IS ARTIFICIAL INTELLIGENCE

A THREAT TO HR?

WHAT AI CAN – AND CAN'T – DO FOR HUMAN RESOURCES

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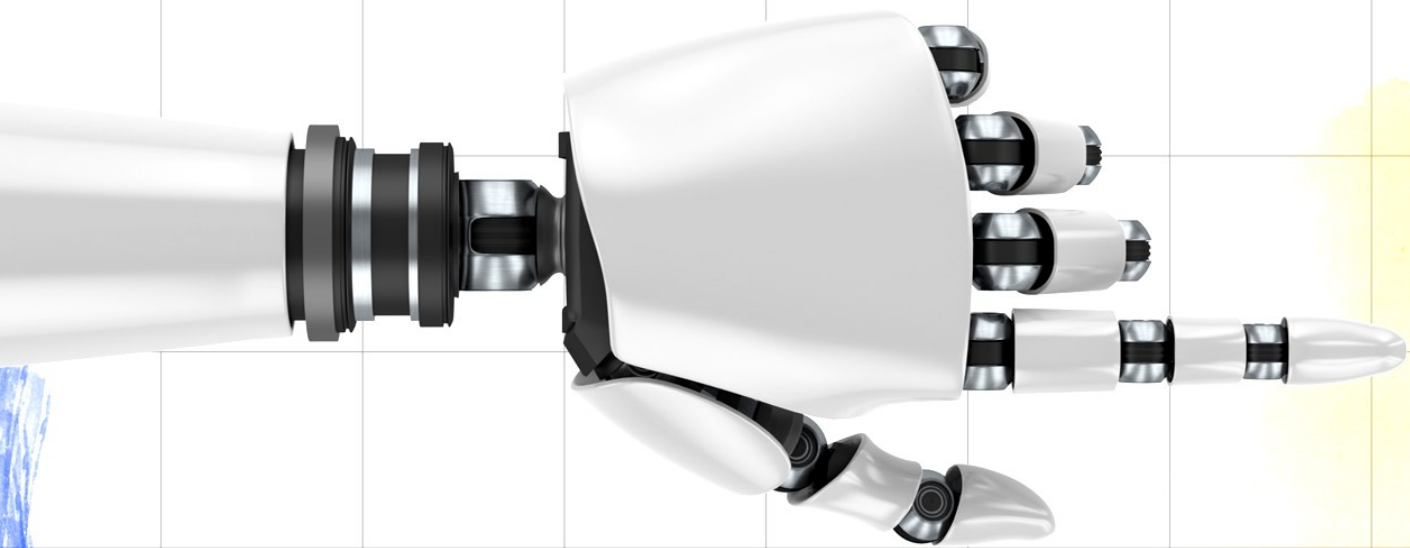
EXECUTIVE SUMMARY

If you take some recent reports at face value, professionals in industries ranging from healthcare to IT are panicking due to concerns artificial intelligence — generally defined as computerised systems able to solve and execute solutions to complex problems — will soon eliminate a staggering number of jobs.

In the past 10 years, AI has undergone such significant advancements that assuming it will become a common workplace component in the next decade isn't incomprehensible. As of today, more than half of companies have started incorporating intelligent automation in one or more business processes, according to a 2017 report from workflow solution provider ServiceNow.

One might wonder — with thought leaders predicting AI image interpretation and human-machine conversations will become routine within eight to 10 years, according to a recent MIT survey, by the close of the next decade, will we see HR professionals' offices shuttered and dark? Will entire human resource departments be staffed by automated systems that screen candidates, onboard new hires, and intuitively assess and react to employee needs?

This white paper will examine the ways HR departments are currently using AI technology; the positive effects it can produce; potential future HR-related AI applications — and areas artificial intelligence *won't* necessarily enhance, due to specific limitations the technology can present.

Human resource-related artificial intelligence use is still in its early stages; yet some HR departments are successfully using the functionality to aid in talent-related tasks, such as managing employees.

More than one in 10 HR managers say they've already seen evidence artificial intelligence is becoming a regular part of the department's functions, according to a 2017 CareerBuilder survey.

Research suggests future AI use could transform a number of other HR work elements — ,proactively gauging which employees may be looking for a new job, for example.

That's not to say AI is poised to take over everything HR handles. While some human resource (and other) departments will undoubtedly integrate AI into more procedures in the future, the technology does pose some limitations.

As a report the United States government commissioned on the future of AI notes, remarkable progress has been made in the field of Narrow AI, which includes language translation and image recognition. General AI capabilities, on the other hand — involving systems that can exhibit intelligent behaviour equivalent to a human's full range of cognitive tasks — have yet to reach the same level of advancement.

As a result, many researchers, according to the U.S. Office of Science and Technology Policy, suspect future General AI systems will be used as assistants, trainers and teammates to an employee counterpart, instead of the systems serving as a direct substitution for a person.

HR managers may, for example, decide to employ algorithm-based solutions to help assess and categorise their interactions with job candidates. Managers may turn to AI technology to help them enhance retention programs, or predict potential engagement issues before they become an actual problem.

It's unlikely, though, any organisations will completely hand the keys over to AI and make it fully responsible for all talent-related tasks. While automating certain things can help companies reduce risk, boost efficiency and improve overall performance, AI isn't currently primed to completely replace the human part of human resources — in most instances, companies will still need to have HR professionals on hand to accurately determine how to best act on information.

Since 2000, annual venture capitalist investment in AI start-ups has more than quadrupled, according to the inaugural AI Index annual report, part of a 100-year study on AI effects being conducted by Stanford University; and there are 14 times as many active U.S. start-ups developing AI systems.

During that timeframe, a number of tech providers have introduced AI-related tools designed to assist in various aspects of HR work — such as hiring and recruiting.

Companies hoping to identify which applicants are most likely to excel can purchase software that compares results from a candidate's soft skills questionnaire to skills the company's top performers possess.

Another tool uses natural language processing to perform news site, blog and social media searches to look for signs of negative candidate attributes, such as bigotry, or positive qualities, like volunteering work. A separate AI product analyses interview recordings to detect facial expressions, word choice and other elements that suggest engagement levels and empathy. In addition to assessing candidates, HR professionals are also using AI to:

IMPROVE CANDIDATE EXPERIENCE:
Personal interaction will likely always play a key role in recruiting; 82 percent of workers said in a recent Randstad survey that the ideal interaction with a company primarily involves personal contact, with technology being used as a secondary communication method to support the overall recruiting process. However, tools have cropped up in recent years to help make the screening process more pleasant for jobseekers, such as Mya, which automates much of the communication during the application phase.

Mya uses natural language technology to gather applicant responses to job requirement questions; replies to questions applicants send and keeps jobseekers informed about their hiring status — an important effort, given that 80 percent of candidates say they'd be hesitant to consider openings at a company that hadn't notified them about their status for another position, according to a Future Workplace and CareerArc report.

REDUCE BIAS:
Research has shown training can be extremely effective; surveys Paradigm, a company that provides training services, has collected indicate 96 percent of session participants leave intending to engage in behaviours to reduce bias, according to 2017 article the company's CEO and founder wrote, Companies may find, however, using tech solutions in tandem with training could help reduce bias even further.

Two years ago, Google developed a recruitment tool called qDroid to help predict whether a person would be successful in a role by providing objective questions based on the position's details, not the candidate's background. Google's former head of HR described the tool as something that helps interviewers "identify the best person for the job, not … [ask] questions that trigger … biases."

DECREASE HIRING TIME: According to the company's re:Work blog, Google was able to reduce the number of interviews it held after using HR analytics to determine it could predict with an 86 percent chance of accuracy that four would be enough to know if a candidate should be hired. Previously, candidates could have been asked to participate in 12 interviews .

MANAGE EMPLOYEES MORE EFFICIENTLY: New applications, according to Deloitte's most recent Human Capital Trends report, examine what employees are doing online and send artificial intelligence-based suggestions to managers to encourage them to provide specific types of coaching and guidance.

Additional tools can help log functions performed on a computer, ranging from emailing to app use, to determine a baseline for company activities and identify anomalies that may indicate productivity issues — a process that helped 90 percent of employers find more wasted time than they'd expected, according to research from Veriato, which offers a type of activity-measuring software.

Certain data analytics tools, according to Deloitte, can also now analyse hourly labour within an organisation to identify patterns of payroll leakage, such as overtime, to help companies enhance workforce management practices.

Tools can also track the movement of people or objects within a building to gauge the time employees spend at their desks or in other, less work-oriented locations, such as a cafeteria or smoking area.

There could, of course, be concerns involved with that type of employee monitoring. As the U.S. Office of Science and Technology Policy's AI report notes, using AI to directly influence consequential decisions raises questions about the impact it will have on people and how to ensure justice, fairness and accountability.

As with many elements of personnel management, transparency can be key. Companies may benefit from providing detailed explanations for the rationale behind AI-based decisions, including information about the data and algorithms that were involved, and leaving final judgment calls up to a group of individuals, rather than relying solely on AI recommendations.

WHAT ARTIFICIAL INTELLIGENCE CAN'T DO

With the artificial intelligence market predicted to swell to $5.05 billion by 2020, according to some estimates, it's likely human resource departments will increasingly refer to the technology to enhance their performance and program outcomes.

It's not, however, a one-size-fits-all solution. AI adoption faces a number of challenges in the HR environment, for several reasons:

NOT ALL TASKS ARE AUTOMATABLE:
Although managers are generally on board with AI taking over some administrative work, many, according to an Accenture report, view the additional time they'd gain as an opportunity to focus on experimenting, collaborating, and coaching and strengthening relationships with direct reports — tasks which, because they require a distinctively personal approach, AI can't perform on its own.

AI CAN'T HAVE PERSONAL INTERACTIONS WITH STAKEHOLDERS:
Undercover Recruiter magazine estimates as many as 100 percent of source and match tasks — things like locating jobseekers for appropriate roles and creating a candidate shortlist — can be at least partially automated; others, however, require personal attention. The number of tasks involved in managing the recruiting process, for instance, such as helping clients create appropriate role descriptions, and selling recruiting services to clients that can be automated is much lower — just 20 to 25 percent.

AI'S STRENGTHS LIE IN ITS ABILITY TO WORK WITH QUANTITATIVE INFORMATION – NOT OBTAIN A QUALITATIVE PERSPECTIVE:
Companies, according to Accenture, are increasingly placing an emphasis on experimentation and collaboration. With no real indication they plan to discontinue that direction anytime soon, the company's report suggests creative and social intelligence will, in the future, set humans apart from machines in the workplace — making both skills a major advantage for workers who cultivate them.

EVEN WITH AUTOMATION, PEOPLE MAY HAVE TO DO PREP WORK:
Some organisations may not have the manpower to implement an artificial intelligence-based solution. AI systems often require huge amounts of data to accurately perform complex tasks, and that type of information isn't always readily available, according to a January 2018 McKinsey Quarterly article — or it may not be adequately labelled, a requirement to prime it for AI use that can often require significant human capital.

SOME WORKERS ARE WARY OF AI INSIGHT:
Accenture's report also found a third of managers felt advice generated by an intelligent system being limited to simple rule-based decisions would be a deciding in factor in whether or not they trusted the information.

WHAT ARTIFICIAL INTELLIGENCE CAN'T DO

AI also can't intuitively gauge what candidates currently earn, or what they hope to earn. It can't assess how willing and able to move they are; why they left their previous role or what they want to do next in their career, which can be immensely helpful in talent development and succession planning efforts.

Even if AI is used in other parts of the recruiting process, to understand the drivers that influence a specific candidate, companies will need to have an HR professional physically ask that person questions.

With just 37 percent of employee service delivery work automated, compared to, for example, 53 percent of IT services, according to ServiceNow, HR is actually one of the least automated departments in many organisations.

However, with a number of new efficiency-oriented items en route to market — such as functionality ADP is adding to its DataCloud product to offer AI-powered organisational performance-based insights and help with creating reports — that may be about to change.

Managers at all levels, according to Accenture's report, feel AI use will have the biggest impact on administrative coordination and control tasks, such as scheduling, resource allocation and reporting. Eighty-six percent say they'd like to have AI assistance with monitoring and reporting.

Incorporating artificial intelligence could help HR professionals potentially save a significant amount of time. Currently, human resource managers estimate they lose 14 hours a week, on average, manually completing tasks that could be automated. More than a quarter waste 20 hours or more, according to a recent CareerBuilder survey.

Forty-one percent of HR managers who have not fully automated processes say performing them manually has led to lower productivity. In addition, 40 percent say it causes more errors.

Artificial intelligence may be able to also help improve other aspects of HR work in the future — including:

HIRING AND RECRUITMENT: Ninety-six percent of HR professionals believe AI has the potential to enhance talent acquisition and retention, according to research from recruitment firm Alexander Mann Solutions. Yet only 20 percent of organisations currently automate predictive assessments or job candidate sourcing responsibilities.

Some of the companies that are, however, are including AI in the recruiting process in creative ways, such as using AI-based software for talent rediscovery — essentially, re-examining previously reviewed resumes to catch qualified candidates who may have slipped through the cracks.

By automating aspects of HR that are administrative in nature, companies may be able to review candidate information faster, improving the candidate experience, — and freeing up HR professionals' time so they can focus on important planning and other responsibilities.

MANAGING RISK: Workforce planning is a crucial part of ensuring a company can fulfil its future production, regulatory and other needs.

Workforce planning is, in fact, one of the top three talent management areas HR professionals feel could benefit the most from AI; only training and screening talent were ranked higher, according to an Allegis Group survey.

Because AI can cull and break down large amounts of information more quickly than humans can, with a lower chance of inaccuracy or accidental bias, AI can help organisations identify skills gaps, test potential solutions and outcomes, and determine whether a company's priorities align with employees' abilities and goals.

AI technology won't choose the best path to take to successfully meter risk; personnel will need to analyse the information and determine the ideal course of action.

However, given that only 14 percent of businesses and HR leaders said their organisation was excellent at understanding emerging and critical skills gaps, according to Deloitte research, many, it seems, could benefit from having additional information to use in the planning process.

ASSESSING EMPLOYEE ATTITUDE: Several large organisations, including Accenture, Intel and IBM, have already begun using a unique tech tool — sentiment analysis software, originally designed for market research — to assess employees' feelings about their job, according to The Atlantic.

Similarly, biometric-based tech solutions that recognise and analyse facial expressions, such as Affectiva and nViso, which are mostly used in marketing, may eventually make their way to the workplace to measure employee mood and determine if an organisation's happiness and satisfaction levels are declining.

Frequent check-ins were one of the elements a 2017 Globoforce survey found helped inspire workers to find greater meaning in their work; yet Deloitte found only 22 percent of companies survey employees on a quarterly or more frequent basis, and 14 percent never survey them at all.

Having a less time-intensive way for HR professionals to obtain real-time input on employee satisfaction levels could help an organisation identify when it needs to launch recognition programs, incentives and other efforts to proactively ward off negativity — in turn, protecting company culture and increasing retention rates.

RETENTION: Although they may have been designed with IT/data risk prevention in mind, tools that monitor employee network activity, such as this one, can help identify an employee's intention to leave by flagging and notifying management about actions like copying a database of contacts. Some other types of commercially available software offer similar capabilities, including one that calculates a risk score for individual employees.

In time, additional solutions may emerge. Companies may, for example, be able to gauge the best time to schedule reviews, salary increases and other incentives by comparing the schedule that was used for employees they've retained to the schedule used for workers who left because they didn't receive a raise or promotion — data it would take employees a huge amount of time to compile manually.

Although privacy concerns would need to proactively be addressed by, for example, notifying employees about the company's personal social media use policies , developing algorithms to pair with data about how many times employees have visited job listing areas of sites like LinkedIn and Facebook could potentially help companies assess when someone might be considering leaving the company before the person actually accepts a position with another employer.

IMPROVING PROFESSIONAL DEVELOPMENT EFFORTS: When asked in the Allegis Group survey to identify the talent management areas that could potentially benefit most from artificial intelligence, HR professionals' top choice was training.

Even with AI involved, HR professionals will undoubtedly still construct and oversee educational programs to appropriately address the organisation's needs; without clear insight into what those needs are, though, training and other development programs may ultimately be ineffective.

Using technology to assess the educational needs previous employees had and the outcomes prior development programs resulted in could help companies offer more relevant training — and, as a result, increase employee proficiency and prevent costly skills gaps.

A few providers have begun addressing that need in the past year. In September 2016, Workday released Workday Learning, a learning management system that is able to tailor training recommendations based on factors such as a worker's personal preferences, career stage and the educational experiences other employees who were in a similar role or career stage have completed.

In October of last year, IBM introduced its Watson Career Coach product, which aligns business and employee career goals by noting worker preferences and interests during interactions and making recommendations for existing job opportunities.

ONBOARDING: Virtual HR assistants and chatbots are becoming an increasingly available communication option that can help improve employee experience, according to a 2017 Gartner report. As the technology becomes more nuanced and better able to respond in user interactions, it could be frequently utilised to assist in answering new hire onboarding and training questions outside of office hours and when HR professionals have been pulled away on another task — potentially enhancing workplace productivity and efficiency.

EMPLOYER BRANDING: Companies can't expect AI to establish and promote their identity; however, it can help provide a more comprehensive view of how they're perceived in the talent marketplace than the organisation may be able to obtain on its own. Externally focused monitoring tools like IBM's Watson can offer insight based on functionality that analyses chatter about the company in newsfeeds, social media and employer review sites.

CONCLUSION

More than half — 55 percent — of HR managers say they anticipate AI will become a regular HR component within the next five years; yet only a very small amount, 7 percent, think a robot could do their job, according to CareerBuilder data.

HR staff members offer a number of proficiencies AI could never fully replicate. The technology can't assess candidate psychology, or gauge whether an applicant qualifies as a cultural fit for an organisation. It can't implement data analysis findings completely on its own — certainly not with the same dexterity as an HR professional.

HR departments in a variety of industries could, however, potentially benefit from using AI to improve operational aspects such as productivity, program effectiveness and ROI.

Being an early adopter may pay off. As artificial intelligence capabilities increase, HR departments that have embraced the technology will theoretically be uniquely positioned to grow in tandem with AI — and pioneer new, inventive ways to use it.

In the coming years, qualified new hires aren't likely to become easier to find. Organisations that have incorporated AI and are using it to enhance employee experience may find themselves at the forefront of being able to address employee needs.

Becoming a more desirable choice for both potential and current employees could, in turn, establish the organisation as a key player in the competitive talent marketplace — which, whether a company has achieved it through technology or other means, as most HR professionals will confirm, is rarely a bad position to be in.

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ABOUT TALENT INTELLIGENCE :

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