

## Review Paper- Recruitment using AI

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### Abstract –

Human resource management, a field that has the involvement of Human intellectual capacity, Manpower, code of conduct, human behaviour etc. Every organization has a dedicated human resource department to work towards the betterment or development of the employees starting from the very sourcing, screening, recruiting, induction, performance management, employee engagement, learning & development and activities. In the modern world, innovation in technology has ended up bringing the science and technology in HR Operations of the company. The innovations led in AI and ML have worked towards implementing them in carrying out the HR process that may lead to reducing rather sharing the work of the HR personnel.

Artificial Intelligence work to simplifying the tasks of the HR Managers. However, there is another perception that Artificial Intelligence can replace the human manpower, irrespective of the type of work. Transformation and the deviation of the work towards the automated systems, have its own benefits of reducing the work and also the work becomes less prone to errors.

**Keywords** – Artificial Intelligence, Human Resource, Recruitment

### I. INTRODUCTION-

Artificial intelligence has played a great role in every field; starting with the engineering to the human resource every field has its own use of AI. It has helped the humans to perform the work in organized manner which has impacted the achievement of organizational objective. The HR department plays an important role in streamlining all the other processes that can work towards running the business operations. These business operations involve the manpower from the lower level to the senior level. Streamlining the complete team to achieve a standard work process has become a major part where the technology has helped in dividing the work load. Though AI finds no comparison to the Human brain, yet it has proved to be a boon by performing the tasks that are meant to be done in a set format irrespective of the Human behaviors.

Adoption of AI in recruitment emerged in 2018 where hiring professionals started sourcing millions of social profiles of individuals which were not possible by human recruiters. The social media data helps recruiters to assess the values, beliefs, and attitudes of the candidates, hence, providing them information about personality traits that is absent in traditional

resumes. AI technology also helps companies to rediscover talent by screening the existing pool of candidates so that companies can utilize already tested and experienced candidates.

AI is unbiased and gives equal weights to candidates based on selection criteria, hence releasing recruiters from boring, repetitive, and tedious tasks. Recruiters can replace their traditional role with that of a talent advisor by planning and building relationships with newly hired employees through rapport building and assessing cultural fit. AI is helping humans to be more productive by speeding up the hiring process. AI-powered chatbots are used to communicate with applicants quickly by providing real-time feedback, responding to queries, and engaging the candidate during the hiring process. AI recruiting software ranks the resume for qualification, experience, and skills, and responds to candidates with positive or negative feedback. With AI's quick feedback, the candidates not only get rid of the frustrating waiting period but the rejected candidates are informed about any deficiencies in skills, experience, or qualification also hence providing them with a positive experience of undergoing AI-based recruitment. Moreover, AI offers the candidates the positions that might be of interest to them for current or future roles. AI assists the candidates throughout the hiring process through web and mobile platforms. Chatbots make real-time communication through text messages and emails. On the other hand, it provides feedback to the recruiters on the applicant's experience.

## **II. CURRENT SCENARIO ABOUT RECRUITMENT-**

According to Edwin B. Flippo, "Recruitment is the process of searching the candidates for employment and stimulating them to apply for

jobs in the organization". Recruitment is a process of identifying different sources of workforces requirement in the Organization. It is a positive process of attracting various applicants searching for jobs and motivates them to apply for the vacancy specified by the establishment. In the word of Mondy (2010), Human resource manager is the utilization of individuals to achieve organizational objectives. HR managers act as a central role between the establishment and the aspirants. HR manager is a backbone of any organization. According to Finnegan (1983), recruitment means "The right people in the right job".

Recruiting the right candidate is not always about the degrees that they possess but also sometimes it is dependent on the skill set that is not mentioned anywhere. And here is when the interview along with the group discussion comes into picture. The complete recruitment process is a mix and match of the education, the courses that are pursued, the experience and the skill set.

Recruitment procedure involves various steps which may tend to keep the team busy, but if the shortlisting of the candidates is done as per the prescribed format, this gives a sigh of relief by decreasing the workload of the HR department.

There are several common sequential steps in the recruitment and selection process which helps to manage the recruitment as well as analyze different recruitment models. (Thebe and Waldt 2014) Selection is also considered as a part of the recruitment process. As recruitment is to attract potential candidates to meet the requirement whereas selection is to evaluate differences between those candidates and discover the best candidate according to the job description. (Newell, 2005). The selection process usually starts at the screening of the applicants and in the case of recruitment, the

steps in the selection process are sequential in nature (Thebe and Waldt 2014).

### **III. ARTIFICIAL INTELLIGENCE –**

“Artificial Intelligence can be defined as the art of creating machines that perform functions that require intelligence when performed by people” (Kurzweil, 1990). The branch of computer science that is concerned with the automation of intelligent behaviour” (Luger & Stubblefield, 1993).

Father of AI, John McCarthy described AI as, “Artificial Intelligence is the science and engineering of making intelligent machines, especially intelligent computer programs”.

The works of Artificial Intelligence is similar to human intelligence like to learn, to adapt, to identify and to correct. John McCarthy, who coined the term in 1956, defines it as “the science and engineering of making intelligent machines”.

Artificial Intelligence (AI) is an umbrella term that defines and indicates the implicit intelligence of the machines. After so many years of its discovery, this is still a blurry concept to most people and often people still wonder what AI actually is (Kaplan & Haenlein, 2019). AI does not have a specific definition and can have various meanings based on its circumstances, uses, and intelligence (Jarrahi, 2018).

AI different areas, applications, and algorithms available such as neural network, deep learning, machine learning, machine vision, genetic algorithm, and so on (Jarrahi, 2018). It also expands its field in robotics, natural language processing, expert systems, automated reasoning (Ved et al, 2016)

### **IV. REVIEW OF LITERATURE-**

According to Heene (1997), competence based model is one type HR tool which is very helpful for organization to achieve their manpower by successfully recruiting, planning and emerging the applicants.

According to G. Liddon (2006), described the competence model as a description of knowledge, skills, capabilities and behaviors. These skills are required to perform any kind of job or tasks that have been assigned in the organization. To obtain a productive output and an efficient outcome the organizations may use a competence based system that look forward to the core competencies and design the business strategy accordingly. These strategies are used to determine the working of a business model and streamlined for hiring and selection, assessment, performance management, training and development and employee engagement techniques for their career development.

According to Murgai (2018), this paper states the impact of Artificial Intelligence in human resource management. The aim of this paper was to analyse the scope and use of artificial intelligence in various functions of human resource management like recruitment, selection, employee retention, performance appraisal etc. The researcher used secondary data to achieve the objectives.

### **V. OBJECTIVE OF STUDY –**

To study the effect of artificial intelligence in recruitment process

## VI. RESEARCH STUDY –

### *Impact of Artificial Intelligence in Recruitment Process*

Artificial Intelligence is a use of machine to perform the task that can help in reducing the work of Humans. When the work is performed through a Robot or any Technological machine, there tends to be very less chances for the error. While the recruitment process tends to be the most important task for any company, there is a need to mark up work error free in order to avoid any kind of mistake resulting into the recruitment candidate matching the exact profile.

AI can be used in 3 steps while we follow the recruitment process such as:

- A) Sourcing
- B) Screening
- C) Matching

Sourcing needs the data of the professionals that can be a perfect match for the opening in the organization. There are few job profiles that seek certain technical as well as soft skills and the people who have left the organization and are seeking the job become the applicant. The sourcing process is one of the task that becomes tedious for any HR and so with the help of AI and ML this task can be shared and the work can be reduced making it easy for the organization.

Screening the AI has already laid its hands through ATS system where few keywords are fed into the system and the resume of the applicant are matched to hold these keywords. This helps in screening of the resume and makes the task easy to complete within the stipulated time. The Applicant Tracking system matches the keywords with the words in the resume and if the content holds the exact words the application is

shortlisted. The complete data is filtered in much less time.

Once the list is prepared for the suitable candidates the last step before interviewing is the matching of the profile with the desired traits, location and package. ATS tend to shortlist all the resumes that match with the keywords however, exact profiles need not just contain the keywords for the namesake and for that the Matching of the Profile plays an important role. While matching the complete profile resume is scanned along with the required details such as Salary, Location and the Core Competencies.

## VII. FUTURE SCOPE-

Based on the above literature review, where the majority of the literature we found has focused more on general opportunities it is suggested that more research should be conducted in AI in recruitment as it is a recent topic that has shown many promises and prospects

Though the human emotional touch and the reactions to manage the situation might not be of great help but the work that is carried out in a prescribed and pre decided format can easily be conducted with the help of AI.

The feedback provided in the closed loop system while designing the AI systems for the HR work shall enhance the capabilities yielding great results and it shall also help in rectifying and correcting the prior results in the network.

## VIII. CONCLUSION –

After assessing the opportunities and the challenges of using AI in the recruitment process, this will also help the readers to understand more about the progression of AI technology in recruitment for the past few years and the recruiters may be able to recreate new ideas, assess contemporary challenges, and avail the imminent opportunities. A systematic literature review has been conducted by analysing and scrutinizing different positive and negative aspects of AI that leads to identifying four themes where AI role describes different advantages and uses of AI tools that may create opportunities both the recruiters as well as the applicants, Actor role describes how AI can assists them by making the process efficient, potential risk explores different kind of challenges regarding the system which is essential to know before investing and finally adoption figure out some challenging factors such as collaboration and knowledge gain which can help to mitigate the risk and get the advantage of this technology.

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