HR Technology Disruptions for 2018

Productivity, Design, and Intelligence Reign

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With somewhere around 3 billion people now working around the world\(^1\), the marketplace for HR technology and services is enormous—and ever-changing. This year, as I try to recap all the disruptive changes taking place, the simplest way I can put it is this: The market is reinventing itself. Three microtrends are driving this reinvention: changes in the overall technology landscape, changes in the way we work, and changes in the way we manage organizations.

1. **Changes in the overall technology landscape.** We now live in a world of always-on apps, floods of data, real-time communication, and increasing use of artificial intelligence (AI), cognitive bots, and intelligent predictive software. These technologies are quickly bringing new functionality to the world of HR. Want to know why you're feeling burned out? Curious about whom to partner with to improve your productivity? Need to pin down just what to do to get that promotion? All of this functionality and more is coming. Also likely to be on the horizon is increasing use of virtual reality (VR), which is poised to revolutionize training.

2. **Changes in the way we work.** We've been writing about the overwhelmed employee for years\(^2\), and it's still a major business issue. It's part of the reason productivity is almost flat in the United States (at 1.4 percent as of January 2017\(^3\)), while employee engagement is flat to declining\(^4\). It's also why many people are struggling to find a way to fit mindfulness classes, yoga, and a focus on wellbeing into their lives. In this hyperactive new working environment, HR technology should make work easier or most people simply won't use it. This is a big new challenge for vendors, and one reflected in the explosion of tools for pulse surveys, wellbeing, organizational network analysis (ONA), and engagement, all of which are intended to help companies make work life easier—and, consequently, more productive—for their employees.

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3. **Changes in the way we manage organizations.** Companies are increasingly operating as networks of teams—which puts team management at the center of organizational design. Deloitte’s 2017 Global Human Capital Trends research found the “Organization of the Future” to be the number one human capital issue today, with 88 percent of companies citing it as a top priority. And while systems that force us to view our organizations through a hierarchical lens may sometimes be necessary, they are simply no longer enough to effectively manage and support this new way of working. Team-centric tools, platforms, coaching, analytics, monitoring, and assessment tools are red hot—because they are needed.

Of course, reinvention is nothing new in the HR software market: change is the industry’s one constant (see Figure 1). During the 1970s and 1980s, HR software vendors focused on building systems of record. Companies purchased PeopleSoft, SAP, and other on-premise HR software and started to integrate HR into other enterprise resource planning (ERP) systems. During the 1990s and early 2000s, the industry focused on developing capabilities to support recruiting, training, and performance management, and integrated talent management systems emerged. Around 2010, companies began the move to the cloud, replacing their old core systems of record and building systems of engagement that employees could actually use themselves.

Today, I believe we are in a fourth phase, one that demands technology designed around teams, individuals, and networks—tools that implement agile talent practices and also help people be more productive. In addition to systems that are easy to use, workers today want systems that enhance productivity. During the next few years, many companies will be upgrading their traditional email systems and implementing new tools designed to help make collaboration, video conferencing, and every other form of communication easier—tools such as Microsoft Teams, Workplace by Facebook, Slack, Trello, Skype, HipChat, BlueJeans Network, and dozens of other offerings. If new HR tools do not also make this shift toward teams and productivity, they are unlikely to survive. The current wave of change sweeping the industry is likely to serve as a big wakeup call for legacy vendors.

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**KEY POINT**

Reinvention is nothing new in the HR software market; in fact, change is the industry’s one constant.

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Driven by this market reinvention, the past year has been one of the hottest I’ve ever seen among investors in HR technology. Venture capital and private equity companies invested $1.87 billion in HR and workforce-related products during the past two years, and that does not even include the wellbeing or educational technology markets. More than $900 million of that investment has taken place during the first seven months of 2017.

A massive wave of upgrades and replacement is sweeping the industry. Many companies are replacing their core systems with cloud-based technologies and/or building entirely new infrastructures of team-oriented, app- and data-centric, network-based applications for HR. Sierra-Cedar research shows that 45 percent of large companies and 51 percent of midsized companies are increasing their spending on HR technology, with only 8 percent and 10 percent, respectively, spending less.

It’s an exciting time for investors and buyers alike. The remainder of this report provides our readers with some context to help make sense of all that excitement.

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7 Proprietary information provided to Bersin by CB Insights.
8 Ibid.
1. A New Focus on Tools for Workforce Productivity

When it comes to workforce productivity, the first thing to understand is that the amount of time workers spend online is still increasing. Further, we are about to go through a massive global shift away from email as we know it and toward conversation-based systems such as Slack, G Suite, Workplace by Facebook, Microsoft Teams, SAP Jam Collaboration, and many more. Over time, this will likely include voice-recognition software similar to Amazon's Alexa and Apple's Siri, as well as intelligent chatbots.

Many of these new workforce tools look like social networking systems; they let workers post pictures and create groups and alerts, all within mobile-enabled platforms designed to facilitate team-based communication in ways email often can't match. For example, Deloitte now uses a team-centric collaboration platform to manage its Global Human Capital Trends research, global leadership team communications, and dozens of other initiatives. (Although we continue to be a massive user of email!)

As companies replace hierarchal management with a networked team structure, we are going to be using new tools purpose-built for teams. For example, Cisco System's team enablement leader found that while the company has 20,000 teams actively working on projects, none of their work or team-related data is in the HR systems of record—so the company has implemented a brand-new team-based management system to manage goals, performance, coaching, and more.

As these new tools enter the market, HR should partner with IT to help make sure HR technology is synergistic with other new systems. For example, most of the new performance management tools have plug-ins to work with offerings such as Salesforce and Slack. As new team-based tools take off (and they will), it's important to make sure the HR tools we buy are designed to work together.

As I discuss later in this report, these tools will impact performance and talent management, as well as learning, in a big way—so hang on for another set of disruptions over the next few years.
2. ERP and HCM Move to the Cloud as the Talent Market Reinvents Itself

One of the most important decisions an HR department can make is what core HR platform to purchase. These platforms act as systems of record and can manage compliance, payroll, and benefits for all employees. The major players in this market (Oracle, SAP, Workday, Ultimate Software, Infor, Ceridian, ADP, and dozens of others) are all growing rapidly as companies replace their legacy systems with cloud-based platforms. This global market is in the tens of billions of dollars\(^\text{12}\), and the movement of these products into the cloud represents a significant shift from purchasing to leasing (since cloud-based software is essentially a lease)—a change that many vendors are finding very attractive.

Workday, Oracle, SAP, and Cornerstone OnDemand together already have more than 150 million users on their cloud systems (and again, with the global workforce around 3 billion\(^\text{13}\), there is still plenty of room for growth), and the dozens of other vendors all have millions as well. Yet despite this incredible growth, only 39 percent of large companies and 49 percent of midsized companies are in the cloud\(^\text{14}\)—meaning there's lots of room for growth for vendors, albeit somewhat at each other's expense as buyers look to rationalize HR technology platform partnerships.

Vendors that cater to small and midmarket companies—such as ADP, Paychex, Ceridian, Sage, Gusto, Namely, BambooHR, Zenefits, and professional employer organizations (PEOs) such as Insperity, JustWorks, and others—are also growing, driven both by the cloud and continued growth in the economy. And given the continuous creation of small businesses (which make up the majority of the U.S. market\(^\text{15}\)), vendors that focus in this area tend to see growth year after year.

Remember also that the core HR technology and the payroll services markets are not quite the same: One is a software business and the other is a service business. As companies continue to become more global, they face the challenges of global payroll—so many of the payroll-centric vendors (such as ADP, Ceridian, Paychex, Paylocity, and SAP) are growing as well, particularly those that offer hybrid managed payroll service options with their cloud solutions. Most big companies buy payroll services from a variety of local providers around the world (in fact, I recently met with representatives from several Indian companies focused entirely on payroll). So this market remains somewhat separate from core HR software for many vendors.

\(^{12}\) Bersin ongoing research in the area of HCM technology.


\(^{15}\) The ADP National Employment Report, published by the ADP Research Institute, reports that 77 percent of employees work for companies with less than 500 workers.
Talent Management Is Now People Management—and Will Soon Become Team Management

Separate from this enormous, lucrative, but very complex core HR systems and managed services solutions market, there is the ever-changing market for talent management systems. Today, as Figure 2 illustrates, integrated talent management (software that handles people management from prehire to retirement) alone is no longer effective. Companies want management tools that help enable and empower teams, drive team-centric engagement and performance, and support agile, network-focused HR practices.\(^\text{16}\) In this new world, people may have multiple managers, work on multiple projects at once, and often “lend” or “sell” their time to others in the organization. Traditional talent management software was not designed for this world.

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**Figure 2: From Talent Management to People Management to Team Management**

<table>
<thead>
<tr>
<th>Automated Talent Management</th>
<th>Integrated Talent Management</th>
<th>Engagement, Fit, Culture &amp; Analytics</th>
<th>Empowerment, Performance &amp; Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Talent Management</strong></td>
<td><strong>Integrated processes &amp; systems, talent as core to HR &amp; business agenda</strong></td>
<td><strong>Engage</strong></td>
<td><strong>Empower</strong></td>
</tr>
<tr>
<td><strong>Systems of Automation</strong></td>
<td><strong>Practice-driven solutions</strong></td>
<td><strong>People Management</strong></td>
<td><strong>Team Management</strong></td>
</tr>
<tr>
<td><strong>Focus on culture, engagement, environment, leadership, empowerment &amp; fit</strong></td>
<td><strong>Optimizing productivity, alignment &amp; engagement of the network of teams</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
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During the early 2000s, the talent management software market was easy to understand. There were four main categories: applicant tracking systems (ATS) for recruiting, performance management systems, learning management systems (LMS), and compensation tools. Today, however, that market has expanded to include:

- Next-generation performance management systems such as BetterWorks, Reflektive, Impraise, Zugata, ADP StandOut, and others
- Employee listening and engagement platforms such as Glint, TINYpulse, Culture Amp, Questback, and others
- Employee wellness platforms such as Jiff (now owned by Castlight Health), Limeade, Virgin Pulse, and many others
- Tools for organizational network analysis, culture and sentiment assessment, and analytics
- A wide variety of new learning platforms (which I discuss separately later in this report)

All these new tools fall into the category of what I call people management because they go beyond managing talent to automate the new people practices that many businesses are now implementing—which I believe will soon be called team management.

With this people management market (which is about $18 billion in size) now well established, the core HR vendors (ERP providers) are racing to build out features that can compete. In recruitment, where Taleo (now owned by Oracle) once led the market, companies such as SmartRecruiters, Yello, Greenhouse, JobVite, iCims, and Lever—along with hundreds of companies offering ancillary tools, such as HireVue, Entelo, Phenom People, and others—are reinventing the space. These vendors are filling in gaps in the areas of intelligent sourcing, intelligent assessment, candidate experience management, and candidate relationship management, as well as creating analytics-related tools that help recruiters source, select, and manage their employment brand and candidate pipeline.

Oracle, SAP, Workday, and other major ERPs have their hands full keeping up, which is likely to lead to some consolidation during the next few years. On the other hand, in the area of integrated talent management, some of the biggest players, as well as many of the smaller vendors, are now competing with the ERPs from above and innovative vendors from below.

An interesting company to watch is Cornerstone OnDemand, which has reinvented its learning suite, added engagement and benchmarking tools, acquired a leading Big Data analytics vendor, and is now offering a core HR capability that integrates disparate HR data into a single system. Cornerstone is an example of a talent management vendor that has been able to adapt effectively, and is now trying to challenge HCM vendors such as Oracle, SAP, and Workday with its single system of

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19 Bersin ongoing research in the area of HCM technology markets.
record alternative. The company has more than 32 million users and is continuing to grow despite all the noise in the market.\(^{21}\)

I believe this reinvention of the talent market is badly needed. As I study the issues senior HR and business leaders face, many fall into the category of managing people in a digital way and focusing on agile goal management, talent mobility, facilitated career progression, new models for rewards, organizational network analysis, feedback, and better understanding of roles and jobs in teams. We need a new generation of software to address all of these concerns, and emerging players are getting ready to provide it. Vendors that spent 10 years building cloud-based systems for traditional talent management are likely finding it hard to shift to a team-centric solution, opening the door to disruptive new vendors.

Bersin’s upcoming research regarding the next-generation performance management market found more than 40 vendors in this space, all of them growing.\(^{22}\) In a similar study of employee listening and engagement tools, we found hundreds of vendors in the market.\(^{23}\) These are serious shifts in the market that should give us all pause as we reconsider what talent management really means right now.

As illustrated in Figure 2, we are now on the cusp of redefining talent management as part of a new category I call team management. Imagine your company as a true network, with people working in functional groups on projects, client or customer teams, and product or program teams. Does the talent management software you have in place really support this model? Probably not. Many of the HR practices that organizations have developed over the last 15 years simply don’t apply in this new environment.

Yes, we still need to set goals, create development plans, pay people based on performance, recruit for key job roles, and all of the other key functions that HR tools have come to support. But in a network of teams, goals are set and shared by the team, leaders are often specialists rather than people managers, and organizations develop their people to fill roles rather than jobs, making sure people can move from team to team or project to project. Team management tools do not look or behave like talent management or people management systems because they are designed with the team at the center. This may be the most disruptive change we see over the next two years—and we cannot underestimate the potential for major IT companies such as Google, Facebook, Microsoft, Cisco Systems, Atlassian, and others to compete in this market.

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\(^{22}\) Bersin ongoing research in the performance management solution provider space.

Contingent Workforce and Project Management

Another emerging subcategory that is likely to grow rapidly is gig- or project-based work management systems. Gig workers, contractors, freelancers, and the like are now ubiquitous, and one could argue that team-centric organizational structures could make us all gig workers in a sense, even if we work full time. The core ERP vendors have not yet focused on building tools to manage this new work-centric way of managing people (versus the old job-centric model), so new vendors have emerged.

Companies are now using vendor management systems such as SAP Fieldglass, Beeline, WorkMarket, PeopleFluent, and others in tandem with gig work platforms such as Rallyteam and Legion, as well as talent network platforms such as Upwork, Toptal, Hubstaff, Freelancer, Outsourcely, Guru, and dozens of others. As companies come to grips with the fact that much of their work can be outsourced (or, alternatively, “insourced” to internal teams and experts), they will likely want ERP / core HR systems with built-in interfaces and tools to help manage this area (for example, Fuel50 and PageUp People now have solutions in this area). I believe we can expect this emerging people management category to grow, and much of the venture money is likely to go into this area.

3. Continuous Performance Management Has Arrived

One of the most pervasive transformations we’ve seen in HR over the last decade is the reinvention of performance management. More than 70 percent of the companies we studied in Deloitte’s 2017 Global Human Capital Trends research said they are well on their way to reinventing the performance management process in their organizations. Bersin has defined seven steps in this transformed process, and a new set of tools and platforms is coming to support it (see Figure 3).

As Figure 3 illustrates, some things in this process still look like traditional performance management, but there are also several new elements. Many companies now want transparent OKR goal systems they can update frequently as teams and business change. They need tools that can adapt as people move from project to project and team to team. They want a system for regular employee-manager check-ins that makes the process simple, asks easy questions, and tracks activity and discussions. They want a system for multidirectional feedback that encompasses pulse surveys, developmental feedback, and coaching. They want agile, self-directed learning tools. They want tools to facilitate calibration meetings and talent discussions, varied compensation models, and career development (i.e., finding the next assignment).

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25 “Objectives and key results” (OKRs) are a management methodology used to define company and team objectives and the measurable “key results” that define the achievement of each.
All of these new demands may feel overwhelming when we consider how different they are from the top-down performance management practices and systems implemented a decade ago. Today, ERP vendors are in various stages of building all of this functionality. SuccessFactors’ Continuous Performance Management is coming along, with more than 100 customers. Workday and Oracle have added many of these features as well. ADP has recently acquired StandOut (which offers much of this functionality) from The Marcus Buckingham Company. And Cornerstone OnDemand, Lumesse, PageUp People, PeopleFluent, Saba + Halogen, SilkRoad, SumTotal Systems, Technomedia Talent Management Solutions, and Ultimate Software are all doing similar things.

Of course, the market has not waited for the big vendors to adapt. A fast-growing set of exciting new tools has also entered the market. Some of the leading tools were designed by experienced game designers, which means their systems are typically very easy to use, very agile, and very data-driven. This category includes companies such as Alliance Enterprises, BetterWorks, Reflektive, 7Geese, HighGround, Impraise, Small Improvements, TINYpulse, NEOGOV’s Perform, Zugata, and others, as well as new solutions from Globoforce and O.C. Tanner.

This market reinvention is happening before our eyes. Nearly every major company is looking at this next generation of tools, primarily because they are designed around teams, they are generally easy to use, and they can be used on mobile, social, and conversational interfaces. Zugata, for example, is able to ask for feedback on your

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behalf, without any effort on your part. ADP’s Compass product does the same. HighGround integrates goal management, feedback, check-ins, and social recognition in one system, a forward-thinking strategy that demonstrates where the market is likely headed. And tools like Reflektive and BetterWorks integrate into Outlook and Salesforce to incorporate goal data and deliver feedback right where you work.

While it’s too soon to say which of these vendors will win in the long run, the market is very hot and companies are seeing tremendous value in these types of systems. Once again, the ERP vendors have lots of work to do, which is why many are investing in this area. Can they build something as engaging as the products coming from the new vendors? I know they’re trying, but we can probably expect some amount of consolidation in the years ahead.

4. The Explosion of Feedback, Pulse Survey, and Analytics Tools

When companies start implementing continuous performance management, they often realize that feedback and engagement survey systems should be connected to the process. That’s one reason why this market, which I like to think of as the employee feedback market, is growing quickly as well.

Let’s face it: Almost every company worries about employee engagement. Bersin’s research with Glassdoor shows that while employee engagement has, on average, been almost flat since 2009, there is a bell curve of companies that are good and bad at keeping their people happy. The drivers of engagement are complex (which the Bersin Simply Irresistible model explains in more detail), but the bottom line is that you cannot really maintain positive employee experience without listening to your people on a continuous basis (see Figure 4).

![KEY POINT](https://example.com/)

You cannot maintain positive employee experience without listening to your people on a continuous basis.

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28 Bersin ongoing proprietary research with Glassdoor.
To do this effectively, organizations need a set of tools that facilitate continuous listening, which goes well beyond annual surveys. I’ve written extensively over the last few years about the explosion of new tools for feedback. While this marketplace is still growing by leaps and bounds, companies are now incorporating many of the options available into what we call an enterprise feedback architecture (see Figure 5).

**Figure 4: An Integrated Approach to Feedback and Engagement Is Key**

<table>
<thead>
<tr>
<th>Meaningful Work</th>
<th>Hands-On Management</th>
<th>Humane Environment</th>
<th>Growth Opportunity</th>
<th>Trust in Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>Clear goal-setting</td>
<td>Flexible, humane work environment</td>
<td>Facilitated talent mobility</td>
<td>Mission &amp; purpose</td>
</tr>
<tr>
<td>Selection to fit</td>
<td>Coaching &amp; feedback</td>
<td>Recognition-rich culture</td>
<td>Career growth along many paths</td>
<td>Investment in people, trust</td>
</tr>
<tr>
<td>Small teams</td>
<td>Leadership development</td>
<td>Open, flexible work spaces</td>
<td>Self- &amp; formal development</td>
<td>Transparency &amp; communication</td>
</tr>
<tr>
<td>Time for slack</td>
<td>Modern performance management</td>
<td>Inclusive, diverse culture</td>
<td>High-impact learning culture</td>
<td>Inspiration</td>
</tr>
</tbody>
</table>


**Figure 5: Enterprise Feedback Architecture**

Companies are now rapidly issuing RFPs for these types of systems, and the vendors that provide these platforms are growing quickly. While the market is flooded with solution providers, some of the major players today include Glint, TINYpulse, IBM Kenexa Employee Voice, Culture Amp, CultureIQ, Thymometrics, Questback, OrgVitality, Perceptyx, Mercer’s Sirota, CEB, Qualtrics, eePulse, Spring International, Waggl, Ultimate Software’s Kanjoya, Hyphen, and new embedded tools from Cornerstone OnDemand, Workday, Saba, and ADP. SAP and Oracle are moving in this direction as well.

One could argue that this kind of functionality belongs in the core HR system—employee survey data is part of the employee data lake, after all, and should be organized in a way that connects well with all employee and financial data. But the market is not there yet. These smallish vendors are working hard to build easy-to-use yet sophisticated platforms to help managers and employees collect feedback, pulse survey data, and open-ended comments quickly. Glint, for example, is a comprehensive employee experience platform that stores data from onboarding, new-hire experience, ongoing pulse surveys, and open interviews. Most of these offerings include text analytics and let you send out a quick pulse question at any time. Some of our clients (Ascension Health, for example) now pulse all their employees every week or two, and the data goes directly to managers to give them visibility into which teams are not effectively listening to their employees.

I used to think these were going to be structured survey systems, but as time goes on, I can see that these offerings will likely be open-ended data systems similar to the systems we use to measure customer interactions. Well-run companies now understand that in a sense, employees are more important than customers—because when employees are managed effectively, customers tend to be happier. Yet we measure customer behavior much more carefully than employee behavior.

This part of the market is becoming part of the employee wellbeing realm (discussed in greater detail later in this report), and I believe over the next year, these platforms will start to collect data on employee location, mobility, and even heart rate. Of course, much of this would sound intrusive to today’s average employee. But then again, who would have guessed 10 years ago that we would display so much of our personal lives on social media?

**Anonymous Feedback Tools and the Growth of Glassdoor**

One dark horse in this area is the small but fascinating market for anonymous feedback tools. Several years ago, companies such as Secret and Yik Yak (both now defunct) tried to build anonymous networks, but ran out of money and / or found themselves in a variety of legal problems when people posted inflammatory or confidential information. Today, a new generation of companies, including Blind, Fishbowl, Owler, Whisper, and Postmate’s Bold, are once again offering new tools in this space. Blind works by catering specifically to the tech market, and already has hundreds of thousands of tech employees talking, responding to polls, and openly...
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discussing issues.31 Fishbowl has had some success in the professional services industry, while Whisper looks like it may appeal more to young people for social uses and dating. BetterCompany went after this market aggressively several years ago, creating anonymous communities for job seekers to help people really get to know what companies are like.

The ultimate goal of many of these companies is to compete with Glassdoor, which is rapidly becoming one of the leading providers of unbiased data about companies. Glassdoor has become one of the top job search sites in the United States (with more than 50 million visits a month32). I believe it will continue to grow because its team has been rigorous about making sure reviews are validated and useful. There are many companies trying to “be the next Glassdoor” in various industries, including kununu, CareerBliss, Ratedly, and others, but I expect this game has already played out and new entrants are only more likely to succeed if they focus on niche markets or specialized geographies.

Glassdoor, by the way, has become an increasingly important source of data in many areas of HR. It offers one of the most valued sources of data about true employment brand, and most HR leaders now watch it. Glassdoor, LinkedIn, PayScale, Salary, and others also now crowdsource salary data—meaning both candidates and existing employees can now find typical pay for certain roles. (Glassdoor calls it service “Know Your Worth.”) This increase in salary transparency is an important trend: It is causing many employers to be more competitive with salaries and even encouraging some companies to offer raises and bonuses more frequently than once per year.

More Integration on the Horizon

Before we leave the topic of feedback, I want to mention that I believe we are going to see integration between this area and performance management in the years ahead. Employee engagement data, manager feedback, coaching, and social recognition are all different forms of feedback, so ultimately they belong in one place. Employees tend to want a single “team management” platform to use, so I believe we should expect to see integration as illustrated in Figure 6.

KEY POINT
Glassdoor has now become one of the top job search sites in the United States.

32 Proprietary information provided to Bersin by comScore.
5. The Reinvention of Corporate Learning Is Finally Here

The corporate learning market has experienced a great deal of transformation during the last few years, and it feels like the renaissance has finally arrived. We now have a marketplace of next-generation learning management systems, learning experience platforms, microlearning platforms, MOOCs\(^{33}\) and program management systems, and an amazing new set of virtual reality and assessment tools. Many companies have been somewhat slow to adopt all these new technologies because it wasn’t yet clear which way the market would go. But I believe we now have clarity, which will help accelerate market growth.

Figure 7 illustrates where some of these new tools and vendors fit (although this is not a definitive list). Each of these categories is experiencing rapid growth, and corporate L&D is growing rapidly as well. The fuel for this fire is the tremendous need to reskill and continuously develop employees as the future of work marches forward. Companies such as GE, Visa, Qualcomm, IBM, and hundreds of others have now started to rationalize this environment and are rapidly buying new technology to help them shift into the world of continuous learning, microlearning, and what I’ve started to call the TV experience of learning.\(^{34}\)

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\(^{33}\) Massively open online courses, better known as "MOOCs," are open, no-cost (or low-cost) online education and courseware.

\(^{34}\) The Disruption of Digital Learning: 10 Things We Have Learned, Bersin, Deloitte Consulting LLP / Josh Bersin, 2017.
Look at it this way: Businesses around the world spend about $140 billion on L&D annually ($500 to $3,000 per employee depending on the industry).\(^{35}\) Of that spending, roughly $4 to $5 billion is spent on core learning platforms, while the rest is spent on tools, content, instructors, classrooms, and facilities.\(^{36}\) And after a few years of stagnation, learning and career platforms are now the fastest growing segment in the industry, driven by more clarity in the market and the fact that virtually every company is worried about reskilling and the future of work.\(^{37}\)

What we’ve seen over the years is that L&D spending come in waves: When a new type of learning platform (or mode of learning) has been proven effective, everyone jumps in. But when the market is unclear and there are many innovative vendors, buyers tend to wait because they don’t want to buy something that looks exciting but may be replaced a few years later.

A decade ago, when e-learning was new, almost every company focused on buying an LMS—and a $4-billion market was created.\(^{38}\) Vendors such as Saba, SumTotal, Cornerstone OnDemand, Plateau Systems, Geolerning, Learn.com, and many others did very well, and all the major HR platform vendors acquired LMS platforms.

As these vendors grew, however, the market started to shift, and companies saw the LMS as part of an integrated talent management platform. Vendors pivoted in response, reallocating their engineering resources toward performance management, assessments, and even recruiting. SumTotal, for example, acquired more than a dozen companies to build out its solution; Plateau was acquired by SuccessFactors; Learn.com was acquired by Taleo (and then Oracle); and many of the other LMS players built

\(^{35}\) Bersin ongoing research in the area of learning and development spending.

\(^{36}\) Ibid.


\(^{38}\) Bersin ongoing research in the area of HCM technology.
talent features. So for better or worse, these vendors jumped past the learning market and into the talent platform market—which put them in competition with SAP, Oracle, Workday, and all the other core ERP vendors. As they focused on building performance management, recruiting, compensation, and other features, they found themselves spread thin—meaning their learning solutions were no longer best of breed—enabling a new set of innovators to enter.

Meanwhile, the learning industry was exploding. Driven by mobile phones and low-cost video production, MOOCs, YouTube, and video learning platforms took off. LinkedIn paid well over a billion dollars for Lynda.com. Suddenly many LMS vendors were falling short when corporate buyers and employees asked for video learning solutions. This led to the emergence of a market for what we now call learning experience platforms (see Figure 7)—systems that integrate and enable video and other forms of content to be produced, managed, and delivered in a TV-like user interface. With these new products becoming more useful and engaging, the LMS has generally been relegated to the role of a back-office training management application.

This renaissance in L&D has been very healthy: Buyers now know what categories exist and are starting to find the leading vendors, while investors are feeling more comfortable investing in the space.

In the learning experience segment, some of the leaders today include Degreed, Pathgather, EdCast, Fuse (which operates mostly in Europe), Skillsoft’s Percipio, and Cornerstone OnDemand. Oracle and Workday have also invested heavily in video-based learning, and I would categorize their solutions as embedded experience platforms that do much of what the independent vendors do with the functionality tied to their core systems. Right now, the learning experience platforms are white hot, and I expect all these vendors to grow.

The learning experience market started as small tools to provide curation and discovery for all forms of internal and external content (like a learning portal in which any user can publish content). Now the vendors are moving into skills assessment (e.g., Degreed), career management and career development (e.g., Pathgather), and embedded performance support (e.g., EdCast). These tools are all mobile-enabled, incredibly simple to use, and very scalable. And many of these vendors are getting big checks from venture funds, so they have plenty of money to grow. If they aren’t acquired by larger players, I anticipate these companies will become the next generation of LMS companies.

The core LMS vendors are running as fast as they can. Cornerstone OnDemand jumped into the learning experience market with a vengeance this year, and now offers a “Netflix-like” experience on top of their LMS. SumTotal Systems created its own version of this experience, which is compelling but still complex. SAP and Oracle are both building this kind of interface as fast as they can, and Saba already has a lot of this functionality as well. Newer vendors such as Intellum, Docebo, Bridge, Wisetail, Litmos, Adobe, and many startups are getting into this space also, banking on their products’ ease of use and starting out by selling to mid-
market companies. It’s a dynamic and healthy space right now, and buyers have a proliferation of innovative options. Will the ERP’s dominate? I don’t think so. I’ve seen this rodeo before, and no matter how hard they try, they never seem able to get 100 percent focused on this tricky, difficult market fast enough. Yes, many companies may buy SAP, Oracle, and Workday’s learning platforms, but I expect the bigger market to be standalone systems.

In the other categories above, amazing innovation has now become available. A new category of software I call microlearning platforms now lets you manage the proliferation of video, assessment, and other small content objects with tools for curation, tracking, recommendations, and AI-based prescriptive learning. Vendors such as Axonify, Grovo, Qstream, Practice, Blackboard, Fuse, and many others are building what we used to call delivery systems—products that let you take lots of content and arrange it so it’s spaced out, organized, and delivered exactly as people want it. This is a big market, and it’s very fragmented. Grovo, for example, just opened up its entire platform and now sells a simple, easy to use, visually stunning system to build microlearning courses on your own (and they of course sell content as well). The new open version of LinkedIn Learning is actually a microlearning platform as well.

Why this explosion of growth? Think about sales training: Do you really want a bunch of 20-minute videos? Or would you rather have a system that allows each sales rep to learn just what they need for five minutes a day—and follow up by posting their own videos and evaluating their colleagues? That’s the promise, and AI and Big Data are going to help make it easy. Picture something like Duolingo (a language learning system) serving every corporate need, including safety and compliance. This is going to be a big market.

VR and AR Are Coming—and Fast

Let me add another hot trend that most people don’t understand yet. I am now convinced that virtual and augmented reality (VR and AR) are going to be big in the learning and performance support market. I spent a half day with a vendor in Palo Alto called STRIVR, and it was eye-opening. I put on goggles and suddenly I was right in the middle of Black Friday at a store. Then I was at a construction site looking at dangerous site conditions. Then I interviewed a candidate while the system tracked my eye movements and offered me menus depending on what I was looking at. This product is offering solutions to big, real-world training problems. VR and AR will allow us to transport learners into simulations and help teach them exactly what to do in real time. According to UPS, in fact, that company is already using this technology to train its drivers.

Think about safety training in a refinery—I worked in one that suffered a fatal accident in its hydrogen processing unit due to a pipe leak. VR and AR will enable companies to simulate emergencies like this and teach people exactly what to do.

Google Glass, BlackBerry\textsuperscript{41}, Lenovo\textsuperscript{42}, and other major hardware manufacturers are now getting into AR, and these systems can easily complement or even replace other kinds of training. So watch this space carefully.

### The Content Market Is Very Healthy

Back in 2000 and 2001, I served as an executive at a content company (DigitalThink). Content is a good business if you can stay ahead of it. Today, more than ever before, there is a huge marketplace of high-fidelity, video-based content authored by experts and accredited institutions. This content takes the form of MOOCs, online libraries (e.g., LinkedIn Learning), vendors such as Skillsoft and CrossKnowledge, and hundreds of smaller vendors. Every consulting firm I’ve run into lately has created video learning modules featuring their best consultants, and guess what: The content is great! Corporations want access to this kind of content.

Without getting into all the content vendors, there are some big shifts taking place. First, Skillsoft is becoming more focused again; they have revitalized their entire library, added Percipio, and recently did a deal with MIT to resell that institution’s content\textsuperscript{43}. LinkedIn / Lynda.com continues to grow, and has now opened up its platform (yes, you can put your own content into its platform!). They haven’t marketed it extensively, but it’s there. A potential next step for LinkedIn is to become a total learning solution for small businesses—and it can also link all its content to your employees’ career histories and aspirations.

Cornerstone OnDemand launched a content offering that now includes TED talks and other content focused on hard-to-find, niche topics. Companies such as Udemy, NovoEd, Udacity, LinkedIn, Skillshare, Grovo, and others now offer thousands of expert-authored courses at a very modest price. Harvard Business Publishing has continued to grow and offers a wide range of courses and articles, and even companies like McKinsey & Company are getting into the content market. It’s a healthy space replete with standards, platforms, and buyers.

In this reenergized environment, buyers may feel like kids in a candy store again—and I haven’t even mentioned all the other free content sites out there from organizations such as LinkedIn (e.g., SlideShare), YouTube, and many others. While there is much to investigate, much of it isn’t mature enough to work well just yet. Eventually, I do think the learning experience platforms will have to merge with other HR systems. But right now, those vendors are also building AI-based recommendations and smarter systems.

### Learning Will Become a Large Market for AI

Let me mention how big artificial intelligence will soon be in learning. When I visit corporate L&D departments around the world, I often find their learning assets to

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be a bit of a mess. They have hundreds of courses, books, articles, videos, and many other artifacts of learning, and both employees and the L&D department are trying to assess the relevance of all these materials. And now that employees can easily author their own videos and articles to share, the mess is only growing. Further, no one can claim to understand what particular learning experience will be best for each individual. Some of us learn best by reading, others through conversation, and others by listening to instruction or taking part in experiences that help them learn.

AI can now begin to address both of these issues, automatically tagging content and creating taxonomies to help make sense of the chaos while also recommending content to learners based on their prior positive experiences and what others like them are consuming. IBM, Skillsoft, LinkedIn, Workday, EdCast, and nearly every other learning vendor understands this vision. Over the next year, I expect these capabilities to become available; buyers should now consider how vendors are building intelligence and machine learning into their offerings.

For example, a small vendor named Volley (started by ex-IBM and Google AI engineers44) has recently built a system that can read text documents; discern concepts, ideas, and learning paths; and then create assessments. This technology was originally marketed to the publishing industry, but the company found that corporate training was a better market match. The system is now being used by Starbucks, Continental Tire, Comcast, and other vendors to help read through product or training documentation, create quizzes and tests, and automatically keep training up to date.

New Team Management Systems Will Impact Learning

One last point to consider: The new team management platforms used for performance and goal management will likely start to impinge on this space. Let me give you an example. We brought a group of CLOs to a series of meetings last year to talk about digital learning. Most of them were a bit baffled about what the term means and what they should do.

I explained to them that digital learning is not about courses on phones; rather, it’s about delivering learning to people where they are. It is not a type of learning but rather a way of learning. If you think about it this way, you realize that offerings such as Microsoft Teams, Slack, Workplace by Facebook, and many other new collaboration systems are also learning platforms. For example, employees will likely choose to upload and share videos in a new system rather than using the LMS. And our CLOs felt the same way; when we showed them the features in some of the new products, they remarked, “Why can’t we just use that as our new learning system?” I can’t quite predict whether these vendors will focus on L&D buyers, but the sooner they focus on these kinds of features, the better.

44 Bersin interview with Volley, 2017.
6. The Recruiting Market is Rapidly Changing

The biggest talent spending area around the world today is recruiting. While companies spend around $1,200 a year per employee on employee training (making it an approximately $140 billion market), recruiting spend is about three times larger. The reason is simple: More than 20 percent of all workers change jobs every year, so employers are constantly advertising, sourcing, recruiting, interviewing, assessing, and onboarding new people.

As we’ve studied this market over the years, our perspective on it has broadened. Some companies still think recruiting is as simple as applicant tracking—i.e., posting jobs, capturing resumes, scoring applicants, and then interviewing and hiring. That ATS-centric view is where this market was a decade ago.

Today it is far broader and quite complex (see Figure 8). Talent acquisition, as we now call it, starts with building an employment brand, reaching out to universities and talent networks, and creating a network of alumni who speak well about your company. Next comes recruiting candidates into your network, candidate marketing, building talent pools, and communicating with these prospects as they think about changing jobs. The next step is job posting, job advertising, building a compelling career site, and hiring contingent recruiters or gig networks to find people. After that comes strategic and direct sourcing, which typically involves recruiters or smart software systems finding and reaching out to possible candidates, identifying passive candidates, and selling candidates on the company. Finally, once a new employee is hired, the last steps are onboarding and orientation.

45 Ongoing Bersin research in the area of talent spending.
47 Bersin ongoing research.
Throughout this process, there are important problems for companies to solve. How do we create a stellar, compelling, and authentic employment brand? How do we create job descriptions that are meaningful, unbiased, and easy to find? How do we assess people fairly, without discrimination and bias, and bring hiring managers into the process even though they are not experts? When and how do we directly source or outsource different parts of the process? How do we leverage talent networks such as LinkedIn, Glassdoor, and GitHub to help us do this efficiently? When and how should we hire contractors or gig workers rather than full-time employees? How do we effectively assess people using the latest data science, psychology, and Big Data techniques? How do we make this happen quickly and at minimum cost so we don’t lose great candidates? How do we make sure we’re hiring people of the highest quality without wasting the time of our hiring managers?

Hiring people is by far the most important thing companies do. When organizations hire the “wrong” people, no amount of HR or management can fix the problem. And our research shows that the most important issue of all is not the recruiting process itself but rather the relationship between the recruiter and the hiring manager. As a senior head of talent acquisition once told me:

*Of all the factors I’ve studied in the success of hiring great people, by far the number one driver is having the right recruiter. Recruiters who really know our jobs, our culture, and our hiring managers can find and bring in the best people.*

Given the current complexity in this important marketplace, what’s going on in technology? The answer is quite a lot. The recruitment software market is the most dynamic and exciting space in HR tech today, probably because there are so many...
niches to cover. The original market for ATS is now called recruitment platforms; these systems typically include features for sourcing, job posting, advertisement management, workflow management, assessment, pipeline management, interview scheduling, and often video and other forms of assessment and data-driven interviewing. These platforms increasingly also include chatbots that interact with candidates—and they’re getting smarter every day.

Many ERP and platform providers have integrated recruitment systems, but most are not fully built out. Further, many big companies still have Oracle's Taleo, IBM Kenexa's BrassRing, or other legacy platforms in place. These older systems have been configured to deal with multiple business units, different global regulatory requirements, and integrations with dozens of other tools (e.g., assessment, reference checking, candidate referral systems, and more). Over time, I believe these big platforms will be modernized, but for the most part, they are a legacy market, and companies have been slow to replace them even as they buy new cloud platforms.

Over the next two to three years, I believe vendors such as SmartRecruiters, Yello, iCIMS, Jobvite, Lever, and Greenhouse will mature and move upstream to sell to larger clients. The ERP and integrated platform providers have their hands full developing payroll, learning, and other core systems, so they tend to be hard-pressed to build the level of functionality these small companies do at speed.

Remember also that the recruiting market is enormous: Millions of companies around the world need recruiting tools, so even a small recruiting software vendor can grow—hence the vast number of vendors in this space. And there is no one single platform for recruiting. Talent acquisition leaders should think about their function as builders or carpenters: They need hammers, nails, saws, and specialized equipment for all types of materials and building around the job site. Similarly, talent acquisition departments need many tools.

This is not a definitive list, but some of the more disruptive players today include:

- HireVue, which has built a video-based assessment system that can literally read candidates faces and assess their honesty and the quality of their answers
- Textio, which crowdsources job descriptions to help remove bias and gender discrimination from postings
- SuccessFactors, which has built a series of candidate and interviewing tools designed to improve diversity and reduce discrimination
- Entelo, which has survived the shakeout in sourcing tools to emerge as one of the leaders in intelligent, data-driven sourcing and new tools to reach and attract candidates
- Pymetrics, which uses intelligent games to assess skills in math, language, writing, and other key areas
- Amberjack, which manages recruitment events and team assessments for mass recruiting in a social setting
- Wade & Wendy, as well as Mya, two companies that have built intelligent chatbots that interact with job candidates and smartly answers questions to help assess and guide candidates toward jobs
• HackerRank, a next-generation intelligent assessment platform for engineering and software candidates
• Switch Recruitment, an app that brings jobs to candidates using AI and intelligent analytics
• Hired, a company that has created a job network for job seekers and employers, expanding the two-sided nature of recruiting
• Phenom People, an integrated platform that offers a career portal and compelling candidate relationship experience for job seekers

Video Assessment Has Taken Off

Since 2012, video-based candidate assessment has grown from a niche to a mainstream part of recruitment. Almost every major platform provider now has tools for video interviewing, and quickly growing vendors such as HireVue and others are now offering sophisticated I/O psychology assessments to screen and assess candidates. Discussions I’ve had with many talent acquisition leaders indicate that video interviewing has moved beyond screening and is poised to become the next iteration of an assessment center used to appraise presentation skills, learning agility, financial problem-solving, and even innovative thinking. This represents a massively disruptive change, as these tools can now collect assessment and microexpression data that can radically change the quality of assessment. As AI becomes more available in the core recruitment systems, I believe the intelligent use of video is going to transform recruiting in a major way.

Fifty-five percent of companies are now increasing investment in video assessment, the fastest growing new area of spending in talent acquisition.\(^50\) The number two area of growth is candidate marketing solutions, which focus on building employment brand and talent pools (with 51 percent of companies expecting to increase their investment in this area).\(^51\) The third area is game- and team-based assessment (at 33 percent).\(^52\) As I mentioned above, these new areas indicate a big shift away from recruitment automation; vendors are now focusing on the earlier stages of the process, when sourcing and differentiation of candidates is critical. AI tools can help make all these applications smarter over time.

The Impact of Google and Big Data on Recruiting

Thanks to the growth of platforms such as LinkedIn, Indeed, Monster, Glassdoor, and others, recruitment is one of the most social parts of HR. Almost every job posted is searchable on many websites, and each of these locations goes out of their way to attract candidates, views, and advertising revenue.

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\(^{51}\) Ibid.

\(^{52}\) Ibid.
I want to highlight one particular disruptive event that took place in 2017: the launch of Google Cloud Job Discovery, which essentially puts the world’s largest Internet search and advertising company into the talent acquisition market. Over several years of development, Google has developed a job family architecture, technology to categorize jobs in a meaningful way, and a set of search tools that leverage location, Google Maps, and other Google data sources to give candidates an accurate listing of local, relevant jobs in their area. This offering has the potential to disrupt LinkedIn, Indeed, Glassdoor, and other job search sites. Google has also introduced a low-end ATS called Hire that could impact the small and mid-size recruitment markets over time.

7. The Wellbeing Market Is Exploding

It seems that every few years, I learn about another emerging market and have to scramble to figure out what’s going on. Several years ago, it was the pulse survey and feedback market. Lately I’ve been trying to rationalize the learning and performance market. I expect the next big one will be the market for wellbeing tools and solutions. At the moment, this market is big, complex, and not yet clear.

Today, more than half of U.S. employees receive some form of employer-sponsored health insurance. While many stakeholders now question employers’ role in healthcare, it is still considered an important benefit for most workers, as well as a part of the overall employment value proposition. During the 1970s and 1980s, both insurance companies and employers began to realize that providing this benefit to unhealthy populations could be risky. This eventually led to the concept of employee assistance programs (EAPs) intended to help employees stay healthy and well, thereby reducing overall medical expenses. These programs include benefits such as mental health services, weight loss and exercise advice and reimbursements, incentives and reimbursements for health check-ups, fitness club memberships, and other wellness programs. The goal of these programs is not to make people perform better, but rather to reduce insurance and medical costs.

Naturally, employers have pushed these programs. During the last decade, as work-related stress and overwork have become endemic, a new generation of mindfulness, resilience, and wellbeing programs has emerged. Initially pioneered by companies such as Google, Facebook, BCG, and other forward-thinking organizations, organizations such as Aetna, Deloitte, and GE have now embraced these programs. Over time, the focus of these programs has shifted from reducing insurance costs to actually helping employees perform better, engage with their colleagues, and contribute to a positive company culture.

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KEY POINT
During the last decade, as work-related stress and overwork have become endemic, a new generation of mindfulness, resilience, and wellbeing programs has emerged.

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One pioneering organization in this area is the Johnson & Johnson Human Performance Institute, which offers human performance courses to hundreds of companies as part of its Corporate Athlete® Resilience Program, which promotes resilience and performance practices to help deal with stress.55

While all this was going on, the new generation of workers (Millennials and Generation Z) started to get excited about the idea of the “quantified self”56 and using wearables such as Fitbit, tools like Strava, and other tools to help monitor their exercise, jogging, heart rate, and time spent at the gym. (More than 60 million Fitbits have now been sold.57) People were becoming comfortable with instrumented devices and wondering why their employers weren’t using similar tools to help make work life easier.58

We’ve been writing about the overwhelmed employee for years—and our research shows that this problem has only gotten worse. I believe many of the new tools and platforms we now see in HR are a reaction to the fact that people are overwhelmed and overstimulated at work, and we just want simpler, easier systems. In response, today’s wellness industry has rapidly shifted its focus from accident prevention and insurance cost reduction to true wellness—or what we now call wellbeing (see Figure 9). We conducted a panel on this topic at our 2017 IMPACT conference, and the participants agreed that “wellbeing is a strategy for workforce readiness.” In other words, if people don’t show up for work feeling well and present (i.e., rested, healthy, and undistracted), our organizations simply cannot perform effectively. That simple idea is the foundation of today’s burgeoning wellbeing market.

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56 For more information, see “Quantified Self,” http://quantifiedself.com/.
57 “How many Fitbit devices have been sold in total?” Quara.com, n.d., www.quora.com/How-many-Fitbit-devices-have-been-sold-in-total.
The HR technology market now boasts dozens and dozens of tools, platforms, training programs, and analytics systems designed to measure, monitor, and improve our wellbeing at work. And this rapid growth has attracted well-funded insurance companies, training providers, and technology companies.

Oracle, for example, has introduced a wellbeing solution embedded in the newest releases of Oracle HCM cloud. Ceridian Dayforce HCM offers “TeamRelate” profiles to provide workers with personalized coaching on how to interact with other employees based on their personality and profile type in order to foster better communication, improve interactions, and enhance employee engagement. It also recently spun off its LifeWorks employee assistance program, offering it as a stand-alone solution built out as an online platform. SAP is working on similar solutions. I expect almost every platform provider will do this within the next year.

The major providers of independent solutions (systems that enable you to monitor and improve your behavior and integrate with the hundreds of monitoring tools and training programs in the market) include Virgin Pulse, Castlight Health, Limeade, and many others. The digital health marketplace, which includes vendors that sell solutions to doctors and hospitals, received $2.5 billion in venture funding in Q2 of 2017.59

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While we are currently researching this market, it appears that the vendors fall into the following categories: technology platforms, self-assessments, training programs (which include coaching), medical and nursing networks, biometric and other monitoring tools, and full-service healthcare providers such as Kaiser Permanente and Mayo Clinic that offer end-to-end solutions to corporations. The reason I’m including this category in this year’s Disruptions report is that many of these vendors are starting to sell true HR technology platforms that integrate into other talent, reward, and recognition systems. Companies such as Limeade, Castlight, and Virgin Pulse, all sell solutions that operate like employee-facing apps, and I believe offerings like these will eventually become part of the next generation of performance management systems.

O.C. Tanner, one of the largest providers of employer recognition and culture solutions, has introduced a wellbeing offering powered by Virgin Pulse technology that integrates with its social recognition platform. I would not be surprised to see engagement vendors and even performance management companies wake up and realize that wellbeing is part of performance, performance management, and coaching.

8. The People Analytics Market Has Grown and Matured

I’ve been studying the world of learning analytics, HR analytics, and now people analytics for almost 20 years. During my early days as an analyst, analytics conferences were sparsely populated and mainly attended by techies who were excited about what they were doing but frustrated that their leadership did not understand the value of their work. This has totally changed. People analytics is now a well-known discipline and a must-have domain within HR and IT.60

The origins of this market go back to the birth of industrial psychology, when pioneers such as Frederick Taylor performed time and motion studies to help optimize the manufacture of steel.61 Since then, analytics has attempted to “instrument” and measure people in many ways, incorporating elements of I/O psychology, assessment tests (including traditional managerial in-box tests, which attempt to measure how quickly individuals can sort their incoming mail), and building HR data warehouses (I sold tools to do this during the 1980s). Recently, companies have begun to build predictive models to help them understand the drivers of turnover, team performance, and leadership effectiveness.

As an engineer, I am a firm believer in the power of data. So it always seemed obvious to me that data about the workforce (often the largest discretionary spending area in business) should be of paramount importance. The business world has spent a great deal of money optimizing customer analytics, financial analytics, marketing analytics, and advertising analytics before finally turning to people analytics.


61 The Principles of Scientific Management, Frederick Winslow Taylor / Cosimo Classics, 1911.
Today, thankfully, people analytics has come out of the shadows and is now a mainstream part of HR and business itself. When we hear criticism of some Silicon Valley companies for things like gender-pay inequity, biased hiring practices, and lack of diversity in engineering teams, we’re really seeing the results of lots of careful analytics.

There are many reasons this market has grown slowly, the most significant being that most companies’ HR systems are a bit of a mess. The average large corporation has 15 or more systems of record and it is not unusual for companies to have 20+ payroll systems (simply because of the difficulties of following employment laws in different countries). This means that to get a single view of the workforce (which doesn't even include part-time, contingent, or gig workers) organizations often have to buy a new ERP system and consolidate these islands of automation. When we ask companies why they are spending $20 to $40 million on a new HRMS platform, many of them say to get better analytics.

As I mentioned previously, about 40 percent of companies have recently acquired a new cloud-based system. And now, with solutions such as Visier (a product that can literally integrate all your HR data into one powerful analytics environment), Cornerstone OnDemand HR Suite (a system that integrates heterogeneous HR data), and the help of many consultants from professional service organizations, you can combine all your people data in one meaningful place.

From Technical Prowess to Business Integration

The technical maturity of companies has changed dramatically during the last few years. Since 2014, the percent of companies that have moved to advanced reporting has almost doubled, as has the percent doing predictive analysis. The next big phase we’re about to see is the true industrialization of people analytics. Companies are now taking this domain seriously and putting in place data quality programs, analytics fluency learning, dashboards, and data-driven decision-making processes. In other words, people analytics is now a must-have discipline within HR and business. More than two-thirds of companies are now actively building an analytics platform, and 17 percent have already reached a stage at which data is easy to access, is regularly being used, and is relied on by the organization.

One quite interesting point is that 14 percent of companies are at a level of people analytics maturity we consider at-risk; in other words, these low maturity companies have fragmented, unreliable data that could be leaked, misused, or result in compliance violations or poor business decisions.
Our assessment today is that sound people analytics is now a must-have. Organizations that fall behind in their ability to hire, manage, and develop analytics practitioners effectively will suffer. It’s not surprising that the fastest growing analytics spending area is embedded analytics, with an expected 109 percent increase in spending.68 (“Embedded” means the analytics are available and produced as needed without the user having to generate reports.)

Not surprisingly, we now see a very mature and robust vendor market in this area. Every major HR platform provider now has a Big Data cloud service, a set of embedded analytics dashboards, and many advanced reports to help predict attrition, identify bias, and segment the workforce.

I think some of the more advanced offerings today include Visier’s end-to-end solution, which now has workforce optimization, recruitment analytics, and dozens of integrated analyses to uncover bias, drivers of turnover, and more, and notably includes all systems integrations and maintenance in the standard subscription fees. Glint, an employee engagement provider, offers advanced analytics to uncover the drivers of early attrition and low engagement at different parts of the talent cycle. IBM’s Watson Analytics provides a drag-and-drop set of analytics to help understand almost any pattern you want to investigate. And embedded analytics from Oracle, SAP SuccessFactors, Ultimate Software, Ceridian, and ADP all offer out-of-the-box analytics that can quickly help bring organizations to a higher level of maturity.

In addition to these and many other products, a new wave of vendors is now offering various benchmarking offerings. Bersin now offers an interactive benchmarking, analytics, and reporting platform that lets organizations compare themselves against their peers in terms of L&D spending, recruitment metrics, organizational design, and other talent measures. Cornerstone OnDemand, Saba Software, and ADP now offer benchmarks of their own (ADP’s is based on true payroll data) to help organizations benchmark. And the new offerings from Glassdoor and LinkedIn (described earlier in this report) provide crowdsourced salary data to help organizations benchmark.

From Analytics to AI: A Small Step

The markets for analytics and AI are very close cousins. What we used to call the journey from operational reporting to predictive reporting is now being enhanced with AI, which is essentially real-time analytics using larger data sets and more advanced algorithms. New vendors such as Crunchr, IBM (using Watson), and others are now delivering smart analytics with AI out of the box.

When IBM promotes its “Cognitive Career Coach"69, it’s selling an advanced analytics solution that looks at patterns of successful career mobility in a company, and then asks a series of conversational questions to help individuals fit into one of those paths.70 Workday offers a similar solution packaged into its analytics offering.

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Similarly, IBM’s Watson Recruitment looks at the patterns and costs of different sourcing channels and success criteria to give organizations smarter recommendations for sourcing and assessment. Visier’s recruitment analytics and Crunchr’s solutions do this as well, and we can expect many of the ERP providers to do the same.

Over the next few years, I believe AI will redefine the marketplace for analytics solutions. Vendors will become intelligence providers, not just analytics providers. Most major application providers (whether they offer solutions for engagement, wellness, performance, learning, recruiting, etc.) are now hiring AI experts to try to deliver pattern-recognition, algorithm refinement, machine learning, and natural language processing solutions embedded in their platforms.

Organizational Network Analysis Enters the Market

One of the most exciting new areas of HR technology is what we now call organizational network analysis (ONA). ONA is a technology that captures data from emails, feedback activities, and other sources to understand how people are communicating with each other. It identifies workflow patterns, bottlenecks, and the individuals within the organization who serve as experts, advisors, or traffic cops (see Figure 10). Many of the vendors also look at the tone and attitude in emails to help identify fraud, reveal trust networks (e.g., when you respond faster to certain people versus others), and help understand productivity. By looking at metadata from collaboration tools and email, ONA tools can also identify how much time workers spend in meetings and with internal versus external people, and even reveal whether individuals are paying attention during meetings.

The applications of this technology include studying workplace productivity and trust networks; identifying potential patterns of fraud or risk; identifying patterns of high productivity; understanding onboarding and leading practices for productivity improvement; diagnosing bias and lack of inclusion; and much more.

I’ve listed a few major vendors in this market below, but note that I expect ONA to become a standard tool set in all talent and performance management systems over time:

- **Microsoft Delve**, a feature set of Office 365 acquired as Volumetrics in 2016, provides a wide range of off-the-shelf tools to help organizations understand productivity and work patterns.

- **TrustSphere** assesses network behavior and develops measures of trust by showing repeated patterns of communication, speed of communications, and other metrics to help identify where communications are strongest, as well as leadership points and bottlenecks.

- **Equity Institutional** assesses network behavior to help financial services companies and other regulated industries find patterns of noncompliance, fraud, and other risks.

- **KeenCorp** not only studies network traffic but also identifies the mood of communications and can identify when a part of the organization is under stress. The company believes, for example, that its software could have predicted the Enron accounting scandal.\(^\text{72}\)

- **Syndio** uses self-describing surveys to perform network analysis, gather employee attitude data, and combine measures of engagement with many measures of network behavior and communication.

- A wide range of other tools are now available, including Synapp, UCINET / NetDraw, iKnow, Netvis, Otter, Pajek, SoNIA, NetMiner, InFlow, My Net, Sentinel Visualizer, Xigi, TouchGraph, and more.

\(^\text{72}\) Bersin interview, 2017.
Companies like GM, Cigna Health Insurance, Cisco Systems, TD Bank, Heidrick & Struggles, and many others are now exploring these tools to help identify leadership models, productivity patterns, diversity issues, and trust networks. One company found, for example, that women tend to talk with other women, while leadership decisions are highly male-biased. This research helped the company encourage a new culture geared more toward gender diversity.73

The new generation of performance management tools essentially collect network data through feedback, so I expect we will see ONA reports from these types of vendors soon. As these vendors grow in scope and capability, I believe we will see this kind of technology incorporated into core ERP and talent management platforms. So we can expect innovation, as well as mergers and acquisitions activity, to increase in this part of the market.

9. Intelligent Self-Service, Communications, and Employee Experience Tools

The final marketplace I want to discuss in this report is the large and quickly growing market for employee experience or employee self-service tools. As we discussed in the 2017 Deloitte Human Capital Global Trends report, companies are now shifting their thinking away from employee engagement to instead focus on the end-to-end employee experience.74 And with a new focus on productivity and wellbeing, this means making HR transactions easier, more automatic, and more intelligent.

An emerging marketplace for new tools has arrived. The remainder of this report briefly discusses a few of these offerings.

Employee Experience Is an Increasing Focus for Existing Platforms

The first disruptive force in this market is vendors making their existing products easier to use. Core HR platforms vary in their ease of use, and any core vendors that aren’t competitive in this area are going to have to work a bit harder on their user experience and incorporate more design thinking and app design to improve.

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By far the greatest contribution to customer satisfaction is ease of use of the system, which is now almost twice as important as functional depth and 80 percent more important than service and support. With more and more buyers now comparing HR software by ease of use rather than functional depth, this is a force of disruption in itself. For example, one of the largest consumer service companies in the world has been evaluating tools for their new performance management software by running a three-month pilot with 200 users on each of three different vendors’ systems to see which one is easiest for them to use. We are in an era in which design is king, so vendors with poor design expertise will likely fall behind. This is why so many of the HR vendors I now visit show me their design centers.

Change in the Nature of Self-Service Platforms: Cognitive Is the Future

The second disruptive force related to employee experience is the new demand for platforms that let employees get answers to their questions, submit transactions, look up information, or get critical help in the easiest possible way. The early solutions in this category were called self-service platforms. I give companies such as Enwisen and Authoria credit for really pioneering these solutions during the last decade. These vendors (both of which have been acquired) pioneered the idea of easy-to-use, beautifully designed employee portals that sit in front of all the transactional systems and offer lots of content, case management, and easy-to-find information on various people programs.

Many vendors have since built similar systems, including Oracle, SAP, ServiceNow, Deloitte, Zendesk, NeoCase Software, PeopleDoc, Dovetail Software, Conduent, NorthgateArinso, Salesforce, Aon Hewitt, and others. Sixty-nine percent of companies already have some portal like this, but the growth rate is relatively low (13 percent of companies are planning to add more capability in this area). I believe the reason for this low number is that we are in the early stages of a reinvention of this market as cognitive, conversational, and intelligent systems are just beginning to enter the playing field.

Have you used Alexa, Siri, Google Now, or any other voice-recognition software? If you have, you were probably amazed at how well these tools work and how many questions they can answer. Just imagine these kinds of interfaces connected to your HR system and the volume of transactions you could automate.

I’ve seen demos of systems from SAP SuccessFactors and other vendors that can actually create AI-based conversations to handle many traditional HR transactions, essentially making the two decades of design work on user interfaces, tabs, buttons, and other various UI designs obsolete. Workers can literally have conversation with these AI-based tools to schedule PTO and similar transactions. And these are only

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very simple use cases. Other uses might include prehire assessments or exploring next steps in an employee's career. IBM's Watson-enabled cognitive career coach can help employees find the best next role for them in the company. Organizations should expect vendors to push in this area—because it's going to become the way most employees want to use these systems.

In India earlier this year, I saw a demonstration of a vendor product built entirely around conversational and intelligent interfaces. Every employee transaction was performed via a chatbot. It worked extremely efficiently. This particular vendor does most of its business in Asia, but it really convinced me that this is the future. And the future is now: IBM's CHRO presented the company’s HR journey at our 2017 IMPACT conference, and explained in detail how IBM leveraged Watson and other intelligent tools to redesign their performance management process, manager coaching, employee voice and feedback, retention analytics, career coaching, learning, and more, all built on the Watson API, a set of easy-to-use programming experiences (see Figure 11).

Figure 11: IBM HR’s Transformation Journey

IBM HR’s transformation journey: > $750M net benefits

While Watson is not the only cognitive platform on the market (in fact, there are now many others), I believe this direction represents the future of employee self-service and predict we will see this market explode in maturity during the next year. Vendors that are not thinking this way will likely fall behind, and large companies can start applying this technology today.
10. HR Departments Are Becoming Digital and Innovative

This brings me to my final disruption: the growth in experimentation, innovative integration, and creative thinking within HR. For many years, people have written articles about the bureaucratic, unhelpful HR team. I’m here to say those days are truly over. The HR organizations of today are generally creative, innovative, experimental, and technology-savvy. In the old days, HR professionals could delegate someone to be the “HR tech guy”; he or she just “bought the right solution,” and that was that. The world is quite different now.

We recently completed one of our biggest studies of the HR function, and one of the key findings is that “being digital” is now the core of high-impact HR (see Figure 12). HR people are trying new tools, experimenting with new performance management models, adopting new learning technologies, and just doing creative things like never before. There are many reasons for this: Productivity is one issue, CEOs are very concerned about employee engagement, and the structures and operating models of many companies are changing.

**Figure 12: The HR Digital Maturity Continuum**

Our maturity model for digital disruption describes four levels: Exploring Digital, Doing Digital, Becoming Digital, and Being Digital. Level 4 (Being Digital) does not just mean buying apps; it means experimenting, working in cross-functional teams, rethinking leadership and management models, and simply doing things faster and in a more iterative way.
We just introduced our new HR Maturity Model (built with data from more than 1,000 companies and nearly two years of research), and as you can see, nearly 1/3 of companies are now focused in this way (see Figure 13).

**Figure 13: The HR Maturity Model**

<table>
<thead>
<tr>
<th>Level 4</th>
<th>Pioneering &amp; Personalized</th>
<th>12%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 3</td>
<td>Cultivating &amp; Empowering</td>
<td>22%</td>
</tr>
<tr>
<td>Level 2</td>
<td>Functional &amp; Fragmented</td>
<td>23%</td>
</tr>
<tr>
<td>Level 1</td>
<td>Reactive &amp; Procedural</td>
<td>43%</td>
</tr>
</tbody>
</table>

HR departments are increasingly focused on design thinking—an online search for “Design Thinking in HR” returns thousands of hits—and are now talking about empowering people, culture, engagement, and new models of management. I’m really inspired by this research, and its findings represent a disruptive change in the level of creativity and experimentation in the entire HR profession.

While the research shows that only about a third of companies have reached maturity Levels 3 and 4, it’s clear to most HR professionals that making work life better is now core to their jobs. And this new way of thinking creates demand for a new set of HR technology solutions.

For years, I have noticed that most HR technology innovations come from vendors. Entrepreneurs (often technologists) dream up new ideas and then push them into the market, frequently enlightening HR leaders who didn’t realize such a thing was possible. Many of the most creative solutions (e.g., ATS, learning experience platforms, gamified assessments) started this way.

Today, however, innovation is coming from HR functions themselves. HR departments are thinking more creatively, asking more questions, and pushing vendors to adapt to new management models. Many are demanding vendor solutions that are more team-centric, intelligent, easy to use, and development-focused. So we, as innovative thinkers in HR, are disruptors as well.
Thank You

This is the 12th year I have written this particular report, and as always, I welcome your feedback and input at any time. While I certainly cannot cover all the dimensions of this fascinating, important marketplace in one report, I am always open to new ideas and learning about new solutions. This is an exciting time in the world of HR technology. I hope you found this report educational and enlightening as the world of HR technology continues to evolve.
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