

IMPACT OF ARTIFICIAL INTELLIGENCE ON HUMAN RESOURCE

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ABSTRACT

The concept of Artificial Intelligence (AI) is not new and its existence in different walks of our lives, is experienced by all of us for decades together. However, the way AI is impacting us in recent times, has left many researchers, academicians and industry experts question the possibility of AI replacing Human Resource (HR) with respect to the organizational work. Traditionally when we discussed the impact of artificial intelligence on jobs and economy, the major area of the concern was about how blue collar jobs would be replaced by the AI. However, today we see around us the impact of AI even on white collar jobs. AI indeed automates most repetitive and physical tasks, and part of the quantitative tasks such as programming and even data science. However, by doing this, instead of replacing human resource, AI pushes human professionals to acquire and develop people skills including creativity, social abilities, empathy, and sense-making, which automation cannot deliver. As a result, AI should be looked upon as something that makes the workplace more human, not less. This research paper aims to understand the impact of AI on human resource in today's organizations.

Key-words: Artificial Intelligence (AI), Human Resource, Automation, Professionals, Workplace

1. Introduction

All major industries ranging from healthcare to automobile, advertising, agriculture, aviation, biotechnology to banking, textile, transportation, legal, education today depend on Artificial Intelligence in varying degrees. They make use of AI in their day-to-day operations as well as in strategy formulation to strategy implementation. These organizations invest a lot of money in AI. [IDC](#), a research firm predicts that the growth in market for AI from \$12.5 billion in 2017 would rise to \$46 billion by 2020. This would impact most of the business functions in almost all industries. This outburst of AI is contributed to the large amount of funding granted for generating more and more effective AI tools by the large conglomerates such as

Google, IBM3 and Facebook. These organizations and many others who follow their footsteps are trying to gain the competitive edge by making the effective use of AI in their businesses.

AI is looked upon not only as a solution which will free the human resource of tedious, time consuming and repetitive work involved in the business, but also as a solution which will remove or minimize the bias and prejudice which is likely to affect the important business decisions, be it hiring decisions, predicting the performance of the staff or something as important as preparing organizations with strategic and actionable insights. (Merlin et al, 2018).

Though AI is considered to deliver almost accurate results and better performance in many functional areas of the business, the cost involved in

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getting/developing AI and its maintenance cost make many organizations think twice before committing to such an investment.

Moreover, employees are almost always afraid of losing their jobs to AI, especially the blue collar workers and to an extent even white collar once and hence, any decision to adopt and implement AI may face resistance from them.

What most of people fail to understand is: AI should not be looked at as a substitute for human resource, but something that will aid the human resource and the organizations in totality to augment their performance and efficiency.

2. Research Methodology

This research paper is based on the secondary data which was gathered through published research reports, papers, articles and various e-resources.

3. Literature Review and Discussions

Impact of AI on Human Resource in Organizations:

The concept of AI garner much attention after 1950's when Alan Turing developed the Turing Test to distinguish machines (computers) from humans. It was based on the premise that if human being is capable of storing information and solving problems, then can we develop the machines which will be capable of handling these functions as well? Till 1974 computers were meant to execute commands and not to store the information. Getting funding for such work was also not easy then. After 1974 contributions made by some scientists like Allen Newell and Joseph Weizenbaum's ELIZA of problem solving and interpretation of spoken languages in machines, changed the scenario. With huge funds and algorithmic tools John Hopfield and David Rumelhart are credited for developing algorithmic tools in 1980. This led to the invention of "deep learning" techniques which made machines capable of self-learning to an extent through experience. Expert systems developed by Edward Feigenbaum mimicked decision making patterns of human mind (Christina Aguis).

Insurgence of AI that results in extensive automation has led to a fear among people of losing their jobs. Such fear is natural. Concerns about automation are prevailing for long time. Employees are afraid of losing their jobs to machines for decades. (Michael 2017). In Agriculture, automation led to drop down in the percentage of workers to 2% from 41% in a century (Autor 2015). Introduction of ATM in 1970's made almost every bankroller fear that it would bring an end to his/her career. Interestingly, ATMs made banks profitable by reducing the operating cost, increased demand, opening of new branches, etc. This in reality resulted in creating more number of jobs in such banks, however with a change in the work profile. 50000 additional job opportunities were created in the banking industry during the period of 1980-2010 (Autor 2015). Automation has on the contrary revolutionised most of the industries by promoting growth on a bigger scale and increased job opportunities. Hence the fear that AI will lead to unemployment is not real and the industries need to embrace it and evolve with the ways in which they can use it for their growth.

Every human being is subject to various biases and prejudices and organizations which are made up of these human resources cannot be an exception to this. AI can effectively handle and eliminate/minimize such biases and prejudices as it functions on the basis of factual data fed into the system. The fact that AI does not have a mind of its own helps the organizations to eliminate such issues as the decisions taken with the help of AI do not depend on the views, emotions or feelings of any individual who is responsible for taking such decision, but it based on the factual data stored in the system.

Organizations have begun to realize the advantages of a decision that is driven by the data. Artificial intelligence analyses the huge amount of data to predict and forecast trends and also to provide recommendations and solutions in a more humanized form. AI using workforce data aids in

better understanding of the workforce and also to foresee problems that may arise in future and trends that will follow. AI frees human resource from all time consuming and cumbersome tasks including manual analysis and thus allows the employees to concentrate on more productive tasks. AI is also useful in formulating and implementing various business and people centric strategies effectively. Further, using historical data and predictive analytics, AI is capable of providing insight to the organizations on best practices, associated problems and impactful actions which would help them to grab the new opportunities.

Today, AI is transforming HR and the workforce like never before. Besides eliminating or minimizing human bias, it increases the efficiency in assessment of the present and prospective candidates, improves management-employee relationships, results in better compliance, increases adoption of metrics, and augments workplace learning.

As stated by the McKinsey Research Institute in January 2017 in a report, [“A Future that Works: Automation, Employment, and Productivity”](#), automation technologies including advanced robotics and AI result in enhanced productivity and economic growth. They aid in creating an economic surplus and augment overall societal prosperity.

Till recently, whenever the topic of artificial intelligence and its impact on jobs and the economy is discussed, its primary focus is on blue collar jobs. The growing wave of AI-infused [Expert Automation & Augmentation Software \(EAAS\)](#) platforms today steer us towards an era of AI-assisted and/or AI-enhanced productivity. These EAAS platforms make use of machine intelligence to replicate and augment human understanding. This kind of AI-enabled productivity is now starting to threaten white-collar jobs as well. And its impact can be felt in almost all common professions.

Current AI and ROBOTICS do not “AUTOMATE JOBS”, rather they “AUTOMATE TASKS” and

“AUGMENT” human functions. This results in increased productivity and performance. At present AI is used primarily to augment existing job functions, and not to eliminate the employees. These machines and/or systems that can reason, learn, and interact naturally with people based on the data fed into them, continue to eliminate the tasks that are repetitive in nature, enable the employees to do the work better and faster, and free up their time for more interesting and productive tasks. Cognitive technologies such as AI enable the workforce to move from tedious, repetitive and cumbersome work into the newer and more fruitful, rewarding roles. Therefore, if looked at carefully and positively, most organizations and their workforce are likely to benefit from the AI-based technologies and automation.

One of the major challenges posed by the AI is Human-robot interaction (HRI). Even though AI can handle all work done by human beings physically, it cannot handle the feelings, emotions and values of the humans as AI does not possess emotional intelligence. This is the most critical area which differentiates human intelligence from AI. This makes human-robot interaction critical in developing and functionally using AI in various business processes. Robots can perform only the functions for which they are programmed. They can't change their actions or sequence of actions by their own as they are still controlled by humans. (Lemaignan, 2017)

Josh Bersin (2018) in the paper titled “AI in HR: a Real Killer App” clearly showed that though AI is used in almost all areas of management, there is a risk involved if it is not used properly. AI are the machines made by the human and again controlled by them. They will perform the functions based on the instructions given to them by the humans. The systems with algorithms and some learning tools that are used in AI have the capability of analyzing huge amount of data and they are faster than human beings

in such functions. It helps us to explore different possible outcomes for any problem and gives different options and helps us to choose the best possible solution. However, there are risks involved in using AI. The results of AI algorithms are based on the past data that are fed into it. This data may not be always transparent. AI will be successful in delivering the results, only when it has large amount of correct data to train the system to give accurate results.

3. Conclusion

Today, Artificial Intelligence is an all pervading phenomenon and no matter how desperately you try can avoid its use in your day-to-day personal and professional life. Moreover, there is no reason why people should completely shy away from using AI to help them improve their performance at the workplace and quality of work that will be rewarding both mentally and materially. AI should not be looked upon as a threat to your professional existence, but rather as a tool and technology that can free you from your monotonous, cumbersome, tedious and time consuming routine tasks and allow you to indulge into more productive and intellectual work that can give you and your organization many benefits including enhanced productivity, better problem solving techniques, better strategic planning, improved business forecasting and forecasting of employee performance, delivering better products and services, etc. Though AI is extremely beneficial to the organizations and employees in numerous ways, one thing is certain, at least in today's context or till such time that human being can develop a technology that can allow the machine to think, feel, believe like a human being which will have a mind of his/her own, Artificial Intelligence cannot completely replace the employees. However, Artificial Intelligence surely poses a challenge to those human beings who refuse to come out of their comfort zone and hence resist change. AI pushes the employees to acquire and

develop new knowledge, skills and abilities constantly in order to remain competitive and it will surely not replace such employees who successfully handle such challenge.

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