Why data culture matters

Organizational culture can accelerate the application of analytics, amplify its power, and steer companies away from risky outcomes. Here are seven principles that underpin a healthy data culture.

by Alejandro Díaz, Kayvaun Rowshankish, and Tamim Saleh

Revolutions, it's been remarked, never go backward. Nor do they advance at a constant rate. Consider the immense transformation unleashed by data analytics. By now, it's clear the data revolution is changing businesses and industries in profound and unalterable ways.

But the changes are neither uniform nor linear, and companies' data-analytics efforts are all over the map. McKinsey research suggests that the gap between leaders and laggards in adopting analytics, within and among industry sectors, is growing. We're seeing the same thing on the ground. Some companies are doing amazing things; some are still struggling with the basics; and some are feeling downright overwhelmed, with executives and members of the rank and file questioning the return on data initiatives.

For leading and lagging companies alike, the emergence of data analytics as an omnipresent reality of modern organizational life means that a healthy data culture is becoming increasingly important. With that in mind, we've spent the past few months talking with analytics leaders at companies from a wide range of industries and geographies, drilling down on the organizing principles, motivations, and approaches that undergird their data efforts. We're struck by themes that recur over and again, including the benefits of

data, and the risks; the skepticism from employees before they buy in, and the excitement once they do; the need for flexibility, and the insistence on common frameworks and tools. And, especially: the competitive advantage unleashed by a culture that brings data talent, tools, and decision making together.

The experience of these leaders, and our own, suggests that you can't import data culture and you can't impose it. Most of all, you can't segregate it. You develop a data culture by moving beyond specialists and skunkworks, with the goal of achieving deep business engagement, creating employee pull, and cultivating a sense of purpose, so that data can support your operations instead of the other way around.

In this article, we present seven of the most prominent takeaways from conversations we've had with these and other executives who are at the data-culture fore. None of these leaders thinks they've got data culture "solved," nor do they think that there's a finish line. But they do convey a palpable sense of momentum. When you make progress on data culture, they tell us, you'll strengthen the nuts and bolts of your analytics enterprise.

That will not only advance your data revolution even further but can also help you avoid the pitfalls that often trip up analytics efforts. We've described these at length in another article and have included, with three of the seven takeaways here, short sidebars on related "red flags" whose presence suggests you may be in trouble—along with rapid responses that can mitigate these issues. Taken together, we hope the ideas presented here will inspire you to build a culture that clarifies the purpose, enhances the effectiveness, and increases the speed of your analytics efforts.

1. DATA CULTURE IS DECISION CULTURE

The takeaway: *Don't approach data analysis as a cool "science experiment" or an exercise in amassing data for data's sake. The fundamental objective in collecting, analyzing, and deploying data is to make better decisions.*

Rob Casper, chief data officer, JPMorgan Chase: The best advice I have for senior leaders trying to develop and implement a data culture is to stay very true to the business problem: What is it and how can you solve

it? If you simply rely on having huge quantities of data in a data lake, you're kidding yourself. Volume is not a viable data strategy. The most important objective is to find those business problems and then dedicate your data-management efforts toward them. Solving business problems must be a part of your data strategy.

Ibrahim Gokcen, chief digital officer, A.P. Moller – Maersk: The inclination, sometimes, when people have lots of data is to say, "OK, I have lots of data and this must mean something, right? What can I extract from data? What kind of insights? What does it mean?" But I'm personally completely against that mind-set. There is no shortage of data, and there is even more data coming in.

Focus on the outcomes and the business objectives. Say, "OK, for this outcome, first let's look at the landscape of data and what kind of analytics and what kind of insights I need." Then act on it rapidly and deliver that back to the team or the customer. This is the digital feedback loop: use the insights, ideas, and innovation generated by the team or your customer as an accelerator for improving the capability and product and service that you already have.

Cameron Davies, head of corporate decision sciences, NBCUniversal (NBCU): It's not about the data itself. It's not just about the analytics—any more than taking a vitamin is only so you can claim you successfully took a pill every morning. When it comes to analytics, we have to keep in mind the end goal is to help make better decisions more often. What we try to do first and foremost is look at places where people are already making decisions. We review the processes they use and try to identify either the gaps in the available data or the amount of time and effort it takes to procure data necessary to make an evaluation, insight, or decision. Sometimes we simply start by attempting to remove the friction from the existing process.

Jeff Luhnow, general manager, Houston Astros: We were able to start with a fresh piece of paper and say, "OK, given what we think is going to happen in the industry for the next five years, how would we set up a department?" That's where we started: "OK, are we going to call it analytics or are we going to call it something else?" We decided to name it "decision sciences." Because really what it was about for us is: How we are going to capture the information and develop models that are going to help the decision makers, whether it's the general manager, the farm director who runs the minor-league system, or the scouting director who makes the draft decisions on draft day. How are we going to provide them with the information that they need to do a better job?

2. DATA CULTURE, C-SUITE IMPERATIVES, AND THE BOARD

The takeaway: *Commitment from the CEO and the board is essential. But that commitment must be manifested by more than occasional high-level pronouncements; there must be an ongoing, informed conversation with top decision makers and those who lead data initiatives throughout the organization.*

Cameron Davies, NBCU: You can talk about being CEO-mandated. It only goes so far. Our CEO [Steve Burke] is very engaged. He's willing to listen and share feedback. We try to be thoughtful of his time and not waste it. A CEO, especially for a company of size, is thinking about billion-dollar decisions. He's thinking big, as you would expect. So we try to focus on the larger things. We have a mantra: even if you have nothing to communicate, communicate that. We have a cadence with Steve that happens on a quarterly basis, where we say, "Here's what we're doing. Here's what the challenges are and here is how we're spending the funding you gave us. Most importantly, here is the value we're seeing. Here is our adoption."

Our CEO also provides encouragement to the team when he sees it. For a data scientist—if you're an analyst or a manager—to get the opportunity to go sit with the CEO of a company and then have him look at you and say, "That's really cool. That's awesome. Well done," that goes further to retention

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RED FLAG

The executive team lacks a clear vision for its advanced-analytics programs.

In our experience, lack of C-suite vision often stems from executives lacking a solid understanding of the difference between traditional analytics (that is, business intelligence and reporting) and advanced analytics (powerful predictive and prescriptive tools such as machine learning).

To illustrate, one organization had built a centralized capability in advanced analytics, with heavy investment in data scientists, data engineers, and other key digital roles. The CEO regularly mentioned that the company was using AI techniques, but never with any specificity.

In practice, the company ran a lot of pilot AI programs, but not a single one was adopted by the business at scale. The fundamental reason? Top management

than almost anything else you can do. And he's willing to go do that from a culture perspective, because he understands the value of it as well.

Takehiko ("Tak") Nagumo, managing executive officer, Mitsubishi UFJ Research and Consulting (MURC); formerly executive officer and general manager, corporate data management, Mitsubishi UFJ Financial Group (MUFG): Just like any other important matters, we need the board's backing on data. Data's existed for a long time, of course, but at the same time, this is a relatively new area. So a clear understanding among the board is the starting point of everything. We provide our board educational sessions, our directors ask questions, and all that further deepens their understanding. And it's good news, too, that directors are not necessarily internal. They bring external knowledge, which lets us blend the external and the internal into a knowledge base that's MUFG-specific. Having those discussions with the board and hearing their insights is an important exercise and, increasingly, a key part of our data culture.

Rob Casper, JPMorgan Chase: Senior management now realizes that data is the lifeblood of organizations. And it's not just financial services. As more and more people digitize all that they do, it all comes down to having transparency and access to that data in a way that's going to deliver value. Senior leaders need to promote transparency on every level. Whether it's the budget, what you're spending your time on, or your project inventory, transparency is paramount. As Louis Brandeis said, "Sunlight is the best

didn't really grasp the concept of advanced analytics. They struggled to define valuable problems for the analytics team to solve, and they failed to invest in building the right skills. As a result, they failed to get traction with their AI pilots. The analytics team they had assembled wasn't working on the right problems and wasn't able to use the latest tools and techniques. The company halted the initiative after a year as skepticism grew.

First response: The CEO, CAO, or CDO—or whoever is tasked with leading the company's analytics initiatives—should set up a series of workshops for the executive team to coach its members in the key tenets of advanced analytics and to undo any lingering misconceptions. These workshops can form the foundation of in-house "academies" that continually teach key analytics concepts to a broader management audience.

disinfectant." If everybody sees what everybody else is doing, then the great ideas tend to rise to the top and the bad ideas tend to fall away.

3. THE DEMOCRATIZATION OF DATA

The takeaway: *Get data in front of people and they get excited. But building cool experiments or imposing tools top-down doesn't cut it. To create a competitive advantage, stimulate demand for data from the grass roots.*

Tak Nagumo, MURC: For MUFG, data culture is a part of our value system. Like eating rice or bread—if you don't eat it, you miss the day. Ultimately, everyone in the organization has to adopt a mind-set of data culture, but it doesn't happen overnight. Creating a cross-cutting data set across the organization is a key for success.

Cameron Davies, NBCU: Just getting the people the data gets them excited. I've never met anybody in all my time at NBCU, or in my past 20 years at another very highly creative company, where I had someone look at me and

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RED FLAG

Analytics capabilities are isolated from the business, resulting in an ineffective analytics organizational structure.

We have observed that organizations with successful analytics initiatives embed analytics capabilities into their core businesses. Those organizations struggling to create value through analytics tend to develop analytics capabilities in isolation, either centralized and far removed from the business or in sporadic pockets of poorly coordinated silos. Neither organizational model is effective. Overcentralization creates bottlenecks and leads to a lack of business buy-in. And decentralization brings with it the risk of different data models that don't connect.

A definite red flag that the current organizational model is not working is the complaint from a data scientist that his or her work has little or no impact and that the business keeps doing what it has been doing. Executives must keep an ear to the ground for those kinds of complaints.

say, "No, please don't give me any information to help me make a better product." At the same time, I don't believe in the *Field of Dreams* philosophy that seems to be inculcated through a lot of data analysis, which is, if you just build it, build something cool, it'll come. I've never seen that work.

Ted Colbert, CIO, Boeing: You have to figure out how to really democratize the data-analytics capability, which means you have to have a platform through which people can easily access data. That helps people to believe in it and to deliver solutions that don't require an expensive data scientist. When people begin to believe in the data, it's a game changer: They begin to change their behaviors, based on a new understanding of all the richness trapped beneath the surface of our systems and processes.

Ibrahim Gokcen, Maersk: Data has to flow across the organization seamlessly. Now that our data is democratized, thousands of people can access it for their daily work. We see a lot of energy. We see a lot of oxygen in the organization, a lot of excitement about what is possible and the innovation that's possible. Because data, applied to a business problem, creates innovation. And our people now have the ability to act on their innovative ideas and create value.

First response: The C-suite should consider a hybrid organizational model in which agile teams combine talented professionals from both the business side and the analytics side. A hybrid model will retain some centralized capabilities and decision rights (particularly around data governance and other standards), but the analytics teams are still embedded in the business and accountable for delivering impact.

For many companies, the degree of centralization may change over time. Early in a company's analytics journey, it might make sense to work more centrally, since it's easier to build and run a central team and ensure the quality of the team's outputs. But over time, as the business becomes more proficient, it may be possible for the center to step back to more of a facilitation role, allowing the businesses more autonomy.

4. DATA CULTURE AND RISK

The takeaway: *An effective data culture puts risk at its core—a "yin and yang" of your value proposition. Although companies must identify their "red lines" and honor them, risk management should operate as a smart accelerator, by introducing analytics into key processes and interactions in a responsible manner.*

Ted Colbert, Boeing: For Boeing, safety always comes first. There's no "sort of" in it. Always comes first. The certification requirements for software embedded on our products are tremendous, for example. Data about how people use a system can help us understand exactly what they're doing, so that productivity and safety go hand in hand.

Cameron Davies, NBCU: There are things we demand about our data and how we treat and consume it. For example, we take PII[1] very seriously. It's a written rule: "This is what you can and can't do." We have policies that are allowed and things that are not allowed. And going against those policies will probably end up in you losing your job. There are expectations that if I do get the data, I treat it safely and effectively. If I transform it or I move it, it's in a place where most people can get to it with the controls in place.

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[1] Personally identifiable information.

RED FLAG

No one is intensely focused on identifying potential ethical, social, and regulatory implications of analytics initiatives.

It is important to be able to anticipate how digital use cases will acquire and consume data and to understand whether there are any compromises to the regulatory requirements or any ethical issues.

One large industrial manufacturer ran afoul of regulators when it developed an algorithm to predict absenteeism. The company meant well; it sought to understand the correlation between job conditions and absenteeism so it could rethink the work processes that were apt to lead to injuries or illnesses. Unfortunately, the algorithms were able to cluster employees based on their ethnicity, region, and gender, even though such data fields were switched off, and it flagged correlations between race and absenteeism.

There also is the risk of getting [analytics] wrong. Solutions now are starting to help us understand what's happening inside the box. And it's important to understand that as you build up these capabilities, there is a support cost you're going to have to take on. You should have people monitoring to make sure it makes sense. You should build alerts into place. Sometimes the data goes south, which I've seen happen, and nobody realizes it. I won't throw anybody under the bus, but we had a vendor that couldn't recognize an ampersand. But that's how somebody decided to title one of our shows. We think that issue cost us tens of millions in potential revenue—an ampersand!

We used to think we could build these systems and hand them to people, and they'd be sophisticated enough to run them. We found very quickly that wasn't always the case. We ended up actually staffing to help run it or assist them with it.

Tak Nagumo, MURC: It's almost like a yin and yang, or a dark side and a sunny side. Introduction of the data-management policy documents, procedures, data catalog, data dictionary—the fundamental setting is common for the [financial] industry. And the mind-set necessitated to this area is more of "rule orientation." The other side, the sunny side, I would say, is more Silicon Valley–oriented, more of the data usage, data science, data analytics, innovation, growth. Housing those two ideas into one location is so important.

Luckily, the company was able to pinpoint and preempt the problem before it affected employee relations and led to a significant regulatory fine. The takeaway: working with data, particularly personnel data, introduces a host of risks from algorithmic bias. Significant supervision, risk-management, and mitigation efforts are required to apply the appropriate human judgment to the analytics realm.

First response: As part of a well-run broader risk-management program, the CDO should take the lead, working with the CHRO and the company's business-ethics experts and legal counsel to set up resiliency-testing services that can quickly expose and interpret the secondary effects of the company's analytics programs. "Translators" will also be crucial to this effort.

Rob Casper
Chief data officer
JPMorgan Chase

Ted Colbert
CIO
Boeing

Cameron Davies
Head of corporate decision sciences, NBCUniversal

Ibrahim Gokcen
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Managing executive officer, Mitsubishi UFJ Research and Consulting (MURC); formerly executive officer and general manager, corporate data management, Mitsubishi UFJ Financial Group (MUFG)

If you don't have a solid foundation, you can't use the data. If you have a solid foundation but are not using the data creatively, you're not growing. This mixing of those two is a key challenge for our entire industry. You have to combine both, that's the bottom line.

Ibrahim Gokcen, Maersk: Every company has constraints. Even the Silicon Valley companies have a lot of constraints. Clearly, we are regulated. We have to comply with lots of rules and regulations across the globe. We are a global company. But failing fast and cheap doesn't mean making bad decisions. It means complying within the constraints that you have, and learning how do you go faster or how do you test things faster. And then implementing the decisions properly. So I think it's really all about the culture of using data, experimenting, building stuff, doing all that as fast as you can— and delivering that to the front line, of course with the right mechanisms.

5. CULTURE CATALYSTS
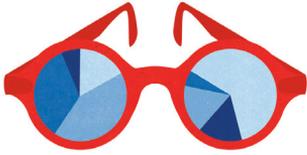
The takeaway: *The board and the CEO raise the data clarion, and the people on the front lines take up the call. But to really ensure buy-in, someone's got to lead the charge. That requires people who can bridge both worlds—data science and on-the-ground operations. And usually, the most effective change agents are not digital natives.*

Cameron Davies, NBCU: Let's use religion as an example. The most effective model is converting indigenous people and creating leaders that are then preaching to their own people. And we believe the same, which is: You can talk about a CEO-mandated thing. It only goes so far. People work, breathe their business every day. Nobody knows it as well as they do.

We had a business unit that needed to produce forecasts on an annual basis. There are a lot of players in that process. We went into the organization and found one of the key researchers, who seemed the most open, and we said, "Hey, what do you think? Let's bring you in and you work with us." He became our point person. He interfaced with all his peers throughout this process. Anything we needed to do, this person was the interpreter.

Then we built a set of algorithms, largely machine-learning-driven, with a lot of different features that proved to be fairly accurate. We surfaced them into a tool. And this evangelist on the team was the first to adopt it. He then went out and trained other people how to use it. He brought feedback to us, and through that process took on ownership. Now it's, "This is my project. I'm responsible for making sure this happens." Nice for us! I don't have to have a product manager now that's meeting with seven different people every month. They've fully taken it on and adopted the process.

Tak Nagumo, MURC: A key role for us is middle management. They're a kind of knowledge crew, conceptualizing and really justifying ideas from upper management, and also leading implementation throughout the entire organization. So that's up, middle, and down. We've also found that "expats" are really well-suited to blend different elements, particularly as we become more globalized. Understand that we have people who work in, among other places, Tokyo, London, New York, or Singapore. No one can communicate better in Tokyo, for example, the needs of employees in the United States than someone who has actually lived and worked in the United States.

Jeff Luhnow, Houston Astros: We decided that in the minor leagues, we would hire an extra coach at each level. The requirements for that coach were that he had to be able to hit a fungo, throw batting practice, and program in SQL.[2] It's a hard universe to find where those intersect, but we were able to find enough of them.

What ended up happening was, we had people, at each level, who were in uniform, who the players began to trust, who could sit with them at the computer after the game, or before the game, and show them the break charts of their pitches or their swing mechanics and really explain to them, in a lot more detail, why we're asking you to raise your hand before you start swinging or why we're asking you to change your position on the rubber or how you deliver the ball. Once we got someone in uniform to be part of the team, ride the buses with them, eat the meals with them, and stay in the motels they have in Single A,[3] it began to build trust. They were real people there to help them.

That was great, and that transition period worked for about two years, until the point where we realized that we no longer needed that, because our hitting coaches and our pitching coaches and our managers are now fully technology enabled. They can do the translation. And they're actually real baseball people who have had careers in coaching and playing. The "translators" have essentially become the coaches themselves.

6. SHARING DATA BEYOND COMPANY WALLS? NOT SO FAST
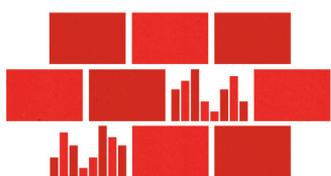
The takeaway: *There's increasing buzz about a coming shift to ecosystems, with the assumption that far greater value will be delivered to customers by assembling a breadth of the best data and analytics assets available in the market rather than by creating everything in-house. Yet data leaders are building cultures that see data as the "crown jewel" asset, and data analytics is treated as both proprietary and a source of competitive advantage in a more interconnected world. (For more on the potential and perils of data sharing, see "Shaking up the value chain," on McKinsey.com.)*

Jeff Luhnow, Houston Astros: There was a trend in the past of using external companies to house data like scouting reports or statistics. Most of that has now come in-house. When I was with the Cardinals [2003–11], we used

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[2] A fungo is a ball hit in the air to give players fielding practice. Batting practice involves swinging at multiple balls thrown in fairly rapid succession by a human pitcher or machine. SQL, a programming language, stands for Structured Query Language.

[3] A lower level of minor-league baseball, usually played by younger athletes in the early stages of their professional careers.

an outside provider, and when I got to the Astros they were using an outside provider, but the response time and the customization was lacking. Most important, when you come up with a way of looking at the world and you want the external provider to build the model for you, you don't want them to share it with the other 29 clubs. It's difficult to have the confidence that it's not going to be shared in some way, shape, or form. I think that's led to most clubs believing that their way of handling data and information is a competitive advantage. It therefore becomes critical to have control over that in-house.

Ibrahim Gokcen, Maersk: We announced a collaboration to develop a shipping-information pipeline—a form of utility that brings standards across the entire ecosystem. And that will require us to build an ecosystem of participants across the industry—freight forwarders, BCOs, shippers, carriers, truckers, terminal operators, and governments. In that case, it really is all about sharing and collaboration. You have to be incentivized. Maersk plans to participate on the same terms as all other participants. So unless everybody contributes into this ecosystem and platform, the value that everyone else gets is not there, right?

But for some other cases, clearly we can create unique insights and machine learning and AI algorithms and applications and software products for our teams. We can transform our operations and serve our customers much better. So those things, obviously, we want to keep to ourselves. We also don't want to create a situation where we have hundreds and thousands of different companies working for us. We want to be able to insource key talent as much as possible. And that's the journey we're on today. We are building those capabilities in-house, which means we'll rely less on contractors.

Cameron Davies, NBCU: You've got to get people within the organization to understand that first-party data is really important. I'll give you an example. We had a business unit that signed a contract with a data vendor to do some marketing-analytics work. It was fine; we couldn't take it on at the time. We agreed to help support it. However, they didn't ask us to review the contract. When we did get the contract, later on, we learned two things that were a little disconcerting to us.

Number one, there was nothing in the contract that said the vendor had to give us back any of the transformed or enriched data. Well, that's a lot of work to go do; plus, we provided the data in the first place. And not to get any of that back? And then the second disconcerting thing—and the most disconcerting thing in the contract—is that it gave the vendor the right to keep that data and use it in their syndicated sources for their further products. Now, I don't

blame the vendor. If I could get away with that contract, I would write it that way, too.

So we've gone on a little bit of an education tour. We put together a package and we did a little road show. "This is an asset. Here's how we use it. You should think about it as something valuable, not just something you just read over in the contract and give up." I think as people see the value, they're getting more excited—like, "OK, not only can I use *my* first-party data but I can bring in other data, enrich it, and create value across the organization."

Ted Colbert, Boeing: I approve every single project that goes into the cloud; it's very helpful that we have a process in place to do that. Our cybersecurity consciousness also has caused us to put a bunch of infrastructure in place to protect the company. It's natural to worry about whether this slows down our ability to innovate or to deliver new capabilities and leverage cool technology. But my first mission is to protect the company.

7. MARRYING TALENT AND CULTURE

The takeaway: *The competition for data talent is unrelenting. But there's another element at play: integrating the right talent for your data culture. That calls for striking the appropriate balance for your institution between injecting new employees and transforming existing ones. Take a broader view in sourcing and a sharper look at the skills your data team requires (exhibit).*

Ibrahim Gokcen, Maersk: This is a company that manages close to 20 percent of global container-trade capacity. Think of the impact to populations. The passion and the purpose are there, and that helps us a lot in attracting the right people globally. We focus on those talents that we need, that we can embed into our business, who can help us execute as soon as possible, but also the pipeline that will be our future leadership team.

I think we have seen that you don't need to have a PhD in computer science, for instance. We actually have a lot of astrophysicists who are amazingly good at working with data and creating value from data. For the skills that we are hiring, industry is not a big differentiator, because we are more interested in functional skill sets. For example, we try to hire an amazing software developer, regardless of which industry he or she worked in before, because we know that an amazing software developer can create a disproportionate amount of value for the company.

Defining roles is an important first step in sourcing and integrating the right talent for your data culture.

Business skills

1 Business leaders

2 Delivery managers

6 Data architects

7 Analytics translators

5 Data engineers

8 Data scientists

3 Workflow integrators

4 Visualization analysts

Technology skills   ## Analytics skills
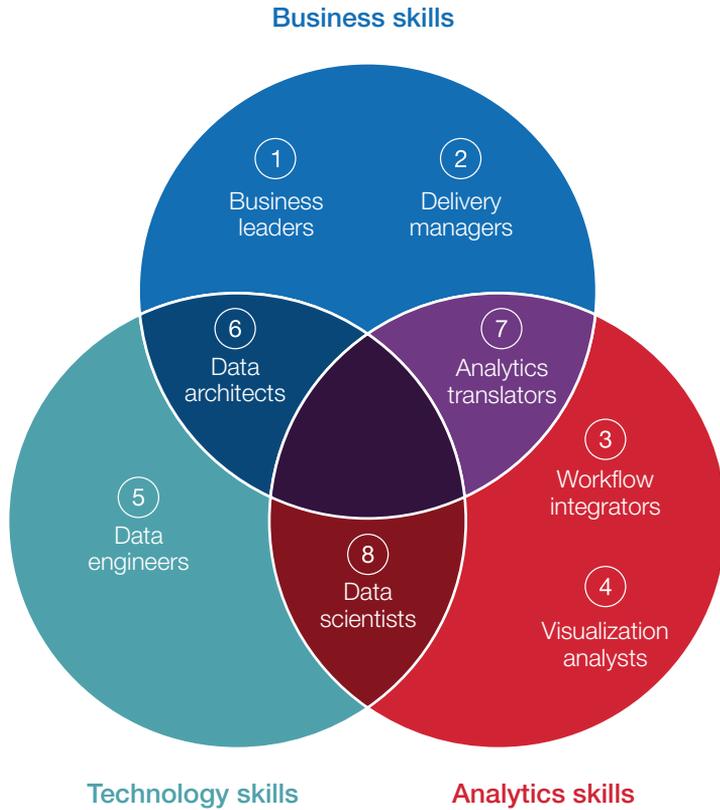
1 **Business leaders** lead analytics transformation across organization

2 **Delivery managers** deliver data- and analytics-driven insights and interface with end users

3 **Workflow integrators** build interactive decision-support tools and implement solutions

4 **Visualization analysts** visualize data and build reports and dashboards

5 **Data engineers** collect, structure, and analyze data

6 **Data architects** ensure quality and consistency of present and future data flows

7 **Analytics translators** ensure analytics solve critical business problems

8 **Data scientists** develop statistical models and algorithms

> "It's not about the data itself. It's not just about the analytics—any more than taking a vitamin is only so you can claim you successfully took a pill every morning. When it comes to analytics, we have to keep in mind the end goal is to help make better decisions more often."
>
> —**Cameron Davies,** NBCUniversal

Cameron Davies, NBCU: I find it interesting because "culture" itself is a bit of an ethereal term. I used to have a boss at Disney who would say to me, "If you only hire people within your industry, you'll never be smarter than anybody else in your industry." That has always stuck with me. As these data-science programs have evolved, the demand [for talent] has grown. Unfortunately, what we see is the skill set necessarily hasn't followed. People now know how to use some of these tools, but they don't really understand the basic concepts behind the tools, the math that they're using. If you put the math aside for a moment and focus on their ability to learn the business, manage products, interact with clients, then often you can find people you can pair together and have them become very successful.

We've had a lot of luck hiring from nontraditional areas. One example may be our guy who runs all of our predictive analytics; he actually has a PhD in political science and worked for the Mexican government. Nobody would have picked up his résumé and said, "Yeah, this is a guy who I should go hire to go build forecasting models and interface with a bunch of media creatives on predictive models to tell them how good their show's going to do." Yet he's done a brilliant job of it.

Rob Casper, JPMorgan Chase: The people who succeed in this business are the ones, obviously, who are smart and have high integrity. Those are table stakes. Next, I look for some subject-matter expertise. But you want to have people who bring different things to the table. If you have a team that's very similar in nature, you're not going to get that necessary healthy tension. You want somebody who's strong with technology. You want somebody who's strong with business process. You want somebody who's strong with risk and regulatory. You want people who can communicate effectively, both in

writing and verbally. If you have that, then you have the healthy tension that makes for a good team.

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Culture can be a compounding problem or a compounding solution. When an organization's data mission is detached from business strategy and core operations, it should come as no surprise that the results of analytics initiatives may fail to meet expectations. But when excitement about data analytics infuses the entire organization, it becomes a source of energy and momentum. The technology, after all, is amazing. Imagine how far it can go with a culture to match. Ⓠ

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TEN RED FLAGS

The red flags highlighted in this article represent three of the ten challenges identified in "Ten red flags signaling your analytics program will fail," by Oliver Fleming, Tim Fountaine, Nicolaus Henke, and Tamim Saleh, available on McKinsey.com.