The evoLLLution

A DESTINY SOLUTIONS ILLUMINATION
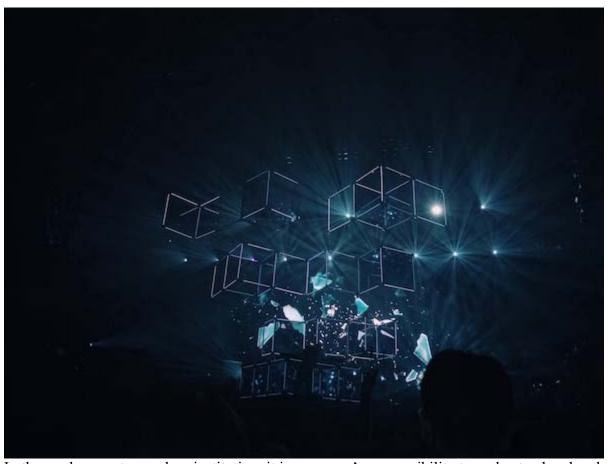
How To Make Big Data Digestible

Gesele Durham | Vice Provost for Institutional Effectiveness and Director of the Office of Assessment & Institutional Research, University of Wisconsin-Milwaukee

In the modern postsecondary institution, it is everyone's responsibility to understand and make decisions based off data. However, it's the responsibility of institutional leadership to create a culture and infrastructure designed to support that. If you search the internet for "making

data easier for users to access and understand," you'll find a panoply of tips and tricks ranging from how to structure Access databases and Excel worksheets to Fitbit and Facebook analytics, how to make websites more accessible and even the old-fashioned but ever-useful crosstab. What you won't find is a guide detailing exactly what you need to do as a university leader to transform culture, reconsider the relevance of reports versus analytics, how to encourage creativity and collaboration among siloed university offices, or address the inherent power structures that have created a system resistant to change. Moving to a data-driven or data-informed university, particularly one that is nimble and responsive to opportunities and threats, requires rethinking, reorganizing and recognizing possibilities. Universities are awash in data. There is no end to the information one might access. The keys to transform and achieve the benefits possible from technological innovation and "big data" in the 21st-Century are coordination and transparency so that information flows in an understandable narrative when it is actually needed by decision makers across the landscape of a university.

A necessary step is establishing a culture and governance structure that values and mandates sharing information, collaboration and access. A leadership philosophy that encourages—or perhaps demands—this sort of data sharing is fundamental to enabling institutions to move beyond structures and silos that perhaps have inhibited data sharing and access before. Establishing data governance ensures one can breach perhaps that most daunting challenge: breaking down cultural, technological and organizational barriers. To confidently and broadly analyze and report data that accurately reflects activities across the institution, leadership must be disciplined and focused on transforming the culture to become data informed. Addressing these core issues requires building an effective system of data governance that can moderate, guide and self-regulate a new way of thinking. Importantly, effective data governance ensures consistency. It can be used to define clear and commonly used structures, models, definitions, and processes to support coordination and collaboration, effective decision support, and efficient operations university-wide. Governance can provide guidance and recommendations concerning institutional data related to strategic planning across the spectrum of university concerns from expanding access and improving quality to financial management. And governance can guide the critical decisions surrounding personnel and technology resource development and expectations.

In the process of establishing governance, defining core principles and goals are a way to frame the discussion. Core principles might include establishing that data are a critical resource and belong to the institution rather than individual units and that data are as important for analysis and reporting as for transactional/operational needs. Goals may include charging custodial offices with creating transparency to ensure data are accessible, easier to understand and use and emulating best practices in data management across university offices and data repositories.

Governance is also the manner in which the university can vet decisions regarding investments in tools to translate raw information into meaningful presentation, e.g. dashboards or other visualization techniques. The value of university data as a community asset is dependent upon the investments made in personnel, technology, training and engagement. Articulated goals help identify which tools and skillsets are needed.

And, of course, even great tools and exceptional skills will get you nowhere if useful, insightful information isn't being collected. The collection of cultivated and relevant data must be prioritized and valued. Knowing what is valuable versus simply noise requires understanding institutional and business goals and metrics. Leaders must participate and model a consistent pattern of using data themselves thereby encouraging staff to use data to communicate with each other and with leadership.

When leadership actively engages and understands the data—becomes personally conversant and perhaps even demonstrates a limited mastery of the nuances—the campus community will become attuned to the need to follow suit, document their own work, assess their own progress and understand how it contributes to the greater university goals.

For end-users to own the responsibility of being their own data stewards/owners is a culture shift in many places. In the past, understanding the data was considered something another office did. However, if it is to be effective in directing resources and effecting change, using data to assess your own work is critical. Having the right tools becomes all the more critical in this context. Establishing self-service analytics to enable report development and ad-hoc query capacity on the frontline requires investments in training, tools, and timely access to subject matter experts. Building the skillset across the institution to

create models and establishing the expectation of and capacity to explore data to innovate starts with leadership doing the same.

https://evolllution.com/technology/metrics/how-to-make-big-data-digestible/?utm_campaign=EvoLLLution%20Newsletter&utm_source=hs_email&utm_medium=email&utm_content=64465538&_hsenc=p2ANqtz-8OY0oVg4tid9FFRUiMMImIuekl3bkkev4jNVSwSLA0i_wACkzeKtwxceylMt7ysYSbO1PJPaL65tCqT2WKiZ8ApLYMszOWxHhMSFC8Ns_3fU3HZh8&_hsmi=64465538