



# The Promise (and Challenges) of Data Driven Talent Management

**By Douglas Melsheimer**, Managing Director

For two decades now I've been observing the evolution of HR technology. First as an investment banker, then as an investor, an operator, and finally as an investment banker again. As anyone in the industry can attest, it's been a wild ride, fueled by technological innovation, changing attitudes and needs, and evolving preferences and practices of HR professionals.

Every few years we experience a shift in priorities as well as in the vendor landscape. My first experience in the industry was with the early job boards such as Monster, HotJobs and Headhunter.net. Then along came first generation Applicant Tracking System (ATS) vendors such as Personica, Resumix and Webhire. Around the same time, learning came into vogue with Learning Management System (LMS) vendors taking the stage. This included companies such as Docent and Click2Learn, which eventually merged and became SumTotal (now Skillsoft). In the mid-2000s, Employee Performance Management (EPM) took over as the must-have offering as performance reviews moved online and juggernauts such as SuccessFactors took over mindshare in the HR suite. Finally we have Workday, who over the past several years has built the broadest suite of HR solutions addressing everything from Core HR to payroll to recruitment and talent management.

Aside from Workday, all of the aforementioned vendors have either faded in relevance or disappeared altogether as their primary categories or specific solutions have fallen out of favor or failed to keep pace with innovation. I can't remember the last time I heard mention of an EPM solution, as a deployment, an investment or an acquisition. I know these solutions are still in use, but has there been any recent innovation or venture investment? Conversely, over this twenty-year period recruitment technology continues to evolve and has the most active ecosystem of start-ups and emerging companies. It

is also the category attracting the most venture capital investment, with approximately \$500 million pouring into these businesses since 2011.<sup>1</sup> Why is this?

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Recruitment, over any other category of HR technology, lends itself particularly well to technology innovation. For one, recruitment technology is addressing a highly inefficient and frustrating process. The market has a massive supply of candidates and intense demand to fill open positions, yet jobseekers complain there are no jobs, and recruiters argue there are not enough qualified candidates. It seems crazy that technology can't help to bridge this gap.

## How Technology-Driven Innovation Has Affected the Landscape of Recruiting

Historically, recruitment has been a highly subjective process, and that needs to change. Too many recruiters and hiring managers are basing hiring decisions on their own, typically non-scientific determination about how a candidate will perform in a certain role. More often than not, they are wrong, and those errors can be incredibly detrimental to business performance.

Today, we have an opportunity to apply real science, such as psychometric and cognitive assessments, while analyzing terabytes of employee and corporate performance data in making critical decisions about new hires and team building. Recruitment technology has always been at the forefront of innovation within HR technology, and I would argue that is only accelerating today.

There have been three major disruptions of recruitment technology dating back to the 1990s, all driven by key enabling “platform” technologies, with a fourth just emerging.

**Internet** – enabled the introduction of online job boards, which effectively moved classified job advertisements onto the Web. This led to mass distribution of job postings and ultimately an unwieldy number of candidates applying for posted positions. Years later, organizations began building dedicated career sites where candidates could learn about the employer and apply for jobs. More recently, the Internet has enabled email marketing and CRM (Candidate Relationship Management) capabilities, both of which are included

in today's recruitment marketing suites.

**Search** – enabled better organization of the recruitment process, with ATS solutions leveraging search technology to more efficiently prioritize and match resumes to open positions. This led to more efficient hiring processes and arguably better hiring decisions. It also enabled the first phase of recruitment marketing, which relied on SEO (Search Engine Optimization) to drive candidates to career sites and open employment positions.

**Social** – enabled targeted job distribution, recruitment marketing and employee referrals within social networks. This further improved hire quality as candidates, often passive, were sourced from relationships that already existed with employees in a company, in channels where they were already spending time, such as mobile devices and social networks.

The fourth major disruption will be, and at some level already is, **Data**. This is true in all sectors of the economy. The collection of, and now intelligent mining of data, is transforming every aspect of our daily lives. Marketers can predict your engagement with ads and offers thanks to the abundance of data they have collected about your interests, preferences, purchase history and geographic location, to name a few. Restaurants can predict how weather events will impact their businesses, which enables them to forecast and augment labor needs as well as their supply chain. Doctors can prescribe the right medication or treatment for an ailment based on real-time patient data as well as historical data from that patient and other patient populations. These are just a few of millions of cases of data-driven disruption. Some are overwhelmingly positive, some, arguably are a bit creepy.

## Data Technology has Huge Promise but Faces an Ironic Mismatch with HR

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As it relates to Talent Management, we're in the infant stages of data being applied in constructive ways. Early platforms have given recruiters tools to build robust profiles (well beyond LinkedIn) on passive candidates by aggregating data found around the web, also known as a social footprint, and targeting those candidates on channels where they are spending time. These early talent management platforms have delivered incremental value to recruiters but barely scratch the surface of how data will soon pervade talent management.

For decades, HR departments have been collecting data relating to employee demographics, employment history, performance reviews, turnover records, education and training experience, organizational structure and overall departmental and corporate performance. Machine learning has developed to a level of maturity where all of this data, with tuning by data scientists, can be leveraged

to make highly informed decisions about individual hires or broader workforce building. This will ultimately drive a new level of objectivity in the hiring process, which is a good thing.

No matter how confident we are in our subjective hiring processes, we all have blind-spots, criteria we believe are critical but don't necessarily predict long- or even short-term success of new hires. What if Artificial Intelligence (AI) could provide that formula for each organization? And it is unique for each organization, based on the culture, leadership, supporting cast, industry, job role, etc. All of it matters, not just which university a candidate attended, or their SAT scores, or that they were a "rockstar" at Google. They still may not fit in your organization. But AI, leveraging all of your historical HR and business data, will know that and help you avoid that hire and suggest a better candidate. Let's not forget, while not necessarily AI, data analytics has been utilized by professional and in some cases collegiate sports teams for over a decade with staggering results. Why are we not applying this rigor to businesses who arguably have more to gain by making intelligent, data-driven team building decisions?

While this next disruption carries with it enormous promise, it also needs to be met with significant caution. Data science and machine learning are advanced technologies that very few people understand. Today, HR organizations are not prepared to evaluate or engage with the offerings coming to market, and we fear purchase decisions will be made for the wrong reasons, such as strength of venture backing or brand recognition. There will be vendors promising machine learning who do not, in reality, possess that capability. We've seen this recently in the advertising technology sector. Nearly every buy-side vendor speaks of their machine learning technology, but very few have anything remotely close. Most are propped up by enormous teams of data scientists and highly-manual intervention, not true technology automation.

## **Conclusion**

The coming data disruption should be met with some skepticism but also with faith that the 2.0 version will deliver the benefits currently being promised. Version 1.0 will begin to automate the process of sourcing and building candidate pipelines, which is certainly of great value. HR professionals will begin to get acquainted with these technologies, and we presume will initially augment their organizations with in-house data scientists or third-party consultants who can assist in the selection of and engagement with these technologies.

By 2025, we believe version 2.0 will be in the adoption phase and organization building will be driven largely by computers. This will create powerful efficiencies for HR and will likely reduce the need for teams of recruiters, but it will also elevate HR leaders into increasingly more strategic roles.

This will be consistent with the impact of AI on other sectors, as [Marc Andreessen noted speaking of healthcare in a recent interview with Vox](#). “I think the job of a doctor shifts and becomes a higher-level, more important job that pays better as the doctor becomes augmented by smarter computers.” Time will tell, but we look forward to observing the ever tightening partnership between technology and HR. This next wave of disruption will be the most profoundly positive for the HR profession and ultimately organizational and business performance. **b**

<sup>1</sup>S&P Capital IQ

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