

CHAPTER **1**

The People Analytics Age

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War is 90 percent information.

—Napoleon Bonaparte

Organizations are in a worldwide war—a war to acquire a diminishing resource, an asset that is more valuable than oil and more critical than capital. The resource can be bought but not owned. It is found in every country but is difficult to extract. Leaders know that without this resource they are doomed to mediocrity, yet most of them use outdated methods to measure and understand it.

The resource is skilled workers. In the United States alone, employers spend more than \$400 billion a year locating, securing, and holding on to them.¹ Internationally, companies large and small devote a similarly significant amount of money (as well as staff and executive time) to bringing in skilled workers and keeping them happy. Just one part of the process, help wanted advertising, costs employers almost \$20 billion per year.² Whether they're called employees, talent, human capital, or personnel, these are the people with the skills, work habits, knowledge, experience, and personal qualities that drive your organization to meet its goals. Top talent is rare by definition—the ones you want on your team whether you are on a hiring binge or managing layoffs.

Top personnel create the best new products, make the most revenue, and find the greatest efficiencies. They build great workplaces, delight customers, and attract others like themselves to join the organization. They adapt to changing business conditions. Finding, managing, and holding that top talent is the key to your future.

It takes a ton of work to maintain top talent in your workforce. The underlying dynamics of locating, hiring, and retaining all employees—especially the best ones—call for a continuous give-and-take between

employer and employee, and analytics is a must for understanding those dynamics unique to your organization. Your talent strategy, and People Analytics, must go beyond your current workforce to include people at every stage of the employment cycle. It includes understanding potential employees who work elsewhere, candidates (those who might work for you), current employees, and former employees (alumni, including retirees who have left employment altogether). If talent mattered less in the modern economy, the quest to find it would be less urgent. Today, it's the only long-term path to greater profits.

THE PEOPLE ANALYTICS ADVANTAGE

If you are reading this book, we assume you see the importance, as we do, of using People Analytics to positively impact your organization. You may be a human resources (HR) business leader who wants to learn more about how companies use data effectively. You may be an analytics manager who wants to understand pitfalls to avoid that can lead to failure when undertaking People Analytics. You may be motivated to learn some of the latest techniques and best practices of how to use different types of people-related information across the enterprise. You may be an analytical professional and want to learn how to take your organization's People Analytics to the next level. You may be an HR leader who wants to learn about data across the enterprise so you can decide how best to use it to make strategic human capital decisions. Whatever your motivation for reading this book, we assume your organization has business challenges that you hope data and the practice of People Analytics will help you overcome.

In 2015, Deloitte's Global Human Capital consulting group conducted a global survey among more than 3,300 HR and business leaders in 106 countries. It's a great resource and one of the largest global studies of talent, leadership, and HR challenges. The findings revealed many challenges facing human capital, not the least of which are related to People Analytics. For example, the number of HR and business leaders who cited engagement as being "very important" approximately doubled from 26 percent the previous year to 50 percent in 2015. Sixty percent of HR and business leaders surveyed said they do

not have an adequate program to measure and improve engagement, indicating a lack of preparedness for addressing this issue. Only 12 percent of HR and business leaders have a program in place to define and build a strong culture, while only 7 percent rated themselves as excellent at measuring, driving, and improving engagement and retention.³

According to Deloitte, organizations are also missing the growth opportunities presented by analytics. The Deloitte report revealed that analytics is one of the areas where organizations face a significant capability gap. Seventy-five percent of respondents cited talent analytics as an important issue, but just 8 percent believe their organization is “strong” in this area—almost exactly the same as in 2014.

“HR and people analytics has the potential to transform the way we hire, develop, and manage our people,” said Jason Geller, principal at Deloitte Consulting LLP and national managing director of the company’s U.S. human capital practice. “Leading organizations are already using talent analytics to understand what motivates employees and what makes them stay or leave. These insights help drive increased returns from talent investments, with huge consequences for the business as a whole.”⁴

It is gradually becoming clear that in today’s cutthroat business climate where the employee is gaining power, failing to leverage People Analytics effectively in your organization can mean the difference between thriving and slow death.

▼ **Interview with Jeanne Harris, Global Managing Director of Information Technology Research, Accenture Institute for High Performance**

PROFILE

JP Isson had a chance to interview Jeanne Harris, the coauthor with Tom Davenport of the well-known book *Competing on Analytics* (Harvard Business Review Press, 2007), as well as the October 2010 *Harvard Business Review* article “Talent Analytics.”

Isson: How will analytics change the HR world in the future?

Harris: In some ways, the book *Moneyball* [by Michael Lewis (W. W. Norton, 2004)] is really about analytics for talent management and its

net impact. And that is really a good way to show people the potential analytics holds for every industry. Ironically, most companies leverage analytics in certain aspects of their business; however, HR tends to be the one they wait to look at later in the process. It just seems to me we need to be getting started earlier. But the important thing to keep in mind is this is not a one-size-fits-all situation, and all answers will vary depending on the business.

The impact of analytics will depend on your business model: If your strategy is customer intimacy, you're going to focus initially on your customers' analytics. For example, if your business is in retail, you will find that it's equally important that your employees focus on those customers, too. By setting up and managing your customer analytics, you will be able to develop insights on customer relationships and determine the best strategies for improvement.

However, these strategies will vary if you are an investment banker. Instead of your primary focus being on creating a tight relationship with your customer, you might instead want to better understand how you can quickly identify, manage, reward, and motivate your employees who do the best job of investing money—in other words, how you best manage your star performers.

Isson: Do you believe HR is ready to embrace People Analytics?

Harris: Companies that I have talked with about People Analytics tend to be in the very early stages of implementation. Sometimes, they themselves are not clear on what information they want to collect and how they will leverage it. This is an important issue we need to address.

Many times, HR leaders have the sense that so much of what they have to do is reporting for regulatory or legal purposes, and they want to become more of a strategic partner with the business by managing and developing the right talent needed to drive the organization forward. While they may know analytics is the vehicle for accomplishing this, oftentimes they are not exactly sure how to do so.

I think that in many organizations, there is the perception that the most interesting issues are not addressed by HR, but instead they occur in other parts of the business. This is an interesting wrinkle: As an HR professional, you don't want to try to lift away from the business, but you want to add value. It is all about striking the right balance between

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HR and the business. I think this really is the core issue most executives struggle with sometimes.

Isson: How can companies leverage HR analytics or People Analytics?

Harris: One of the ways HR teams are starting to get involved in analytics is through applying the customer life cycle management (CLCM) model to their own employees. This is an idea that goes back to a *Competing on Analytics* case study, where a company (at the time, Nextel), had used CLCM to study their own employees from the time they heard about Nextel to the time they resigned. It's about marketing and tracking your internal resources as much as you do your external ones.

Developing a model that enables you to track your candidates and new hires from the first time they hear about your company through the employee life cycle will help you keep your fingers on the proverbial pulse of your talent and enable you to better manage your retention activities. For instance, if a hiring manager has an employee who says he or she is leaving, that manager can look at the expected lifetime value of that specific employee before deciding whether or not to make a counter offer.

Companies will be successful if they manage their HR teams the same as they manage their sales or marketing teams. They can leverage the HR team as a strategic department that can provide cost-containment insights and help them best manage their overall employee life cycle, much in the same way they do with their own customers. Using hard data points, they will be able to build models to react in real-time and better manage employee attrition through deciding what actions can be taken to keep high-potential and high-value employees.

Isson: What impact will Big Data have on HR teams looking to embrace analytics?

Harris: I constantly think Big Data just means more data that you now need to know how to analyze. I have always thought that way even before big data was "Big Data." It's one of those things that you want to do properly, but that you couldn't quite technologically handle. And now, all those barriers are all gone.

My message for HR executives is to approach Big Data as a sky's-the-limit opportunity. There is a lot of value that can be unearthed just by

mining the data you already have in your system. Once you've explored your data, you can add other data from other resources, such as publicly available talent data, labor market data, and benchmarked data from other companies. The limit that we historically had to deal with regarding massive data does not exist anymore, and this is a mind-set change that we must all learn to adapt to and embrace. Big Data will help us bring our organizations closer to achieving our collective company mission and associated goals.

Isson: What advice would you give to a company beginning to make use of People Analytics?

Harris: My advice is twofold:

1. The important thing is just to get started. Start by engaging your business partners throughout the company and gain a comprehensive understanding of their talent issues, gaps, strengths, and goals. In many ways, that is the first hurdle for HR executives to overcome because the business side of companies aren't typically used to thinking about HR in these terms. It's a reeducation process, and it comes down to establishing an open dialogue between business units.
2. The second thing is to think big, start small. Choose a high-impact area where you can add demonstrable value to your internal customers. Take the data you collect, learn from it, and use it to improve processes. HR analytics is in its infancy stage, and it's going to take some time to figure many things out, but there is no doubt that People Analytics will become the *Moneyball* for HR.

Companies are getting smarter about using People Analytics to acquire, advance, and retain top talent—and, in the course of doing so, to improve their return on human capital investment. Some of the conclusions that companies are coming to are sometimes counterintuitive. For example, according to a *Wall Street Journal* story,⁵ when looking for workers to staff its call centers, Xerox Corporation used to pay lots of attention to applicants who had done the job before and had a

lot of experience. Then, an analytics algorithm told Xerox that experience doesn't matter when seeking a top performer. The algorithm said that what does matter in a good call-center worker—one who won't quit before the company recovers its \$5,000 investment in training—is personality. Data showed that creative types tended to stick around for the necessary six months. Inquisitive people often don't. After a half-year trial that cut attrition by 20 percent, Xerox now leaves all hiring for its 48,700 call-center jobs to analytics software that asks applicants to choose between statements like: "I ask more questions than most people do" and "People tend to trust what I say." The Xerox example is a brief illustration of the insights that can be gained through leveraging Big Data in an effective People Analytics practice.

As People Analytics is rapidly evolving and often indicates different things to different people, we think it is important to outline what we mean by the term for the purpose of this book. We define People Analytics as the integration of disparate data sources from inside and outside the enterprise that are required to answer and act upon forward-looking business questions related to the human capital assets of an organization. We realize this is a fairly broad definition; however, our experience in practicing People Analytics, as well as that of the hundreds of companies that have provided input for this book, indicate to us that People Analytics is moving away from an isolated reporting and dashboard mentality inside the HR department toward an integration of various types of people-related information across the organization in tighter alignment with the business goals of C-level executives.

Even though People Analytics is a relatively new field, we see it as having the potential for great organizational impact and importance, far beyond that of the more traditional and isolated HR reporting function. Actually, the practice of People Analytics is beginning to have meaningful impact in many companies, some of which we profile in this book.

There are several key components worth noting in our definition of People Analytics that may differ from more traditional definitions of HR reporting or analysis. First, in our view, effective People Analytics must be grounded in key business questions. The amount of data

available to businesses is overwhelming and growing at an exponential rate, and it's easy to enter analysis paralysis or drift into intellectual curiosities. Therefore, organizations must articulate and prioritize the key questions they want People Analytics to answer.

Second, we believe that People Analytics has the most impact on the organization when it is forward-looking—not backward-looking. In other words, it is most useful when it is predictive and provides a lens into the future regarding likely business outcomes.

Third, to us, the new age of People Analytics requires the integration and synthesis of various information disciplines across the organization such as employee research, employee behavior, web analytics, business reporting, competitive intelligence, economic and labor market research, and outside data sources, among others, in order to be effective. If you recall from our definition, all effective People Analytics should be grounded in key business questions and objectives. Those business questions and objectives do not care about your organizational structure, that some of the employee data is in finance, some is in HR systems, and some resides in the information technology (IT) department. Those business questions just demand answers, and whichever organization can answer them consistently with speed and accuracy will win. Will that be you or your competitors?

So, how do you uncash the power of People Analytics to address the business challenges that are most critical to your organization while overcoming typical pitfalls inside your company? If you could only find one brilliant data scientist and woo them into your organization, then everything would be all right and your company could do brilliant things with its people data. That one genius could help you identify your at-risk employees effectively, learn how to increase your employee productivity, reduce employee turnover, predict what will make new employees likely to succeed, and increase your organization's talent return on investment (ROI) by 30 percent, right?

Wrong. Certainly smart and knowledgeable staff is critical to making good use of your data—but that is nowhere near enough. There are several other challenges your organization needs to be aware of before you can most effectively leverage People Analytics. This book

is designed to help you address those challenges, but first, let's outline a few of them.

THE WORLD OF WORK HAS CHANGED

There are many factors that are setting the stage for People Analytics' rise to importance. We see labor market and societal forces that are leading up to the newfound focus on People Analytics. Some of these have been occurring gradually over the course of decades, and some are more recent phenomena. However, they're all coming together to make People Analytics a necessary capability for any organization that wants to remain competitive in the future.

Let's start by considering the economy. We all know that over the past eight years or so the global economic environment has been more intense and challenging than ever before. At the time we write this book, the U.S. economy is showing fits and starts of positive growth and the labor market is again tight in many areas with the war for talent raging. In a 2015 press conference, Janet Yellen, chair of the Federal Reserve Bank, indicated that "the U.S. economy hit a soft patch earlier this year. Real gross domestic product looks to have changed little in the first quarter. Growth and household spending slowed, business fixed investment edged down and net exports were a substantial drag on growth."⁶ Those companies that identify with the Fed's moderate outlook are trying to hold market share, keep their current customers happy, and keep their employees engaged. Despite the lack of dramatic growth in the economy, finding new talent and holding on to existing talent continue to be a struggle for most companies.

In addition, much of the global economy is still on unsure footing in many parts of the world. Consumers are still being conservative about their spending in places like Europe and Asia. The global real estate market has not fully recovered, and global businesses are struggling to understand how to grow effectively, yet profitably.

However, business and consumer confidence have shown signs of improvement and the long-term payroll data trend from the Bureau of Labor Statistics indicates that companies are creating new jobs again.

Therefore, optimistically minded companies are eagerly trying to be smart about staying ahead of business trends as well as capturing some of the economic growth.

With this as a backdrop, let's consider some of the other forces that are changing the world of work and paving the way for the rise of People Analytics, including:

- Impact of digital technology on the labor market.
- Decreasing employee tenure and loyalty.
- Influence of millennials.
- Globalization of the workforce economy.
- Need of employers to always be engaging talent.
- Increased competition for talent.
- HR is under pressure.
- Skills gap in the labor market.
- Talent is one of the last competitive differentiators.
- HR evolves into talent management.

Impact of Digital Technology on the Labor Market

Digital media has forever changed how employers look for workers and how workers look for new opportunities. The notion of either being happy in your job or actively seeking a job has been changed by digital environments. For many in-demand workers, there is an ongoing stream of job opportunities from multiple digital channels such as the web, mobile, and social platforms that come in front of them all the time. Additionally, workers are more connected with one another and have an easier time understanding the real story of what it's like to work in a particular company and what's valued, as well as some of the negatives about a company.

As a result, the Internet and other digital environments have changed the workforce equation and revolutionized the overall talent sourcing and retention process, moving from a print-based to a digital-based effort. Digital technology has also enhanced the word-of-mouth channels through social networks and social hiring channels.

In addition, your employees see an ever-increasing number of recruitment messages from competitors from all directions. Media volume, including recruitment advertising and direct brand building that your employees see and that help form an impression of an employer, has been on the rise for quite some time. In the United States, companies send over 90 billion pieces of direct mail each year trying to influence the behavior of customers.⁷ Also, the Radicati Group estimates that nearly 90 trillion e-mails are sent each year,⁸ certainly a large percentage of which are helping your employees form an impression about a prospective employer organization. According to Media Dynamics, a media research group, the average American is exposed to a minimum combined total of 560 advertisements each day from radio, print, and television.⁹

At the same time, mobile recruitment usage continues to increase dramatically on a global basis, as does the use of social media and other online content such as blogs or tweets. There are roughly 6.5 billion mobile phone subscriptions worldwide, with some users having service on more than one device.¹⁰ Also, according to the Direct Marketing Association, 36 percent of workers now follow brands on social media platforms.¹¹

This new media is taking a lot of the friction out of learning about work opportunities and about choosing an employer. The good news from an analytics perspective is that, with the increase of new media and the multitude of ways to interact online, comes the increase of new data into the recruiting organization and the building blocks of People Analytics. For example, Internet sourcing created an explosion of digital talent data and metrics, and technology has enabled this information to be captured, stored, processed, analyzed, and managed. Every interaction that someone, whether a prospective employee or a current employee, has with your employer brand in an electronic medium such as an Internet search engine, a website, a social media platform, an electronic coupon provider, a blog post, or over a mobile device generates a data trail.

Other interaction points are also growing and generating massive amounts of data in their wake that can potentially be used for People Analytics of your workforce. For example, there are unknown

quantities of digital location tracking sensors in shipping crates, electric meters, automobiles, industrial equipment, and various other devices used by employees at many organizations. Additionally, GPS, WiFi, and Bluetooth position tracking by mobile devices is widespread and generates massive streams of location data that companies are beginning to harness in their quest to use analytics to drive workforce optimization.

Given these issues influenced by the rise of digital environments, the world of multichannel talent acquisition and retention requires the effective use of People Analytics to untangle the complex patterns of employer brand and talent perception that arise from being exposed to so many employers from so many channels.

Employee Tenure and Loyalty Are Decreasing

Another trend leading to the greater importance of People Analytics is that worker loyalty is disappearing and workers are not staying with companies for as long as they did in the past. Employees are becoming more fickle, and loyalty for employers is rarer than ever before—so employee turnover is often a substantial business cost. As a result, more and more employees are becoming less engaged, and are planning to look for new work. The decline in employee loyalty is also seen to be affecting the quality of service provided to customers. According to a 2015 study by the American Management Association, employee loyalty has declined sharply over the past five years at North American companies and is thought to harm organizations by causing low morale, high turnover, disengagement, growing distrust, and lack of team spirit.¹²

In recent times, this issue has been laid at the feet of members of the millennial generation, who have a strong reputation for switching jobs frequently. However, the data tell a more complicated story. Certainly, millennials are part of the equation, but job tenure has been declining for at least 50 years, with both older workers and younger workers staying with companies for shorter and shorter periods of time.

For example, the Federal Reserve Bank of Atlanta examined the median job tenure by age group and generation and found that job

tenure decline was across the board, not just in millennials. As seen in Figure 1.1, when looking at 20- to 30-year-olds, we can see that the median job tenure was four years among those born in 1953 (baby boomers) when they were between 20 and 30 years old. However, for 20- to 30-year-olds born in 1993 (millennials), median job tenure is only one year.¹³ Similar—and some even more dramatic—declines occur across cohorts within each age group. Interestingly, there is also a five-year decline in median job tenure between 41- to 50-year-old “Depression babies” (born starting in 1933) and 41- to 50-year-old Gen Xers (born starting in 1973).

At the same time that worker tenure is decreasing across the board, employee loyalty is decreasing as well. Wharton School management professor Adam Cobb sees the declining loyalty as a symptom of an evolving relationship between organization and employee. Cobb sees employee behavior as being influenced by the major organizational restructuring that began 30 years ago. “Firms have always laid off workers, but in the 1980s, you started to see healthy firms laying off workers, mainly for shareholder value. Firms would say, ‘We are doing

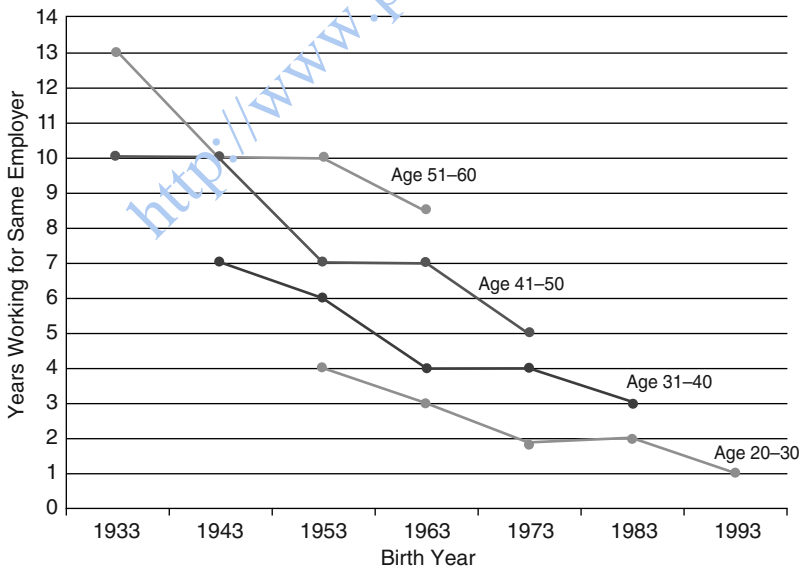


Figure 1.1 Median Job Tenure by Age and Birth Cohort
 Source: Current Population Survey, U.S. Bureau of Labor Statistics.

this in the long-term interest of our shareholders,” Cobb noted. “You would also see cuts in employee benefits—401(k)s instead of defined benefit pensions, and health care costs being pushed on to employees. The trend was toward having the risks be borne by workers instead of firms. If I’m an employee, that’s a signal to me that I’m not going to let firms control my career.”¹⁴

The lower levels of employee loyalty and the declining job tenure are both creating a more urgent need for analytics to help understand which employees are engaged and which employees are at risk, as well as how to spot the signs early enough before it’s too late. Given all of this, it’s extremely critical for businesses to understand employee issues such as what drives attraction to you as an employer, current employee sentiment, and factors associated with a highly engaged and productive workforce. Understanding those issues must be grounded in solid analytics. Doing this without systematic analytics and voice-of-the-employee input is almost impossible.

The Influence of Millennials

Millennials have entered the workforce en masse, and many have different attitudes regarding the employer–employee relationship, what work means, and how they expect to be treated in the workplace. There’s a stereotype that millennials are entitled job hoppers; however, the data tell a different story. Younger workers are actually staying in their jobs longer than previous generations did. In the late 1980s, about 50 percent of 20- to 25-year-olds changed jobs each year, but that dropped to 35 percent after the recent recession, according to an analysis by the *Washington Post*.¹⁵ It’s not clear if millennials are holding on to those jobs by choice or if they are struggling to find better opportunities.

Regardless, there are some key differences between millennials and other workforce generations that make the importance of People Analytics more evident. For example, the millennial generation expects to be able to give and receive feedback openly and frequently. They expect this at all levels of the organization as well. So, it’s not unheard-of for a millennial worker to feel empowered to meet with the CEO and tell her what he thinks about recent happenings in the

company. This also influences their expectations for what a manager relationship should look like.

Additionally, millennials have a stronger desire for their job or career to have personal meaning beyond the job task they are tackling. For example, is their company socially responsible, helping others in the community, helping to influence the industry or world, or achieving something great? In other words, buying into the vision and mission of their employer is more critical for this generation compared to previous generations.

As a result, People Analytics is critical to monitor and understand the early at-risk signs for this generation. Concepts like a traditional once-a-year check-in or annual performance review are not going to be enough to make sure you're staying close to and mitigating the turnover risk of your millennial workers.

Globalization of the Workforce Economy

Another driver of the need for People Analytics is the globalization of the world economy. The labor market and competition for talent can no longer be viewed through a domestic lens. There are complex labor market dynamics at play that only analytics can help untangle. For example, Figure 1.2, from Aon Hewitt's annual report *2015 Trends in Global Employee Engagement*, shows the world's largest economies and the world's largest labor pools. Together these countries make up more than 80 percent of the global gross domestic product (GDP) and available labor. These countries also have very different dynamics in economic and population growth/stagnation and wide ranges of average employee engagement levels (from 38 percent in Japan to 78 percent in Mexico). China and the United States are the dominant markets from a GDP and labor perspective, with the U.S. GDP double that of China. Yet China, where 40 percent of the world's workforce resides with almost 1.3 billion available workers, has a labor pool nearly five times that of the United States, whereas India has a very large labor pool but its economy is one-tenth the size of the United States' and China's economies combined.¹⁶

These data all point to the level of complexity leaders face in driving growth through talent strategies across global markets, all in various

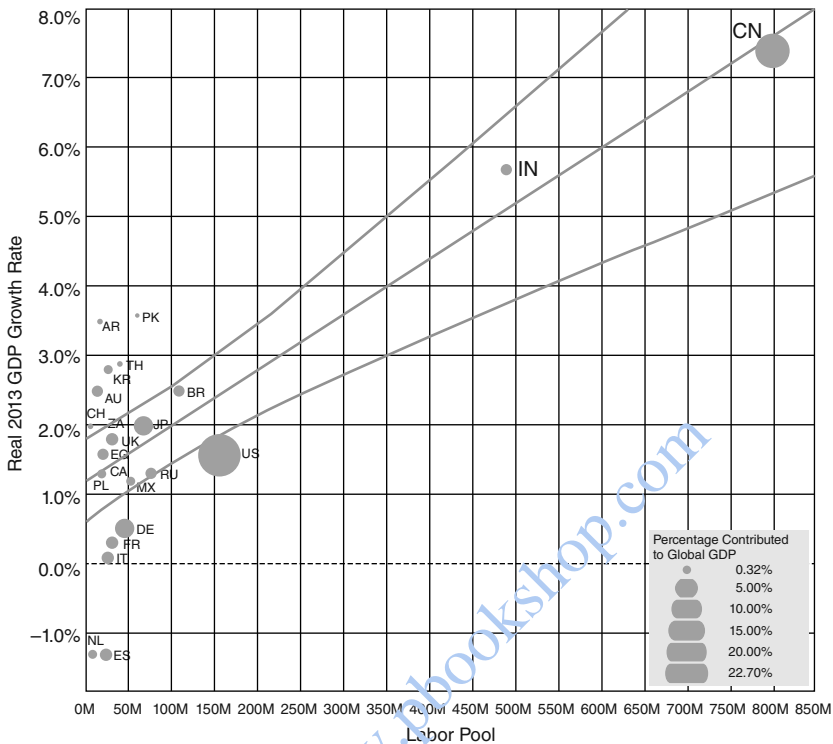


Figure 1.2 Available Labor and GDP Growth for the World's Largest Economies

Source: Ken Oehler, 2015 Trends in Global Employee Engagement: Making Engagement Happen, Aon Hewitt, 2015.

stages of growth and maturity. However, according to Aon Hewitt, there are two very compelling facts about these data. First, there is zero correlation between the size of the economy and growth. However, there is a significantly positive correlation (0.52) between available labor and economic growth. In other words, where there is available talent, there is growth.

Employers Must Always Be Engaging Talent

Another force lending rise to People Analytics is that in the current climate, employers must now always be engaging their employees—current, future, and past. Nowadays, an employer must continually attract, acquire, and advance talent just as brands attract, acquire, and

gain loyalty with customers over time. The reflection of this new reality can be seen in the Engagement Cycle framework developed by one of the authors of this book and published previously in *Finding Keepers*.¹⁷

The Engagement Cycle is a long-term practice combining employer branding, relationship management, and communication. The Engagement Cycle creates strong bonds between employers and potential candidates before, during, and after the brief period we call “recruiting.” Its practices ensure that when the economy strengthens—and talent once again becomes scarce—an employer has built a strong bench of talented individuals who are interested, open to discussion, and even grateful for the attention. The Engagement Cycle concept also helps employers take advantage of candidate psychology during a slowdown to attract top talent for the long term.

As companies move from the hiring-as-transaction view to the marketing view, the employer and the candidate follow a clear three-phase cycle in the course of their working relationship. The three phases of the Engagement Cycle determine the level and quality of engagement between employee and employer. Analytics at every phase of the cycle are critical. The three phases are:

1. **Attract.** The Attract phase is a long-term dance between you and the candidate. It includes every activity meant to position the organization as a potential employer in the mind of a candidate. You project a carefully crafted, authentic image as an employer; the candidate becomes aware of your organization’s specific attributes. Your employees spread your reputation as an employer; the candidate listens and assesses your company as a potential workplace. It’s a similar dance to the way consumers are drawn to brands in the marketplace.
2. **Acquire.** This phase involves all the interactions between you and candidates from the moment they reach out to you. You advertise a position and they apply. You treat their application a certain way, and they react. You find their resume and approach them, and they judge you by your image and your behavior. Your interview process is a series of interactions with different parts of your organization. Both candidate and

employer set expectations throughout this process that will be critical in making a good hire and later in holding onto the best talent. The Acquire stage also includes the honeymoon period right after an employee starts working, in which expectations will be tested against reality. In terms of consumer branding, this is the purchase of a product and its aftermath: Does the product perform as advertised? Is the customer so satisfied that he or she would recommend the product?

3. **Advance.** Keep critical talent moving, not necessarily up, but growing in experience, responsibility, money, or other tangible and intangible ways. Advancing talent in your organization is a key to retaining good people and vital to your company's ability to change as opportunity or necessity require. Retention is the "hold" part of hire and hold; in consumer branding terms, it's the equivalent of customers' becoming loyal to a brand and identifying with the brand's attributes.

Increased Competition for Talent

Part of the increased need for People Analytics is the increased competition for talent. In order to be successful in the war for skilled workers, your company must monitor and stay one step ahead of your primary competition for talent—tracking, analyzing, and integrating everything you know about them into the talent acquisition processes of your own company. For example, do you know the strategies and tactics your competitors use to attract talent, how your employer brand and work environment is perceived compared to theirs, which of your talent segments are more likely to defect to the competition, or whether your talent acquisition costs are higher than your competitors'? Many companies rely, at most, on informal feedback on their competitors and do not have solid analytical systems in place to address these issues.

Given intense business competition, existing companies must continually monitor their employees' behaviors and perceptions, remaining on guard for precursors to employee turnover. Companies are

under great pressure to continually and rapidly reinvent themselves and how they offer value to employees and customers. Failing to accurately listen, track, and take action on employee attitudes often results in very high employee turnover costs compared to peer organizations. Take the case of Piper Windows, a UK-based company that started operating in 1980 as a manufacturer of windows for commercial and residential markets with projects ranging in value from £50,000 to £1.5 million. Piper's customers included local government agencies, housing associations, schools, and hospitals, and its annual revenues were about £10.1 million. Although Piper was growing slightly faster than the market, its management believed that the company could gain a bigger market share by being more competitive and by fully using its current capacity. Piper was operating on a single site, split into two units, one for commercial and one for domestic business. The business was buying preformed extruded plastic, and then transforming it into the window/door units. It used two profiles of plastic from two suppliers, with the two units manufacturing one type each.

In 2000, the company was struggling with how to increase plant output while still maintaining quality. Management believed that the ongoing struggle to achieve greater growth was a result of poor productivity and quality control by frontline staff. The UK Department of Trade was enlisted for advice on improving factory output and quality. After some analysis, it was discovered that productivity and quality control were indeed very serious threats, but the cause of those issues was surprising to management. Despite leadership insistence that problems were due to poor use of equipment, bad layout, and quality issues, it was identified that the basic cause was due to the poor levels of employment and high staff turnover.¹⁸

Apparently, there were a number of deep-seated issues within the operation that were leading to high staff turnover. The company had consistently won a number of regional awards for training and training initiatives, but this was all initial training for new hires, and there was no ongoing training or staff development. It proved hard to convince leadership that turnover was a major threat to the business, as they were convinced that the answer was better performance through better use of their current operations. This may have been true in the long

run, but would not be achievable unless leadership acknowledged that high turnover was a threat. Piper failed to do this, and in the long run it hurt the company. The company finally filed for bankruptcy in late 2013.¹⁹

PROFILE

Interview with Michael Housman, Workforce Scientist in Residence, hiQ Labs, and former Chief Data Analytics Officer, Evolv

JP Isson had the opportunity to speak with Michael Housman to discuss the important topic of People Analytics implementation, and how Big Data is changing human capital and workforce ecosystems.

Isson: Why should a company invest in People Analytics today?

Housman: The timing is right. The most obvious and important decision when it comes to human capital is the hiring decision—essentially, whom to bring into the job. Companies can't afford to make bad decisions. So, I'd say there are two main reasons why a company should make the investment in People Analytics.

1. The United States, in particular, has emerged as a service-based economy. If you look back to 1960, manufacturing used to be the biggest industry; the largest companies were in manufacturing, and that is no longer the case today. In a service-based economy, your human capital is your most valuable strategic asset, and that's why it's important to get the right person in the right job. And this is especially important for customer-facing employees, as you will want to ensure they are reflecting well on your brand.
2. There is more data made available now than ever before. And this is only because of the Internet: Human capital data is being captured through human resources systems, performance management systems, learning and development systems, and applicant tracking

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systems. The problem is that all this data is being captured, but not leveraged properly. There is a huge opportunity to use this data intelligently to make better, more informed decisions.

HR, specifically, is an industry that has been guided by gut instinct and intuition. If you think of *Moneyball*, for example, a hiring manager would make the decision based upon a gut feeling. Now, imagine if that same manager injected analytics into that decision-making process; he or she would perform better, hiring employees who would stay longer and perform better. Those hiring managers will, therefore, help their organizations to hit P&L [profit and loss] the right way—by using data to make informed decisions. People Analytics is still pretty nascent; however, to be successful, companies have to get on the wagon and avoid being relegated to the laggards.

Lesson: What advice would you give to a company just starting to implement People Analytics? What are the dos and don'ts?

Housman: In terms of “don'ts,” I recommend avoiding the “start big and wait” method. Companies that initiate a huge undertaking and then take no further actions as they wait for the complete master data warehouse with all their talent data before they make their next move—this is not a great way to start. I've seen companies with very ambitious project plans. They have tried to get all the master data and fail to start. This is because data is the most difficult element of analytics. It can be easily overwhelming. It has to be cleaned, standardized, aggregated, and integrated. The challenge to resolving this is to fix the data siloes that do not talk to one another. The best way is to start small: Identify a few questions (targets that are low hanging fruit), and pull data together that help answer a specific question.

Additionally, companies should start by leveraging the data that currently exists and is readily available to them. Starting broadly and trying to integrate all that information at once into their systems simply won't work. It could also lead to a data deluge, where the sheer volume of information washes over the company, with no plans for what to do with all those pieces of disparate data. I recommend starting with available data and eventually expanding and adding more data into the

mix gradually. The power of Big Data lies in its sheer size; you need a good sample. For smaller organizations, I would recommend they look into partnering with another small business or vendor, and leverage the benefits of a larger sample size. This would help them to separate the signals from the noise, and create more precise and actionable insights.

The best way to get started is by asking one single, interesting question. For example, one company wanted to know what the ROI was for each employee referral. They found that for each referral, they were generating \$370 for every \$50 invested. You should ask a very specific question aimed at determining a best practice, instead of trying to boil the ocean.

Isson: What are the biggest challenges when implementing People Analytics?

Housman: Data integration and data governance are two of the biggest hurdles. This includes combining data from multiple sources, cleaning, and analyzing it in a consistent way. If there is no playbook, there can be variance in your data governance, which can cause problems and compromise results. Often times, data comes from multiple Excel spreadsheets and from different systems that do not talk to each other, which increases variability. And, in some cases, you may know the data exists, but you can't get access to it.

The second challenge is to change human behavior. Even if we say to hiring managers, "Follow these recommendations, based upon this data," and we can see how those who are using the tool perform much better, we will still see some managers presumably leveraging their own instincts and gut feelings they have developed after 24 years of being a recruiter. You might have the best analytics tool, but if nobody uses it you won't succeed. For some companies, it's difficult to change; people keep on listening to their gut feeling.

HR Is under Pressure

Anyone who works in HR knows there's pressure. The clock is ticking. Business leaders, HR leaders, and boards are recognizing the changing

and growing critical business needs related to HR and talent—leadership, organizational change, and talent development are at the top of the list. The time for HR business as usual is over. The CFO is asking to understand the ROI, the CEO is asking for a labor force to carry out a vision, and employees are demanding more benefits—HR is hit from all sides.

At the same time, they're shifting their role from the tactical "where's my paycheck?" function toward being a strategic business partner. HR now has access to huge amounts of computer processing power that makes it possible to take vast quantities of information—so-called Big Data—about the organization and its employees, and analyze it using specialized workforce and predictive analytics tools. These tools interrogate the data and connect different bits in different ways that might never have been thought of before. So they reveal new things, offering insights into what has happened in the past, what is happening at present, and even what is likely to happen in the future.

However, HR is struggling under the pressure. The Sierra-Cedar HR Systems Survey, now in its 17th year, gathers information from organizations across the globe that track the adoption and deployment of HR analytics solutions, gathering data on process maturity as well as the type and amount of data that HR organizations are capturing. According to Sierra's most recent study, only 9 percent of companies use predictive analytics or Big Data to analyze trends related to human capital.²⁰

Skills Gap in the Labor Market

Another trend giving rise to People Analytics is the global skills gap in the labor force. And it's going to get worse before it gets better. There are currently millions of unemployed and underemployed workers in the United States as well as millions of job openings. However, many of those workers will remain unemployed and those positions will go unfilled.

In the United States, labor force participation remains historically low, and a jobless economic recovery seems the new normal. Increasingly, jobs are being automated, yet a shortage of skilled workers is looming worldwide, even in China, despite its huge labor force. Technology also makes it possible for employers to redesign and partition work, and to reassign routine tasks to lower-skilled employees. In health care, for example, chronic disease management can be assigned to nurse practitioners rather than to physicians.

These and other changes are part of the larger disruptive forces that are reshaping the global economy. In the labor market, some of these shifts are already evident—and the disruption they bring about will only get larger. As a result, People Analytics becomes a critical factor in sourcing, attracting, acquiring, and retaining the skills needed in your workforce.

Talent Is One of the Last Competitive Differentiators

Another phenomenon giving rise to the importance of talent analytics is the increasing value of talent to the bottom line, and the diminishing value of other assets to make a difference.

In the development of new economies, stand-by competitive differentiators have often faded. For example, capital forms much more freely than in the past, new products are quickly copied, location matters less as workplaces become decentralized, and distribution channel relationships fail to prevent competitors from entering through online channels. These structural changes don't mean these things are no longer important, just that their relative importance is declining.

Talent creates the vast majority of value in the developed world's companies, and those who calculate the intangible assets of organizations (e.g., know-how, patents, brand names, ideas, and processes) put the products of brainpower from employees at 80 percent of a company's value.²¹

Globalization plays a part as businesses in more developed economies cede manufacturing and low-end services to emerging economies. Their survival depends on the products of high-end talent, whereas information-rich products and services, business innovation,

sophisticated new technologies, better management, and more creative solutions drive the established economies.

This permanent change has increased the value of talent because talent is the last remaining factor that consistently delivers profits. Companies espouse innovation, but it's talent that innovates. A large retailer revolutionizes supply-chain management and then discovers that mid-level store managers are the linchpins that determine whether all the efficiently delivered merchandise gets purchased by the consumer.

This, coupled with the shortage of critical skills in the labor market, means that more than ever, People Analytics is critical in order to give you the advantage over your competition in the talent war.

HR Evolves into Talent Management

Human capital or talent management (TM) is evolving in much the same way as the finance function grew into a decision science, separate from accounting, or the evolution of marketing as a decision science separate from sales. Executives who are focused on talent management must now work side by side with the CEO and other business leaders to identify ways that talent can be used to create new products and services and to inspire new strategies. People Analytics becomes a key enabler of this evolution, helping to understand worker sentiment, predict factors that lead to an engaged and productive workforce, as well as help uncover hidden opportunities for talent-related programs to contribute to the company's bottom line. Figure 1.3 lists some of the ways that HR is evolving from a process-based department into a strategic partner.

Putting It into Practice

To illustrate some of the challenges to People Analytics success, let's take the case of a company we spoke with as part of the background research for this book. Out of respect for the company we won't name it; however, let's just say that it is a fairly well-known media company. This media company expressed some analytical angst to us during our interview. The interviewees said they realized a few years ago that

Traditional Paradigm	Emerging Paradigm
<ul style="list-style-type: none"> ▪ HR provides support to the business units when asked. 	<ul style="list-style-type: none"> ▪ TM proactively identifies business opportunities and flags potential human capital risks.
<ul style="list-style-type: none"> ▪ HR professionals are valued by their responsiveness to inquires. 	<ul style="list-style-type: none"> ▪ TM professionals are valued for their ability to solve business problems.
<ul style="list-style-type: none"> ▪ HR deals with the “soft” side of the business. 	<ul style="list-style-type: none"> ▪ TM uses the same data-driven, fact-based approach as the rest of the organization.
<ul style="list-style-type: none"> ▪ People problems are the responsibility of the HR department. 	<ul style="list-style-type: none"> ▪ Managers and TM jointly apply their experience to address employee issues.
<ul style="list-style-type: none"> ▪ The HR department owns employee development. 	<ul style="list-style-type: none"> ▪ Employee development is a shared responsibility between managers, employees, and the TM organization.

Figure 1.3 Traditional Paradigm versus Emerging Paradigm

their unstructured data from employee engagement surveys was an untapped resource to help their people strategy as well as their business strategy. So they went searching for someone with the requisite degrees and experience who could lead the work with their data to help them unleash its potential. They searched for seven months (these data analysis people are in demand) and finally found someone with a statistics degree, computer science experience, great references, and a solid track record of helping well-known brands analyze their data. They hired him and put the existing four HR analysts already at the company under his management. They were very optimistic with their new key hire and set him immediately to work on analyzing data from long-tenured employees versus those new to the organization in order to understand how to better target new prospective talent so as to yield long-term employee engagement and a solid return on their recruiting dollar.

They said things started off well at first—the team was optimistic and energized with the new team member. However, problems gradually started to develop. First, the People Analytics team went away for weeks at a time with little data analysis completed, and then when something was delivered it was usually lots of raw data and a graph or two that was difficult for the business’s people to understand. Second, the new team occasionally provided statistics that were in conflict with those from other teams in the company or what had been common company

wisdom in the past, setting off ill will between departments and spates of dueling data that often took weeks to untangle. Next, it seemed as though the analysts would come out with numbers that were different from the analysis they had provided just a few months earlier, which frustrated the business to no end.

The company attributed these challenges to the difficulty of doing People Analytics and tended to blame the analytics team for these problems. However, as a result of our interview, they gained an expanded view that it was very likely that the overall organizational dynamics within the company may have been the cause of their People Analytics difficulties.

First, we asked what company leadership sponsored the hiring and formation of this People Analytics team. It was explained to us that a long-tenured vice president of human resources commissioned this initiative, and everyone had great faith that she could make the best use of these analytical resources. When we followed up regarding whether the most senior corporate or functional leaders were also in favor of forming this team, we were told that they were not completely sure as nobody beyond the senior vice president to whom the human resources vice president reported was consulted. This illustrates the first internal challenge that People Analytics must overcome: weak executive sponsorship. Unless a senior driving leadership force within the organization is aware of, supports, and believes in the mission of the People Analytics discipline over the long term, then it will likely have difficulties thriving and eventually fail due to shifting corporate priorities, company politics, and lack of corporate accountability.

Second, we asked what process the company had undergone to make sure its corporate business objectives were in line with the objectives of this new analytics team. We uncovered that they didn't really communicate corporate objectives to the new analytics lead or his team, as they thought the team just needed to analyze data, not worry about corporate priorities. This illustrates the second internal challenge that a People Analytics function must overcome: failure to communicate and align People Analytics priorities with corporate priorities.

Third, we noted that surely technology systems and resources were required to help the People Analytics team do their work, so we asked how the analytics team worked with the technology team that supported these analytics initiatives. For example, did the technology resources report into the new analytics team? Was there a direct line of accountability in some other way? We were told that they did not set up any formal arrangement, but relied on the new People Analytics manager to build a bridge and work across the departments. This illustrates the third internal challenge that the practice of People Analytics must overcome: weak alignment and accountability from the technology support function.

Next, we asked whether there was any data quality or governance function within the company to ensure that definitions were standardized and data were accurate. We were told no, that it was the analytics team's responsibility to make sure that whatever data and analysis were distributed were accurate and reliable. This leads us to the fourth internal challenge: lack of formal data governance. It takes dedicated and diligent effort from business and technology to ensure that data being published from various systems are accurate and reliable, and this cannot be just a matter of an afterthought by a few analysts because they happen to be last in the chain of data distribution.

Then we asked how the new People Analytics team's activities were rationalized against other People Analytics-related activities across the enterprise from departments such as finance, strategy, or international business units. We were told that they did not really communicate with one another formally and didn't initially think it was necessary because those teams were working on different analytical tasks. This illustrates the fifth internal challenge: weak alignment of existing People Analytics resources within an organization. We explained that in order to reduce the likelihood of duplication of efforts and dueling data as well as to ensure that the company is leveraging the collective knowledge of the analytical resources most effectively, there must be some type of formal alignment across People Analytics teams throughout the company; whether that is a reporting relationship to a single manager or just a formal communication and management cadence

depends on the corporate culture and is open for debate, as we have seen each work well under different circumstances.

There will be many internal challenges on the way. These are just some of the internal challenges a People Analytics function must rise to meet in order to become business-relevant, fast, insightful, and predictive; to have a bias toward action; and to become part of the corporate culture.

Given that economic pressures remain in many parts of the global economy, that the war for talent is more intense than ever, that employee loyalty is all but gone, and that new media and digital technologies are on the rise, it's no surprise that the use of People Analytics is gaining new prominence. These are the challenges for the People Analytics discipline—the challenge to help organizations thrive and prosper. It's clear that effective People Analytics is seen as a way to address these key talent challenges and that People Analytics holds great promise to help organizations understand what their employees want from them, how to acquire new ones, and what will lead to an engaged employee. However, most organizations we speak with are struggling to make sense of what this data can tell them or how they can use it. Therefore, we have designed this book to help businesses think about, organize, and make the most of the people-related analytical assets available to them.

We don't claim this book will solve all of these issues for everyone. However, we know that the best practices, lessons learned, and assessment tools within will go a long way toward helping you to make sure your People Analytics is world-class. Throughout this book, we provide examples of companies that are doing it well, as well as some that are not.

This book is organized in such a way to help you build upon your knowledge as you read from chapter to chapter. We have also attempted to define and organize the chapters so they can stand on their own. For example, if you are primarily interested in learning about using People Analytics effectively for employee onboarding, you can jump to Chapter 7, Onboarding and Culture Fit. However, if you want to learn about how to successfully use People Analytics to leverage talent strategically to meet your business objectives, then we suggest you read the chapters in order and ask yourself the hard questions

about whether your company is doing everything it can to leverage People Analytics.

Organizations are in an ongoing war—a war for talent. Everyone working in human capital knows it, business leaders know it, line managers know it, and the most talented employees know it. With some effort (increasingly less and less effort), talented employees can leave you forever. The time and money you spent training them, giving them experience and development opportunities, building key relationships within your organization—they're all gone as soon as your talent walks out the door. So, leverage People Analytics to make sure your talent strategy adds to your organization's bottom line, not just takes from it.

KEY TAKEAWAYS

- The field of People Analytics is evolving and is becoming more common. Companies are struggling with vast amounts of data in different systems, but are starting to see valuable ways People Analytics can be used.
- There are several market dynamics driving the need for People Analytics, including an increased competition for talent, decreased employee loyalty, economic woes, and proliferation of new media.
- The need for HR to move from a tactical partner into a strategic partner can be enabled through People Analytics.
- People Analytics requires many things to succeed, including strong executive leadership support for analytics, effective technology infrastructure and tools, alignment with corporate priorities, and effective communication across departments.

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