

# Artificial Intelligence - Challenges and Opportunities in Human Resource Management

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## Abstract:

For HR to stay up with the changing workplace, new platforms and technology are essential (think hybrid work models and a greater emphasis on diversity and inclusion).

Artificial intelligence is therefore becoming more and more common in HR operations thanks to its capacity for analysis, diagnosis, and prediction.

Every organisation must function in a certain context, and it is also impacted by changes to the environment. The influence of artificial intelligence on the digital era is redefining organisational and HR activities. Machines exhibit artificial intelligence, as opposed to human abilities, which have changed to develop a brighter future in the sectors by redesigning its designs.

The idea of using AI in HR is not new. Yet, as technology advances, it is increasingly a standard feature of tools and apps. However, while AI may speed up decision-making and streamline procedures, it also raises certain questions. When you choose how to incorporate technology into your organisation, be mindful of both its advantages and disadvantages.

Artificial intelligence (AI) applications may significantly improve both short- and long-term decision-making in human resource management (HRM) procedures. Academic study, however, generally highlights the benefits of A without addressing the negative effects of AI in conjunction with HRM.



## Introduction

Artificial intelligence and machine learning are becoming more and more common in a variety of sectors, including banking, marketing, healthcare, and biotechnology. Now, we are also seeing its usage in the human resources sector. It is changing how businesses handle their personnel and create HR strategies, which boosts productivity and employee engagement. Managing the workforce in firms is every HR department's top priority. AI promises to speed up this process by putting more emphasis on data analysis than on individual observations.

We must acknowledge that, despite our high IQs, humans have significant limitations in the modern world due to the rapid environmental change. In order to survive in this fierce competition, one must employ a computer. Employers are looking for youthful, tech-savvy individuals that are confident taking initiative and transparently sharing information in order to improve organisational performance.

This next technological revolution includes not only artificial intelligence but also IoT, Cloud, 3D printer, biotechnology, gene engineering, etc. Yet, AI is crucial to integrating all of these technologies, therefore that is where we want to focus our analysis.

With AI serving as a connecting thread, new digital technology is more hyper-connected than its predecessors. For instance, huge data must be evaluated by AI in order to be properly used, and AI is necessary for machines and robots to operate effectively. In this regard, AI is a symbol of the current digital transition.



**OBJECTIVES:**

- To study the role of artificial intelligence in human resource management
- To study the challenges of human resource while using artificial intelligence.
- Study the opportunities of human resource while using artificial intelligence
- To measure the ways to overcome the ai challenges

**ROLE OF ARTIFICIAL INTELLIGENCE IN HRM:**

In the future, AI will support HR in a variety of ways, including tracking employee engagement, assisting with professional development, matching workers to skills, tracking compliance with policies, verifying skills, conducting background checks, determining job fit, and assisting with talent discovery.

Data shows that discovering talent is literally like finding a needle in a haystack; there are over 1 million profiles, 9000 skill libraries, and out of 200,000 job descriptions, 14,000 are genuine positions, and there are 2000 Job Clusters.

The number of employees in organisations of the future will be relatively low. The majority of them will either work from home teams or as virtual or online workers (working on a project basis). One statistic shows that in the US, 77% of the population utilises the internet, and that 62% of internet users have Facebook or LinkedIn profiles, which enable individuals to contact with employers directly or indirectly and facilitate the acquisition of on- or offline jobs.

From hiring and onboarding through HR service delivery and career pathing, AI may be efficiently integrated throughout the whole employee lifecycle to create a customised employee experience.

**Frame of understanding for Change in Human Resource Management:**

new company models and strategies are made possible by digital technology. for instance, many of the top it companies have already chosen the platform method, and other companies are scrambling to find a platform where they can access the extremely valuable personal information of their clients. they are not only happy to obtain the knowledge, but also to get their attention so they may learn about their likes and tastes, which they are unaware of themselves. the businesses use this information to tailor their services and goods and provide them in real time. they choose the data for this using an ai system. a significant revolution in human resource management is necessary as a result of all these changes in company model and strategy. employee care must be handled on an individual basis in real time, much like how they handle consumers. to be successful with their new approach, they must foster more human resource that is nimble and innovative. on the other side, they must employ people more precisely and effectively. because of this, ht technology leveraging robotic process automation and hr analytics are crucial for them.

**Some of these applications:**

### **Recruitment & Talent Acquisition:**

Finding skilled people to join the team will likely result in the company's future development, making this a very crucial responsibility for the HR department. The most prevalent application of artificial intelligence in HR may be in the hiring process.

### **A new recruit's orientation:**

AI-based unified systems will introduce newly hired employees to company knowledge and rules on the first day after hiring qualified candidates. With the help of a mobile application or organised information on their laptop, new employees may access all the information they want, including details on their job description, company policies, task assignments, team members, and so forth. For this process, see onboarding.

### **Recruits' Training:**

with the use of AI development services, workers will be able to research and educate themselves on the proper duties and requirements. By offering knowledge on the most recent developments in software and technology, it will also help them keep up to date. The AI will automatically understand and provide the employee the right training by analysing the papers and examinations.

enhancing the working environment for employees

Due to the high level of automation and strong emphasis on customer experience, employees who participate in personalised engagement expect a positive and beneficial experience.

### **Examples of Artificial intelligence in HR:**

There are several AI products on the market nowadays that aid in the development of fresh HR trends. Only a few instances from the actual world follow:

- **Hiretual:** The use of AI in this solution allows HR departments to have access to applicant profiles by gathering information about candidates from internal and external databases. Moreover, it enables resume analysis and applicant engagement.
- **Paradox:** This technology assists in automating a number of recruiting-related processes as an AI assistant. Via social media, it communicates with applicants, sets up interviews, responds to inquiries from applicants, and reminds them of upcoming events. By doing this, candidates have a better recruiting experience and HR professionals may spend less time on boring and repetitive activities.
- **Koru:** To aid HR professionals in evaluating candidates' competencies, this software was especially built. The method employs artificial intelligence to rank and select the top applicants using data on the company's requirements and online pre-interviews with job searchers. In addition to saving the HR department time, this strategy ensures suitable matches for available positions.

- **Ellen app:** NextPlay.ai is the company that made this app. By locating workers who could benefit from a mentor, it helps businesses keep their best talent. A successful contact between the two is then facilitated by the AI-powered application, which matches the workers with the best mentor.
- **Spoke:** By using this application, HR professionals may spend less time responding to inquiries from staff. It assists in processing and providing responses to the most frequent queries, and if the query is too complex for the system to process, it may be automatically allocated to the appropriate HR representative.

## Challenges Of Artificial Intelligence In Hrm

### 1. Attracting and Retaining Talent

Finding and keeping top talent is one of HRM's most difficult tasks. In a very competitive employment market, businesses have difficulty attracting and keeping the best workers. This is especially true for positions that are in great demand, including those for software engineers, data scientists, and digital marketing experts.

### 2. Managing Employee Diversity and Inclusion

Managing staff diversity and inclusion is a key problem for HRM. Organizations must make sure that all workers are treated fairly and with respect in light of the growing diversity of the workforce. To do this, a culture of inclusiveness must be fostered, training and education must be made available, and bias and discrimination must be addressed.

### 3. Managing Employee Engagement

Managing employee engagement is a problem for HRM. It can be challenging to maintain employee engagement and motivation in the age of remote work and flexible hours. Lower productivity and increased turnover rates may result from this.

### 4. Managing Employee Data

HRM also faces the challenge of managing employee data. With the increasing use of technology, organizations must ensure that employee data is accurate, up-to-date, and secure. This includes managing employee information, performance data, and compliance with data privacy laws.

### 5. AI won't understand your company like you or a recruiter can

AI technology falls short when it comes to selecting people who would be a suitable match given the greater global perspective of the organisation since it lacks that same knowledge. However, AI lacks the expertise and intuition that recruiters acquire through years of employment. AI may or may not find significant links in a candidate's prior work that suggest they may be a noteworthy contender.

### 6: You might miss out on hiring outliers

Due to its lack of a human touch, AI may approve applications from candidates that satisfy all job requirements but aren't the best fit for the post. Using AI to cast a wide net is clever, but you need actively monitor the process to look for specific qualities you desire in a new recruit. Schedule a time for you and your team to interview each candidate individually, if required.

### **7: AI can't account for human emotion**

Companies don't only hire people based on their hard talents when making recruiting decisions. Also significant are emotional and psychological characteristics, such as drive and desire. For now, AI is unable to observe, assess, or take into account how human emotion influences behaviour. The impact of personalities and emotions on teams is another area where AI falls short. When given the duty of recruiting a new team member to join an existing one, AI is unable to understand the subtleties of team dynamics and how different personalities get along. You and the crew enter the picture here. A poor recruiting and employee assessment procedure results from AI's lack of prior knowledge of complicated human emotions. For genuine employee assessment, use it sparingly and delegate the task to your team.

### **8. AI lacks ethical responsibility:**

Today's HR teams must be ethically responsible, especially when it comes to employing minorities, responding to sexual assault, and other contentious problems. AI can unintentionally become prejudiced and lacks the ethical standards that HR must respect. Artificial intelligence "learns" from the algorithms it uses. It is possible for AI's machine learning process to pick up the prejudices of its programmer even if the programmer isn't aware of them. A company's talent acquisition procedure could accidentally be prejudiced if it uses biased technologies. HR executives and the HR staff must assume ethical responsibility since the technology cannot be held liable for the prejudice if the recruiting process is ever criticised or questioned.

### **Opportunities In Human Resource Management:**

#### **1. Using AI can improve efficiency in the recruitment and hiring process :**

Every year, hiring managers interview hundreds of candidates and fill multiple positions with individuals. By easing the administrative load, AI may help organisations have more time and resources.

#### **2. AI can better identify “soft skills” that can be difficult to determine in a resume or interview alone:**

AI technology can assist hiring managers in more accurately evaluating non-technical qualities like diligence, teamwork, and attention to detail. A candidate's response to situations like a simulated customer contact or sales presentation is examined to see how well they employ inductive reasoning, logic, or mental agility. This is done by using AI technologies for psychometric testing.

#### **3. AI may help to reduce natural human bias and can connect more candidates with opportunities that are right for them:**

Human decision-making is inevitably biased, therefore removing part of it from the recruiting process should theoretically assist to lessen prejudice (more on this later). Employing managers may access a

wider range of prospects thanks to AI technologies. For instance, the Jobs Ability Canada programmes run by the Ontario Disability Employment Network effectively pair disabled people with positions that match their qualifications.

#### **4. Streamlining hiring and removing biases in recruitment:**

At now, it's difficult to find fresh personnel. If you wait too long to discover the ideal applicant, they could already have found a job.

AI may reduce the amount of time you spend sorting through data and doing typical recruiting operations, such as reviewing resumes, organising interviews, and responding to inquiries from applicants. To make sure you choose the best candidate, it may also remove prejudices.

#### **5. Simplifying hr functions:**

AI technology may improve the HR experience for employees and managers since it is available around-the-clock and can take the place of human mistake in routine procedures. To avoid requiring employees to contact HR directly to schedule their time off, you might automate the PTO request process. The system may inform the worker immediately whether they have a chance of getting it authorised.

#### **6. improving onboarding processes:**

By simplifying and automating much of the required labour, AI may make things simpler. For instance, it could

- Automate the verification of employee records
- Control employee hardware or account access requests
- At important stages of the process, respond to questions.
- Provide corporate guidelines and regulations.
- Describe to new recruits the team they will be joining and any specific duties they will be performing.

#### **Ways to overcome the AI challenges:**

1. Although addressing the algorithmic bias might be challenging, there are numerous approaches. Do not exclude labelled data from several groups because it does not match other instances if it is typical of those groups. Instead, you should combine techniques learned from smaller datasets and use those datasets as training examples for a bigger ensemble model. This method enables you to build a stronger model. Also, the ensemble's numerous algorithms balance out each other's biases and mistakes to provide a forecast that is more accurate.

2. Enterprise cloud solutions or private/permitted blockchains can be used to address the data security issue. You should also use AI to protect your private data, such as anonymizing your health records to use machine learning predictions without jeopardising your privacy.
3. Doing smaller data trials on public clouds is advised, nevertheless, if you have an urgent business requirement to solve with artificial intelligence. This will allow you to see how these systems perform in real-world settings and achieve quicker results.
4. Privacy is among the most important ethical problems facing AI. Your privacy rights in this technology are not now covered by any government rules. Hence, since it would be acting on your behalf, an AI system that you utilise to carry out a certain task for you may also gather information on you without you being aware of it.
5. In order to overcome this problem, you should strive to separate your sensitive data and make sure that it is only accessible by the specific system it requires. Use methods like homomorphic encryption to keep your data safe and private even while transferring it across a network.
6. You should start creating your AI strategy by investing in the personnel and technical expertise required to create AI applications since artificial intelligence is a technology that is here to stay. Finding experts that have the necessary skill set to develop a unique artificial intelligence solution for your company may seem challenging at first due to the current lack of competent engineers in this industry.

You should establish connections with regional institutions and AI educational platforms to discover fresh developers knowledgeable in this field in order to address this sort of problem. To recruit top technical talent for your business' AI projects, look into other choices like the apprenticeship programmes operated by Google, IBM, Microsoft, etc.

7. It is difficult to understand the inner workings of a certain algorithm since the underlying technologies, such as deep learning and machine learning, can be tough to master even for seasoned engineers. In order to debug your models if they aren't operating as intended, for instance, you might require professional help because there isn't enough transparency in how neural networks learn from datasets. You should adhere to recommended practises for creating AI applications when adopting AI to tackle this problem, such as establishing clear criteria to gauge model success and selecting simpler methods. employing conventional dataset formats, etc., if you are a novice developer. Moreover, try debugging your models on your platform's special features without professional support.

### **Recommendations:**

With or without AI, it's still Human Resources Management: Humans cannot entirely be replaced by technology. Even AI-based systems that automate work were created by humans and are thus subject to mistakes.

There is a place for AI in human resources. All you have to do is keep in mind the essentials so you may benefit from all of its advantages while avoiding any potential risks. Create and employ AI systems with equality and empathy in mind, and take the necessary security safeguards.

Over three-fourths of CEOs worldwide, according to a research by me (Harshit Tiwari), foresee "substantial industrial upheaval" in the coming three years, a major rise from the 2023 report. They believe it is especially noticeable in the fields of biological sciences, consumer products, and energy.



pointed out that the World Economic Forum anticipates these technologies to generate a net 58 million new employment by 2026, despite the fact that more than half of respondents expect AI and automation to replace 20% of the present positions in their organisations.

### Conclusion:

According to the study mentioned above, it may be inferred that the implications for organisational performance warrant further research. Consideration should be given to whether AI really is needed. AI should be utilised as a tool to further human knowledge rather than as a problem solver or function to make difficult decisions for all HR activities. It will take some time for problems to be solved and advantages to be realised, just like with a new technology. Also, it has been determined that human interaction is necessary to assess the distinctive features and decisions made by AI. While deploying AI, it is crucial to focus on employee needs and potential results.

The top 10 barriers that might impede your company from accomplishing its AI objectives have been discussed in this post, along with some practical solutions. Your chances of successfully implementing artificial intelligence technology across all facets of your business will increase the earlier you can address these AI-related difficulties.

The industrial sector has seen phenomenal expansion in today's competitive world. Industry leaders face hurdles in managing continual improvement. To improve the majority of sectors are adopting current technology for speed and regular labour. The majority of researchers and professionals also advise firms to adopt digital and artificial intelligence tools.

Several businesses utilise artificial intelligence and machine language in their human resource departments, where it plays a crucial role in recruiting, firing, performance analysis, data collection about personnel, real-time information, and correct information.

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