tools to collaborating on digital humanities research with faculty, UH librarians have significantly contributed to the advancement of humanities research at the university. Researchers have found the data, visualization, and technology expertise of librarians invaluable in this area of research, and librarians continue to collaborate internally to find ways to best meet these needs.

### **Conclusion**

The interdisciplinary team was able to work together to build relationships with UH campus centers and institutes to identify ways in which we can better serve this user group. As a result of our investigation, liaisons and functional specialists are embedded in the work and research of campus centers and institutes, including co-writing grants, training each center's affiliated graduates students, creating data visualizations, and providing physical library space for a campus digital scholarship center. The research team encourages other universities to reach out to their centers and institutes to form long-lasting relationships based on library support and research collaborations.

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**Appendix 1. Survey Questions****Center Information**

1. Do you have a strategic plan, goals, vision, etc. that you can share with us?
2. Can you briefly summarize the research focus of this center?
3. When was this center established?
4. How is this center funded?
5. Have any researchers affiliated with this center been awarded a major award(s) for their research?
6. What departments are represented in this center?
7. How many researchers are affiliated with this center?
8. How many students are affiliated with this center?
  - a. What are the numbers of undergrads, graduate students, post-docs?
9. Who are the primary customers of this center?
  - a. e.g. Industry, UH faculty, Students, etc.
10. Does this center provide commercial services?
11. Are there training services (classes, courses, software, analysis, searches, etc.) that you provide to your customers?
12. Do the researchers affiliated with this center collaborate with other groups on campus?
  - a. If so, which groups?
13. Do the researchers affiliated with this center collaborate with other groups off-campus?

- a. If so, which groups/organizations?
14. Are there other support units on campus who support the work of this facility?
- a. If so, who?

### **Library Resources & Services**

1. How do you currently use library resources and/or services in your research?
  - a. Have you ever used InterLibrary Loan (ILL)?
  - b. Have you ever used the library's document delivery service?
  - c. How often do you use the library website?
  - d. Is there a librarian who regularly assists members of this center with library-related research needs?
    - i. If so, who?
    - ii. If not and you required library-related assistance, who would you contact?
2. Are you currently satisfied with the library resources and services?
  - a. If not, why?
3. Have researchers affiliated with this center ever required foreign language resources that they have had problems accessing?
4. Does your research require that you use physical spaces within the library (stacks, Learning Commons, scanners, etc.)?
5. Does your research require resources that are in print or do you rely predominantly on electronic resources?
  - a. Are there particular databases that you use in your research?

6. Are there software packages that you require for your research that you have difficulty obtaining?
  - a. Do the researchers at this center use GIS in their research?
    - i. If so, how?
  - b. If you do use GIS or need to use GIS, do you have the support necessary to do so?
7. Have you ever utilized the help of a librarian for support with activities such as lit reviews for grant proposals, assistance with particular projects, etc.?
  - a. If not, would you be interested in the library offering this type of research support?
  - b. Would you be interested in learning more about data management, altmetrics, GIS, Excel, collaborative tools, citation management, etc.?
  - c. Would you be interested in learning more about the types of training that the library can provide to the members of this center?
  - d. If so, how would you prefer to receive that information?

**Final Remarks**

- Are there any resources or services (databases, journals, software, etc.) that you need that the library does not currently provide access to?
- Is there anyone else in this center who you would recommend that we talk to?
- Do you have any final comments that you would like to make that pertain to the library's potential role in supporting the research of this center?