CONSULTING REPORT

Prepared for Taubman Health Sciences Library by Team M2T2

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Executive Summary

The Taubman Health Sciences Library (Taubman) is an academic research library at the University of Michigan (UM). Taubman serves the research and information needs of all health sciences-related schools, colleges, and departments at UM. Informationists at Taubman aim to take an active part in faculty research efforts, in addition to supporting the needs of health sciences students at UM.

Our group was tasked with finding ways to increase communication and foster collaboration between Taubman and a specific department at the University of Michigan Medical School-the Department of Learning Health Sciences (DLHS). To investigate this problem, we conducted background research on related issues and held a total of seven interviews with informationists, DLHS faculty researchers, and administrators in both institutions. This report will detail the relevant research, our primary findings, and recommendations to address each finding.

We have compiled five key findings:

- Informationists are overworked and overwhelmed
- There are communication breakdowns between Taubman and the DLHS.
- There are different views of "service" versus "collaboration"
- Funding limits collaboration
- DLHS faculty lack a clear understanding of the informationist role

This report presents 16 total recommendations to address these findings; however, our highest-level recommendations are for Taubman to:

- Hire additional informationists
- · Conduct a thorough review of the workload of each informationist to identify ways to reduce or redistribute work
- · Revise the Taubman website to include detailed descriptions of each informationist
- Standardize communication practices between informationists and researchers; Possible methods include:
 - » Creating more formal and informal social events
 - » Developing an online database of the informationists CVs
 - » Requiring faculty researchers to attend informationist's office hours
 - » Mutually agree upon what level of service or collaboration merits acknowledgement on published research

Introduction

TAUBMAN HEALTH SCIENCES LIBRARY

After undergoing a \$55 million renovation, Taubman evolved from a traditional library to a dynamic, technology driven learning space. Their mission "is to be a valued partner, fully integrated into the work of the university and[...][to provide] leadership in knowledge management for education, research, patient care, and community outreach" (Chaffee, 2017). Equipped with an all-digital library, small group collaborative spaces, classrooms, and simulated patient examination rooms, Taubman seeks to improve patient care and to advance knowledge and research in the community through encouraging multidisciplinary collaboration and by offering "high-quality health and biomedical information services" ("The Taubman Health Sciences Library," n.d.).

Integral to Taubman's mission are the library's informationists who participate in the research and educational initiatives within Michigan Medicine and several UM schools and colleges, including the Medical School, the School of Kinesiology, the School of Nursing, the School of Public Health, the School of Dentistry, and the College of Pharmacy. Informationists aim to contribute to research and educational efforts through their roles as library faculty, collaborators, and valued research partners to faculty. An example of some of their services are: consultations of systematic reviews, collaboration on grant projects, development of web-based sources, and assessments and evaluations.

PROJECT AND GOALS

Currently, the informationists at Taubman are looking to find more effective ways to initiate collaboration with faculty in the DLHS and to provide service offerings that match up with faculty needs. In an effort to better understand and expand Taubman's partnership with researchers and faculty in the DLHS, our group was tasked with finding avenues to increase communication and collaboration between the two institutions.

According to our findings, there are common difficulties that both sides are facing that inhibit collaboration. This report will present background information that is relevant to understanding the task at hand, our research methodology, five primary findings, and our recommendations to resolve the issues in communication and collaboration between Tauhman and the DLHS

Background

RENOVATION OF THE TAUBMAN HEALTH SCIENCES LIBRARY

Taubman has gone through several changes throughout the last few decades, transforming from a traditional medical library to what is now the Taubman Health Sciences Library (Stratton, 2014). The 2015 renovation of the library led to salient changes in Taubman's services, stemming from a transition to digital systems and new facilities to make the library a multi-use space for teaching and learning (Gavin, 2015). The new and improved Taubman building has been designed around serving the needs of health sciences students and faculty, as "the library space in the renovated building has been reconfigured for the way faculty and students learn in the 21st century" (Gavin, 2015, para.6).

This renovation is meaningful for both the DLHS faculty, and the informationists at Taubman. For DLHS faculty, new technology and research space have expanded the available resources the library can offer and can create more opportunities for collaboration with informationists or faculty from other University departments. For informationists, new facilities may bring more researchers into the library space. The moving of physical library collections out of the building after the renovation also serves to separate Taubman from the rest of the University of Michigan Library, of which it is a part. This new space may help information ists be seen as separate from librarians in the main UM Library system.

RESEARCH COLLABORATION: COSTS & BENEFITS

In investigating background for this issue, we first examined collaboration in research in general. Over the past several years, collaboration among researchers has increased significantly for several reasons. As costs for scientific instrumentation, software, and analyses rise, it makes more financial sense to pool funding and resources together. With technological advances in communications such as video conferencing and virtual computers, researchers can easily work together remotely from their own spaces. Additionally, with research projects becoming increasingly interdisciplinary and complex, the need for collaboration with relevant researchers, teams, or institutions is critical to the success of these endeavors (Katz & Martin, 1997; Schleyer et al., 2008; Staley & McCallum, 2010).

Collaboration does run into some evident difficulties, however, specifically involving money and time. Working together allow collaborators to pool their funding and resources effectively but there are additional costs that are incurred—like travel expenses—but perhaps more significant, is the cost to time. With collaboration, time must be spent amongst researchers to meet to generate ideas, to discuss proposals, to divide work, to keep the other(s) informed and briefed about their individual progress, and to analyze and discuss findings (Katz & Martin, 1997, p. 15). Furthermore, it is inevitable that there will be divergent opinions about everything mentioned previously and so, time will be required to arrive at conclusions and resolutions amicably amongst collaborators. Collaborative efforts will also require more management and administration, either formal or informal, to keep the project on task and within budget. Project managers are necessary to reconcile the potential issues involving "different management cultures, financial systems, [and] rules on intellectual property rights" (Katz & Martin, 1997, p. 16).

In contrast, as modern research today is continually becoming more complicated and multifaceted, "an ever widening range of skills" (Katz & Martin, 1997, p. 14) is vital. According to Katz and Martin (1997), there are four types of benefits that result from collaborative work. The first benefit is that when scientists work together, there is a greater probability among them to collectively possess all the required techniques and skills to complete their project. Secondly, collaboration allows researchers to gain from and transfer knowledge or skills to their colleagues. The third benefit is that collaborative work will bring together alternative perspectives and ideas, thus stimulating creativity and innovation among researchers. Fourth, working together allows for "intellectual companionship" (p. 15) where scientists can develop a broader network of colleagues and peers within the scientific community which can then lead to enhanced visibility and impact of their work (p. 15). Following these notions, it would seem that, depending on the circumstances, the challenges to collaboration might heavily outweigh the benefits but the case is also true vice versa.

THE LIBRARIAN-FACULTY RELATIONSHIP

For informationists at Taubman, it has been decided that the benefits of collaboration outweigh the challenges to creating it. However, providing new facilities for faculty researchers does not automatically foster collaboration between two institutions; such efforts have to be built from both sides. To better understand how to build collaboration, it will be helpful to know how the librarian-faculty relationship commonly takes shape at a university. There are two sides to this relationship: librarians and faculty. Each side has its own needs, knowledge and culture that can serve to either improve or hinder collaboration between the two.

While librarians and faculty can collaborate in many ways, there are a few challenges to forming effective partnerships. The greatest barrier is that librarians are often underestimated as educators (Farber, 1999, p. 172). Faculty often "view [librarians] as subordinates, sometimes as research assistants or babysitters for classes during out-of-town conferences" (Hollander, Herbert & Stieglitz-DePalma, 2004). Other challenges include professors' lack of knowledge about library services, librarians' lack of specialty in specific subjects, librarians not knowing how to navigate faculty culture, and physical separation between the two groups (Dooley, 2009; Hollander, Herbert & Stieglitz-DePalma, 2004).

On the other side, faculty are often unwilling to pursue close working relationships with librarians, due to several characteristics of university faculty culture. Faculty are pressed for time, value their autonomy within the university, tend to emphasize research over teaching, and are generally resistant to change (Farber, 1999; Hardesty, 1995). All of these factors of faculty culture contribute to an unwillingness to reach out to librarians in search of collaboration.

POTENTIAL FOR INFORMATIONIST-FACULTY COLLABORATION

The research detailed above shows there are biases and obstacles on both sides of the faculty-librarian relationship that inhibit the creation of successful partnerships. However, this work focuses on faculty collaboration with librarians in a traditional role. At Taubman, informationists have a specialized role that may be able to break through these barriers. The informationist's goal of being research peers rather than service providers may help faculty see informationists as valued partners in instruction and research.

Methodological Overview

In order to obtain the necessary insights to provide Taubman with workable recommendations, our group utilized a user-centric contextual inquiry method for this analysis. This method involves initial background research about the issue, data collection via interviews of a representative sample of users from both Taubman and the DLHS, and finally, interpretation, analysis, and synthesis of our data.

INITIAL BACKGROUND RESEARCH

To better understand our client and our client's issue, our group performed initial background research into both Taubman and the DLHS prior to conducting our interviews. We examined current business to business communication methods, a scholarly literature review on best practices between academic libraries and researchers. and a scholarly literature review about collaboration in research.

INTERVIEWING

Our interview participants consisted of two informationists, three faculty researchers, one administrator from Taubman, and one administrator from the DLHS with varying levels of seniority in their respective departments and were selected with assistance from our client. Present at every interview were two group members who either took on the role of interviewer/moderator or notetaker. Each interview took place in our interview participant's workspace and is composed of an informal question-and-answer session followed by an observation period. Each interview was 60-90 minutes in duration resulting in approximately 525 minutes of data.

During the question-and-answer period, we focused on gathering an understanding of an informationist's role from both their own perspective and from the perspective of a DLHS faculty researchers. From there, we specifically inquired about the existing relationships and potential for future collaborations between informationists and researchers. During the observation phase, we watched our interview participants at work and would ask the occasional guestions to gain better understanding about their methodologies and workflow.

Our final interview was with an administrator at the DLHS and was conducted to understand how they—as someone who isn't actively participating in the exchange between informationists and faculty researchers—viewed the current relationship between both parties and what they are doing to facilitate more communication and collaboration.

ANALYSIS

Following each interview, our group would gather to debrief with one another and discuss our findings about the underlying principles and issues we observed. Additionally, the interviews were broken down into key data points about distinct findings and observations which were then individually recorded onto a post-it note. From seven interviews, we gathered approximately 500 interpretation notes.



After generating our interpretation notes from our interviews, our affinity wall allowed us to cluster related information together and to hierarchically organize them to generate key findings and discoveries.

Using an affinity wall, we grouped the notes by similarity to find commonalities among the interviews and to reveal key points and challenges about our client's issue. This process was iterated a total of three times until we determined five fundamental high level themes which represent the core concerns regarding our client's issue, the breakdowns in communication, and the constraints to workflow and quality. Our team then brainstormed several workable recommendations based on both these discoveries and on our initial background research.

Findings & Recommendations

I. INFORMATIONISTS ARE OVERWORKED AND OVERWHELMED

The most prevalent theme our group discovered while speaking with the informationists at Taubman is their inability to meet the demand that is placed on them. Informationists have many responsibilities within their jobs: they conduct systematic reviews, provide services such as citation management and information gathering, teach in courses taught by faculty of different departments, and provide consulting services for projects. Each of these roles creates a significant amount of work and requires time that informationists simply don't have.

Out of the three interviews we conducted with informationists, all of them spoke about the challenges of keeping up with the ever-increasing workload, while also maintaining their standard of producing high-quality work. We heard comments such as "Everybody is stretched really thin, [we're] pushed to the brink," and "all of us do a lot of 'jump off the dock and see if you swim." We also came to understand it is difficult for informationists to start new projects if they feel there is not enough time, because "once you commit to a certain level of skill and attention you have to continue to meet that." It seems that informationists feel trapped between providing quality service and providing service to everyone.

We discovered the most important factor creating this challenge is the number of informationists has not grown to meet the demands of the departments they serve. In fact, one interviewee confirmed that Taubman has actually experienced a loss in staff over the last few years, due to informationists switching departments or being promoted into different roles. This is such a large issue because several of the participants we spoke with indicated the departments they serve have all been expanding in the last few years. The growth of these departments is creating more demand for consultations, services, and collaboration, which the current informationists cannot meet.

RECOMMENDATIONS

We have come up with several suggestions to help alleviate the informationists' workload. They are:

- Hire additional informationists
 - » Adding more informationists would reduce the workload on each individual
 - This would also preserve the high quality of work that departments such as the DLHS have come to expect from Taubman
 - » While this solution may be difficult due to financial constraints, we feel it is the best way to maintain thorough and consistent collaborations with faculty researchers
- Conduct a thorough review of the workload of each informationist. Identify ways to reduce or redistribute work so informationists have time to perform all aspects of their job
 - » Informationists are currently juggling too many projects and responsibilities at once.
 - » We feel it would be helpful if administrators conducted a comprehensive evaluation of their projects and how their time is being used to find ways to either ease the workload or potentially re-distribute it to others that have the time or expertise to handle the work more quickly

II. COMMUNICATION BREAKDOWNS BETWEEN TAUBMAN AND THE DLHS

Collaboration is fueled by good communication between all parties involved. After speaking with faculty from Taubman and the DLHS, it became apparent there are several gaps in the communication process that are negatively impacting collaborative efforts.

Our group noticed a large divide between the amount of effort each side was willing to dedicate to creating and maintaining communication. Informationists appeared to be far more willing to communicate and begin collaborations. We heard statements such as, "we are very intentional about going out to their meetings as much as possible," and "you have to be willing to go to wherever the learning is happening." We discovered that informationists often hold office hours in their assigned department and attend informal gatherings, such as holiday parties, with their assigned departments. One informationist said, "even if I don't know what they're talking about...just being there and getting face time can [be a way to spark collaboration]." Each informationist we interviewed made several statements that aligned with these ideas. They go beyond their job descriptions to open avenues of communication with the DLHS and other departments.

In contrast, when we spoke with faculty members from the DLHS, there was not nearly as strong of an effort to communicate. Most, if not all, communication with informationists occurred when there was some need that an informationist could fulfill, such as helping with citations or explaining a piece of software that could be used. Any other communication for collaboration were typically saved for formal events, such as the Research Synergy Event, where informationists and DLHS faculty were given scheduled time to meet up and discuss projects and possible collaborations between the two groups. Additionally, all three DLHS faculty said they prioritize collaborations based on who will be most valuable to their research team. They agreed it can be difficult to collaborate with informationists on specific projects because they do not know the informationists' research backgrounds and interests.

While the primary communication issues stem from differing levels of effort put into it, secondary communication problems include:

- Communication breaks down after the initial phases of a collaboration
 - » Informationists feel disconnected from projects the further they progress
 - They receive little to no information as to the status of projects
 - Informationists must be proactive with faculty members, but it is often difficult to find the time
 - We heard statements such as, "usually I am involved at the beginning...and provide information for the final paper. Sometimes there is a big gap in there." This shows the disconnect they feel during a typical project timeline
- Informationists are not using efficient tools for communication
 - » Most communication with researchers is through emails and instant messages
 - » Each informationist we spoke with mentioned they found in-person meetings to be most useful
 - Informationists agreed that in-person meetings allow them to establish personal relationships with faculty from other departments
- Informationists are not acknowledged on published work in the way they expect
 - » Researchers sometimes do not acknowledge informationists who help with literature searches or systematic reviews
 - » One informationist believes "if you're on a systematic review, you're conducting research"

- In these events, informationists would expect to be co-authors of the final published work, which does not always happen

RECOMMENDATIONS

We have found that current communication is fragmented, inefficient, and lacking in several areas. To address these issues, our group has come up with several recommendations to increase the frequency and quality of communication between the two departments:

- Develop an online database of all the informationists' CVs
 - » An online database gives other departments the ability to learn about individual informationists and see what skills they have
 - » Researchers would be able to decide how an informationists' knowledge and skills can be applied to their project
 - This will foster communication and collaborative efforts
- Mandate that DLHS faculty go to informationists' office hours
 - » Informationists prefer to have face-to-face meetings to connect with potential collaborators
 - » Several informationists already hold regular office hours for faculty
 - » Mandating faculty researchers to go to a minimum number of office hours each year would ensure that informationists get time to introduce themselves to each member of their assigned department
 - » Faculty researchers, in turn, could discover if their projects align with an informationists' skills
- Create more formal and informal social events.
 - » Multiple participants found the Research Synergy Event to have been successful for creating communication
 - Additional events like this several times a year would give both departments scheduled time to interact with each other and share current research.
 - Informal social events, such as lunches or coffee breaks, could be designed to get informationists and DLHS faculty talking with one another
 - This will foster interpersonal relationships between faculty in each institution
 - These relationships have been shown to be a factor in starting a collaboration
- Standardize communication practices between informationists and the DLHS
 - » We found that communication breaks down over time
 - Standardized communication timelines and mandated check-ins could prevent a breakdown in communication
 - Additionally, informationists are not always acknowledged for their input in the way they expect
 - Mutually agreed-upon standards as to what merits acknowledgement and co-authorship would clear up such miscommunications

III. DIFFERENT VIEWS OF "SERVICE" VS. "COLLABORATION"

While speaking with DLHS faculty researchers, we heard several opinions regarding what distinguishes a service from a collaboration, and how DLHS faculty members view informationists from Taubman.

Of the three DLHS faculty members that we interviewed, all of them indicated they mainly work with informationists when they need additional services on projects they are working on, such as help with managing citations or gathering information. Informationists are experts in information, not the varied subjects DLHS faculty are working with. As such, they are seen as information gatekeepers, rather than true research collaborators.

One DLHS interviewee commented, "[informationists] can derive the value of it, but they won't have an appreciation of the topic and they will have to do a lot of work to get the same amount of perspective that an expert will." This interviewee also provided the following example: if a researcher is working on a project regarding cancer, they aren't going to seek out an informationist for information regarding that topic, they would go straight to an expert on cancer and seek their guidance instead.

Although DLHS faculty prefer the service aspect that informationists provide, many informationists are either too busy to meet their requests, or have little interest in providing services. Our Taubman interviewees agreed that although many service requests turn into collaborations, it is a waste of their time if all they do is provide services. In fact, they tend to not advertise their services, because "if we put a service out there and promoted it, we would get swamped; we wouldn't be able to fill the need."

RECOMMENDATIONS

To bridge the gap between providing services and collaboration, we've come up with a few recommendations:

- Create workshops that teach faculty of other departments how to perform many of the services that informationists currently offer
 - » A workshop would give faculty the tools they need to complete tasks on their own
 - This would allow informationists to focus more on collaboration and working as a research peer
- Have two divisions within Taubman: one focused on collaboration and research, the other focusing on providing services
 - » DLHS researchers look to informationists to provide services, and informationists agree services are "the foot in the door" to collaboration
 - » Creating two divisions would ease the responsibilities on research-oriented informationists, while still providing the services that the DLHS desires
- Revert back to service-based librarians rather than informationists
 - » We acknowledge that this recommendation is controversial
 - » However, it appears from our findings that DLHS faculty have little interest in collaborating with informationists in a research-peer capacity
 - This recommendation aligns with the perceived value informationists have to DLHS researchers, which is that of a service provider

IV. FUNDING LIMITS COLLABORATION

Both Taubman and the DLHS have limited funding, which affects collaboration. Without proper funding, collaborations are not possible. As one of the DLHS faculty researchers explained, "We need to be compensated for our time"

One of the main reasons funding is such a constraint on the collaboration between the two departments is because the mechanisms to acquire funding are confusing to use. They take a significant amount of time and resources, and both parties are so overwhelmed with their current work schedule they cannot spare additional time to find funding.

One of the participants we spoke with showed us the MCubed system, a common method of finding funding at the University. During the walkthrough of MCubed, the interviewee indicated several points where the process was confusing and required additional help to understand.

RECOMMENDATIONS

Collaboration cannot exist without proper funding, and we heard from participants on both sides how the lack of funding and difficulty to find funding has limited their involvement with each other. To address this issue, we have come up with a few recommendations that are aimed at increasing funding:

- · Increase efforts to reach out to alumni donors
- Modify the MCubed funding system
 - » Interviewees expressed frustration as to the limits of MCubed
 - » We were told that for the library, researchers cannot choose informationists directly; rather, the administrators choose how to distribute funds
 - » Lowering this restriction would allow researchers to connect and foster collaboration with informationists directly

V. LACK OF CLEAR UNDERSTANDING OF THE INFORMATIONIST ROLE

The term informationist is meant to distinguish what the informationists at Taubman do from the typical servicebased librarians in the University Library. However, all researchers we interviewed are unaware of the distinction between an informationist and a librarian. By extension, they are also unaware of the skills that informationists have compared to a librarian. This uncertainty impacted DLHS researcher's decisions to not pursue working with informationists as research peers.

Additionally, it appears that very little is being done to educate others about informationists, what skills they have, and how they can help with projects. In order for collaboration with other departments to be successful, it is crucial for Taubman to find a way to educate others about an informationists' role.

RECOMMENDATIONS

To remedy the lack of understanding when it comes to what informationists are and what skills they possess, we recommend:

- Create an educational workshop about informationists' roles
 - These workshops would focus on teaching research faculty about informationists, what skills they have, and how they can fit into various types of projects
- · Revise the Taubman website to include detailed descriptions of each informationist
 - The current Taubman website includes a very brief explanation of what an informationist is
 - » As we learned throughout our interviews, informationists have a multitude of roles and ways they can contribute to projects
 - » The website should include information about each informationist in detail, including their research interests and projects they have completed

Conclusion

Informationists at the Taubman Health Sciences Library have the goal of forming peer-level collaborations with research faculty. A recent renovation has made the physical space of the library conducive to such collaboration, but there has still been difficulty connecting with researchers on the desired level. Our task was to discover ways to increase communication and better foster collaboration between Taubman and one department at the University of Michigan Medical School – the Department of Learning Health Sciences (DLHS).

Through reviews of scholarly research and interviews with informationists, faculty researchers, and administrators, we compiled five key findings. The two highest level findings are:

- Informationists are overworked and overwhelmed
- There are communication breakdowns between Taubman and the DLHS.

To address these findings, we recommend that the Taubman Library:

- Hire additional informationists
- · Conduct a thorough review of the workload of each informationist, to identify ways to reduce or redistribute work
- Standardize communication practices between informationists and researchers
- Revise the Taubman website to include detailed descriptions of each informationist

Although a total of 16 recommendations were mentioned in this report, to address one of the major findings, we believe these four are the most feasible and will be the most effective in improving communication and collaboration between Taubman and all of its faculty research partners.

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