

Cool New Uses of Big Data for HR

The following discussion and interview was conducted by WSR magazine with Michael Beygelman, CEO of Joberate, on their unique big data analytics for social media that predicts employees at risk of leaving.

As HR struggles to understand and leverage big data, one leading edge company that is successfully leveraging big data in social media for predictive analytics is Joberate. Joberate is a company with roots in Finland, which now is based in New York but still maintains software development offices in Lithuania. In 2012, Joberate developed a technology platform that measures job seeking behaviors of individuals based on their digital footprint. When combined with a patent-pending predictive analytics engine, Joberate says they can accurately predict who is likely to change jobs, and when.

The output from Joberate's big data social media analysis is called a "J Score," which is an index that is represented in a non-linear score from 4 (lowest level of activity) to 70 (highest level of activity), as a measure of the job seeking behaviors of any individual or group of individuals in the global workforce. The J Score predicts changes based on the job-seeking behaviors of individuals or groups, their drivers, timing, location, and enables myriad actionable analytics. In simple terms, the higher the J Score the greater the job seeking level of activity and the higher the likelihood of departure.

Joberate is led by CEO Michael Beygelman, who originally ran the global recruitment outsourcing for the Adecco Group during the early days of the HR outsourcing industry. He was originally a Joberate client, which at the time was an Internet and social media-based staffing agency, who joined first as an advisor and later as CEO to help them transition to be a more of a technology-focused company.

The genesis of this work or the underlying thesis that the team has had is that organizations and individuals lack understanding and transparency about big data, social media, and the true implications of engagement as they might relate to job-seeking behaviors. According to Mr. Beygelman, "I essentially wanted to actually solve problems and get involved in big data and the Web, and Joberate had some exciting potential and need to transition into more of a digital new business."

He also stresses, "We don't look at what is called PII, (Personally Identifiable Information). We rely on what is in the public domain in terms of social media."

Initially, Joberate had a thesis that the best information about people was external to a company's databases in the Web, and that the way to know more about a person's job-seeking behaviors, as well as more about them as an individual, was by looking at the specific digital Web footprint they leave behind. Over time our team created a pretty cool prototype, which became the backbone of our core technology and initially measured changes in people's social Web activity. By doing that we began to see some really interesting patterns and we realized we would need a lot of computers and a lot of people to analyze all this data – truly a big data problem. So from there we invented a machine-learning approach that is used in things like Amazon.com, credit card fraud systems, and Netflix. Essentially we measure and track the information and train the engine to make a decision, and then we give the engine more information and it updates its decisions, etc.

From there the company has been able to extrapolate and predict things like how likely someone is to leave their current employer, where they might be likely to go, and we can also benchmark one company versus another in terms of employee engagement and relative percentage of workforce that is at risk of leaving.

J Scores and analysis can aggregate to a department or entire company so as to classify and report by individual, department, or company-wide trends (see Figure 1.) On Joberate's scale, scores that are above a J Index Score of 30 are considered "exploring," and those who are even higher are classified as "at risk," and are basically saying to the company with their footprint, "I want out."

In fact, *Joberate.com* has listed on their website what they call the Joberate Employment Topology, which includes the J Index Score as an aggregate index score being used to assess relative engagement and strength of job-seeking behaviors at 100 companies on the Fortune 500 list. The companies on the list are ranked in terms of their J Index Score performance from lowest (meaning most satisfied and lowest level of job seeking) to highest. According to the company's website, the highest or worst scoring company of the 100 listed is Walmart Stores with a 14.96 J Index Score.

According to Mr. Beygelman, "What is interesting is that we have been running the J Index Score for a while and the same people (companies) that were at the bottom are generally still at the bottom. In fact, the next version of the J Index coming in October 2014 will enable the user to click on a company and get more detailed information. What we are beginning to track, which is really cool, is the correlation between employment volatility and stock price. So when this is live, one will be able to look at 30, 60 and 90-day employment volatility as represented by the J Index Score and correlate that to stock price. Based on what we have seen it becomes very interesting."

A sample of a Joberate Dashboard available via a SaaS-based subscription is shown below.

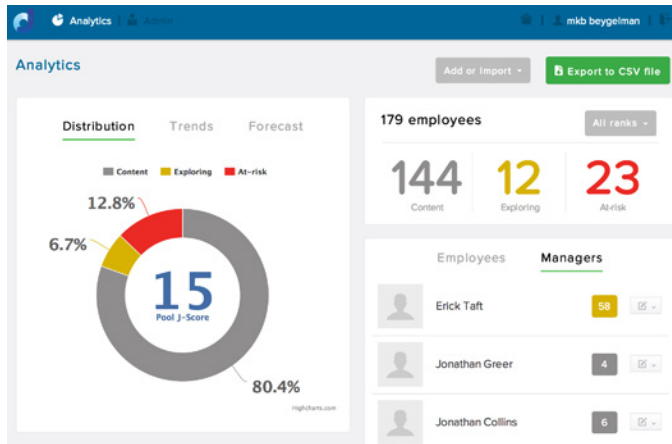


Figure 1. Joberate Dashboard.

The overall result is a new measure and tool for transparency into the potential for voluntary attrition and engagement across a wide range of companies globally.

Mr. Beygelman states that the trends can be dramatically different depending upon the industry. For example, in some industries the higher the J Index Score or employment volatility and related voluntary attrition, the better the company does, which seems entirely counter-intuitive. Conversely, for some companies the lower the J Index Score the worse that company may perform in terms of stock price. The story seems to be based on specific industries and sectors.

Current customers are using this technology as a micro view to measure the job seeking behaviors of their employees with the idea of identifying hot spots of likely future turnover so that they (the company), can implement some sort of intervention. Essentially, as a tool to spot at-risk groups and conduct interventions, or address pain points that may reduce or prevent turnover.

Mr. Beygelman tells the story of one case study example with a life sciences company in the Boston area who started seeing more voluntary leaves from the company but was unable to put their finger on the problem. "They started measuring the job-seeking behaviors of their workforce. From this they identified one IT organization that seemed to represent a disproportionate amount of the voluntary turnover. At that point the company had a

potential ROI but chose to keep investigating. In talking to the manager for the area, HR at the company established that the manager was aware of the problem but did not know the underlying issue or root cause. So the company then was able to use heat maps and dashboards provided by Joberate to overlay geography with the turnover. From this a trend emerged, which showed that the turnover was happening in one geographic area. In fact, by integrating data from Google on traffic patterns they discovered that this area had the worst traffic problems getting to and from work every day due to ongoing construction. From this, the company was able to implement more flexible working arrangements with the employees impacted by the construction, enabling them to work from home some days and to come in later or earlier in order to miss peak traffic commute hours."

According to Mr. Beygelman, within 30 days after implementing more flexible work policies, the forecast attrition rate dropped by half.

About Michael Beygelman



Michael Beygelman is CEO of Joberate, a technology company whose mission is to quantify and measure job-seeking behaviors of the global workforce. The company has a global vision for a more transparent employment environment, in support of which Joberate recently launched the publicly available J-Index that measures job-seeking behaviors of Fortune 100 employees. Prior to Joberate, he built Adecco Group's global recruitment process outsourcing (RPO) business into a recruitment powerhouse that spanned more than 48 countries and 100 clients. Under his leadership, the company earned the #1 industry ranking by Outsourcing Institute, and was responsible for one new-hire nearly every seven minutes, touching more than 60,000 new-hires annually. He was named to the 2013 Staffing 100, a list of the 100 most influential people in the recruitment industry as nominated by companies, advisors, and industry analysts and is the recipient of the HRO Super Star recognition awarded by *HRO Today* magazine. He is a monthly columnist for HR publications, frequently speaks at HR conferences, and is a former executive director of the HR Services and Technology Association. He can be reached at michael@joberate.com.