

ALIGNING DATA ANALYTICS CULTURE WITH HUMAN CAPITAL

Forbes Insights spoke with **Deborah S. Young**, business intelligence and analytics offer management lead for Teradata's Professional Services organization, about how a company can build an analytics culture, why organizations still make gut decisions, and why, ultimately, data is the way forward.

Could you first define what you mean by an analytics culture?

The challenge with analytics is that a lot of people think of it as a technology issue. They adopt a software development type approach and don't necessarily think about analytics having a consistent and direct impact on the business. Even the term "data scientist" sounds very technical. In order to create an analytics culture, there needs to be a direct relationship between analytics insight and the business decisions made. This is an entirely different mindset than one having an expectation of a very technical, defined process that may or may not be related to how you make business decisions.

If I think about the change in perspective, the change to the culture of analytics is almost like the process IT goes through when they move a traditional waterfall approach to an agile process. Analytics requires us to proceed with an understanding of the problem, but often without a well-defined end point. The outcome itself may change depending on the ongoing analysis of the data. The culture needs to embrace the insights along the way and use those insights to change how the business reacts. This culture is one of discovery or exploration as well as a culture that focuses on how data tells the story.

This mindset can be very different from the way some organizations make their decisions. There are a lot of businesses where decisions are made from the gut with the expectation that the data will prove the story. In an analytics-driven culture, the starting point may be the gut, but the decisions are made based on the underlying data and results. The full spectrum of analytic capabilities is leveraged to report operational capabilities and determine next steps. The business and IT have to work together to make this happen—enabling the analytics from both a technical and a business perspective.

What are some of the best practices when it comes to introducing a solutions-driven analytics culture?

It depends on the level of maturity of data and analytics at a given organization. A majority of organizations have identified the types of data they can gather and analyze. The next question is about where the analytics make the most sense. Where would there be the best chance for business impact? In an organization that is new to analytics, the best starting point is usually where you can experience quick wins. Using analytics to uncover something new, and then showing the impact to the business team, helps the team start to embrace the potential of a different mindset. Building the capability with a small targeted team starts the momentum. You should also consider a blended approach, where you have this targeted team in a specific division or area (such as marketing or manufacturing), with a centralized team that thinks broadly across the organization. The centralized group helps set the pace, determine the best tools to use and—most important—leverage the process, insights and momentum for the whole organization.





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To get the most value out of analytics from an organization's perspective, the analytical process needs to be aligned with the ultimate business goals of the organization. There needs to be oversight or governance of the analytical process, to make sure that all actions lead to a desired business outcome.

It is also critical to have a champion of data and analytics who has influence at the company. It can be the chief executive officer or someone designated as the chief analytics or data officer. In some cases, it starts with an executive who truly believes that the analytics approach is a better way and evangelizes the approach until a more permanent structure is put into place.

How do you ensure cooperation between different functions and individuals? How do you prevent silos?

That's usually the role of the central organization, sometimes called the analytics innovation center. They are typically charged with driving analytics value throughout the organization. The data or analytics champion can also be critical. Both need to be able to pursue analytics from a business perspective and embrace both the

business and IT components. While different teams in the organization may report up to different people within different functions, the central organization and the champion or sponsor needs to tie it all together with the same standards, communication and goals.

How do you translate data sets into business outcomes?

Operationalizing the analytical insight is the hardest part. The frameworks that companies can leverage straddle three worlds: business acumen, data and analytics.

One of the biggest disconnects is around human capital—having an expectation that a single data scientist will be able to take you from data analysis to business outcomes. One person will generally not have the full range of skills and experience to understand the business problem, pull all of the insights together, reach a conclusion about what they mean for the business strategy going forward, and then communicate that effectively.

Achieving business outcomes from data analytics typically requires a team of individuals with different talents that come together and drive the analytics-based solutions. We generally look at teaming three different perspectives. The first is a "data specialist" to gather and prepare applicable data sets. That's because the business side's expectations of what you're going find in the data may be different from what you get when you actually pull it. The second is the data scientist, who focuses on the analytics and the analytic process. Last but not least, to tie analytics with strategy and operations, the team needs the person who has a foot in both worldswho understands the business, but who also has a feel for what the technology can provide. At Teradata, we call this person an "industry consultant." Industry consultants are individuals with a lot of experience in a functional area, or a lot of experience in a particular industry, but who also understand how analytics can provide insights that traditional processes have not been able to supply. The industry consultant works with the data scientist and the business to determine the potential impact of the analytic result.

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With the proliferation of analytics culture, are decisions data-driven or based on a gutlevel feeling?

Research indicates that even though we're introducing a lot more data and analytics, many decision makers still go with their gut. Part of that is because their organizations may be not yet embracing analytics. Change is difficult. There needs to be a formal organizational (or human capital) change management capability to help the culture adjust.

There is a lot of midlevel management that has a hard time adapting to data-driven decision making. But anyone who has not used analytics is going to have to go through a couple of cycles to really believe the data is pointing them in the right direction. We can all argue about what we think our gut is telling us, but when we see data that's counter to that, it takes a little bit of time for us to believe the data. In addition to having a champion for analytics, there needs to be a formal plan to foster awareness, communication and training.

Speaking about skills, do companies have the necessary talent pool of data scientists?

I use the term "data scientist" and analytical professional fairly interchangeably. A data scientist is somebody who has an understanding of the technology, tools and data, but who also requires some level of business experience to understand the potential impact of the data. As we discussed, I think the process of driving effective analytics requires a combination of data scientists, data professionals and business professionals. But I do believe having good data scientists is critical, and I believe there are a lot more potential data scientists within organizations than many think.

There's nothing wrong with hiring (and most organizations will have to hire), but I think there are probably a lot of people in many organizations that already do play the role of an analyst. They might be businesspeople, they might be IT people, and they might play roles that kind of fit in both worlds. If you consider the kinds of talents or attributes analysts have—problem solvers, innovators, those who are genuinely curious—I think there are ways to leverage individuals already within organizations who are, or are poised to be, very good at analytics.

In conclusion, I would say there are several steps to building a culture of analytics:

- Determine where an analytic approach may have the highest impact or influence on business decisions and identify a potential champion.
- Seed and develop skills, tools and processes for promoting analytics and leveraging the analytic insight.
- Promote the growth of data scientists and analysts in the business, driving a different path forward as a result of their efforts.
- Develop a centralized analytics innovation center to develop and share best practices throughout the organization.
- Reward success. Drive change by promoting the new insights and, wherever possible, leverage your chief data or chief analytics officer to evangelize the value of analytics.

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