

Artificial Intelligence Integration into Human Resource Practices

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ABSTRACT

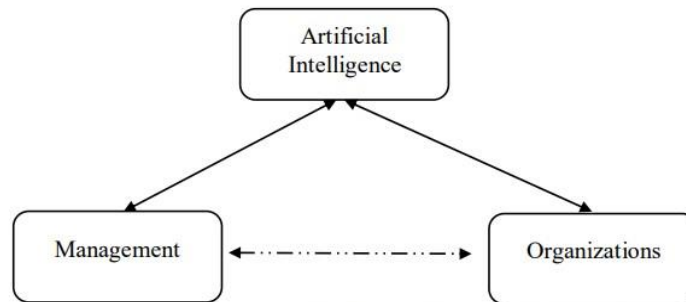
Artificial intelligence (AI) is the recreation of human intellectual activities by machines like computer systems. It aids in assembling reliable and valuable insights at a quicker pace. AI systems are always accessible thus helping in making exact decisions. Here, our discussion focuses on integrating AI into human resource management practices which help to select, retain and develop the human resources of an organisation. AI tools are effectively boosting HR activities. AI solution reduces HR professionals' workload and improves general employee behaviour. Most of the low-value HR tasks are completed by AI programs, freeing up time to concentrate on the tactical nature of work. AI should make it easier for the HR department to work more closely with the finance and operations departments and other divisions of the company. The Data Generation and Machine Learning stages of the AI Life Cycle must undoubtedly be understood and enabled by HR professionals, as well as the new capabilities required to do so. The function of artificial intelligence in human resources practices is thoroughly examined in the chapter that follows.

Keywords – Artificial Intelligence, Human resource, Human resource management

I. INTRODUCTION

The life force of every corporation is its people. Any organization's success is greatly influenced by the calibre and quality of the people who work there. In other words, an organization's most valuable asset is its human resources (HR). So, despite all advancements in technology, the value of human resources has not decreased. Any industry's ability to succeed depends on the calibre of its human resources. The company's focus has had to change from being solely on traditional physical assets to focusing on the investment and development of Human Capital as a result of the rising appreciation of Human and intellectual capital as essential economic resources of the contemporary period. Technology that employees consistently contribute to improving their strategic and tactical roles has recently advanced human resources. Artificial intelligence is one of these technologies. By providing the machines with a large amount of data that is then tested and taught using machine learning models, artificial intelligence (AI) as an "intelligent agent" as machines may act intelligently

as people by replicating human intelligence is made possible. Artificial intelligence improves human intelligence by freeing up workers from routine, automatable jobs, allowing them to effectively advance their knowledge and skills in preparation for tactical responsibilities. When businesses accurately work on their HR procedures, they can increase the value of their competitive superiority through the acquisition, expansion, and fusion of not just human resources but also organizational and physical resources. AI technology can be integrated with HR processes to create cutting-edge solutions for all HR-related issues. As a result, the purpose of this chapter is to explore how AI is being used in human resource practices.



Source: - (Duchessi, O'Keefe, & O'Leary, 1993)

In the above figure, the relationship between management and organization and artificial intelligence is shown in a framework. In the research article, the research author (Duchessi, O'Keefe, and O'Leary, 1993) discussed how artificial intelligence and digital technology have an impact on who owns and is responsible for making decisions, how cost-reduction and improved service, personnel shifts and downsizing, and how organizational structure and workforce management are affected.

II. INTEGRATION OF AI IN HR PRACTICES

Human resources are an organization's differentiating factor since they are an intangible resource that is challenging for rivals to duplicate, thereby offering any organization a competitive advantage. When subconscious decisions are necessary to assess and facilitate the results of decisions, individuals play a significant role in an organization and technology must rely on them. AI applications in human resource practices have their roots in the creation of human resource information systems (HRIS). Using HRIS, an organization can gather, store, preserve, retrieve, and validate the information it needs about its personnel, human resources, and organizational unit characteristics. These days, HR departments are embracing the digital revolution and employing a variety of techniques to streamline their resource allocation, including big data analysis, AI, and cloud computing. In HR, the majority of the company has been employing digital or artificial intelligence technologies. The following methods have been used by various firms to integrate AI into their human resource practices:

1. Expert Systems:

They are programs created to organize knowledge from experts into logical frameworks that address unstructured issues and aid in the creation of comprehensive information systems by making knowledge easily accessible. It is mostly used in labour management, remuneration, recruitment, and HR planning.

2. Fuzzy Logic:

This method is applied in a variety of study domains. HRM is based on predetermined membership levels, whose values range from 0 to 1. 0 represents no membership, and 1 represents complete membership. Fuzzy logic may measure data uncertainty and predict future events using these sets to aid decision-making. In 2000, it was put to use in employee selection and the best workforce planning.

3. Artificial Neural Networks:

This software is a condensed model created to imitate how the human brain works. Its structure includes a processing component, a layer and a network to mimic the way people learn. It is the most well-liked prediction approach and is mostly applied to hiring, selection, and managing the performance of employees.

4. Data Mining:

It involves obtaining important but secret information. Organizations can use it to turn helpful information and trends into competitive advantages. In 2006, data mining was employed in human resource management, mostly for hiring, evaluating competencies and performances, and managing personnel.

5. Genetic algorithm:

These reproduction, alteration, and gene crossover-based information search methods find the best answers to mathematical issues. It is mostly utilized in personnel performance evaluation and workforce planning.

6. Machine learning:

It is through the act of learning that a machine can acquire new skills without having been programmed to do so. The application using machine learning in decision-making is highly advantageous for human resources managers and turnover prediction, according to several research.

III. SEVEN WAYS OF AI USES IN HR PRACTICES

Artificial intelligence involves the development of computer systems which can carry out functions traditionally done by human intelligence. In HR practices, artificial intelligence plays a key role in ensuring that HR personnel are knowledgeable and effective. AI can also immediately benefit HR. Let's explore some more subtle ways that AI is influencing human resources practices:

1. HR Recruitment

By comparing applicant resumes with job descriptions, AI is assisting businesses in finding the best personnel. Additionally, it will use the gathered information to compile a list of the best applicants from a variety of sources and even contact them via email to inform them of the open vacancies. From interview video insights to personality assessments, the evaluation process is becoming more and more AI-driven. By doing this, you not only prevent any potential applicant from being overlooked as a result of human error, but you also save countless hours of labour.

2. HR Performance review

AI-powered systems continuously monitor and analyse information on employee performance. This system takes into account things like finished tasks, working hours, project involvement, and peer reviews. A thorough report detailing each team member's strengths, areas for development, and advancement over time will be sent to HR professionals during the review time. It becomes more impartial and equitable for the team as a result.

3. Employee onboarding/offboarding processes

New employees frequently experience paperwork and procedural overload. Now picture an onboarding platform powered by AI. This platform serves as a roadmap for new hires within the business. After that, the website guides users through the required paperwork, describes business regulations, and even schedules the first training sessions. The result is a more relaxed and welcoming environment for the staff. Likely ensuring a smooth transfer for all sides, the AI technology can manage exit interviews, the handover of company property, and other transferring tasks when employees leave the organization.

4. Employee engagement initiatives

It can be difficult for HR personnel to accurately assess employee attitude. This procedure can be automated using AI technology. The employer can design a brief, interesting survey that invites employees to provide candid, anonymous feedback, with the findings being analysed by an AI tool. As a result, tendencies and problematic areas are discovered, giving HR professionals the knowledge, they need to raise employee satisfaction and commitment.

5. Talent development and training

Employee learning and development networks can also be personalized with AI techniques. The AI recommends particular workshops, webinars, or training courses based on their position and objectives. The employees are inspired to actively participate in their professional development by this individualized strategy. Beyond their professional progress, it also advances their personal development.

6. Workforce planning

An AI tool can predict which positions they will require applicants for in the upcoming year by analysing data such as current labour skills, market trends, and company growth goals. This enables HR professionals to plan and strategize the workforce, ensuring that the business always has the correct personnel. To ensure that the company has the right individuals with the right abilities at the right positions at the right times to carry out its mandate, the same rationale should be applied throughout the organization.

7. HR chatbots and virtual assistants

Finally, think about an AI chatbot that serves as a 24/7 HR helper. Without addressing the HR staff, employees can ask the chatbot questions regarding leave regulations, benefits, and other topics. The HR team may then concentrate on strategic and tactical responsibilities while the employees receive prompt responses to their inquiries, improving their overall experience.

IV. BENEFITS OF AI IN HUMAN RESOURCE PRACTICES

As was already established, AI enhances human resources in many ways. Keeping up with the ever-changing corporate environment can be difficult. Because of this, Artificial Intelligence has become more and more important in human resources, giving specialists the resources, they need to provide scalable, immersive, and customised training solutions for their teams. Implementing AI in human resources can have a variety of positive effects on businesses, from speeding hiring procedures to lowering unconscious hiring prejudices, ultimately resulting in better production and efficiency.

V. CHALLENGES OF AI IN HUMAN RESOURCE PRACTICES

Because artificial intelligence is now being used in the human resources department, employees now need certain skill sets. The majority of the time, it is challenging for staff members to adopt and understand AI tools and be knowledgeable in the area of digital technologies. A company's most valuable asset is its human capital, and deploying an AI system can affect the management levels that inspire confidence in its staff members. Finding the proper applicant to manage AI technologies is one of the industry's biggest challenges, and it can be challenging for the Department of Human Resources. As technology overrides the power and role of HR in decision-making in a business, there is yet another restriction and challenge that prevents HR professionals from making decisions in day-to-day life.

VI. CONCLUSION

Artificial intelligence (AI) has drawn a lot of attention in recent years. The growth of machine learning, a technique for building AI systems from examples of the real world, is strongly associated with the rise in the significance of AI, which is roughly defined as an attempt to train computers to replicate human-like cognitive functions. The extensive applicability of the ML technique has led to an increase in artificial intelligence-based tools in every sector of economic activity and all aspects of life. Even human-centred and algorithmic decisions have imperfections, organizations can aim toward solutions that instead concentrate on the strengths of computers as well as humans to achieve the entire potential of AI in HR. In response to the recent rise in the application of artificial intelligence in the field of human resources, The World Economic Forum established a Human-Centred AI in the HR Industry project. This technology has improved HR in significant ways and addressed pressing difficulties, but it has also generated valid worries about its application. To develop a useful toolkit for the appropriate use of AI in HR, a team of professionals and specialists was brought together for the project. This toolkit was then tested with HR professionals from various enterprises all around the world.

Nowadays, artificial intelligence has made its way into an organization's overall system. One area where this has happened is the Department of Human Resources, where all tasks like candidate screening, hiring, coordinating human resource activities, and performance management are now carried out using AI systems instead of people. To comprehend the fundamental nature of existing AI systems, you are not required to be a genius. Almost all existing AI systems are a form of machine learning, or ML, which shares a fundamental idea even though its internal functioning can be complicated. Understanding this fundamental idea will make it easier for you to recognize the advantages and drawbacks of technologies built on AI.

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