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Collaborative Assessment and Survey Administration: A MISO Survey Case Study

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Cases on Establishing Effective Collaborations in Academic Libraries

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Chapter 9 Collaborative Assessment and Survey Administration: A MISO Survey Case Study

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EXECUTIVE SUMMARY

The Managing Information Services Outcomes (MISO) Survey was originally developed in 2005 at Bryn Mawr College in Pennsylvania, USA by staff from a consortium of higher education institutions to assess library and technology services using a single instrument. Since then, the survey has grown and changed under the collaborative management of an all-volunteer team of library and IT professionals from various participating institutions throughout the United States. The survey has been implemented at 171 institutions. This chapter reviews the guiding principles, ongoing partnerships, and the value of working across departments, across campuses, and across cohorts of participating institutions to leverage local expertise, reduce costs, and create a culture of collaboration and assessment. In an environment where libraries are increasingly dependent on information technology, assessing library services in the context of IT brings layered intelligence to data-informed decision making.

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INTRODUCTION

In 2010, the Association of College and Research Libraries (ACRL) published the *Value of Academic Libraries: A Comprehensive Research Review and Report.* The study represented the Association's recognition of the importance of libraries in the conversation on assessment, accountability, and value across higher education that had been brewing for decades (Oakleaf, 2010). The same trend, pushing higher education to adapt more data-informed practices, challenged library and information technology (IT) organizations serving all types of institutions. A group of small liberal arts college library and IT professionals have been working collaboratively for almost 20 years in order to meet this challenge through the use of an instrument called the Managing Information Services Outcomes (MISO) Survey. The following case study will review the history, guiding principles, and ongoing partnerships of the survey, while exploring the value of working across departments (library and IT), across campuses, and across cohorts of participating institutions to leverage local expertise, reduce costs, and create a culture of collaboration and assessment. The MISO Survey provides academic libraries and IT organizations comprehensive data on library and technology services in an economic environment where every decision counts.

The chapter will also introduce the MISO Survey Leadership Team's process in developing a collaborative research agenda as well as some recent insights from the data. It will conclude by addressing issues of sustainability and discussing the difficulties of maintaining a volunteer group of experts in a collaborative project during an era of increasing financial austerity. The chapter will also touch upon the question of the future of online surveys in the context of higher education.

While the MISO Survey Leadership Team was developed to fit the needs of a unique set of circumstances, it can provide a model of inter-institutional collaboration to better serve the needs of higher education library and IT communities.

ASSESSING LIBRARY AND IT ORGANIZATIONS

Academic libraries have a long history, and the first higher education institution, University of al-Qarawiyyin in Morocco, arguably has the oldest academic library still in existence, founded circa A.D. 859 (Oswald, 2017). Many institutions of higher education in the United States have started with the gift of a library. Just as John Harvard's personal book collection formed the basis of his eponymous university's first library, libraries have been, and continue to be central to the creation of a university, although funding for their continuance was never assured (Shiflett, 1981). As part of the growth of higher education in the United States following the Morrill Act (Britannica, 2019), libraries grew alongside their respective universities, and size became arguably the easiest way to assess collections. But size, especially for smaller libraries, was not a good indicator of the usefulness of, or satisfaction with, library and IT services. General academic surveys such as those produced by The Higher Education Data Sharing Consortium might include a limited set of library questions, but do not provide enough context to truly assess the full range of library and IT service offerings. As Charles Henry, President of the Council on Library and Information Resources, (CLIR) wrote, the "collecting numerical statistics—the counting of books, journals, digital objects, subscriptions, datasets, staff, and dollars—is inadequate to capture the dynamic response of modern research libraries at the analog-digital boundary" (Henry, 2013). At the same time, anecdotal evidence was insufficient to satisfy administrators who were increasingly asked to provide evidence to support decisions. As a "culture of assessment" grew in libraries in the latter half of the 20th century, leaders were urged to create frameworks to support continuous assessment in order to ensure maximum positive outcomes for services and collections (Lakos & Phipps, 2004). But how could small academic libraries, with limited staff and expertise, assess services and analyze the results of those assessments on their own? Staying up to date in the profession was already hard enough, and few library or IT staff had in-house expertise to create survey instruments and analyze the collected data.

Academic libraries have a long and rich history of intra-university collaboration, and sharing resources forms the backbone of services such as interlibrary loan (Crowe, 2009). Nevertheless, shared assessment among information organizations is a relatively rare application of collaboration. The ACRL Academic Library Trends and Statistics Survey, which shares information with the United States' federal Integrated Postsecondary Education Data System (IPEDS), provides basic statistical access to selfreported information about budgets, staffing, and collections, but does not survey users on importance or satisfaction. Patron surveys such as LibQual allow benchmarking across institutions but are centrally developed and deployed by paid Association of Research Libraries staff (Thompson, n.d.). The Higher Education TechQual+ Project was a shared instrument with information technology organizations, but it lacked shared management and ended with the principal investigator's retirement (Chester, 2020). The ACRL Assessment in Action project was meant to create translatable case studies, but not designed to be collaborative (ACRL, 2012). The ITHAKA S+R surveys, started in 2013, are interesting counterparts to the MISO Survey, but are created and supported by a considerable number of central staff, at a considerable cost (ITHAKA S+R, 2021).

Collaboration among libraries has grown much faster than collaborative assessment among libraries. The MISO Survey was the result of a unique vision for sharing capacity and expertise. The outputs are like other surveys, but the original story is very different.

At the end of the 20th century, liberal arts colleges were following a trend of becoming "merged" organizations, called MISO organizations, where library and IT departments reported up to a single chief information officer (CIO) or dean (Stemmer, 2007). In 2002, following key retirements and considerable campus-wide conversations, Bryn Mawr College's library and computing services merged into a unit called Information Services (Shore, 2021). This new kind of organizational structure necessitated a new way to assess services. While there were existing surveys that measured library performance and IT performance, there was not an instrument to measure both. This lack of an instrument was frustrating to Elliott Shore, the CIO of Bryn Mawr College. Shore charged David Consiglio, a staff member with statistical and survey design expertise, with developing an instrument. The survey was presented to Bryn Mawr in 2004 with the following rationale:

As the two-year anniversary of the reorganization approached, Information Services wanted to assess whether the reorganization had improved its services to the community. Information Services staff decided that a survey of the community would play a major role in the assessment process.

Finding a preexisting survey that would cover the wide range of services provided by Information Services proved to be quite difficult and the organization decided to create a custom survey. A team of Information Services staff members, including an on-staff expert in the field of survey methodology and statistics, crafted one survey instrument for each of the major clients the department served: faculty,

Collaborative Assessment and Survey Administration

students, and staff. The survey was launched late in Spring 2004. Its results greatly aided the department in identifying areas in which services could be improved. (Shore, 2012, p. 195)

The results of this survey focusing on the importance and satisfaction of services were useful in planning and assessing services in Bryn Mawr's information environment. Subsequently, Shore, who was a member of the Council of Library and Information Resources (CLIR) CIOs group, shared the results of the survey with other leaders in the group. The CLIR/CIOs was a professional organization for leaders who worked at the intersections of libraries and IT. The group allowed those in charge to consider their work as an organic whole. The CLIR/CIOs saw value in the instrument, and many asked if they could use the survey at their own institutions. Shore and his team saw this as a "golden opportunity" to do something bigger and in the process aid the schools far more than could be done by just sharing the Bryn Mawr instruments. The CLIR/CIOs decided that in order to gather the most useful information, a common survey should be employed across many campuses. This would allow each school to learn from the survey data gathered on its campus and compare itself to a group of peer institutions. In addition, by conducting the survey each year, each institution would be able to evaluate its services longitudinally (MISO Survey, 2020). Collaboration was going to be the key to solving a shared problem, and by sharing resources and expertise, a new means of assessment would be created.

At Shore's request, Consiglio convened a team of decision makers from Bates College, Middlebury College, the University of Richmond, and Wellesley College to collaboratively create the initial MISO Survey instrument. While the instrument was inspired by the Bryn Mawr prototype, the new survey was developed from the ground up. Consiglio deliberately chose an odd number of collaborators for the initial team, so there could never be a tied decision. From the initial survey in 2005, the survey has always been collaboratively managed, and the data has allowed for comparisons across campuses. The "Bryn Mawr Survey" was rebranded as the MISO Survey and was opened more broadly to schools of all types in 2012.

As of 2022, more than 171 institutions have participated in the MISO Survey, representing an increasingly diverse array of institutions and management structures ranging from research universities to community colleges to liberal arts colleges. Over 358,024 faculty, undergraduate student, and staff responses have been collected to date. Of the more than 171 MISO institutions, the majority are in the liberal arts sector, with the country's top liberal arts colleges well represented in the pool. More than 70% of the *U.S. News and World Report*'s top 50 National Liberal Arts Colleges have participated in the MISO Survey (U.S.News, 2022). In recent years, the institution types using MISO have diversified considerably including research universities, community colleges, and public four-year institutions, representing all types of library and IT reporting structures. It is interesting to note that despite the expansion of institutional types, the MISO Survey Leadership Team has not needed to make substantial alterations to the structure of the survey, validating the initial flexible, extensible design over time. The survey can also be customized to be a library-only or IT-only instrument, depending upon local assessment needs.

The inclusion of both library and technology services in the same survey instrument recognizes the inextricable link between these services. Furthermore, it permits the comparison of results across a greater range of core teaching, learning, and research services in higher education. By including this array of services in the same survey, more context is given to observed results, and more opportunities to work together can emerge. As Shore noted, the "very process of creating the survey was illuminating" to the practitioners and administrators involved (Shore, 2021, p. 195).

The Survey Today

The MISO Survey has been guided by a consistent set of principles. The guiding principles optimize the validity, reliability, and comparability of the quantitative survey data collected while meeting both the individual and the shared needs of the participating institutions.

MISO Principle 1: Assess library and technology services in a single survey.

MISO Principle 2: Meet the specialized assessment needs of each institution while producing comparable results across institutions.

MISO Principle 3: Ensure that results represent what they purport to represent.

The MISO Survey could be viewed as a comprehensive customer satisfaction assessment tool for library and technology services and resources. The survey asks constituents to report the frequency of use, the importance, and their satisfaction with different library and technology service points and resources. However, the survey is not limited to the customer satisfaction elements inherent in the measurements identified above. The MISO Survey also offers assessment of aspects of communication with campus constituents, staff attributes at key service points, respondents' self-reported fluency and interest in further learning a variety of technology and library skills, how library and technology tools are used, ownership of various electronic devices, constituent demographics, and respondents' comments. It also allows institutions to add locally developed questions for maximum customization.

The MISO Survey has nearly 500 possible points of measurement, which allows institutions to determine the effectiveness of library and technology services and resources from the perspective of campus constituents. The survey is three complimentary instruments used to survey all teaching faculty, a random sample of undergraduate students, and all staff (excluding library and IT staff). A significant portion of the survey's potential points of measurement are dedicated to measuring the frequency of use, the level of importance, and the level of satisfaction with key service points as reported by these constituents. Special populations (graduate students, others) can be added by participating schools. The MISO Survey also gauges the effectiveness of communication by measuring how informed respondents believe they are about library and technology services and decision-making processes. Any one of these single inputs can provide valuable information, but when institutions begin to use these inputs within the overall context of the data collected, a clear picture emerges that can guide sound decisions on complex matters such as prioritization of resources.

In addition to gaining an understanding of constituents' perspectives about the provision of library and technology services and resources, the survey also provides a great deal of insight into the constituents themselves, their work styles, and their needs. Among other things, these include the following:

- How skilled are our constituents in the use of library databases and software?
- What additional skills do they wish to learn, and how do they wish to learn them?
- Which software and hardware tools do our constituents use, and which of these tools do they own?
- What roles do our constituents play on campus?
- What demographic factors identify them?

As the landscape of higher education continues to evolve, many organizations are concerned not only with effective delivery of services and resources, but also with the impact of services and resources on faculty and student academic pursuits. To address this new direction in assessment, the MISO Survey has introduced a series of items participating institutions can use to measure the academic impact of library and technology services and resources.

New items and future iterations of the survey are developed in a collaborative fashion. Because schools can create local questions, the survey team mines those questions for ideas and leverages its own knowledge as current practitioners in making future versions of the survey. The team also communicates with participants to determine the need for change. Outreach to participating schools has included informational interviews, surveys, and focus groups.

At times, the survey expands to address new concerns and to reflect changes in assessment trends. For example, new Net Promoter Score questions (How likely is it that you would recommend College/ University's library services [IT services] to a colleague?) were proposed and tested in 2017 and added to the survey in 2018. This addition was in response to changes in survey methodology in the consumer sector, and was not without some controversy (Reichheld, 2003). Reducing services to a single score can be tricky in a higher education context, and expanding the length of the survey, and the number of choices to be made by survey administrators, is a valid concern.

Some changes to the survey occur more rapidly in response to dynamic, real-world challenges. In the summer of 2020, the MISO Survey Leadership Team determined that there was going to be a need to add items to the survey in response to the COVID-19 pandemic. A series of questions regarding course modality, location, and access to resources was quickly tested and added to the survey.

Meeting Local Assessment Needs While Creating Comparable Results

The MISO Survey seeks to meet the specialized assessment needs of each institution while producing comparable results across institutions. The MISO Survey recognizes that many institutions experience a fundamental tension between gathering data on specific important local issues and benchmarking against peer institutions. One way that the MISO Survey resolves this tension is by offering a broad selection of almost 500 rigorously tested items from which an institution may choose when designing its customized survey instrument. The result is that individual institutions can select standardized, tested survey items that meet local data collection needs while permitting peer benchmarking. A small number of core items are recommended, but not required, for inclusion. If an institution cannot find an established item that meets their data needs, they are permitted to add institutionally developed points of measurement to the survey either as entirely new questions or as items within existing questions. These local items and questions are not included in benchmarks assembled by the MISO Survey, but they do allow an institution to gather any local data deemed necessary to achieve their assessment goals.

Testing the Survey

It is equally important that the survey instrument remains timely, and the survey items represent what they purport to measure. The MISO Survey Leadership Team accomplishes this in several ways. First, because the team consists of IT and library practitioners, the survey's development continually reflects the emerging challenges in IT and libraries faced by each team member. The MISO Survey Leadership Team meets on a weekly basis to maintain, modify, and administer the instrument. Each member of the team works closely with Campus Survey Administrators (CSAs) in order to gather feedback about the survey on a continual basis. This feedback is recorded, shared, and acted upon when appropriate. The MISO Survey Leadership Team also carefully examines locally developed items used by participating institutions and evaluates frequently used local items for inclusion as part of the core survey.

Most importantly, the MISO Survey Leadership Team regularly and rigorously tests core questions and items on the survey to confirm that the surveyed populations consistently interpret the questions as they are intended to be interpreted. This testing includes focus group testing and one-on-one interviews with representatives across all three standard populations at multiple colleges and universities. Through this process, questions can be found to be "broken" and appropriate action will take place. In some cases, this means removing an item that is no longer understood properly by a population. An example of this process would be the elimination of the item "the wired network" in questions from the student survey. In other cases, questions might be reworded and re-tested in an iterative process. In addition, statistical tests are used to validate results for their shared meaning.

Representative Results

In order to have truly representative results, those who respond to the survey must properly represent the populations from which they are drawn, and survey items must measure what they purport to measure. Proper representation of populations is best accomplished by drawing representative samples from surveyed populations and achieving high response rates from those samples. Throughout its decade of existence, the MISO Survey has placed a very high priority on ensuring appropriate sampling and maximizing response rates. In creating the survey sample, participating institutions provide necessary information about the populations to be surveyed, and MISO Survey administrators create the sample. This method ensures consistency of sampling across the institutions and removes the burden of creating the samples from the participating institutions. For most institutions, the faculty and staff samples are the full populations, and the undergraduate student participants are chosen using stratified random sampling techniques. In some instances, with small institutions, the sample may include all undergraduate students.

Each institution's CSA is critical to the successful administration of the MISO Survey. The CSA plays a key role in developing their institution's customized survey instruments and in deploying the survey. Additionally, the CSA acts as the primary point of contact between their institution and the MISO Survey Leadership Team and serves as the principal resource for campus community members regarding their participation in the MISO Survey.

The MISO Survey Leadership Team provides a great deal of structure, support, and instruction for CSAs. Current CSAs are encouraged to attend multiple web-based survey-preparation workshops at which MISO Survey Leadership Team members instruct CSAs about the intricacies of the survey, coach them on practical matters regarding survey implementation, and encourage them to ask questions, provide feedback, and learn from peers. Throughout the survey cycle, each CSA is assigned a liaison from the MISO Survey Leadership Team to provide high-level support and advice as needed throughout the process of survey preparation. All members of the MISO Survey Leadership Team that act as liaisons have been CSAs at their own institutions and draw on this experience in offering insights. In fact, many current and past members of the MISO Survey Leadership Team were first identified as matches for the team based on their CSA experiences.

Survey length and design are important factors in determining response rates. The longer the survey, the more likely it is that frustrated respondents will decide not to complete the survey. Additionally, different populations (faculty, undergraduate students, and staff) have different frustration thresholds and local idiosyncrasies. The CSA must be mindful of these important realities as they conduct their surveys.

Institutions administering the survey generally want to maximize the number of items to gather as much pertinent data as possible. Therefore, it is critical to determine accurately the "sweet spot" between the number of items that can be asked versus the point at which users will cease responding to the survey before they have completed it. The MISO Survey Leadership Team supplies what is referred to as the Decision Spreadsheet, which provides significant assistance to CSAs to achieve this goal. The Decision Spreadsheet allows a CSA to record the items to be asked of each population, and it employs simple visual cues to indicate when the survey reaches lengths that will negatively affect response rates.

In addition to well-designed survey instruments, the MISO Survey maximizes response rates by sending highly tested, personalized messages to each potential respondent. Each message is crafted to motivate the potential respondent to participate in the survey. The messages have been modified and experimentally tested for their impact on response rates. Each year, the median national MISO Survey response rates typically are as follows:

- Faculty: ~60%
- Undergraduates: ~50%
- Staff: ~55%

The MISO Survey Leadership Team constantly strives to adjust the messages to generate even greater response rates.

Delivering Results

The MISO Survey Leadership Team strives to make survey results as useful and actionable as possible for participating institutions by delivering them in a timely fashion and user-friendly manner. Designated individuals at each participating organization receive detailed results for each population surveyed as well as summarized results in a variety of formats, including SPSS, CSV, and PDF. This approach enables virtually any recipient to make immediate use of the results and to work with them to the degree with which they are comfortable.

In addition to the individual institutional results that are delivered, each participating institution also receives access to Excel-formatted "Results Workbooks" that contain the five most recent years of data for each of the three standard populations (faculty, undergraduate students, and staff). The Results Workbooks allow clients to easily analyze survey results from their own institution and compare those results against those from other institutions. The Results Workbooks simplify analysis by enabling the rapid creation of comparison groups consisting of one or multiple institutions. The Results Workbooks also enable an institution to generate longitudinal comparisons, either against other institutions or their own results if they have participated in the survey more than one time. Once comparison groups have been established, the Results Workbooks display results including the number of responses, means, standard deviation, effect size, and statistical difference indicators. The ease of access to this data is convenient for non-statisticians, and it allows for quick but highly informative analyses. The Results Workbooks also provide access to the aggregate Results Workbooks in the years it does not participate.

As the MISO Survey expanded in both the items measured and the number of unique participants, the full data set was becoming increasingly challenging to handle in Excel. In response to this reality, the MISO Survey Leadership Team developed a now-defunct MISOSurveyResults.org website, requiring custom coding on a Drupal 7 application. The website had all the functionality of the Results Workbooks, plus new features that were not available to institutions working with the Excel spreadsheets, such as the ability to compare data across populations. While users were generally pleased with the new platform, the direct and indirect costs to maintain, upgrade, and improve a secure, custom, survey-results delivery platform was prohibitive to a survey run on mostly volunteer labor. In 2019, the MISO Survey Leadership Team began seeking a replacement for the current results application prior to the anticipated end of life for Drupal 7.

The MISO Survey Results website was decommissioned in 2020. It was an exciting experiment in web-based data sharing and analysis, but not a sustainable model for an all-volunteer organization trying to minimize expenses for participants. Survey administrators have returned to delivering results in Excel while exploring options. Learning from the team's experience with a custom solution, the team seeks to transition to a service that leverages a vended solution (not custom code) and relies on an organization for management and support (not a solo contractor). MISO must continue to provide a service that enables participating schools to analyze results and compare them, with statistical testing, across peer institutions and over time. Requirements generated from qualitative user research will inform the key requirements of the new service. According to the team's consultation with the MISO Survey community, any new solution should encompass the following:

- Include visualizations.
- Provide basic yet high-value reports (executive summary, service gap, comparison to peers, change over time).
- Enhance pre-built reporting.
- Allow for filtering, faceting, and peer comparisons.
- Ability to save cohorts and constructed queries.

In the meantime, data is stored by Bryn Mawr College following the current standards-based policies and procedures, which ensure data security and privacy.

Research and Publishing

The same team that developed the survey has been involved in much of the national-level research that has emerged from the survey. Much of that research has been shared through formal presentations, papers, and book chapters.

Initial results of the collaborative surveys were shared in MISO Symposiums scheduled in conjunction with the annual EDUCAUSE conference. The first symposium in 2006 shared the results of the 20 schools in the initial cohort and provided insights to device ownership, use of technological tools, and satisfaction with services (Consiglio et al., 2006). After three years, the cohort had grown to 32 participating schools, and the symposium was retired in favor of presenting as a part of established conferences such as EDUCAUSE, the ACRL, and the Consortium of Liberal Arts Colleges.

Notable publications include a 2011 EDUCAUSE Center for Analysis and Research bulletin (Consiglio et al., 2011). Survey results have also been published in peer-reviewed journals such as *Performance Measurement and Metrics*, and the survey has been included in volumes such as ACRL's (2015) *Reviewing the Academic Library: A Guide to Self-Study and External Review*.

Collaborative Assessment and Survey Administration

In keeping with the collaborative nature of the project, some of this research and reporting has been collaborative, including work with staff from LibQual (Kyrillidou & Consiglio). While the survey instrument has not been tested for use in non-English speaking institutions, the survey has been introduced to international audiences as part of the International Conference on Qualitative and Quantitative Methods in Libraries and the International Conference on Performance Measurement in Libraries and Information Services.

The MISO Survey Leadership Team is striving to parse the information generated from the survey and share the results in contexts that will allow decision makers to extrapolate a successful strategy from the interplay of data. The team's research agenda is collaboratively developed after reviewing benchmarks and trends revealed in recent iterations of the survey. The agenda is informed by each individual team member's interests and their own institution's goals and objectives. As such, the agenda often parallel trends and questions being asked throughout higher education in general. Recent research has explored factors influencing satisfaction with IT and library services, the influence of leadership change on overall satisfaction with services, and communication in IT organizations. Not surprisingly, the team's current research has been focused on diversity, equity, and inclusion issues. Recognizing that many of higher education organizations struggle to answer some of the most basic questions, such as if students of color experience IT and library services differently than their peers, the team has mined data from the past three years to determine how library and IT services contribute to the achievement of academic goals for students of color.

The team has also consulted with schools that have published or presented their own scholarship based on MISO data in accordance with the Information Sharing Agreement.

MANAGEMENT TEAM LOGISTICS

The MISO Survey Leadership Team is currently made up of six volunteer members, supported by one parttime paid administrator. The team holds weekly meetings online and meets for several days of dedicated work, in person or virtually, three to four times per year. There is a balance on the team of professionals working in both "librarian" and "technologist" roles, although those distinctions are increasingly blurred.

Management of the survey by practitioners in their respective fields ensures that the survey content and implementation reflect current concerns and trends in information technology and libraries in higher education. Team members learn more about their own institutions in the process and bring value back to their home organizations. These professionals work collaboratively, both amongst themselves and with representatives of participating institutions, to maximize the value of the survey to participating institutions. This value is also shared through collaborative training, instruction, and interactive workshops for CSAs.

The team continues to evolve as members rotate through what is initially a three-year commitment. Being on the team has measurable results—several team members have moved into senior leadership roles at their institutions, in part because of the skills and networks developed through working on the survey. The next steps will involve succession planning as the originators of the survey look forward to next stages in their careers. Succession planning is never easy, and is a common challenge for non-profits, where only a quarter of organizations report having a plan in place (National Council of Nonprofits, 2022). Planning for leadership transition is key, lest the survey follow the route of other instruments, such as TechQual, which ended with the retirement of the principal investigator. In addition, the dangers to a survey run by volunteer collaborators are somewhat obvious. The survey has enjoyed the support of extraordinary team members, and without them the survey might collapse. At the same time, team members have noted that the genial team dynamic in some cases keeps them from getting some things done in order to preserve relationships.

Achieving team membership is not through luck. Elliot Shore's initial collaboration with CLIR/ CIOs helped to establish an initial team, and recruiting team members through CSAs, workshops, and other professional groups such as Leading Change has been intentional, deliberate, and successful. The downside of this relational recruitment in the early years of the survey was that it made for a rather homogenous team. Recruiting from inside of one's own network can result in overrepresentation of white, male, elite college team members. A more intentional focus on recruiting for diversity of all types will hopefully expand and improve the team and its work.

The level of the MISO Survey's distinctive inter-institutional collaboration might be difficult to replicate in an era of ever-increasing financial austerity. Economic restraints are straining the resources in all institutions of higher education, and the team recognizes that any collaborative cross-institutional research group requires investments from the hosting institution. The survey relies upon Bryn Mawr College's infrastructure for legal reviews, storage of data, and some nominal administrative services. The survey's costs are set in order to recoup part of the expenses of creating, validating, and administering the survey; storing the data; and making data sets available to participating institutions. MISO holds a unique place in the library and IT assessment community, and the need for a survey that is well tested and produces comparable results has not diminished. The distributed management model of MISO is unique, with the leadership burden shared on a rotating, but admittedly unequal basis between member schools. To date, 19 schools in addition to Bryn Mawr College have supplied leadership for the survey, and one corporation, Longsight.

There have been times when team dynamics have not worked, and careful professional management by the survey's principal investigator was required. But in general, the collaborative, collegial nature of the team has led to the growth and success of the MISO Survey. In an era where libraries are so much more than buildings, and information technology is so much more than a local network, the MISO instrument has become a beacon of high-quality quantitative assessment and a symbol of the success of visionary collaboration to improve services in higher education. The individual team members each bring insight and expertise, but the whole of the team is truly greater than the sum of its parts.

As the MISO Survey Leadership Team ponders its own future, it must necessarily consider the future of surveys in general. The Executive Summary of the 2021 Duke Future of Survey Research Conference proposes that the future of surveys was at a crossroads. One of the key findings of the international multiday conference was that "the prevalence of low-quality surveys damages all survey research" and that "every bad survey endangers all surveys" (Madison & Cooper, 2021, p. 2). Currently, the MISO Survey Leadership Team is aware of the need to stay abreast of current research and to continue to communicate the value of providing rigorous, well-tested survey instruments for the academic library and IT community. The team also needs to be better prepared and able to disseminate quality research to stakeholders.

The team is also aware of the "beautiful marriage between qualitative and quantitative data" that needs to be used more by practitioners in general (Furlong, 2014). Too much reliance on one method of information gathering gives researchers an incomplete picture of what is happening in an organization. Qualitative data give stories and narratives that can feed quantitative measures. The best research utilizes both kinds of data in an elegantly iterative, mixed-methods approach. Having time and capacity to do this kind of research is a challenge and a choice that organizations should prioritize.

CONCLUSION

The MISO Survey's unique management team structure allows the delivery of high quality, customizable survey instruments that effectively assess the ways in which faculty, undergraduate students, and staff view library and technology services at colleges and universities. In keeping with the dynamic nature of the technology and library services fields in academia, the MISO Survey Leadership Team constantly evolves with the changing environment in which libraries and technology organizations operate, and in so doing expands the value derived from its implementation. As assessment efforts become more mature and widespread in higher education, the MISO Survey provides an example of how a collaboratively managed assessment tool can be successful by adhering to a clear mission rooted in a firm grasp of the information and technology landscape, possessing a sharp focus on continual improvement, and maintaining attentiveness to institutions that use the survey.

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KEY TERMS AND DEFINITIONS

Assessment: The process of defining, selecting, designing, collecting, analyzing, interpreting, and using information to understand and improve services.

Benchmarking: Evaluating or checking a data point by comparison with a standard.

CSV: A "comma-separated values" delimited text file in which data elements are separated by a comma. **Data:** Facts and statistics collected together for reference or analysis.

Data Set: A collection of numbers or values related to a discrete subject and organized into a structure.

Data-Informed Decision Making: Relying on measurable data to guide the process of making a management decision in an organization.

Drupal: An open-source web content management system.

Effect Size: A quantitative measure of the strength of the relationship between two variables. It reveals the practical significance of a research finding.

Excel: A spreadsheet software program developed by Microsoft Corporation.

Information Sharing Agreement: A contract indicating what data can be shared, appropriate uses for the data, standards for data storage and use, and other prescriptive requirements.

Information Technology: The use of any computers, storage, networking and other physical devices, infrastructure, and processes to create, process, store, secure, and exchange all forms of electronic data.

Liberal Arts: Academic subjects such as literature, philosophy, mathematics, and social and physical sciences as distinct from professional and technical subjects.

Morrill Act: The Land-Grant College Act of the 1862 United States Congress. Named for Vermont Senator Justin Smith Morrill.

Net Promoter Score: A measure of customer experience inferring loyalty, developed in marketing research.

PDF: Abbreviation for "Portable Document Format." A file format developed by Adobe Corporation to present documents independent of software or operating system.

Qualitative Data: Data that is non-numerical. Also called categorical data.

Quantitative Data: Data that can be counted (quantified) in numerical form.

Response Rates: In a survey, the number of responses divided by the entire sample. Also called the completion rate.

Results Workbooks: For the MISO Survey, the individual campus survey data packaged in a file for ease of analysis and comparison.

Sample: A part of a population. When used in surveys, it refers to the specific group from which data is collected.

SPSS: Data analysis software developed by IBM Corporation.

Standard Deviation: A measure of how "spread out" the data is from the average value (mean) within a data set.

Survey Instrument: The questionnaire used to gather information from respondents.

Survey Testing: the process of evaluating a survey instrument and validating the questions and items in a survey to ensure the quality of the data collected.

Visualizations: The graphical representation of data through visual elements.