

here's no question that the data and analytics revolution reaps real benefits.

Just ask Amazon, where 35 percent of the online giant's revenue is generated through the power of its recommendation engine — the data-driven technology that nudges shoppers toward products that are "frequently bought together."

But many are coming to realize that acquiring technology to support the data revolution isn't as difficult as getting individuals within organizations to embrace the value of a data-driven enterprise.

Avoiding the trap of being data rich yet information poor is a struggle, but an organization can succeed when it adopts data governance practices that improve business decisions and advance the organization's mission.

"Transforming an organization to be more datadriven is challenging, primarily because 'datadriven decision-making' means something different at every level within an organization," says Shelly Brown, a principal at Booz Allen Hamilton's Analytics Group.

GROOMING DATA CHAMPIONS INTO CATALYSTS

The overwhelming amount of data and analytics that organizations are collecting can create a data deluge which breeds frustration for an illequipped team.

Surmounting that challenge usually falls to those who hold such titles as chief data officer (CDO),

chief analytics officer (CAO), chief data scientist (CDS), or director of data and analytics.

Enterprises that do the best job of capitalizing on data have support from their top leaders who foster the development of "data and analytics" catalysts in their organizations, according to a report by Booz Allen Hamilton. The report, "The Role of Data and Analytics Catalysts: Agents of Culture Change," offers an approach to support the efforts of these leaders.

Data and analytics catalyst agents are already employed in organizations. They may fill roles like manager or project leader, and can be found in departments from human resources and finance, to program and core mission offices in our government agencies. Their natural ability to drive change enables them to help their organization see the value in leveraging data and analytics for better decision making.

To have success at the enterprise level, these catalysts must be given the platform to communicate a vision effectively at all staff levels. When they can bring people on board and encourage them to embrace the vision, success will grow throughout the organization.

In the 1970s, two philosophers were looking for the reasons why humans fail. Samuel Gorovitz and Alasdair MacIntyre wrote that we are hampered by two main factors: ignorance, or our limited knowledge or understanding of the world; and ineptitude, when we have the knowledge but fail to apply it correctly. When data creates decision paralysis in an organization, catalysts can help overcome these failings when they:



DEMONSTRATE VALUE

By showcasing the value that teams or individuals within your organization

have added to the enterprise using data and predictive analytics.



INSPIRE INNOVATION

By encouraging a culture that makes data more widely accessible and analytics

tools more widely available to every manager, not just to data specialists.



ESTABLISH PARTNERSHIPS

By building trust among data and analytics stakeholders and encouraging

collaboration to share insights gleaned from the data.



NURTURE STRONG TALENT

By identifying and building a cadre of passionate users of data and producers

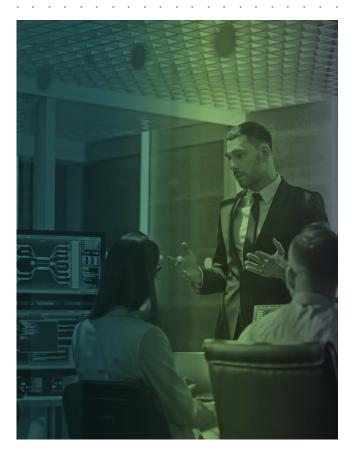
of analytics.

CATALYSTS DEMONSTRATE VALUE

Demonstrating value from within an organization is enabled when communication lines open up, down, and across all levels of management. Understanding how the use of data and analytics improves operational effectiveness is key to a strong data governance model. Leaders can set goals across an agency and change how the organization improves outcomes by leaning on data to improve performance.

"Every organization is collecting data and has been collecting data for years. But that doesn't necessarily mean you've been demonstrating the value of the data," says Kirk Borne, principal data scientist and executive advisor at Booz Allen Hamilton.

Catalysts must implement not only proofs of concept, but proofs of value. Proving the value and consequence of data analytics requires metrics that measure, track and report on uses, applications and outcomes aimed at improving the core mission of an agency. For projects, products



and services this is an iterative process requiring oversight from those invested in the change.

Bringing together disparate data, building predictive analytics models, finding use for existing data — all these are examples of how catalysts demonstrate value to their leaders. For government agencies especially, catalysts can provide insights that improve citizen services and advance the agency's mission.

"The traditional model is to collect data and generate reports of what has happened in the past. But now we can take those trends and build a predictive model of what is to come," added Brown. "And that prediction readies you for the future and prepares the organization for surges or changes. Data helps you see around the corner to what's coming."

CATALYSTS INSPIRE INNOVATION

Data and analytics catalysts should be encouraged to use their domain knowledge and build partnerships within the organization to help identify



analytic opportunities, execute analytic prototypes, show iterative successes and cultivate demand.

When agencies tap into the value of data, it can be used to gain insights and support innovation in approaching decisions. Data analytics is best viewed as a methodology, rather than a simple tool, to see opportunities where processes can be fixed or optimized.

Our natural desire to maintain the status quo means that for catalysts to be successful, they must be allowed to create an environment that encourages experimentation with data and analytics, optimally leading down a path to scale the results out.

Finding the right balance as a disruptor, while working in agencies with firmly ingrained practices, can be difficult. One way to achieve this may be through an assessment of acceptable risks that agency leaders drive in order to give catalysts a space to innovate within appropriate guidelines.

"Any amount of innovation related to data and analytics requires culture change," says Brown. "You have to, in some sense, let go. Give the right people access to the right data at the right time — across the organization. It's not just the IT department and the executive office that should be looking at the data — it's everyone."

She cites from Booz Allen's report on how one catalyst's department benefitted from "conducting multiple rounds of prototypes with the same

stakeholders until they become believers, scaling the catalyst's marketing power with new change agents and reinforcing the value of data and analytics."

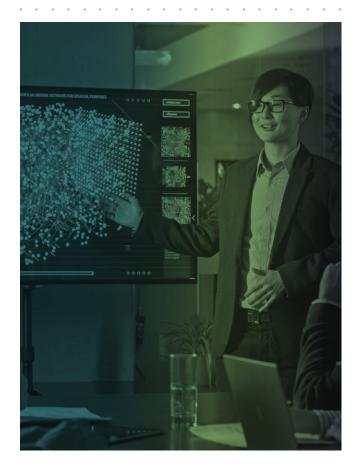
CATALYSTS ESTABLISH PARTNERSHIPS

Big data has become an invaluable tool for creating value to mission, but agencies need to keep nourishing data and analytics in order to get the best insights from the information available to them. Additionally, if the environment is not set up to encourage using data, the processes of sifting through information may not happen quickly, which risks diminishing its timeliness value.

Partnerships play a key role in establishing a better data governance structure. But even more importantly, they help build trust and lead to culture change by establishing communities of interest, working groups, and governance bodies that can engage stakeholders with its data.

Traditionally, IT departments tend to think that since they own the technology storing the data, they in essence own the data itself. But leadership should support lowering the barrier to entry for understanding data.

Anyone in the organization has the ability to achieve analytical outcomes without being a data scientist. A catalyst can be a key player to promote this kind of understanding by digging to the root cause of organizational inefficiencies and coaching their colleagues on how to approach problems using data and analytics.



Brown shared one experience from a catalyst at an enterprise who learned through bringing together working groups that she could help the business consider its data in a new light. Instead of relying on her team to establish a needed data governance standard, she stood up a working group in the organization to develop the process. Once it was ready, she facilitated a rollout in which her team guided an organizational self-assessment. Leaders were brought into the process to identify gaps and establish a remediation plan.

Data and analytics catalysts set themselves apart by not only delivering what was requested of them but by facilitating engagement from the team on how to use data to approach problems. This collaborative approach helps advance the organization's data and analytics maturity.

CATALYSTS NURTURE STRONG TALENT

No single person will have all the skills necessary to take the lead in promoting data and analytics. That's why it is incumbent on leaders to foster a culture that embraces data and analytics practices, as well as the talent to support those practices. That includes identifying opportunities where data and analytics can add value, by recruiting experienced talent and by making tools easily available.

Attracting strong talent, or growing it from within, is important. But just as important is identifying mentors to support their efforts. Too often, the work of nurturing talent falls under the purview of the human resources department. However, people tend to assess what's possible by the examples they see around them. Catalysts as mentors can lead by example and demonstrate how insights from data analytics drives change in ways that employees across the whole organization may not normally see.

"The mentor-protégé model works to bring up the level of expertise across the organization," explains Borne. "Giving people access to data through hackathons or interesting challenge problems can encourage the feeling that not only are they doing something of value and importance, but they are respected and recognized for their contributions. It's not just about the person, it's about the whole talent infrastructure."

With each of these elements in place, today's data and analytics catalysts can empower their agency to fully embrace the data revolution and reap its benefits.

"It's not a zero-sum game," said Borne. "You're creating new value."

Learn more about how Booz Allen Hamilton can help your agency foster "data and analytics catalysts" and a data-driven culture.