

Impact of Artificial Intelligence on Human Resource Management in Today's Era

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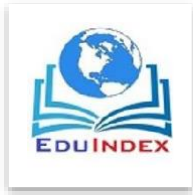
Abstract:

Technology has touched every aspect of life, making it easier, better and different. Artificial intelligence makes it possible for any machines to perform human-like tasks. AI displays consciousness and subsequently becomes self-aware, and thereby, works towards self-preservation. AI is transforming job roles and altering the human lives like never before, it is capable of dissolving the front line and repetitive jobs and thus making our lives easier. Through AI companies shall overhaul employee experience from recruitment till employee exist, thus impacting employee engagement, organizational culture and employer brand value. Moreover, organizations embracing AI must realize that it is not jobs that are being automated, but tasks. Organizations need to understand that automated job roles make way for job transformation rather than elimination. Hence, it is prudent for HR to educate the employees about AI and preparing the workforce for newer challenges

Introduction to Artificial intelligent

Artificial intelligence (AI) is the simulation of human intelligence processes by machines, especially computer systems. These processes mainly contains learning (the gaining the information and rules for using this information), reasoning (using rules to draw an approximate or definite conclusions) and self-correction. Particular applications of AI include expert systems, speech recognition and machine vision.

AI allows the individual to demonstrate AI for various business processes before making any decision. Popular AI cloud offerings include Amazon AI services, IBM Watson Assistant, Microsoft Cognitive Services and Google AI services. Since various AI tools are present now a days, the question of ethics also raises.



This is because deep learning algorithms, which support the most advanced AI tools, are only as smart as the data they are given in training. As human selects what data should be used for training an AI program, there are possibilities for human bias and this must be monitored closely.

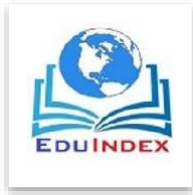
Some industry experts believe that the term Artificial Intelligence is creating an unrealistic fear among the general public and false representation about how it will change the workplace. Researchers and marketers hope the label augmented intelligence, which has a more neutral connotation, will help people understand that AI will simply improve products and services, not replace the humans that use them.

Advantages of Artificial Intelligence:

- 1. Error Reduction:** Artificial intelligence helps us in reducing the error and also improves the degree of accuracy. It is applied in various studies such as exploration of space.
- 2. Difficult Exploration:** Artificial intelligence can be put to use in mining and other fuel exploration processes. Not only that, these complex machines can be used for exploring the ocean floor and hence overcome the human limitations.
- 3. Daily Application:** Artificial Intelligence is widely employed by financial institutions and banking institutions to organize and manage data. Artificial intelligence is also widely used in the detection of fraud in a smart card based system.
- 4. Repetitive Jobs:** Repetitive jobs which are monotonous in nature can be carried out with the help of Artificial Intelligence. Machines think faster than humans and can be put to multi-tasking. Artificial intelligence can be used to carry out dangerous tasks. Their parameters, unlike humans, can be adjusted.

Disadvantages of Artificial Intelligence:

- 1. High Cost:** Artificial intelligence requires huge cost as they are very complex in nature. Their repair and maintenance require huge costs.
- 2. No duplication of Humans:** Machines do not have any emotions and moral values. AI machines perform as per the program stored therein. They cannot make judgment of right or wrong. Even cannot take decisions independently, if they encounter a situation unfamiliar to them. They either perform incorrectly or breakdown in such situations.
- 3. Do not improve with Experience:** Humans improve their skills as they gain



experience, but artificial intelligence cannot be improved with experience. With time, it can lead to wear and tear. It stores a lot of data but the way it can be accessed and used is very different from human intelligence.

Literature Review:

1. Artificial intelligence in HR: no brainer: Robert Charlier, Sander kloppenburg, PwC people and Organization

“Artificial intelligence is not the future, it is already happening and widely available” This is basically good news for Human Resources and for your business. Usually HR is one step behind in the digital transformation and AI now offers the chance to catch up. AI can help eliminate repetitive tasks, accelerate the search for talent, reduce employee attrition and improve employee engagement. The algorithms train themselves to simulate human behaviour and to re-imagine workers experience. AI reacts faster in helping draw out the insights and inferences that might otherwise take reams of manpower or stay uncovered at all.

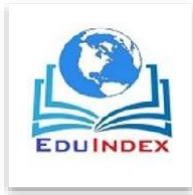
Still, many HR-professionals are reluctant to embrace this breakthrough technology. Some feel algorithms can never replace human empathy and intuition. There are doubts about the availability and quality of data and whether AI can add something new to what we already know about the dynamics of the workforce.

Reality has overtaken this discussion. Digital intelligence is transforming the workplace. Man and learning machines are working closely together in neural networks, powered by an ever-increasing amount of data in the cloud and the use of big data and artificial intelligence to analyze and direct them. This force crosses a wide range of disciplinary and organizational boundaries and requires a massive shift in thinking about how to execute and operate.

Being the most complex, handcrafted and data-dependent business process, HR must rethink its added value and license to operate. The judgment calls of the human professional are, and always will be, decisive in people management. But AI will provide more time, more capacity, more budget space and better information to do so.

2. The new age: artificial intelligence for human resource opportunities and functions: Sheila L. McGovern, Steve Gill (2018)

Artificial intelligence (AI) refers to technology used to do task that requires some level of intelligence to accomplish - in other words, a tool trained to do what a human



can do. Why is AI different than ordinary software? Three core components high speed computation, a huge amount of quality data and advanced algorithms differentiated AI from ordinary software. Core AI technologies provide better accuracy and stability to everyday processes using an algorithm that connects quality data with fast computation services.

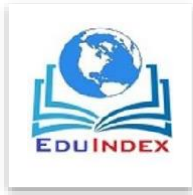
AI technologies offer significant opportunities to improve HR functions, such as self-service transactions, recruiting and talent acquisition, payroll, reporting, access policies and procedure. We are living in an era in which AI capabilities are reaching new heights and have a major impact on how we operate our business. Human resource executives have faith that merging AI into HR administration functions will benefit and improve the overall employee experience. This will provide more capacity, more time and budget, and more accurate information for decisive people management.

Humans and learning machines are working together to produce an ever-increasing amount of HR data in the cloud, and the use of artificial intelligence analyses offer better insight into two to execute and operate. The success of any organization depends on how effectively it combines people, process and technology to deliver transformational value at optimized cost. AI will help to efficiently automate many back-office functions for reliable HR transactions and service delivery.

Artificial Intelligence in relevance with Human Resource Management

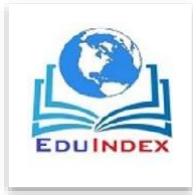
Today, Artificial Intelligence (AI) is reshaping the way that companies manage their workforce and make HR plans, which increases productivity and employee engagement in general. Bearing in mind that employee engagement programs boost company revenue by 26%, it is clear that you should accept AI solutions to strengthen your team and gain some long-term benefits. Here are some functions of HR where AI can be used effectively.

- **Talent Acquisition:** AI can be used to remove the stress of monotonous work from the HR managers. Namely, talent acquisition software can scan, read, and evaluate applicants and quickly eliminate 75% of them from the recruiting process. This is beneficial for the recruiters as it allows spending more time to



analyze and evaluate only few eligible candidates. In fact, due to AI the quality of hiring decision are drastically increasing. Additionally, companies save a lot of money this way because they don't have to pay the cost of poor hiring decisions.

- **On-boarding:** Hiring the most promising talents is not the only concern of HR departments. Adaptation is the second step in the process as many prospects can't fit in the new environment due to lack of on-boarding procedures. Generally, new employees require a lot of attention and it is often impossible to dedicate enough time on each one of them personally. That's where AI steps in – it determines customized on-boarding procedures for every single position. This proved to be extremely productive in practice since new workers who went through well-planned on-boarding programs had rates than their peers who didn't have the same opportunity.
- **Training:** The technological changes are happening frequently, so it has become crucial for all employees to keep learning and improving professional skills. AI effectively plan, organize, and coordinate such training programs for all the employees. Online courses and digital classrooms are widely used now days for training. AI effectively arranges the courses and schedules lessons which would fit the preferences of all the employees individually.
- **Performance analysis:** Engagement and productivity are essential qualities of successful professionals. However, most companies are taking efforts to find individuals who have those traits. That's why it is easier to monitor their behavior and analyze key performance indicators. Using AI tools, HR managers set the objectives and targets for the team and allow the team members to work in small increments. This helps the manager to follow and assess the work and this also generates the better overall results. Of course, it doesn't only serve to improve productivity but also to detect team members who show lack of engagement continuously.
- **Retention:** Retaining the employee is as difficult as to hire the talented employees. This is why almost 60% of organizations consider employee retention their biggest problem. AI has ability to analyse and predict the needs of the employees. It can determine the work progress on individual and reveal who should get a raise or who might be dissatisfied with the life-work balance. Such analysis gives chance to HR professionals to be proactive and solve the problem even before it actually occurs.



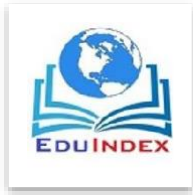
Impact of AI on HR practices

Human resources as a function have experienced significant changes in the last decade due to the evolution of technologies. Today, artificial intelligence (AI) is redefining the way companies hire, manage and engage with their workforce. Since businesses are now more focusing on creating an employee-oriented work culture, the advance technologies are rapidly making its way into HR industry. Recruitment is no more a monotonous boring process for HR practitioners as it no longer requires time-consuming activities such as manually screening the resumes of the prospective candidates, making phone calls or replying to candidates via emails. These tedious processes are now managed by smart technologies designed to replicate human conversation, which enables HR experts to focus on other strategic value addition businesses.

Today, in order to stay competitive in the market and boosting the productivity, employee engagement has become a very crucial aspect for the organizations. Gone are the days when HR experts used to relay on onerous annual surveys to evaluate employee engagement that often generated erroneous results. Furthermore, AI generate suitable data based on its insights to help HR practitioners retain and motivate existing employees and to also recruit new ones. Moreover, AI utilizes historical records to recommend the best solutions to resolve expected problems, thus helping HR leaders develop HRM programmes based on smart data.

Advantages of implementing AI in HR

- **Individualization:** HR leaders are embracing modern training methods in order to manage a multi-generational workforce and tech-savvy millennial who expect instantaneous solutions to their queries. Furthermore, different individuals are characterized by different learning styles, and thus HR leaders use AI to individualize corporate training accordingly.
- **Diminishes biased appraisals:** The major challenge that HR managers face during performance appraisals is to remain unbiased. AI algorithms go beyond spreadsheet analysis by carrying out employee assessments via regular and unbiased performance appraisals. Similarly, these technologies can be utilized to



evaluate the career path of your employees to prepare them for career advancement.

- **Estimating workplace morale:** The HR industry is increasingly leveraging AI/ML as they are adept at identifying performance patterns over time. AI technologies are capable of face-recognition which identifies gender and measuring employees’ psycho-emotional traits on a scale from very sad to euphoric. With the data incorporated by these technologies, organizations can develop a closer bond with their workforce. These insights derived from the data can be utilized to empower employees so that they can identify their true potential.

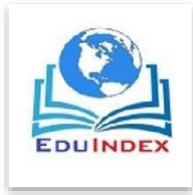
Barriers to AI adoption

Even though AI is penetrating quickly into the HR industry; a number of obstacles are also being witnessed which include lack of expertise to adopt automation, absence of change management systems, and lack of infrastructure to manage employee records. Even so, robots can’t replace the human in HR as they cannot address sensitive problems in the workplace like a human being. Key barriers to AI adoption include:

- **Talent gap:** It can be expensive and hard to find properly educated or skilled people
- **Concern over Privacy:** Confidential HR data must be accessed securely and available only to the authorized person
- **Ongoing Maintenance:** as with other innovative technologies, AI requires deep learning and regular review updates.
- **Integration Capabilities:** data availability is limited, due to the HR tend toward SAAS (software as a service).

Research Methodology:

This research is based on the review of descriptive study. Here the material and the sources of data used are secondary in nature. Secondary data refers to the data collected by some other researchers for their use, hence this research is based on the views and opinions of the other researchers. This research purely represents the purview of the researches already been conducted. The secondary data which is available from online sources like Research Papers, Articles, websites and magazines have been used.



Research Objectives:

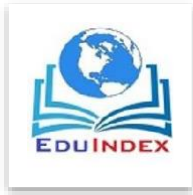
- To study the Artificial Intelligence in Human Resource Management context.
- To identify the benefits of Artificial Intelligence in HR and businesses.
- To study the impact of Artificial Intelligence on Human Resource Management.
- To identify barriers to adoption of AI in HR practices

Need of the study

Artificial Intelligence (AI) has been changing our lives for decades, but today its presence is bigger than ever before. Sometimes, we don't even realize it when a new AI-powered system, tool, or product appears and outperforms us, humans. As a matter of fact, AI is affecting human life on all kinds of a level such as, The automation of tedious, time-consuming tasks to; the augmentation of human capabilities and; The amplification of human functions. So, this provoked me to study the effect of Artificial Intelligence on Human Resource Management.

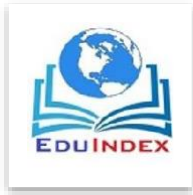
Data Analysis and Findings:

Traditional HR Practices	HR practices after implementing AI



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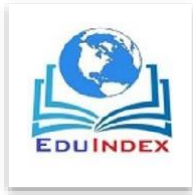
Recruitment: ➤ Very few sources to attract the candidates (mainly Advertisements in newspaper)` ➤ Time consuming and lengthy process ➤ Difficult to find relevant candidate ➤ Scheduling interviews, taking follow ups with candidates were done manually by HR professionals	Recruitment: ➤ Various options are available to attract large number of candidates (for e.g online job portals) ➤ Automating the tasks has made the process much easier and quicker ➤ Software algorithm search helps to find the relevant candidates ➤ Scheduling interviews, taking follow ups with candidates are done automatically through software algorithms
On-boarding: ➤ HR manager had to give personal attention to new hires to make aware about the company policies, nature of work and about the manager and team members	On-boarding: ➤ Using AI now new hires get all the details about the company and nature of job, details about his training schedules and the work to be done everything ready on his laptop



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Employee Data Management: ➤ It was difficult to maintain the history and background data of each and every employee also there were security issues concerning the privacy of the data	Employee Data Management: ➤ AI tools help maintaining the employee data in a soft form and also it is possible for HR manager to maintain the privacy of the employee's private data from being misused by limiting the access to this data
Learning and Development: ➤ Training programs were mostly scheduled by managers and HR professionals without concerning the skills and competency possessed by the individual and without considering the training needs of an individual employee	Learning and Development: ➤ AI based tools design the training programs based on the skills of employees and their training needs. ➤ The training programs are unique for an individual employee based on his competency ➤ The effectiveness of training program can also be measured
Payroll system: ➤ Payroll systems were inefficient and were not effectively established and well documented	Payroll system: ➤ AI using big data is making the payroll systems more efficient and effective

Human Resource Department have been benefited from AI supported systems and digitalization in their work domain. Artificial intelligence is reshaping and revolutionizing the human resource management in many ways, Jeanne Meister (2017,p.4)

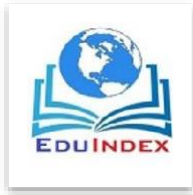


Any job opening in the organization typically includes number of applications, yet only few incoming resumes are relevant with the job requirement. Advertisements placing in a newspaper about the vacancies and waiting for the applications would consume lot of time. This is how the recruitment process used to take place till few years back. But now Artificial intelligence has made this process much simpler and easy. The software and search algorithms help successfully find out few people matching the exact requirement from the pile of irrelevant applications.

Shortlisting the candidates is just the beginning of the recruitment process. In addition to this there are series of essential tasks before hiring the candidates such as scheduling interviews, taking follow ups with the candidates and sending the reminders for reporting. All these tasks were taken care by Human Resource professionals manually. As described by Sheila L. McGovern (p.4), Automating such administrative tasks have saved a lot of precious time besides helping make the hiring process quicker and convenient. Hence, AI has been widely accepted for effective recruitment over the traditional recruitment process. Now a days along with large MNCs, small organizations are also implementing AI effectively in their recruitment process.

Apart from the talent acquisition tools that has made recruitment process faster, organizations today are looking forward to extensively use the artificial intelligence programs for on-boarding. As a new employee is expected to give lot of attention and time to make him comfortable about the company culture and briefing him about his job profile and other important matters, it is quite impossible for HR personnel to give each and every employee a personal attention. The artificial intelligence now had made this too much simpler. A new employee gets all the information regarding the company and the job profile on his laptop or in an app along with the details as reporting authority, team members, team leaders and the tasks assigned for him for the first week at a work. At the same time, there are some mechanized systems that will answer the employee's queries. This has helped the HR managers to induct every new hire personally. HR managers are adapting the new way of on-boarding to reduce the boring and monotonous tasks.

A lot of repetitive and low-values tasks often consume huge time and energy of HR managers. Such are repetitive questions that employee frequently ask about the policy matters and basic company regulations and also about the leaves and appraisals. Such problems are easily solved with the AI -powered tools where automatic responses can be given to such queries, Jeanne Meister (2017, p.3). These repetitive and low value

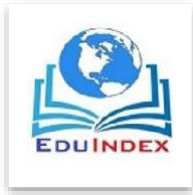


tasks consume lot of time, hence automating these tasks reduces wastage of time and allows HR managers to focus on more productive and concentrate on more value added tasks and strategies for their businesses.

Employee data management is a crucial task for HR managers. It is important to keep and maintain the record of the employee history with all their details of family background, educational background and previous employment, brief about their health and insurances. This is employees' personal information and need to keep confidential. These data were used to maintain in a hard form, and was a challenging task for HR to maintain the privacy. The AI software now help to maintain these crucial information in soft form and also help to maintain the privacy and confidentiality about the employees personal information. Now a days, Many AI tools and software available in the market easily. This software can be customized according to the company requirement; hence it is widely accepted by all type of business organizations as an effective tool for data management.

Learning and Development is another responsibility handled by HR. Most of the skilling and learning programs are led by the managers and HR executives. Traditionally managers used to design the training programs for the employees, but it was very difficult to identify the personal training needs of an individual employee. The training and skill requirement differ from person to person and the role in the organization. Identifying the training needs of an individual employee and designing the unique training program according to the competency of an employee was impossible. AI systems helps to identity the training needs of an individual employee based on his past performance and design the training program based on that. So AI tools are used for more personalized learning. Personalized learning and online Training tools led the employees to get updated with the new skills to cope up with the technological advancement on their own.

As describes by Sheila L. McGovern (2018, p.3), Many companies are facing issues with their payroll systems, many of them still don't have the well-established payroll system. With traditional payroll system employees often compliant that it is not well documented and not properly set up. Tracking the employee expenses is the biggest challenge faced by the companies. So, many companies are just beginning to realize the imperfection in their payroll management processes. AI is using the big data to make the payroll systems more efficient than ever before. So AI based payroll systems have effectively reduced the complexity in the system and prepare a well-



established payroll system which has further helped to minimize the problems faced by the employees and the complaints about the faulty payroll systems of an organization.

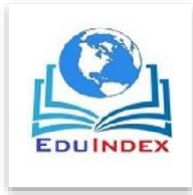
Findings:

- AI is making way for many multinational companies to adopt technologically innovative processes in the organization that can help in increasing the productivity and overall employeesatisfaction.
- Artificially Intelligent Human resource systems will help in thinking, behaving and predicting the same way as human brain works. This will in turn make the overall processes more efficient, less time consuming and more accurate result givingprocesses.
- Artificial intelligence has reshaped the human resource department. AI has been used drastically in many HR functions such as, Recruitment and on-boarding processes, employee data management, training and development, employee retention.
- It has been proved to be benefited for automating the time consuming, repetitive and low-valued tasks and helped to improve the efficiency.
- Periodical training, learning and development programs should be conducted at all levels of organization to impart digital skill set to the employees.
- Monitoring and controlling of Artificially Intelligent Human Resource systems is also an essential role of HRmanagers.
- Implementation AI in human recourse management has number of obstacles, including lack of expertise to adopt automation, lack of support for change management, and lack of infrastructure to manage employee records which require further attention of HRprofessionals.

Suggestions and Conclusion:

Suggestions:

- The awareness about the benefits of Artificial intelligence should be included at the academic level of the HRprofessionals
- As stated by Robert Charlier (p.3), Many HR-professionals are reluctant to embrace this breakthrough technology. thus training programs should be arranged for the employees about automating the tasks and using Artificial



intelligence in day-to-day activities

- It is necessary for HR to educate oneself about AI and thereby dispel the myths regarding job security
- According to Sheila L. McGovern (2018, p.4), AI technologies offer significant opportunities to improve HR functions, such as self-service transactions, recruiting and talent acquisition, payroll, reporting, access policies and procedure.

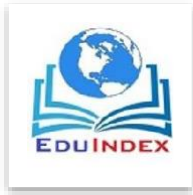
Thus, In future AI has scope in following areas:

- **AI in employee engagement:** Various employee engagement activities can be carried out using some online quick games and quiz using intranet.
- **AI in exit management:** Exit management is the area where HR managers have to take exit interviews of the employees leaving the organization, for the employees who have already left their exit interviews can be taken with help of video and audio recording using AI.
- **AI in succession planning:** Succession planning is the process where lot of analysis has to be done to finding the candidate fit for the future vacant position. Traditional succession planning contains lot of human error and bias. Succession planning using AI can be helpful to find out the perfect fit for future position based on past performance.

Conclusion:

In its most refined definition, Artificial Intelligence is any machine that displays consciousness and subsequently becomes self-aware, and thereby, works towards self-preservation. AI is transforming the job roles and altering human lives like never before. The transformation being brought forth by AI is multi-dimensional. While it definitely makes our lives easy, it is capable of dissolving the front line and repetitive jobs. It is responsibility of organizations and HR to analyze the fallout of AI, in terms redefined work roles, and enacting newer skills and tools and preparing the workforce for newer challenges.

Through AI companies shall overhaul the employee experience from recruitment till employee exit, thus impacting employee engagement, organizational culture, and employee brand value. Organizations embracing AI must realize that it is not jobs that are being automated, but tasks. Organizations need to realize that automated job roles make way for job transformation rather than elimination.

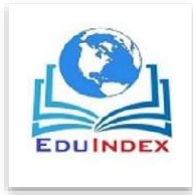


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