

MACHINE LEARNING AND HR



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Foresight Is 2020: Using Machine Learning to Make HR More Human

By Julie Jares

For most of us, the year 2020 sounded like the far future when we were children. While we're still waiting for our flying cars, machine learning is starting to make a real difference in how businesses, including human resources, operate. Some HR professionals may say they missed the machine learning wave, citing the tired phrase, "hindsight is 20/20," but that's really no excuse. Experts agree that machine learning is here to stay and will continue to impact the HR function. It's up to you to act. Let's rewind a little to see how we arrived at this moment—a moment that we believe is an inflection point in a rapidly changing world.

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In a Galaxy Not So Far Away

Decades ago, human resources was called the personnel department, and as the name suggests, it was focused more on the administrative aspect of filling open positions, compensation, and so on. The shift in focus to the human side of employee relations, in addition to the realization that employee satisfaction helps companies achieve their business goals, led to the name change, and more importantly, a change in attitude about HR and how it could help the business.

The HR function continues to evolve with technology—from the early internet to mobile phones to the cloud, and now, machine learning.

According to Richard McColl, vice president and partner, talent technology practice leader, IBM, the first HR processes powered by machine learning needed to be faster, involved vast volumes of unstructured data, and were focused on the candidate experience. But now, every HR process and experience will be touched by machine learning, McColl says. “It’s not simply those processes that benefit from automation, speed, and efficiency. How do we make super managers? How do we make better informed decisions? How do we help people find opportunities that are now visible to them because we’re using machine learning to identify patterns of success in careers?”

The State of Play

The [2019 Deloitte Global Human Capital Trends](#) report, based on a survey of nearly 10,000 respondents in 119 countries, found 80 percent of respondents predicted growth in cognitive technologies, which include machine learning.

It makes sense then that human resources leaders are laser-focused on how this will continue to change their profession. As shared in Deloitte’s “The Evolution of Work,” “Agile organizations assess and reassess the mix of human and machine talent at all levels as an essential element of their business and strategic planning.”



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Saving Time While Improving the Experience

Machine learning powers faster and more streamlined HR functions across the entire employee lifecycle. Sifting through tremendous volumes of data to identify patterns and make predictions about future events, machine learning increases efficiency and eliminates many tasks that were once manual.

According to “The Business Case for AI in HR,” [a report from IBM](#), HR organizations implement AI and machine learning for five main reasons:

- Solving pressing business challenges
- Attracting and developing new skills
- Improving the employee experience
- Providing strong support for decisions
- Using HR budgets as efficiently as possible

These reasons can also apply when considering any new technology.

As you can see, these reasons cover nearly every aspect of HR. For example, let’s take a look at attracting candidates with new skill sets, and the broader category of recruiting. Machine learning can help map resumés and skills to job openings and sort through job applications at a much faster pace than when done manually. This speed

makes a significant difference, given the increased volume and velocity of recruiting today. According to the [Gartner Recruiting Efficiency Survey](#), “25% of today’s candidates apply for 10 or more jobs; the average number of applications received for a single position rose 39% between 2012 and 2018. Additionally, recruiters must now weed through larger pools of poor-fit candidates—72% of applications are considered low to average quality.” But, with the right tool powered by machine learning, recruiters can spend less time wading through resumés and more time getting to know high-potential candidates.

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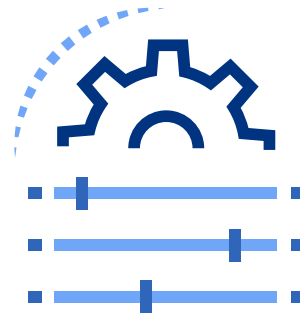
Furthermore, job seekers reap the benefits of machine learning by spending less time searching through endless job postings and more time evaluating positions recommended by an algorithm. All of us have probably seen jobs recommended to us that we might not have considered. As the underlying technology continues to evolve from basic keyword matching to true skills matching across job types, we predict that more people will find themselves retiring from jobs that they may not have known existed otherwise. In the future, blockchain technology could also make this process even more seamless for job seekers and recruiters alike with a validated job history for candidates.

As far as employee engagement and retention, organizations can monitor their own employee engagement and satisfaction, using machine learning to analyze internal company feedback. According to [IBM](#), “This technology can analyze unstructured content from annual surveys and pulse surveys, as well as social media chatter.

Hundreds of thousands of comments can be analyzed for themes in a matter of hours.”

Machine learning can also play a role in continuous employee learning by making highly relevant recommendations for related content within a learning platform, in much the same way that we encounter product or movie recommendations in our consumer lives.

COMPANIES THAT CONSISTENTLY REALLOCATE THEIR RESOURCES ON A REGULAR BASIS WILL BE WORTH 40 PERCENT MORE THAN THEIR LESS-DYNAMIC PEERS AFTER 15 YEARS.



From Automation to Strategic Decision-Making

As machine learning technology has matured, the benefits have expanded. For recruiting, that means not just hiring faster, but hiring quality talent faster. As shared in the [IBM report](#), “Previously, technology allowed us to recruit people faster over the internet, but now AI lets us recruit the right people faster by assessing skill match for roles, predicting the likelihood of future success, and estimating the expected time to fill any given role.”

This shift to a more strategic approach in HR has important consequences for organizations. “In companies where HR is strategic versus administrative, the HR organization plays a critical role in determining business results,” according to [Great Place to Work](#), the analytical engine that produces the *Fortune* “100 Best Companies to Work For” list. “A strategic HR team can lay claim to increasing market share, growing the customer base, driving product innovation, increasing sales, and helping the company be more agile, among other accomplishments.”

Why Skills Matter Most

While machine learning excels at making predictions, there’s still a need for human beings

to interpret those predictions by applying judgment. Learning to work effectively with machines to augment human intelligence will be a critical part of making automation successful. It will also require the HR function—and managers across organizational functions—to rethink what skills are needed to keep up in a changing world. Automation may replace some human workers, but it will also create new jobs and transform current functions. In Forrester’s report “The Technology-Augmented Employee.” J.P. Gownder cites one company that passed “repetitive, rote activities” in financial services to robotic process automation (RPA) bots. As a result, the finance function’s jobs “became more strategic and interesting.”



LEARNING TO WORK EFFECTIVELY WITH MACHINES TO AUGMENT HUMAN INTELLIGENCE WILL BE A CRITICAL PART OF MAKING AUTOMATION SUCCESSFUL.

Research from Deloitte echoes these findings. Automating certain tasks will change the job description for many roles: “When parts of jobs are automated by machines, the work that remains for humans is generally more interpretive and service-oriented, involving problem-solving, data interpretation, communication and listening, customer service and empathy, and teamwork and collaboration. However, these higher-level skills are not fixed tasks like traditional jobs, so they are forcing organizations to create more flexible, evolving, and less rigidly defined positions and roles.” Machines will automate certain routine tasks, the report goes on to say, but organizations will need to rethink the way they work in order to keep pace.

When it comes to the HR function, McColl sees a future where skills are at the center of every people organization, enabling companies to help workers more easily find their next opportunity. Machine learning, he says, can help an organization examine the sort

of work people do, the things they talk and write about, and the clients they interact with. “If you can use machine learning to derive from that information the skills that those people have, you can make career suggestions. For example, ‘Here are some career tracks that might lead you in a growth trajectory.’ I think that’s really powerful.”

Conscientious companies must also ensure that diversity and inclusion are part of the fabric for these new machine learning technologies. As Barbara Cosgrove, vice president, chief privacy officer, Workday, [explains in a post](#) about committing to the ethical use of these technologies, “ML isn’t about supplanting human decision-makers. Rather, ML-fueled applications make predictions that, when combined with human judgment, help inform better decisions. But the success of ML, like any emerging technology, depends upon trust, and that trust will exist only if companies adhere to responsible, ethical practices.”

The Evolution Continues

McColl adds that humanity is the underpinning of this second wave of machine learning. He believes machine learning will, in fact, help companies create better places to work, with more sensitivity to individuals and their likes, dislikes, and preferences. “I think machine learning will allow us to create hyper-personalized solutions and experiences. From a work perspective, this technology is giving us the opportunity to put better humanity into the applications, systems, and processes that we create experiences around.”

According to [research from Workday](#), the emergence of machine learning and other data-driven technologies presents opportunities, but also a huge challenge, as organizations must come to grips with the skills that businesses will need tomorrow. For example, 52 percent of organizations plan to upskill more than half their workforce by 2024. How will companies take advantage of the power of machine learning technology while further developing the enduring human skill sets needed to capture value in the market—and the humanity needed to remain a good employer and corporate citizen?

Experts agree that jobs and skills will have to evolve in the face of machine learning and

explains that we haven't been focused on the right part of the human versus machine debate. In an [interview with Deloitte](#) he says, "We have spent way too much time thinking about people versus computers, and not nearly enough time thinking about people and computers. Way too much time thinking about what jobs computers are going to take away from people, and not nearly enough time thinking about what people and computers can do together that could never be done before."

As we enter a new decade, let's all resolve to say of 2020: It was the year of foresight, the year where humans and computers started achieving things together that neither could have done alone.

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[+1-925-951-9000](tel:+19259519000) | [+1-877-WORKDAY \(+1-877-967-5329\)](tel:+1877WORKDAY) | Fax: [+1-925-951-9001](tel:+19259519001) | workday.com

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