# The future of data analytics in human resources

Our roundtable discussion featuring executives from Facebook, LinkedIn, and Salesforce highlights the ways in which data analytics is transforming human resources.

In many organizations, human resources (HR) has been slow to integrate analytics despite its promise to transform how the function operates and the value it can contribute. Marketing provides a relevant parallel: before 2004, it was nearly impossible to track return on investment (ROI), and budgets were constricted as marketing departments became cost centers. Then something changed. Technology automation, the introduction of new skill sets (for instance, data scientists), and real-time analytics led to predictive funnel metrics and accurate ROI tracking. Budgets expanded, marketing became a profit center, and chief marketing officers started getting the top job.

HR is now on the verge of this data-driven transformation. Heidrick & Struggles recently hosted a panel with three data-driven HR leaders who have built impressive teams and affected organization-wide change: Tito Magobet, senior director of talent acquisition for global R&D at LinkedIn; Dr. Ernest Ng, senior director of employee success at Salesforce; and Ross Sparkman, head of strategic workforce planning at Facebook. The following article, adapted from the discussion, features the panelists' insights on how the most innovative organizations have already begun their transformation through investments in new technology, new skill sets, and a forward-looking predictive agenda on talent.

# Getting started

*The executives discussed how they got into data-driven HR—and suggested ways in which other companies can begin to yield counterintuitive insights and elevate HR's role in the organization.*

**Ng:** I started off at the Walt Disney Company right out of graduate school. And at that time, maybe six or seven years ago, HR was just starting its transformation, growing beyond qualitative skills such as relationship building to a much heavier emphasis on understanding our numbers. That's where my applied psychology background fell into place, and I started to ride that wave of helping HR transform.

I started at Salesforce as part of a team of 2 analysts; now there are 12 of us. We gained credibility for data-driven HR by helping our HR team better understand sales performance and attrition. We started with an advantage because our salespeople use our own Salesforce platform, so there's a lot of data to work with. We merged those data nuggets with people data into our core platforms to demonstrate to our leaders that the data we were capturing in our sales platform can actually start to drive people strategy. That was a pivotal moment for us—when we gave our sales leaders the metrics to transition from managing deals and accounts to managing people.

**Sparkman:** I started off in the military, which is a really interesting place to learn about workforce planning—it's constantly churning, people are coming and going, there are operational commitments all over the world, and it's highly matrixed. After a stint at General Electric, I joined Facebook, where we have three separate teams working to optimize insight into our workforce. One

team is the data engineers; they sit in information technology (IT) and do a lot of the sophisticated data structuring and manipulation to create dashboards, which feed the other two teams the information they need to analyze and inform decisions. The second team focuses on answering questions about what's happening today—for example, why did attrition increase by 7%? The third team, which is the one I lead, tries to answer questions about what's going to happen tomorrow and what's coming down the pipeline.

At Facebook, it wasn't as necessary as it may be at other companies to convince leadership that we needed to take a different approach to analyzing our people. But no matter where you are, a crucial first step is to partner with other leaders, including finance, to identify the organization's key drivers of growth. You can then relate those drivers through regression analysis to people growth. You can create models that basically show that if we have *X* number of projects on the horizon, that equates to needing *Y* number of people. This approach takes some subjectivity out of the budgeting process—for example, when someone says, "I want 10 people for this team." Now the discussion becomes, "OK, help me understand why you want 10 people, because the data suggests that you need 8 people. What's the business case for those other 2 people?"

You can also run a cost analysis on other variables, such as whether it's better to pay more for experienced hires or less for inexperienced hires. At Facebook, I got the conversation started by developing a model that showed we could have saved money by building our workforce through an investment in more experienced hires. When we laid out the long-term cost difference of hiring people with five years' experience versus those with two years' experience, we had a strong business case.

**Magobet:** I also started in the military, in the Air Force. From there I went to Google, where I was charged with helping the company improve diversity—using data to identify and attract female technologists and other underrepresented folks. When I joined LinkedIn, we didn't have the benefit of an analytics function. But the company was growing, doubling its head count about every year, and we knew we had to think about our talent in a different way. We launched a "tiger team" approach—bringing together a diverse group of specialists, including a recruiting leader, an HR analytics expert, an HR business partner, and an engineering client—to combine our functions and efforts to solve business problems.

# The leading edge of data-driven HR

*From implementing parental leave policies to compressing hiring cycles, the executives discussed specific cases of how their HR function has wielded data in decision making.*

**Sparkman:** Recently we've been in the news because we implemented a four-month parental leave policy for both male and female employees around the world. That decision was driven by data; my team performed a cost-benefit analysis to understand the opportunity cost of retaining certain individuals, as well as the cultural well-being and workforce engagement that such a policy would create. We worked directly with finance and sales operations, and we found that the ROI would substantiate making the initial up-front investment.

**Magobet:** At LinkedIn, we're exploring methods for scaling talent identification and improving recruiting outcomes. One approach we've used that has yielded great ROI is transitioning from a requirements-based model to a talent profile or pipeline approach. In this process we've distilled 80% of our core engineering hiring down to 10 talent tracks (or talent profiles). This has allowed our sourcing team to use LinkedIn data

to drill down from a base number of prospective candidates to an actionable pool of high-quality talent that maps to our organizational needs. By focusing on fewer, more relevant signals, we've also been able to establish analytical models that support predictive hiring and significantly reduce our sourcing cycle time. Candidate-oriented research tasks that used to take us weeks and months can now be accomplished in a fraction of that time.

We also wanted to get a better sense of the makeup of LinkedIn employees—their schools, degrees, titles, tenure—so we could identify gaps. We built a model that can instantly analyze LinkedIn data from our employees' public profiles and return valuable insights about our workforce—things like years of experience, tenure, previous work experiences, and academic information. By doing this, we can see how the workforce is evolving. And these models run at the snap of a finger.

# The future of HR analytics

*The executives wrapped up with a look at the future of HR data analytics: predictive modeling, machine learning, and ensuring all such technology is used in a way that builds instead of erodes trust.*

**Sparkman:** As of now, not many HR functions are using predictive analytics. For industry leaders, the next horizon of the analytics revolution will be implementing sophisticated machine learning models. And if we are able to use our platform data, we could get really, really accurate in our predictions—accurate enough that privacy concerns and the "creepy" factor could come into play in a real way.

Case in point: Facebook's platform data is arguably the richest data set in the world. If we were to use our own data to develop a predictive attrition model, we could estimate with incredible accuracy the moment when an employee will leave the organization. The problem is that any intervention could potentially be really off-putting to our employees; it could creep them out. So we don't use that platform data on our own employees, even though the eventual objective would be to improve engagement and the employee experience. We're still navigating that question.

**Ng:** Some of these predictive modeling projects take a long time because they depend on a lot of lagging indicators such as sales performance. Building the data set necessary to reach valid conclusions takes a long time. When you first get started, people will ask you to provide answers—and you may have to say, "Well, it's going to take a year because you didn't set it up where you're collecting the data in the right way." I think it's important to start looking at the internal data sources you have, even if they're not immediately related to the ideas you want to explore. They may be tangential, but they can help you start to understand your workforce in a richer way, rather than just what's in your HR information system or your applicant tracking system.

**Magobet:** For anything that we try to do with predictive analytics, our fundamental philosophy is to put the interests of our LinkedIn members first. This "members first" value powers all of the decisions we make, including how we gather and respect personal information of our members and employees. The stakes are too high to operate any other way. ∎

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