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What's on Your Mind? Bosses Are Using Artificial Intelligence to Find Out

AI tools give companies instant insights from employee surveys that once took months to process



ILLUSTRATION: THOMAS FUCHS

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Human-resource departments are becoming a bit less human as companies turn to artificial intelligence for help with hiring and firing—and to learn how employees really feel about their bosses.

Every year at SPS Companies Inc., most of the steel processor's 600 employees, from warehouse staffers to top executives, fill out a 30-minute confidential survey that asks, among other things, whether they feel micromanaged and whether they feel their managers support their professional growth. One question challenges survey-takers to gauge how respected and valued they feel within the organization.

This year, for the first time, the Manhattan, Kan.-based company tapped an artificial-intelligence tool called Xander to analyze responses. Xander can determine whether an employee feels optimistic, confused or angry, and provide insights to help manage teams, the tool's developers at [Ultimate Software Group](#) Inc. said.

From a block of text, the software analyzes answers to open-ended questions based on language and other data, assigning attitudes or opinions to employees.

One top executive at SPS learned from recent survey analysis that he needed to work on his temper. "One of my lowest scoring items was maintaining my composure under stress," he said of the feedback from his direct reports. On the bright side, Xander reported that the manager's staff felt he was fair and honest.

Research shows that emotions are key to understanding what motivates employees. How people feel often determines if they go above and beyond in the workplace or underperform, says Jason Hite, chief people strategist at HR consultancy [Daoine Centric](#) LLC. It can also explain why people leave. [Companies have used technology to track employee actions](#) and help boost productivity for years, but now some are turning to software to sniff out differences between what employees say and how they feel.

At [First Horizon National](#) Corp., a regional bank based in Memphis, it once took a team of six human resource personnel three months to pore over 3,500 surveys. Managers would take another five months to submit action plans based on the data.

"By the time they got started we were getting ready to do another survey," says Mario Brown, manager of leadership assessment and development at First Horizon.

Using Xander, First Horizon could slice and dice the feedback as soon as the survey closed. One insight the company gained from the survey was that it needed to work on its training program.

Steel company SPS streamlined its health-care plan offerings after survey results showed the options confused and overwhelmed employees. HR staffers have used some of the time saved processing survey results to start new mental and physical health initiatives for employees, including a wellness blog.

More than 40% of employers world-wide have implemented artificial intelligence processes of some kind, according to a recent study from Deloitte.

But as AI tools infiltrate HR departments, regulators are struggling to keep up.

A number of software companies including HireVue Inc. and Syndio offer artificial-intelligence tools to help make decisions about hiring, firing and compensation. That worries employees who are wary of being psychoanalyzed by software, and some employment lawyers fret that AI programs might contain biases that could lead to workplace discrimination.

“I’m fully aware of a handful of people who didn’t want to take the survey because they had a fear of being tracked,” says Corey Kephart, vice president of human resources at SPS.

Since most emotions are communicated nonverbally, programs that solely rely on text can miss the bigger picture, said Julie Albright, a digital sociologist at University of Southern California. Artificial intelligence might one day be trained to recognize signs of depression and other emotions in facial expressions and voice tones, she said, but the technology isn’t there yet.

Any algorithmic bias is likely to have an outsized impact on minorities and other protected classes of employees, said Garry Mathiason, an attorney at Littler Mendelson P.C. who specializes in artificial intelligence and employment law. A hiring algorithm might notice a higher rate of absences for people with disabilities and recommend against employing them, for example.

The Equal Employment Opportunity Commission, the U.S. regulator that enforces laws preventing workplace discrimination, hasn’t issued official rules determining how artificial intelligence can be used in human-resource decisions, but a panel convened by the agency in 2016 concluded that the technology can potentially create new barriers for opportunities.

Mr. Mathiason said he expects official guidelines from the EEOC in the near future. In the meantime, companies can avoid legal gray areas by keeping human review as part of any AI-enabled decision-making process and by disclosing how the AI is being used, he said.

Though confidential, the surveys aren’t anonymous. Xander can take into account an employee’s demographic data, previous surveys, and other background information when analyzing responses. Ultimate Software said the tool has safeguards in place to protect confidentiality. For example, a manager may need a certain number of direct reports to respond to a survey before gaining access to verbatim responses to make it harder to identify who said what.

The company said Xander can’t always get it right—but neither do people.

It still requires humans to pick up body language cues, and “even humans only catch sarcasm half the time,” says Suhail Halai, Ultimate Software’s head of customer experience.