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Library Analytics: Shaping the Future — Building an Analytics Culture

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Library analytics, learning analytics, digital analytics — these are more than just buzzwords in the library profession, they are established practices. Libraries may focus on one or two of these analytics practices that analyze different slices of data (with some overlap) for very different outcomes. Yet, underlying all these different analytics practices is data. A culture of analytics is an organizational commitment to collect and analyze data to make decisions. It embeds the practice of data-driven decision-making throughout the organization. Data is intentionally and actively gathered and analyzed as part of daily workflows so data is ready and available when a decision needs to be made. A culture of analytics is practiced at different levels in an organization from top administration to the forward-facing library service points. Even if a library does not have an established analytics culture, there may be individuals or departments that are moving in that direction.

Moving towards an analytics culture does have its challenges. As noted in a previous column, **Forsman** highlighted that much of the data generated by libraries are kept in separate, siloed library systems.¹ For example, assessing the use of a library's entire collection is complicated by the various systems involved. A library may measure the use of physical items using circulation statistics generated in an ILS, but electronic resources (online journal articles, eBooks, etc.) are measured using COUNTER reports in a separate data analysis tool. Different departments or teams may work with these systems and never communicate with one another which adds another barrier to fully leveraging library data across the institution.

An analytics culture breaks down those data silos or, at least, enables the data to flow out of those silos to the individuals that need to analyze the data. A successful analytics culture needs strong library administration support to facilitate the open sharing of data, but it also needs support throughout all levels of the organization. No matter what position you have in the library, you most likely handle some type of data. Data has value — circulation statistics, webpage views, reference transactions, number of items cataloged are a few data points commonly collected in libraries and all these data points have value. Circulation statistics

and webpage views demonstrate the popularity of content to our users, reference transactions reveal what our users need assistance with, and the number of items cataloged informs of internal work productivity.

It is easy to overlook the potential value of data if it is isolated from other parts of the organization because that value changes depending on who is analyzing the data and the context in which it is analyzed. As mentioned earlier, reference desk transactions can be used to measure the activity of the reference desk, but that same data can be used by administration to determine staffing based on the amount of interactions at specific time periods. That data can also be used to identify problems or gaps

you access. How does your department value that data? How would other departments use that data? What value does that data contribute to the whole library?

It may not be possible to answer all these questions at once, but understanding the value of data to the department can start the conversation. My analytics experience started with analyzing traffic to the library website using Google Analytics. At first, I only used the data to determine the number of visitors or sessions to the library website for annual reporting. Then I saw the value of using that data for a website redesign by analyzing the content to migrate based on user engagement. After that successful use of the

data, I started using it to identify potential problems, such as low engagement webpages, on the new library website. The more I used the data, the more I invested time to intentionally customizing the software to collect and report more data points. With more data, I was able to make more informed decisions which is useful to my department. Once I understood the value of the data, I was able to envision how other departments could use it. I was able to scale our Google Analytics implementation to other components of the library web presence including the OPAC, discovery layer, and link resolver. While each system is different and requires unique tracking configurations, there



are common data points collected in all three systems such as search queries, failed searches and clicks to electronic resources. It is now possible to compare the performance of all three search systems using these common data points. Another bonus is this data can be used for other analytics projects such as improving search interfaces by finding common fail points in user searches, enhancing instructional services by learning why searches failed and even influencing collection development by seeing the content users are searching for to determine future acquisitions. The investment in that data grows as its impact expands beyond an individual department.

Anderson finds a successful data-driven culture is an organization where "the data is not 'owned' by those individual teams but that they belong to the organization as a whole."³ Data is meant to be shared. If your library is in the early stages of adopting analytics practices, you

How can you help build an analytics culture in your library? **Farkas, Hinchliffe, and Houk** conclude there is not one method to ensure the successful adoption of a culture of assessment in libraries.² While the culture of assessment and culture of analytics are not the same, creating any type of organizational culture involves all levels in the library. This includes you. Start by understanding the value of the data

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continued on page 76

most likely do not have access to an institutional data warehouse where you could share data. You can still promote the culture of analytics by sharing the data using whatever means you have. Start small by connecting people who can use the data to the data. While I am the administrator for my library's Google Analytics accounts, I recognize it is my responsibility to share that data with the people in my library who can use it. Connecting people to data is another challenge because that data must be accessible to those individuals. Some people need direct access to data for analysis and manipulation, while others may only want a report that outlines the data findings. In my Google Analytics example, there are individuals I provide direct access to our account to analyze the data as he or she sees fit while others receive custom data dashboards or reports that I generate. (See Figure 1 page 75.)

After you identify someone interested in the data, talk with them about how best to share that data so it is manageable for you and your data partner. In my library, subject liaisons determine what databases appear on the subject database webpages. I thought subject liaisons would be interested to see what databases users are clicking on these webpages to determine if any database links should be removed or rearranged. I presented the concept at a meeting and demonstrated a potential dashboard that allowed them to narrow down to a specific subject area or compare different subject areas. Based on the feedback, I modified the dashboard to provide the data the liaisons wanted and provided access to it so they could analyze the click data whenever needed.

Giving an individual access to the data is only part of making that data accessible. In order to interpret the data, a person must at least understand the basic data points involved. Avoid jargon and focus on meaning and outcomes that make sense to that stakeholder. When I share data, I do not like using digital analytics terms if the audience is not familiar with digital analytics jargon. "Bounce rate" means nothing to them, but if I refer to it as "zero engagement rate" most people will understand that sounds bad for webpage usage. In the dashboard example, I intentionally replaced any Google Analytics jargon with easy to understand language and I invited feedback about the data to ensure the subject liaisons understood it. Having those conversations improves the data sharing process by clearing up confusion and may reveal additional unmet data needs you may be able to fulfill. Overall, the intent is to make the data open, understandable, and meaningful for others to use. This is the true work of an analytics advocate and these responsibilities cannot be delegated to one person. Anyone can be an analytics advocate and help grow the culture of analytics in their library.

Before you advance an analytics culture, be mindful of user privacy. An analytics culture relies on easy access to all types of data. Data is collected with a "just in case" mindset

rather than for a specific purpose — and this may naturally include personally identifying information. **Alexander, Bradley, and Var-num** conclude that as libraries leverage their data, "it should prompt discussions around long-held policies and core principles related to user privacy and confidentiality."⁴ Does your library have a privacy policy or working group addressing the issue? In my library, we have individuals that are clear user privacy advocates, but no dedicated person or team. Instead, we rely on our library user confidentiality policy⁵ and the campus' Commitment to Protection of Individual Privacy.⁶ These guiding documents inform our analytics practices including the data we can share. If you handle or share data with personal information you must adhere to your organization's policies and procedures. If nothing is in place, review the **NISO Privacy Principles** that clearly state how to share user level data while protecting user privacy.⁷ This is a great guide to start the conversation about user privacy in your library. Libraries must understand our users are trusting us with their data (whether they know it or not) and it is our responsibility to use that data ethically and intentionally to drive improvement in library services for our users.

While anyone can be an analytics advocate, if you are an administrator or someone with decision making power in your library, then you have an additional role in promoting an analytics culture. An administrator does not have to be a data expert but should have some basic data literacy and be comfortable asking questions about the data and the analytics process. Administrators must be willing to act based on the data and a lack of understanding the data can lead to poor decision-making. My library recently conducted a survey of our library users and a major finding was complaints about the noise levels in certain areas of the library. Library administration used this data to add more signage reminding users of the quiet areas and relocate a popular space to host campus events to another location in the library. Additionally, this survey raised questions about how users use our space. Does the quiet space get more use than the collaborative areas? We only had anecdotal data based on individual observations. Library administration supported the idea of performing a space assessment project and encouraged interested individuals to volunteer to participate. With this new data, library administration can make better decisions on how to enhance library space for the users.

There is also a need to acknowledge your library's analytics advocates. The terms analytics or data may not be in these individuals' job titles, but these people are your change agents, promoting and fostering the analytics culture, and this work should be rewarded. An analytics culture values data, but understands it is the people behind the data that matter. This includes the individuals collecting and analyzing the data to implement change. Rewards can include recognition for collaborative data projects, highlighting data sharing practices across departments, and incentivizing individuals interested in data-related professional development opportunities. Publicly acknowl-

edging these activities demonstrates the value analytics brings to the library which creates the foundation of an analytics culture. For my library's space assessment project, a small team was formed to lead the process and they were empowered by administration to develop their own plan. This team called for more volunteers to help collect the data which gave other individuals an opportunity to be involved and have an investment in the data. Library administration acknowledged it as a priority by dedicating staff time and new computer equipment to the data project. While we are still early in the space assessment process, the individuals involved are excited to see the data which will be shared with the whole library and library administrators recognize these individuals at staff meetings. Intentional recognition and the willingness to put some resources behind this project elevates the importance of the use of data for decision-making.

Creating a culture of analytics is manageable, but it does take time to grow. You can help the process by committing to intentionally collecting data and connecting that data to people who can use it. You will know you are in an analytics environment when it feels uncomfortable making decisions without data — and that's a good thing. 🌊

Endnotes

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