REINVENTING TALENT MANAGEMENT HOW GE USES ANALYTICS TO GUIDE A MORE DIGITAL FAR-FLUNG WORKFORCE BY STEVEN **PROKESCH**

DURING JEFF IMMELT'S 16 YEARS AS CEO, GE RADICALLY CHANGED ITS MIX OF BUSINESSES AND ITS STRATEGY.

Its focus—becoming a truly global, technology-driven industrial company that's blazing the path for the internet of things—has had dramatic implications for the profile of its workforce. Currently, 50% of GE's 300,000 employees have been with the company for five years or less,

meaning that they may lack the personal networks needed to succeed and get ahead. The skills of GE's workforce have been rapidly changing as well, largely because of the company's ongoing transformation into a state-of-the-art digital industrial organization that excels at analytics. The good news is that GE has managed to attract thousands of digerati. The bad news is that they have little tolerance for the bureaucracy of a conventional multinational. As is the case with younger workers in general, they want to be in charge of their own careers and don't want to depend solely on their bosses or HR to

identify opportunities and figure out the training and experiences needed to pursue their professional goals.

What's the solution to these challenges? GE hopes it's HR analytics. "We need a set of complementary technologies that can take a company that's in 180 countries around the world and make it small," says James Gallman, who until recently was the GE executive responsible for people analytics and planning. The technologies he's referring to are a set of self-service applications available to employees, leaders, and HR. All the apps are based on a generic matching algorithm built by data scientists at GE's Global Research Center in conjunction with HR. "It's GE's version of Match.com," quips Gallman. "It can take a person and match him or her to something else: online or conventional educational programs, another person, or a job."

Along with Accenture, American Express, Google, IBM, Microsoft, and Procter & Gamble, GE is in the vanguard of the emerging field of workforce, or people, analytics, says John Hausknecht, an associate professor of human resource studies at Cornell University's ILR School. Here's how GE is using analytics to augment its core HR processes:

CAREER AND SUCCESSION PLANNING

The tool for career and succession planning is the application that's furthest along. GE launched it in early 2016 and significantly enhanced it in June 2017. The app is embedded in the company's proprietary succession-planning platform, used for those in executive roles. (A complementary career-explorer program in the employee portal helps salaried employees envision next career steps.) Using data on the historical movement of GE employees and the relatedness of jobs (which is based on their descriptions), the app helps people uncover potential opportunities throughout the company, not just in their own business unit or geography. Lots of companies post open positions on their websites. What's different about this tool, says Gallman, is that it shows someone jobs that aren't open so that he or she can see what might be possible in his or her GE career.

Leaders can also use this tool to do better succession planning and career coaching—by identifying nonobvious candidates, for instance, "The algorithm helps uncover great talent for every role in the company, irrespective of whether people are male or female, diverse or not, introverts or extroverts, and so on," says Paul Davies, another HR executive at GE. "So when we're thinking about who could possibly fill a particular role, we have a technology that helps us come up with additional possibilities."

That said, the analytics system will complement, not replace, conversations about professional development between employees and their bosses and HR managers. "It is never going to be a tool that simply says, 'You do this job. You take this class," Gallman stresses. "We just want to give people more options and empower them to choose their own paths."

Cade Massey, a practice professor at the University of Pennsylvania's Wharton School, believes that although using analytics for career and succession planning is new, organizations will embrace it as they "figure out that one of the best ways to keep their people is to help them better understand other opportunities."

TRAINING

This tool recommends the training or education someone needs to better perform his or her existing job and to progress. Although still an early prototype, it has been tested with hundreds of employees; perfecting it and rolling it out companywide in the next year is a high priority. The plan is to connect it to a performance development app, now used by all salaried GE employees, that gives them a steady stream of constructive on-the-job feedback from their managers and team members. (See "GE's Real-Time Performance Development," on HBR.org.) The new tool will read an individual's priorities and colleagues' suggestions for improvement; match those with learning tools that others in the same country, level, and function have found useful; and offer options—for example, physical or online classes or reading material.

HIGH POTENTIALS

In the mid-2000s, GE jettisoned the forced ranking of salaried employees, a practice instituted by Jack Welch, its CEO from 1981 to 2001. (He was famous for insisting that people in the bottom 10% be fired.) Until

mid-2016, the company (under Immelt) placed salaried employees into one of five categories: role model, excellent, strong contributor, development needed, or unsatisfactory performer. That practice was then replaced with the system of providing employees with a flow of constructive feedback. This, however, created a problem: how to identify superior performers and high potentials.

Using a technique called the Pareto frontier, the company's HR analytics team is trying to figure out how to draw on "outcomes" data—salary increases, bonuses, promotion rates, selections to attend roundtables with leaders or go through management development programs—to see who stands out from the crowd. "We think this multidimensional approach will lead to better talent decisions than any single attribute rating could deliver," Gallman says.

NETWORKS

The purpose of this application, which is in the advanced prototype stage, is to help employees build a network. "Knowledge work often depends on finding other people with particular skills to help you solve problems," Gallman says. "This tool will allow people to understand where to go for that help. The best partner may not be your supervisor or your colleagues. That person may be on the opposite side of the world and in a different business."

GE used the app to help integrate the 11,000 employees of Alstom's power and grid businesses and the 22,000 GE Power employees after the firm acquired the French company's divisions, in 2015. The system matched people with similar skills, education, and experiences; provided them with virtual collaboration spaces (WebEx meetings and GE's version of Google Hangouts); and suggested topics for discussion. (What's hot in the industry right now? How did you enter the field? What excites you the most about the work ahead?)

TALENT RETENTION

This application, which is in the "test and validate" stage, will predict, within a six-month window, when managers and professionals in a given function (say, software engineering, sales, or HR) are likely to jump ship so that GE can intervene. It will identify circumstances under which people often quit—for example, when someone on their team has recently left. It will then alert HR managers when such incidents occur so that they can encourage employees to stay. In this example, that might mean talking to remaining team members about the next roles they might play.

"If we can reduce GE's average voluntary attrition rate—which, including retirees, is about 6%—by even a small amount, say one percentage point, it would have enormous productivity implications," Davies says. For similar reasons, combating attrition is typically a top priority for many firms that launch people analytics programs, says Cornell's Hausknecht.

CULTURAL CHANGE

A final application, now in the early stages of development, would help GE pinpoint aspects of its organizational structure that influence its drive to become a faster, nimbler organization with a greater focus on customer outcomes. For example, do people on big teams feel differently about the company than people on small teams do, and do they perform their jobs faster, the same, or more slowly? How much does a team's distance from its business's headquarters or its leader affect members and the amount of non-value-added work they do? The HR team is using data from employee surveys, exit interviews, and organizational design to try to understand such factors.

SOME APPLICATIONS OF people analytics will be especially difficult to perfect. They include detecting high potentials and driving cultural change, because so many factors are at play. But with the promise of the overall field so high, the discipline is attracting companies of all sizes, eager to take on the challenges. "For many firms, talent is their most important asset—and historically, judgment around managing talent has been mostly intuitive and biased," Massey says. "There's no panacea, but as analytics progresses, it offers a chance to make more rigorous those intuitive methods and to de-bias some of that judgment."

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