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Artificial Intelligence in Human Resource Management

Ruby Merlin.P[1], Jayam.R[2]

[1]1Faculty of Management Studies,
Dr.M.G.R. Educational & Research Institute University,
Maduravoyal, Chennai 600 095, India.
rubypushparaj@gmail.com

[2]Department of Commerce,
Dr.M.G.R. Educational & Research Institute University,
Maduravoyal, Chennai 600 095, India.
drrjayam@gmail.com

Abstract— **In general Human resource managers widely have a perception that Artificial intelligence systems will replace Human Resource managers shortly but in reality Artificial intelligence does simplifies their job by automating repeated tasks and providing valuable insights without any cognitive biases. This paper tries to addresses the possibilities of how Artificial intelligence is transforming and supporting the Human Resource functions like recruitment, training, talent management & retention through real time examples, Gives insights on intersection of Artificial intelligence & Human resource management cases and finally it address the future impact on the HR workforce.**

Key words: Artificial Intelligence, Human resource, AI, Recruitment, Training, performance management, Retention

I. INTRODUCTION

Next generation digital technologies like machine learning (ML) and artificial intelligence (AI) are creating a new wave of transformation in Business. In particular, IDC predicts artificial intelligence to grow from $8 billion in 2016 to $47 billion by 2020 changing the face of business practices almost in every industry and niches (Framingham and Mass 2016). Though the concept of artificial intelligence is more than a decade old, recent explosion in AI due to huge funding/financial backing by giants like Google, Facebook. And Businesses have already started to explore and implement AI to gain a competitive edge. One such early adopter is Uber, producing world's first cargo shipment controlled by AI.

Ground- breaking technologies like ML and AI is being applied across all sectors in business. Of all the areas of business, Human resource and recruitment are the one area in which AI will benefit businesses across all sectors. The impact of AI on HR right from hiring decision, predicting performance, automation of task that require manual actions, has a growing pressure on HR leaders on how best to prepare organization ahead with strategic and actionable insights.

The absolute potential in AI has launched many tech star-up in this field. Newly emerged tech start-up like Knockri in Canada providing AI-based HRspecific solution. Knockri aims to help every recruiting team in the world to find the right applicant by assessing their personality traits by analyzing audio and video to gauge how to fit a candidate based on employer requirement. This method of screening will help in a better decision on finding the right candidate. The same done by humans would have been difficult as the decision tend to be biased and time-consuming. HR professionals state that the AI attributes such as saving employers and employees an immense amount of time and energy, eliminating human biases, enforcing complete transparency, automation of self-regulated process are the few reasons on why the power of AI is game-changing for Human resource management. AI not only is expected to simplify the nerve-racking task of employers and employees but advanced AI tool is expected to predict on spot employee performance. This papers reviews on how AI will impact HR and drive changes on how we work. On the other end how companies can create a competitive edge using this high potential technology while maintaining a personal connection with employees and customers.

II. AI RESURGENCE

Though AI concept has been around for a long time, many researchers believe that now is the right time to make AI a reality. The drivers that caused resurgence of AI with such rapid leaps recently are growth in Big data-availability of abundance of data and is doubling every 2 years (IDC 2014), cloud computing has democratised access to massive computation and necessary hardware platform to run AI at cheap cost, new developmental tools and open source technolo-

gies had helped AI to scale to large and distributed data sets , increasing awareness and expectation of apps to be intelligent has made investors and large companies invest heavily in AI. Resulting in a financial boost for AI development than ever before. Though the cycle of promises leading to investment happened before, a study by Horace (2014) shows that AI is not in another hype cycle as every technology in recent years has boomed within a short period. Chart clearly explains that after internet era the adoption of technology is fast and steep. Disruptive technology is being adopted min of 50% in less than ten years. We are already using AI in our day-to-day life but most of us of unaware of the technology behind it. All the suggestions and prediction we get on our smartphone without being asked for is AI technology. In next few
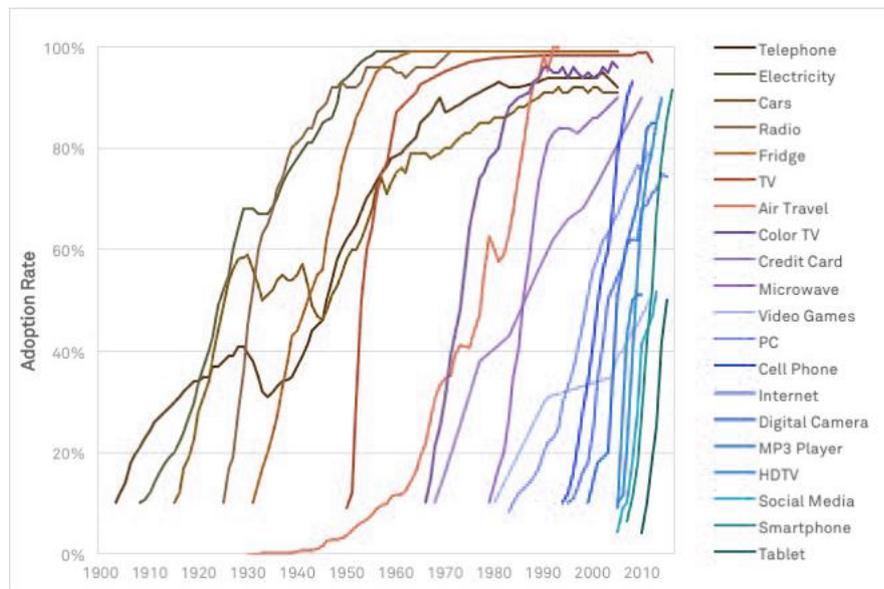
years, AI is expected to grow by leaps and bounds across businesses.

Source: Asymco

III. THE INTERSECTION OF ARTIFICIAL INTELLIGENCE AND HUMAN RESOURCE

HR departments are always challenged with an overwhelming task that is extremely time and energy consuming, right from finding the right candidate to onboard, managing payroll, benefits to off-boarding an employee. Technology can accomplish many of those cumbersome tasks faster, cheaper and better than before.

HR professionals have started to realize the advantages of a data-driven decision. Data-driven technology such an Artificial intelligence is all about analysing the huge pile of data to predicting trends and provide suggestions in a humanized format. AI using workforce data will help HR professional to better understand their workforce and to foresee problems and trends in advance. AI tools will solve all the cumbersome of manual analysis and time-consuming task in HR and thus enable workforce to work on a more productive task. AI will also help HR executives to formulate and implement strategies effectively. Further, using historical data and predictive analytics AI can provide insight to HR on best practices, associated problems and impactful actions to grab the opportunity.

HR professionals are organizational focused and said to be biased in many activities. The employees often feel HR activity and strategies favor more to the organization than employees. This biased nature of HR is prevailing in every HR activity. This major issue will be swiped out by AI will provide a more transparent workplace that would breed happy employees free from biased decisions. AI will turn the HR function into more of people oriented.

IV. AI THE NEW RACE OF WORKFORCE

AI is leading us to an era of extensive automation and these disruptive technologies alleviates fear among people of losing jobs resulting of automation. Fear is inherently human and also the concern about automation aren't new. Americans have been fearing of losing job due to automation for decades. (Michael 2017). In Agriculture, automated machinery has brought down the percentage work-

ers to 2% from 41% in 100 years (Autor 2015). History also teaches us that, Automating 98% of work of weavers in textile industry has only increased number of workers. This was due to price drop in products due to automation increased demand and ultimately resulted in greater need for textile worker but with different skill set.(James 2015). In recent years when ATM was introduced in 1970's every bankroller feared that its a end for their career though their was a fall in number of teller in every bank. ATM made banks profitable by reduced the operating cost, demand increased, new branches were opened, which ultimately resulted in need to hire more tellers. Employment of teller rose by 50000 between he period of 1980-2010(Autor 2015). But the job also evolved from dispensing cash to selling bank products. History taught us that Automation has revolutionised industry by promoting growth on a bigger scale and increased job opportunities. Hence we need not fear AI but embrace it and evolve with the change.

V. FUNCTION OF HR IN THE WORLD OF AI

A. Recruitment

AI will streamline or automate, monotonous and high-volume task in recruiting process. Streaming resumes from a large applicant pool to find right candidate within a limited time is a challenging job every HR managers. AI softwares will scan, evaluate and reject 75% of resumes that are unqualified (Martin 2017). Intelligent screening software powered by AI will screen resume, it will learn employee experience and skill, analyse their performance and turnover rates and shortlist the strongest candidate. Digital interview AI software the assess candidate speech, word choice and body language through video and audio and analyse the personality trait will fit the job. AI also helps to improve candidate experience through chat bots by providing consistent update of requirement, feedback and suggestions. Over the years KPI has become essential for quality hire. Artificial intelligence will help recruiters to find the perfect match based on KPI by using available HR data of employees performance, experience, knowledge and skills.

B. Training

The abilities and capacities we require at work are continually evolving. We now have merchant programming that can shrewdly suggest videos or learning programs in light of your job , experience and companions. These software automatically read documentation and make micro-learning programs, and even frameworks that read and decipher a worker's written work or activities to suggest learning choices. AI softwares will provide more of personalised/individualized learning based on learning style e.g. turning written document into visauls. It could accumulate data about employee engagement or failures inside the program, and consequently test new varieties to attempt and tackle the issue on its own.An A.I. program could all the more adequately measure employee engagement and wisely contrast their outcomes with a control population to find out whether the program resulted in some learning among employees.

C. Performance Management

Evaluating performance has been put down to challenges caused by work environment biases and AI will eradicate biases with permanent feedback. The ai-driven assessment may occur continuously with checking objectives and a joint effort between the employees. The reward for good work will be given quicker or employers can provide challenges task if the group doesn't perform well. For instance, BetterWorks utilizes AI for making a guide with the associations inside a workforce: shared purposes and targets. By obtaining data, such as, levels of employee engagement, work fulfillment, performance data, and understanding about the purposes behind worker turnover, AI may predict performance indicators of excelling employees, people who tend to leave a job position, department that can show great results.

D.Retention

As much as it is hard to recruit talented workers, it is as hard to keep them in the group.According to Omer and Michael (2015) 57% of organizations consider employee retention their most serious issue. Be that as it may, AI can break down and foresee the requirements of every individual employee. It can decide individual affinities and uncover who ought to get a raise or and who are disappointed with the work-life balance. This offers space to HR experts to be proactive and take care of the issue even before it really happens

VI. CONCLUSION

Machine learning has made some gigantic strides in last few years on account of certain innovative advances. We use AI everywhere nowadays – from smartphones to flight controls and space

operations. It additionally empowers HR practitioners to enhance results and screen workers more efficiently but it is safe to say that we have yet to see its full impact on the world of business and HR specifically. The success strategy to be adopted for effective implementation of AI to gain the competitive edge is by leverage AI in sourcing and early screening, Learn about the existing and emerging AI tool and prepare the organisation accordingly, Upskill or resell employees slowly to adapt to the automation easily, Give importance to AI tool that improves employees engagement and experience. An organization who hesitate to adopt first should follow AI closely and learn whats coming ahead and not to oppose and restrict it immediately.The future of HR will most probably involve a human-machine collaboration and that can end up being a good thing.

REFERENCES

[1] Framingham & Mass, 2016. Worldwide Cognitive Systems and Artificial Intelligence Revenues Forecast to Surge Past $47 Billion in 2020, According to New IDC Spending Guide. IDC. Available at: https://www.idc.com/getdoc.jsp?containerId=prUS41878616.[Accessed December 26, 2017].

[2] DC. 2014. Data Growth, Business Opportunities, and the IT Imperatives. [ONLINE] Available at: https://www.emc.com/leadership/digital-universe/2014iview/executive-summary.htm. [Accessed 27 December 2017].

[3] Asymco/Horace. 2014. The Innovator's Stopwatch. Part 1. [ONLINE] Available at: http://www.asymco.com/2014/12/10/the-innovators-stopwatch-part-1/. [Accessed 27 December 2017].
ASYMCO(2991?)

[4] Michael. 2017. Hicks: Planning for automation's effects on workers. [ONLINE] Available at: https://www.usatoday.com/story/money/business/2017/03/12/hicks-planning-automations-effects-workers/98451684/. [Accessed 27 December 2017].

[5] Autor, H, 2015. Why Are There Still So Many Jobs? The History and Future of Workplace Automation. Journal of Economic Perspectives, [Online]. Vol.29, no.3, pp. 3-30. Available at: https://economics.mit.edu/files/11563 [Accessed 28 December 2017].

[6] James. 2015. How Computer Automation Affects Occupations: Technology, jobs, and skills. [ONLINE] Available at: http://www.bu.edu/law/files/2015/11/NewTech-2.pdf. [Accessed 28 December 2017].

[7] Martin. 2014. 25 Fun Facts About Resumes, Interviews & Social Recruitment Read more at https://www.business2community.com/human-resources/25-fun-facts-resumes-interviews-social-recruitment-0975676. [ONLINE] Available at: https://www.business2community.com/human-resources/25-fun-facts-resumes-interviews-social-recruitment-0975676. [Accessed 26 December 2017].

[8] Omer, Michael. 2015. Employee Engagement : Paving the way to Happy Customers. [ONLINE] Available at: http://deliberatepractice.com.au/wp-content/uploads/2015/09/customer-employee-engagement.pdf. [Accessed 26 December 2017].