

INTRODUCTION

The need for a Human Resources (HR) department goes all the way back to medieval times. It is a necessity to keep working conditions safe and stable and to keep positive relations among all workers. However, it was not identified until the 1890s-1920s that there was a connection between human productivity and working conditions. **i** HR jobs were centered around ensuring that everyone was treated fairly. New emerging psychological theories were coming out, such as Herzberg's Two Factor Theory or Deci and Ryan's Self-Determination theory, which explained that there are internal and external influences that can help or hinder one's own performance and motivation.

i As the role of HR expanded to managing work culture and overseeing that employees stay on task, new technology has developed to help aid the situation. This technology has taken many forms, one major form being the use of artificial intelligence (AI). Artificial intelligence is defined as the theory and development of computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making and translation between languages. **ii** Using this technology not only helps give a new perspective but also can transform the recruitment process.



THE EVOLUTION OF HR TECHNOLOGY

Electronic HR (e-HR) has developed in response to businesses being more competitive and feeling the need to beat out one another with technology. This new e-HR can be used to streamline HR processes, reduce administrative burdens and compliance costs, compete more effectively for global talent, improve service and access to data for workers, and provide real-time metrics to allow decision-makers to spot trends and manage the workforce more effectively. It enables HR to transform so it can play a more strategic role in the business, according to the Society of Human Resource Management (SHRM) **iii**. According to CareerBuilder there are approximately 70-100 different types of HR technologies. The core types are payroll, time and attendance, workforce management (WM), benefits administration, human resources information system (HRIS), org. charting, data and analytics (D&A), and employee communications (EC). Payroll, time and attendance, WM, BA all help keep track of when employees are working and paying them for those hours as well as distributing benefits that correspond with this. HRIS is used to keep track of employees and org. charting says who works with whom in the office. D&A explains how the organization operates as a whole as well as what systems and or which people work well together and what does not.

There are three different types of HR systems overall: Human Resource Information System (HRIS), Human Capital Management (HCM), and Human Resource Management System (HRMS). There are nine major functions HRIS deals with that are centered around managing people, policies, and procedures: recruitment, core HR, benefit administration, absence management, compensation, training, workflow, self-service and reporting. HCM encompasses most of the elements that HRIS does but it adds talent management (TM) and universal capabilities in terms of different languages or currencies. Some of the categories it deals with are onboarding, performance, position control, succession, salary planning, global, and analytics. HRMS encompasses the skills of HCM plus payroll, time and labor **iv**.

The value of the artificial intelligence market in 2017 was 12.5 billion dollars, according to research firm IDC and was predicted to be worth \$46 billion by 2020. It is now predicted to be worth over \$390 billion by 2025. The compounded annual growth rate is 43.39%, according to Global News Wire [v](#). AI is being implemented in many of these HR processes and different HR systems. It is being used to give new perspectives in TM and massively reforming the traditional 2 recruitment processes. AI can be used for talent acquisition by cutting the time in half to do day-to-day tasks in the recruitment process such as scheduling interviews, answering frequently asked questions (FAQs), candidate analysis, and maintaining databases. A common misconception about technological development and AI in the workplace is that they replace human tasks and lead to unemployment. However, much of the old “secretary” or “busy work”

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of employees is getting done in a matter of minutes and actually leading to more candidates being hired in the process. Overall, there have been drastic, beneficial changes seen in talent acquisition, onboarding, learning and training, cognitive-supportive decision-making, leadership, and administrative tasks by the implementation of AI into HR technology.

In talent acquisition, AI is used to analyze potential candidates. “Chatbots”, usually in the right corner of the screen asking “how can I help you?”, answer questions or match candidates to the jobs that they are looking for.. This way, AI can help with the hiring process, allowing for the best candidates to be matched to the right jobs. Once employees are hired, the use of AI for onboarding can give specific information for each job and how to best prepare or transition into the role. According to HR Technologists, AI can be used to explain job profiles, discuss company contacts, respond to FAQs, and verify access to pieces of equipment or technology [vi](#). These technologies can also recommend programs or videos for candidates to partake in to improve their skill sets. As well, AI systems can then assess the success of these recommendations and propose even more efficient programs . Over time, AI can also help assess the best career path for employees based on their work. The same is to be said for company leaders, the more work history the system has to work with, the better it can comprehend and assist.

Aside from the logistical tasks, it can also assess employee mood and behavior. If an employee is anxious, distraught or upset while interacting with customers or clients, AI can pick up on that and notify the supervisor of this behavior. A crucial part of an HR department’s success is their ability to maintain employee dynamics and enable the company to function as an effective unit. Bringing potentially relevant information to the attention of this department without any complainant can make the process much faster. Lastly, AI is able to “automate workforce” and perform analysis on corporate policies and strategies [vi](#). People often fear that the technologies replace jobs when in reality, jobs are still needed to manage these softwares and programs, and by having more technology, they are actually creating more jobs and being able to hire people at a much faster rate. It actually takes away much of the monotony and clerical tasks and as a result there is much more room for jobs in the creative space of a company. It enables less time to be spent on charting, scheduling, and assisting the new staff, and more time to be in the field and experience new and exciting jobs in the workforce. If you want to augment your current HR department, implementing AI is essential.

DEBUNKING THE MYTHS

Confidentiality when using AI is highly valued by both the company and their customers. HIPAA does not extend its coverage with tech care companies. According to Lexalytics, there was a data breach of over 30 million facebook profiles **vii**. Information was exposed that people did not even know Facebook had access to. Insurance companies can buy data from geneticists to raise insurances for specific people. However, this has been combated in 2017 by Genetic Information Nondiscrimination Act (GINA). This policy was created to stop and protect people from genetic discrimination as an employee and with personal insurance. Europe has also begun to take action with the European Union's General Data Protection Regulation (GDPR). This takes a completely new and secure approach to data privacy **vii**. Therefore, it is clear that these companies and the government are beginning to recognize the potential risks with AI. AI continues to revolutionize the HR world, bringing several positive changes along with it. Not to mention, as discussed in this article, AI is a tool monitored by humans. So we are quick to blame the tool and not the people. As long as individual businesses remain monitored, the problem can be combated and the entire situation can remain under control.



AI can reduce human biases and assist in decision making that is more fair. It has been well documented that humans are incredibly biased. It can affect their decision making in job interviews, the jobs they assign people and more. They may want to diversify their workforce for the wrong reasons. It has been, however, proven in several cases that AI can reduce human biases and assist in decision making that is more fair. Research found by John Kleinberg suggests that AI algorithms reduce racial disparity in the criminal justice system **x**. Andrew McAfee of MIT said "if you want the biases out, get the algorithms in." **viii** However, people are quick to claim that the AI is responsible for misinformation and creating biases. When, in reality, we should be looking to ourselves and the patterns we see in society. Perhaps AI would be gender or racially biased if it is already a problem seen in society that the data supports. On the contrary, this can help us acknowledge societal biases we may not even be aware of. Ultimately the software can be trained to whatever you want it to be. So, instead of getting nervous by how the AI can view others, think of it as a tool you can manipulate to analyze others in an unbiased manner.

People have feared since the beginning of technology that humans are slowly being replaced by computers and technology in the workplace. However, that is not the case. According to the World Economic Forum, as mentioned by Forbes, automation will displace 75 million jobs but generate 133 million new jobs by 2022. There is also a general positive overall trend, emotionally speaking, for employees **ix**. They are hopeful for the benefits of AI and excited to see the effects of utilizing these technologies. The loss of specific positions, however, such as a secretary or bookkeeper would in turn be replaced by a more advanced technology. That now leaves room for more high-tech and advanced jobs to come to light. Having these more advanced and complex positions introduced by using AI has been seen in various large corporations such as Amazon. They are willing to spend over \$700 million to train 100,000 employees for these

higher order or advanced jobs **ix**. Therefore this AI is not just used to innovate the systems but also the companies and the job titles as well. It may replace simple tasks, however, it creates opportunities for new fields in the workforce.

How Companies are Putting AI into Motion Several companies are learning how to implement AI into their HR programs. Many are instilling policies and protocols to keep all of the myths as myths, as written above. myInterview is a company that specializes in one-way interviews. That way more people can be working in the field as opposed to sitting behind a computer and interviewing individuals. They have implemented HR in their onboarding and recruitment process. By using predictive analytics that can correlate the similarity of a candidate to an ideal candidate. They can also pull out traits based on word choice and descriptions. It therefore gives a second set of eyes before an employer even looks at it. It can help get a better understanding of who the candidate is and how and if they could fit the role. Creating the ideal candidate means putting in traits, characteristics or work experience that would be most ideal for the position. Based on that, recruiters can customise their own questions, or use premade templates that would be best for a specific role. Being able to hear people speak puts life back into a resume and helps recruiters get a broader and better understanding of who the applicant is.

myInterview is currently using three different AI tools in their HR department for candidate assessment. These five tools are Role Fit, Big 5 and Personality Analysis, and myAI. The role fit model can assess which candidates would best fit each role. Algorithms are used to interpret body language and automated transcriptions. This enables more information to be taken away than what can be interpreted by an interviewer in such a short time span and a much more advanced high level comparison between candidates. Personality analysis aids in making sure that the employer can fit the culture of the company. It is important to be a cohesive unit when working with others to avoid confrontation and conflict. Algorithms help give Big 5 personality characteristics such as "outgoing" or "altruistic." This can help better understand who the person is outside of a pressure-filled job interview. myAI has the ability to ask follow-up questions while the interview is happening live. This allows for a genuine and realistic experience for the candidate, mimicking a real two-way interview. This way each interview can be authentic, yet with the same original questions as a base.



CONCLUSION

The integration of technology into HR is a necessity. There are a multitude of different ways to implement it, but the use in recruitment is essential. It enables a much faster process and actually creates more jobs. It is a new technology and there are unlimited possibilities for growth in this field. Policies will be implemented over time to help that. However, it is a necessity to hire workers faster, create better employee relations, and to manage the business as a unit and to comprehend each individual in their own job title. HRIS, HCM, and HRM aid the process of administration, employee payroll and dynamics among workers. The value of AI is consistently rising, as people see the value of its usage. Instead of fearing the implementation of technology, we must embrace it. It is not the technology that can have too much power, but the people themselves. By implementing the system properly, a business can operate as a successful unit.

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