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Case Study of IBM's Use of Cognitive People Analytics

Prepared by Anshul Sheopuri, IBM People Analytics and Cognitive Solutions
Manager, and colleagues



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Case Study of IBM's Use of Cognitive People Analytics

Background. International Business Machines (IBM) is a technology corporation that provides cloud- and cognitive-based products and solutions across 20+ industries in virtually every country, equipping professionals worldwide with a wealth of new data, knowledge, insights, and tools to do their best work in the modern age. IBM's 370,000 plus professionals earned IBM \$79.9 billion in revenue in 2016.

The corporate world is changing. We are seeing seismic shifts in world dynamics that are disrupting how we do business. Technology has enabled new digital business models, which has lowered barriers to entry and accelerated the speed of disruption in virtually every industry and profession. In this fast-changing digital environment, many organizations are desperate, having high capacity but low supply of digitally-skilled talent. This skills shortage is also evident in the market, putting digitally-skilled professionals in a position of power to elect where, when, and how to work. Additionally, today's employees have higher, consumer-grade expectations towards work arrangements – equipped with skills and information, employees can more fluidly navigate the market towards companies that will provide a more flexible and fulfilling employment experience.



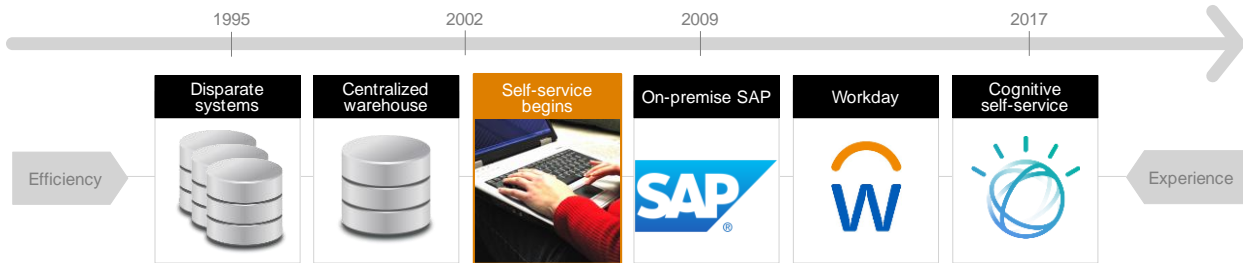
In this new era of work, how should companies transform their talent management structure in order to attract, retain, and grow digitally-savvy talent who will consistently thrive in the digital age?

Cognitive solutions are key for companies to re-structure talent management and achieve long-term success in the digitally-disruptive era. They help HR professionals pinpoint industry- and business-specific skills gaps and determine the build vs. buy balance for skills development at a personal level. Cognitive solutions also create efficient ways to improve and personalize the employee experience. These solutions provide easy, self-serviced access to insights from vast amounts of data, delivering knowledge and recommendations tailored to individual needs.

Cognitive computing has a three-tenant paradigm: understanding, reasoning and learning. First, cognitive computing understands all types of data sources with context at astonishing volumes and speeds. Next, it can form hypotheses, make considered arguments and prioritize recommendations to help humans make better decisions. Lastly, after being trained by experts, cognitive systems continuously ingest and accumulate data while developing insight from every interaction.

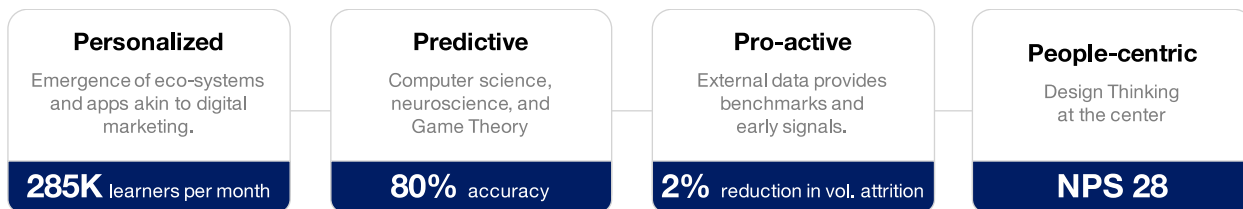
Cognitive is the new IT. Historically, HR systems focused on process consolidation and system integration and on generating reports and scorecards. HR systems have since evolved to deliver a holistic user experience through cognitive computing, providing managers, employees, and HR practitioners with the insights they need for faster, personalized decision-making.

Figure 1: From siloed systems to experience-focused personalized solutions



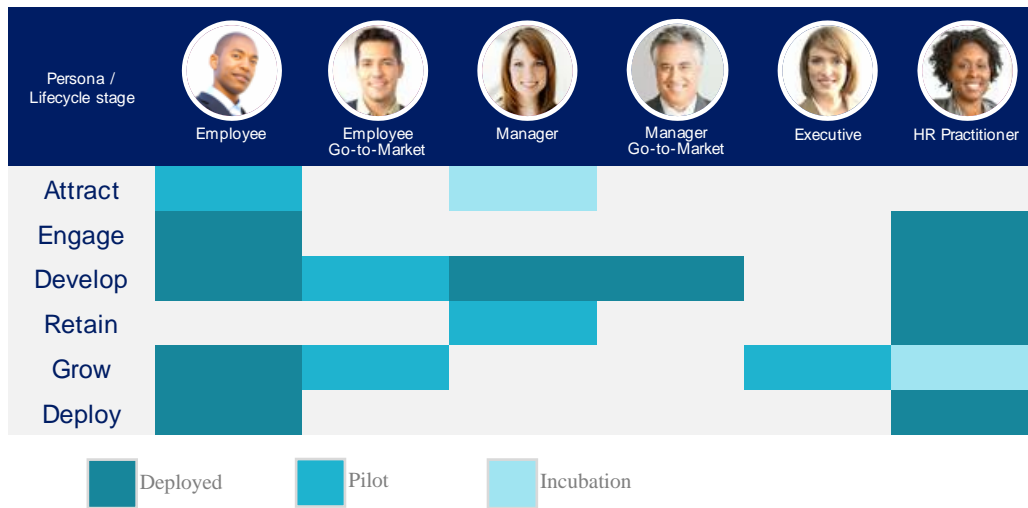
Cognitive computing is quickly transforming today’s HR landscape. Reputable publications, such as *Harvard Business Review*, *MIT Technology Review*, *Wired*, among others, are increasingly reporting on the AI-based HR transformation being spearheaded by technology corporations, including IBM and other players who are making heavy investments in AI. New interfaces are increasingly bringing AI into every discipline of HR, from talent acquisition and people management to skills development and off-boarding.

Cognitive offerings and the employee lifecycle. Cognitive offerings are driving IBM HR’s transformation journey. They are targeting multiple personas and delivering personalized value at various functions of work, thus providing IBM employees with experiences that are personalized, predictive, pro-active, and people-centric:



Targeted personas include employees, managers, executives, and HR practitioners, whose experiences are being enriched at every level of the employee lifecycle through improved user experience and faster decision-making. Offerings are supported by a layer of inferred data, such as success profile, propensity to learn, and inferred expertise, which unveil hidden dimensions of employees’ performance and potential through far-reaching predictions, enabling targeted interventions that yield high business results in the short- and long-term.

Figure 2: Cognitive offerings and the employee lifecycle



The following examples demonstrate how HR analytics and cognitive offerings are adding significant value to IBM:



Manager

Proactive Retention uses analytics to retain high-performing talent and reduce unwanted attrition by proactively identifying IBMers most likely to leave and making recommendation for meaningful and optimal salary increase. Proactive Retention is based on a cognitive model that evaluates 11 elements used to predict attrition, comparing the employee's propensity to leave and the investment level of a base pay uplift with cost of attrition for that employee. Proactive Retention was launched in 2012 and has brought in to IBM over \$250 million in net benefit to-date.



Employee

Blue Matching curates and analyzes data from both IBM employees and IBM internal job openings to match participating employees with the best available jobs. This allows employees to progress in their careers and managers to find employees who are the best fit for open positions on their teams. More than 4,000 IBM employees have applied to recommended jobs to-date, resulting in 450 plus placements for in-demand skills and over \$10 million in attrition cost avoidance. The industry has taken notice – Blue Matching won the 2017 Brandon Hall Silver Award for “Best Advance in Big Data to Inform and Predict Talent Strategy.”

Cognitive solutions can enhance the employee journey with minimum disruption. Inferred data and other solutions can be integrated into existing platforms, leveraging employees’ current channels of work, with no operational interference. The end-state is a seamless employee experience that systematically crosses organizational siloes. What was once complex processes and stand-alone systems is now a seamless experience, personalized to the individual at every step of the employee journey.

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