

## Artificial Intelligence: A Comprehensive Overview on An Integration of Computer Aided Design and AI Tools For Enhancing Employee Experience

**Anjali Raj**

<https://orcid.org/0000-0002-2437-3931>

Ph.D. Candidate, Department of Personnel Management & Industrial  
Relations, Patna University

**Corresponding author:** Anjali Raj

Ph.D. Candidate, Department of Personnel Management & Industrial  
Relations, Patna University

ONOMÁZEIN 63 (March 2024): 1-15  
ISSN: 0718-5758



## Abstract

Human Resource or Human Capital Management has now reached its inflection point. This is because of the last two years of the pandemic, which has made things move faster. Technology has a bigger effect on the future of work and the workforce than it did in the past. Organizations have now adopted all the facilities that are technology driven. Technologies such as Artificial Intelligence, natural-language processing (NLP), and machine learning (ML), chatbots process data and will have a greater impact on the Human Resource Department. Deep learning (DL) is a fundamental technology in the current Fourth Industrial Revolution, which encompasses machine learning (ML) and artificial intelligence (AI). In the coming future, the adoption and integration of technology with business will become one's survival rather than a matter of choice. These advanced breakthrough technologies in business will bring robots and humans closer together, as well as it will help in investigating ways to use it in order to boost productivity, convenience, and efficiency. The Human Resources (HR) department isn't far behind either. Human Resource (HR) professionals are increasingly emphasizing the significance of maximizing the combination of human and automated work to have an intuitive work environment. Human Resource (HR) professionals are now preparing themselves for this technological advancement that will alter their company and workforce characteristics in the coming future. The purpose of the study is to make a comprehensive study on about how the use of AI/ML can impact on HR and how are they useful in transforming the workplace. The research is solely based on qualitative nature which requires a detailed study about AI, ML at workplace. The purpose of this piece of writing is to investigate the ways in which artificial intelligence (AI) can have an impact on human resource management (HRM) and to arrive at a particular definition of AI in HRM. In addition, the author explores the uses of AI in HRM as well as the existing academic foundation for the implementation of AI in HRM. In this paper the author has highlighted the significance of AI application models for HRM. This observation will enlighten policymakers regarding the benefits and importance of integrating AI into HRM.

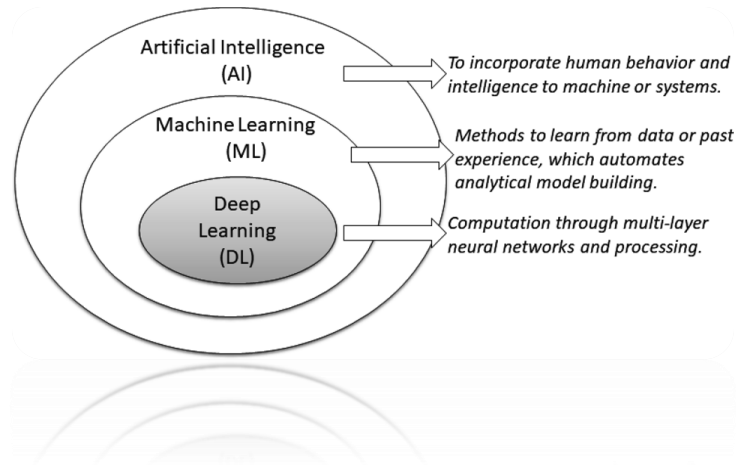
**Keywords:** Artificial Intelligence; Machine Learning; Natural-Language Processing; Human Resource; Technology Advancement; Deep Learning

## 1. Introduction

Artificial Intelligence plays a vital role in developing and transforming the function of Human Resource in the organization right from procurement to performance management. Currently, we are at the forefront of automation and its application to HR operations. With its changing time, emerging technologies are currently being used in most of the departments to automate and improve basic HR processes like recruitment and selection, onboardings, data collection, performance management, & maintaining current records of every personnel. Machine learning is a part of Artificial Intelligence that provides machines the ability to grab the activity of human by use of repetitive data. Machine Learning helps in identifying the activity of human and derives all the insightful information by leveraging algorithms. Artificial Intelligence (AI) and Machine Learning (ML) are two related technologies that have the potential to revolutionize HR. A number of organizations have already begun to integrate AI into their HR departments. Virtually all business owners rely on technology to launch and expand their enterprises. Nonetheless, the correlation between technology and business is not a new concept. Traditional sectors such as process control, quality improvement, and customer retention have already been replaced by new and enhanced concepts in HR management such as business process re-engineering (BPR), continuous improvement and comprehensive quality control, and customer relationship building among others.

Regardless of the size of the business unit, technology offers both tangible and intangible benefits that will help in increasing profit and in satisfying the need of customers. In coming era human seems to more reliable and dependent on machines. An assumption about having machines at workplace it will help in reducing biasness among human. There is no doubt that technology will make work easy and quick in coming future but there are also some disadvantages that we could highlight of having wide use of technology. The Human Resource is the prime function in any organization. Every other organization is moving towards automation and digitalization. The goal of artificial intelligence (AI) is to simulate and mimic human problem-solving abilities. Artificial intelligence is crucial and beneficial, and it has computational methods for carrying out activities that require human intelligence. There are applications that are invented which currently being used by various organizations. The most significant technology that will going to rule the HR department is (AI) Artificial Intelligence, Machine Learning (ML), cloud computing. These three technologies are going most likely to cite in upcoming year. Any business's ability to succeed depends on how well its people, procedures, and technology work together. Several time-consuming administrative processes are being automated with the aid of AI and ML, and the HR sector is undoubtedly embracing the technology. As per the research study conducted by the world's largest technical profession organization "IEEE" Institute of Electrical and Electronics Engineers defines that many technology leaders had their opinion on because of global pandemic in 2021 the adoption of cloud computing, AI, Machine learning, 5G, (AR, VR and MR) Augmented Reality/ Virtual reality/ Mixed reality has been accelerated said by, "Tom Coughlin"2023 IEEE president. All these modern technologies will help to see the world with the reflection of digital elements. It is

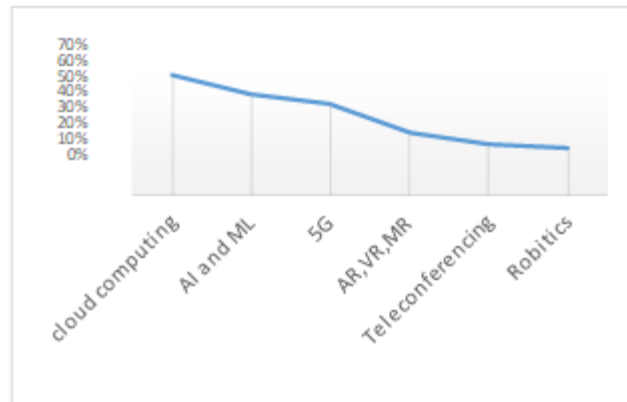
therefore not unexpected that there is broad consensus that in the next one to five years, AI will be the primary driver of innovation across almost all business sectors. It is therefore not unexpected that there is broad consensus that in the next one to five years, AI will be the primary driver of innovation across almost all business sectors.



**Fig. 1 An illustration of the position of Artificial Intelligence**

An interesting fact to know about technology such as AR, MR, and VR is that this technology will blend physical and digital world together. The virtual continuum is a set of ideas that will help you to see and understand the differences between technologies that are already out there and those that haven't been made yet. Current (XR) Extended reality technologies based on how immersive they are, it acts as umbrella which includes AR, VR and MR. These technologies are known as immersive technology. This technology refers to a new way of creating, displaying and interacting with application & content. The user can interact with both digital and real things in MR experiences. AR, where digital and real things don't interact, and VR, where the real world is completely blocked out, and which is not the same as MR. We are stepping into the future of work place with high end AR & VR technology. The set of AR, VR and MR will be more seen in business for data visualization and manipulation in 3D, Teleportation-virtual meeting with having experience of 3D conferences, employee training.

The graph shows the upcoming trends of digital transformation. AI technologies will drive majority of innovated technology nearly in every industry sector. Immersive technologies are quickly becoming the part of our daily lives and they are here to stay not only to enhancing human experiences but helping brands market their products effectively and successfully to attract their target audiences. From gaming to buying furniture immersive technologies are taking the world on top not only this it will also set up a



**Fig. 2 Digital Transformation**

new approach which will enhance HR practices. Another digital important part of digitization is metaverse. Metaverse is nothing but just an interactive online space that human can access with the help of a VR headset. Metaverse wouldn't replace the internet but it would be an iteration of internet. This application is just going to make our real world more interesting. Instead to just texting a friend with the use of Metaverse people can meet them by having their avatars online. It will create a physical touch of things we see on internet even if it's not in real. This will also help in future to meet the co-workers digitally even if they are not present physically.

DL is a subset of ML and AI with respect to its functional domain; therefore, it can be regarded as an AI function that emulates the data processing capabilities of the human brain. DL technology, which originated from ANN, has emerged as a fundamental technology in the pursuit of accomplishing the objective.

A conventional neural network consists primarily of numerous neurons, which are simple, interconnected processing elements or processors. For the intended result, each neuron produces a sequence of real-valued activations. Numerous disciplines and research domains have adopted neural network-based DL technology at present, including but not limited to healthcare, sentiment analysis, natural language processing, visual recognition, business intelligence, and cybersecurity. A comprehensive overview of these applications can be found in the concluding section of this paper.

The metaverse in future will allow us to collaborate with many other things. Online shopping would also change with personalize avatars that can try on clothes online by the use of metaverse. The metaverse in a broader sense may not only refer to virtual words but, internet as whole including the entire immersive spectrum of augmented reality. It is a great experience of knowing that we could actually be inside of an internet rather than just looking at it. Avatars could walk actually around in cyberspace similarly to how people maneuver the physical world, allow users to interact with people on other side of the planet as if they're in the same room. The metaverse will take the same greatness that the internet brought us in the way to support, except adding of the physical appearance and a feel of real-time interaction. To have this experience of

virtual world everybody would want to have headsets, so it's important to have this technology needs to be trendy & nominal in costing so that it could attract more people.

However, several large organizations are still rushing down over metaverse. With this metaverse vision in mind, Facebook acquired Oculus in 2014 and launched new product group to create the new 3-D social space to connect diverse services. To acquire such technology, we will definitely require more competent and willing workforce so that they could handle issues related to immersive technology. An AI is going to open new chapter of society of the world that people try to understand ourselves better rather than outside world. AI is an autonomous system. Technology will have the most of an effect on manufacturing, financial services, healthcare, and energy.

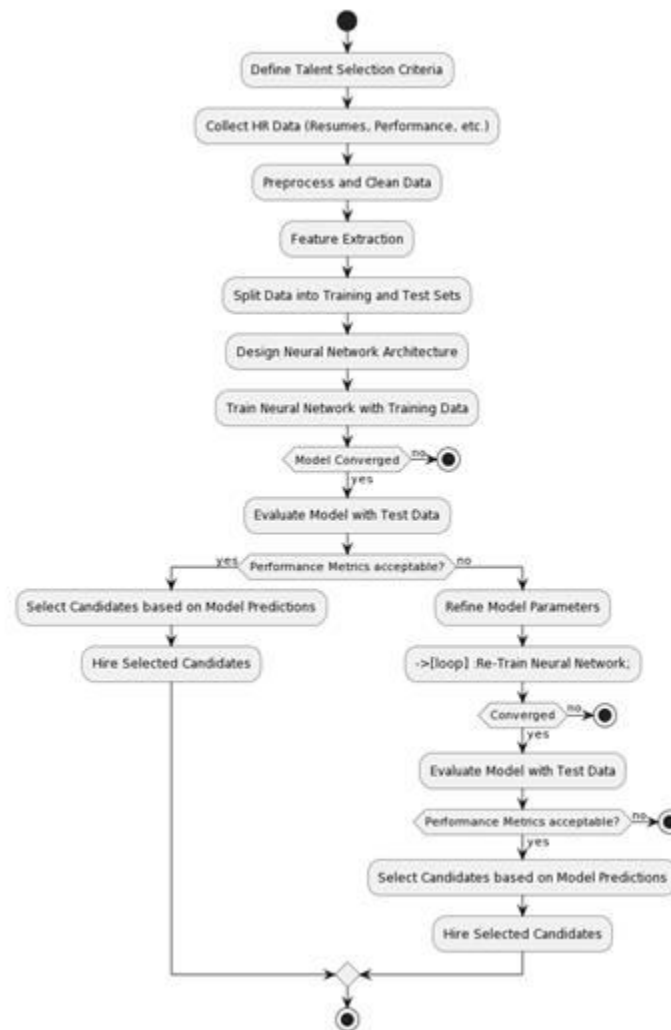
Pillai & Sivathanu (2020) looks into how by adopting Artificial Intelligence driven technology is going to change the way that ability is acquired. They give HR managers crucial information to compare AI talent procurement technology. By expanding the technology adoption model (TAM) with the aid of context-specific variables, artificial intelligence (AI)-powered chat bots are becoming fully utilised for hospitality and tourism in India. This is an actual usage AUE of AI-powered chat bots, designed to comprehend the behavioural intentions of customers. (Pillai & Sivathanu, 2020).

Merlin & Jayam (2018) analysis secondary research data to examine the possibilities of how AI-driven technology is transforming and assisting HRM functions such as recruitment, training, talent management, and retention. (p & R, 2018). Geetha & Reddy (2018) showed that how AI influences the recruitment process by highlighting the use of AI in recruitment methods based on secondary sources of information and Jain (2017) explains how adopting AI in HR, marketing, finance, and manufacturing could lead to a digital transformation. (bawak, wamba, andre carillo, & akter, 2022). In computer science-related journals like Future Generation Computer Systems, International Journal of Interactive Multimedia and Artificial Intelligence, International Journal of Computing and Informatics, The Scientific World Journal, International Journal of Networked Business, International Journal of Pure and Applied Mathematics, and many others, hundreds of articles have been published. Most articles deal issues related to artificial intelligence and human resources. Newspaper articles and books based on AI and HRM were also referred during the analysis.

## 2. AI, NPL and ML in HRM

Over the past two years, there have been several shifts in the way we do business. Since the pandemic has hit the world, many companies have started to transform their style of work. A new way of work has been introduced by creating a digital platform. The HR department has been working under immense pressure to be able to keep updated with these quick changes. The of HR department was to add more values to its people and organization. Organizations are now increasingly adopting new technologies that will be beneficial for HR to departments to automate and streamlined processes. AI has that potential to bring positive results in HR department. Beyond process of automation and simplification, Artificial Intelligence will help to examine a variety of data and inputs related to employee behaviour in order to identify trends and produce insights that help

decision-makers make wise choices quickly. The next generation style of work place will totally be reliable and controlled by AI. This advance technology is one of the fastest growing techs over past three year. AI is driven by many emerging technologies like ML, NPL and of course the availability of data. The process of hiring alone generates plenty of records which must be maintained, monitored, and readily accessible.



**Fig. 2 The neural network process in talent selection**

This acquired information should be linked with other basic HR functioning procedures, such as performance evaluation, onboarding, and compensation administration. Earlier these data were processed by teams which are already overburdened by the sheer volume of their job so the good news is that AI can assist in this situation. AI can assist HR workers in analysing vast quantities of data, extracting meaning, and providing insights more effectively. In coming years HR will utilize AI and ML in a number of significant ways, including the application of data science to streamline the sourcing and screening of more eligible personnel. In above figure it illustrates about the general process for using neural network model in hiring employee. The process of neural

network makes hiring the right candidate based on the pre input data followed by the applied formula to train neural network. The neural network selects candidates based on models' prediction.

This new generation of technology will definitely lessen the contribution of human as machines would be consider as more relevant and unbiased than human. When hybrid-HR software is put in place, it will use an organization's data and AI to offer insights. Economic, political, social, and notably technical advances have made HRM into a strategic trend in organisations; nevertheless, not all departments have accepted this new role, due to strategic positioning is still slow and occasionally becomes problematic. In these circumstances, integrating AI-based technology necessitates in keeping up with society's other dimensions of evolution. The role of an AI will increase the efficiency, proficiency & transparency in various HR function by making various management process agile and accurate. AI-based technology makes it possible to comprehend and manage the data collection process. The various HRM components in an organisation where AI is starting are: (1) Hiring, (2) training & development, (3) performance analysis, (4) career development, (5) compensation management, (6) labour turnover. (Qamar et al., 2021a) studies on implementation of AI in HRM via following usage of techniques in various organisation.

**Expert Systems:** A computer programme designed to configure expert knowledge into logical structures that solve unstructured problems and help develop complete information systems by providing easy access to knowledge. It is primarily utilised in HR planning, compensation, recruitment, and labour administration.

**Fuzzy Logic:** This method is applied in a variety of study domains. Fuzzy logic is an area of mathematics and artificial intelligence that deals with inference and judgement in uncertain and imprecise settings. Fuzzy logic can quantify data uncertainty and predict future situations using these sets to aid decision-making. (Qamar et al., 2021b) (Berghaus & Back, 2017)

**Artificial Neural Networks (ANN):** Neural networks form the base of deep learning, a subfield of machine learning where the algorithms are inspired by the structure of the human brain. A neural network takes the data, trains them, recognises patterns in the data, and predicts the output for a new set of similar data. A network designed to simulate the human learning process. ANN are present in many smart phone's applications that human uses voice to types, Siri, Alexa. It is one of the most well-known prediction methods and is primarily employed in selection, recruitment, and personnel performance management. (Qamar et al., 2021a, p. 8)

**Machine Learning:** AI field leveraging statistic where a system "learns" based on new data and the results of previous predictions. System teaches itself to recognize patterns and maximize outputs.

**Table 1: Digital Revolutionary Transformation at Workplace**

HR concerns	IT Solution proposed
Talent Acquisition & Skill Management	Natural language processing, speech and image



<b>Employee Attrition prediction</b>	recognition, Signal processing and data visualization, web scraping, SAP, SPSS, excel, oracle HRM, structural equation model.
<b>Employee's turnover</b>	Support vector machine (SVM), Random- Forest (RF), SEMMA methodology a business intelligence software, neural network, Data Mining.
<b>Boost performance, effectiveness, productivity, and talent in human resources</b>	SPSS statistical software, RF, SVM, Extreme Gradient Boosting (XGBoost), sequential backward selection algorithm (SBS), Minnesota satisfaction questionnaire (MSQ)
	Human resource information system (HRIS), oracle fusion workforce prediction, neural network, iThink software, RF, Intelligent decision support system, cross level model.

The above table shows the IT solution for issues related to human resources. According to an analysis of several research, it is evident that several approaches to changing the workplace have been put forth. Electronic HRM refers to the combination of HRM and information technologies (Bondarouk & Brewster, 2016). The many algorithms and techniques provided by artificial intelligence contribute to the transformation of the workplace. (Berhil et al., 2019). In recent times, the implementation of computer equipment advancements has facilitated the integration of information technology (IT) into various domains of administration, most notably the Human Resource Information System (HRIS). HRIS is a subset of management information systems that encompasses all data pertaining to human resources. Promoting data maintenance and access is the most recent application of information technology, which serves to increase the competition among supporting and decision-making systems. Furthermore, knowledge regarding the information sector applications of artificial intelligence (AI) has increased for all.

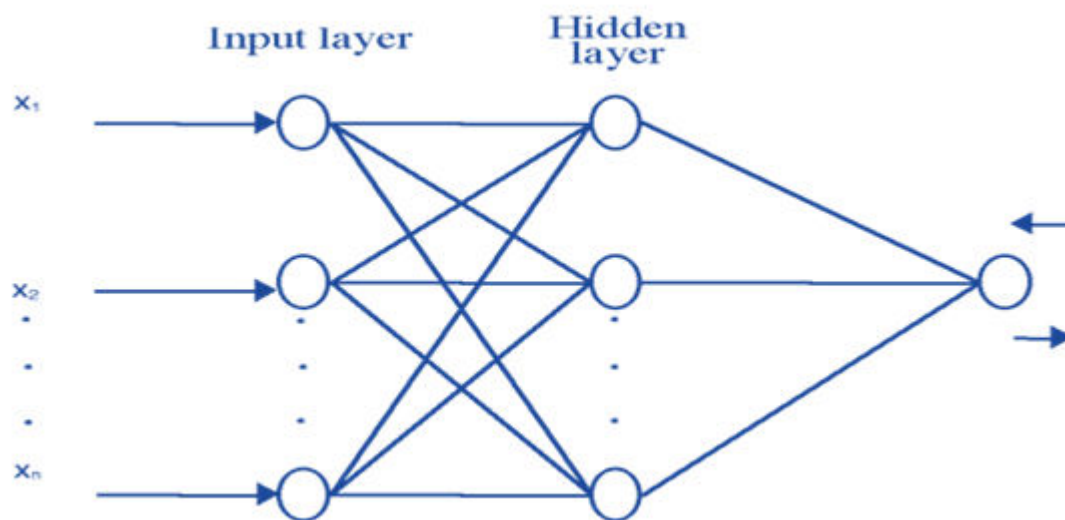
Promising applications for various human resources management tasks, such as compensation, profit administration, employment, training, and human resource planning, have emerged within the realm of AI technologies, where expert systems have emerged. Despite the fact that artificial neural networks (ANNs) have demonstrated numerous prospective applications in engineering and management, they are not yet widely utilised in HRM. Also, ANN in HRM can be used to predict the turnovers in future in organisation with the help of input data provided. Artificial neural networks (ANN) are a type of information processing system that connects several information processing units with the use of variety of mathematical models. An information provided by ANN will help to improve management decision making. The term "employee turnover" refers to the voluntary resignation of workers for reasons of personal significance. There is a possibility that these reasons are connected to historical employee data, which may include factors such as age, seniority, compensation, credentials, job, gender, and family considerations. Utilising data from a single employee that is based on artificial neural networks (ANN) might uncover very complicated patterns of employee turnover. The neural network creates a predictive and learnable system using a straightforward three-layer architecture: processing element, layer, and network. There are also other circumstances that decision-makers cannot handle when they are faced with

complicated and non-linear problems. Therefore, the neural network system provides a more impartial and remedial assistance system.

The process of networking broken down into two distinct categories, which are as follows:

(a) Learning: a learning algorithm that is based on learning instances to learn from in order to alter the process of connection weight

(b) Recall: In order to determine the output of the network based on the input data, the recall algorithm is used.



**Fig. 2 A neural network's processing architecture**

### 3. Aims and Objective of the study

The main objective of this research is to study the role that AI and ML contributes to the improvement of human resource department. In order to restrict the scope of the study the author has used keywords related to the study. Qualifying phrases are utilised in order to accomplish this objective. A significant portion of this investigation was centred on scholarly writing, which included papers published in journals and essays that were published. During the course of the research process, a variety of keywords were utilised in order to investigate a number of internet databases. It is important to highlight that the scope of this research is restricted to papers, journals, and publications that are seen as being pertinent to the subject of the role that AI and CAD play in improving the HR department. Papers, journals, and magazines that did not have a direct relation to the topic matter were not included in this study as they were not considered relevant. The current inquiry concerns itself with qualitative research. Also, the aim of this paper is to serve as a reference for academics and professionals in industry and academia who are interested in conducting research and developing intelligent and driven by data systems for workplace transformation.

### 4. Methodology

This study seeks to give a comprehensive analysis of existing papers on how artificial intelligence (AI) and machine learning are beneficial for transforming the workplace with the invention of advanced technologies in the field of HRM. The aim of this study is to provide a well-structured and systematic review by analysing previous research and reviewing papers from reputed national and international journals, including Web of Science and Scopus. This paper has a qualitative approach. It is essential to use this technique in order to create "a reliable knowledge stock" and advance "context-sensitive research." Throughout the data collection process, two methodologies were implemented: active listening and thorough documentation of all pertinent information.

## 5. CAD & AI Technology Revolutionizing

5.1 Robotic Process Automation (RPA) is the use of software with Artificial Intelligence and Machine Learning capabilities to handle high- volume repetitive tasks for which previously it required humans to perform. Some of these tasks include addressing queries, making calculations, maintenance of previous records. The working of RPA includes 4 crucial phases such as planning phase, development phase, deployment and testing phase and support and maintenance phase. Each phase has its own role & responsibility. This AI technology will help to attract the adequate number of personnel in organization and will replace unnecessary workforce. Some of the popular tools are in the markets are UiPath, Automation anywhere, blue prism, Work Fusion, PEGA and Redwood. These tools help in facilitating the functions of RPA in a better way. Today many domains and industries like, Banking and Finance, IT integration processes, Human Resources, Insurance agencies, marketing and sales and customer relation management are readily deploying RPA. Industries which are labour intensive will get the benefits of it most as it will reduces excess time and cost.

5.2 Cloud computing is the most popular practices which is involving internet to store and manages the data on internet. It allows paying for only how much we'll use in terms of storing data or for scaling up or down for organization development. The cloud computing comes with data security and also gives facility of data recover in terms of data loss. It also refers to managing files and services done on internet in a cost-efficient manner. This will act as a great solution for HR's as it comes with security and easy to manage all the data of organization.

5.3 TurboHire is again an AI invested tool used in most of the HR department for better hiring. It is one of the world's leading best applicants tracking system, which uses augmented intelligence to assist recruiters make better talent decision. An intelligent talent discovery & Interview platform that will assist HR in hiring talent with smart, data-driven, cost- effective and faster search. This application reduces time to hire; also, it will reduce cost, and improves quality of hiring. This platform has a combine power of talent intelligence, interview automation, applicant tracking for faster and better hiring decision. "TurboHire" is transforming the way of recruiting with help of AI, NPL, and data sciences.

5.4 Chatbot is a virtual assistant that replicates human interaction with candidates and employees in order to automate operations such as screening candidates, scheduling

interviews, managing employee referrals, and more. Chat bots can supplement or even replace face-to-face interactions between employees and HR personnel. Workers can get answers to basic questions such as holiday schedules and job opportunities 24 hours a day, seven days a week. Chat bots are not only cost effective, but they also save time. Chat GPT is one of the leading Artificial Intelligence software examples of Chatbot developed by Open AI.

5.5 CogniPay another AI-powered application, assists managers in making better compensation decisions by analysing data on performance, what other businesses pay for similar occupations, and the demand for similar abilities. The research also considers internal forecast demand for their knowledge as well as the voluntary turnover of individuals with similar talents. AI can also help in improving hiring by using methods like "vocal analysis" and reading "micro expressions". It will help to identify traits that are similar to those of high-performing employees. AI tools can also be used to improve other processes, such as reward and performance management (handling the bonus round, dealing with appraisals, or managing job evaluations). Perhaps more importantly, the technology can be used to make analysis easier, such as looking for key training needs for employee development or spotting gender bias in performance evaluation.

The management of qualitative data will also improve analytical processing. Using mobile applications that give both free text and structured data will improve the timeliness and consistency of feedback. As a result, there will be just-in-time client feedback on HR services as well as feedback in response to organizational or HR policy will be announced. Instead of being one-way or passive, communication will become more participatory and dynamic. Innovative technologies such as ML and AI are being used in all areas of business. Human resource and recruitment are the only areas of business where AI will help businesses of all sizes.

## **6. How Unilever uses AI and ML in their Recruitment**

It is one of the world's largest (FMCG) consumer goods companies with over 400 brands and they employ more than 170 thousand people across different countries and they recruit globally 30,000 people a year. They receive more than a million applications worldwide for jobs. One of the massive operations is going on in order to recruiting people with all the procedure from recruiting people to interviewing, training etc. Unilever uses (AI) artificial Intelligence and (ML) Machine learning to streamline these processes and to make better and more cost effective. By using AI and ML this company recruit several employees every year globally. They partner with two big companies "Pymetrics" "HireVue" to make procurement process better. Unilever first thing they design for recruitment process that it starts with "online gaming".

Candidates are asked to play a series of games designed to assess their aptitude, logic, and reasoning, as well as their willingness for risk. By comparing their profiles to those of previously successful employees, machine learning algorithms are then used to assess their eligibility for whatever post they have applied for. The next step in the process is to submit a video interview. Again, the assessor is a machine learning algorithm rather than a human. The system analyses recordings of candidates

answering questions for roughly 30 minutes and evaluates who is likely to be a good fit using a combination of natural language processing and body language analysis. Once the online interview is done, they get invited to the assessment centre where after completion of all the procedures this is a process where the candidate gets interaction with the real recruiters. In this assessment centre the recruiters will decide further to these selected applicants whom to select. This is a fascinating process which will take out all the biased recruiters because of the machines programme which will totally depend upon human behaviour. Also, the feedback form filled by applicants will help machine to determine cognitive ability of person.

## 7. Application of Artificial Intelligence

Our daily lives are influenced by AI in a variety of ways, whether it is through health monitoring apps, Google Maps, or personal assistant apps like Siri, Google Assistant, Cortana, or Amazon Alexa. People are becoming more and more obsessed with this programme. Additionally, AI is now being used in academia to verify language and grammar using tools like Grammarly. AI is being used by many people for translation during virtual meetings, academic study, and research work by scholars. For interpreting from one language to another, Skype's Translator provides translation in numerous languages. AI is useful for capturing conference call audio and footage. An example of an AI-chatbots that enters note-taking tasks and emails the notes is Clarke.ai. Nowadays, AI is used in every area in some capacity.

HR professionals are now managing applicant applications, screening resumes, communicating with candidates, and scheduling interviews using AI-based software apps. Organizations are using a variety of AI programmes to handle all phases of the employee life cycle, including compensation management. Nowadays, shopping centres use AI tools to help customers. Examples of AI-based shows are those on Netflix, Amazon Prime, or other OTT platforms. Whether we want to admit it or not, AI has a significant effect on both our personal and professional lives. AI has altered how people labour and live. We are able to work more effectively and efficiently as a result. Work, the workforce, and HR are being transformed by AI.

The relationship between management and workers, as well as quality, compliance, and transparency, are all being improved by AI. We already use AI in our daily lives, but most of us are not conscious of the underlying technology. AI technology is responsible for all the automatic recommendations and forecasts we receive on our smart phones. Businesses anticipate that AI will expand rapidly over the coming years. (Johnson et al., 2020)

## 8. Conclusion

AI has excellent application in a vast array of fields. The incorporation of Artificial Intelligence into business will create boundless prospects. In future there will be limitless opportunities for AI particularly in the field of Human Resource Management (HRM). Human Resource will deliver integrated orientation, experience, and real-time solutions as a result of the digitalization and automation of HR tasks. Globally, the

integration and deployment of immersion technologies have already transformed the work of a Human Resource managers from a manual administrative work into more challenging role. AI will bring more transparency towards work at workplace. This transparency will be essential in making employee trust towards new technology. It will remove all the biasness as all the necessary things will be done but machines. There are many advantages AI technology in future but there could also be some drawbacks of it, i.e. this advance technology will lack behind in showing empathy and will fail to have human interaction in order to get to know them personally before hiring. AI can bring result based on data given but could not sense human emotion. The beauty of the AI market is that there is a solution for every business, irrespective of size, objectives, or budget. Therefore, it depends upon HR to decide if AI technology is the right solution to use for business perspective. This is a fastest growing technology which will modify traditional ways of recruiting of human resource in organization.

## 9. Suggestions

AI technologies are advancing rapidly as a result of a rise in computing power, and an increase in the volume of data, and a deeper theoretical understanding. Organizations must comprehend the implications of this transformation. However, the interaction between people and technology in the workplace is very scenario-dependent, and responding to the situation is essential for maximizing the positive potential and minimizing the negative side effects of AI. It is very important to clearly define aims and desired outcomes. An AI, for instance, is merely a cost reduction or value addition/service that will only improve exercise and streamline the service. HR should focus on business requirements and not technology specific. Recognize your digital talents and weaknesses, as well as your development potential. Establishing strong personal and professional ties with the IT department will be helpful for organization. Changing and learning capacity will definitely boot “HR” team Motivation.

Having transparency will ensure that the operation of AI is publicly known. HR should focus on numerous incremental improvements rather than pursuing a radical transformation.

‘Our future is a face between the growing power of our technology and the wisdom with which we use it. Let’s make sure that wisdom wins. - (Hawkin, 2018)

**Declaration of competing Interest:** The author certifies that there is no competing interests with regard to this study.

### Abbreviations-

AI- Artificial Intelligence

ML- Machine Learning

HR- Human Resource

HRM- Human Resource Management

HRIS- Human Resource Information System

NPL- Natural Programme Language

XR- Extended Reality

AR- Augmented Reality  
 VR- Virtual Reality  
 MR- Mixed Reality  
 BPR- Business Process Re-engineering  
 TAM- Technology Adoption Model  
 IEEE- Institute of Electrical and Electronic Engineers  
 FMCG- Fast Moving Consumer Goods  
 IBM- International Business Machines  
 RPA- Robotic Process Automation  
 R&D- Research & Development  
 OTT- Over the Top  
 SHRM- Strategic Human Resource Management  
 CAD- computer-aided design

## References

1. Abdel-Basset M, Hawash H, Chakraborty RK, Ryan M. Energy-net: a deep learning approach for smart energy management in iot-based smart cities. *IEEE Internet of Things J.* 2021.
2. Aggarwal A, Mittal M, Battineni G. Generative adversarial network: an overview of theory and applications. *Int J Inf Manag Data Insights.* 2021; p. 100004.
3. Al-Qatf M, Lasheng Y, Al-Habib M, Al-Sabahi K. Deep learning approach combining sparse autoencoder with svm for network intrusion detection. *IEEE Access.* 2018;6:52843–56.
4. Ale L, Sheta A, Li L, Wang Y, Zhang N. Deep learning based plant disease detection for smart agriculture. In: *2019 IEEE Globecom Workshops (GC Wkshps)*, 2019; p. 1–6. IEEE
5. Amarbayasgalan T, Lee JY, Kim KR, Ryu KH. Deep autoencoder based neural networks for coronary heart disease risk prediction. In: *Heterogeneous data management, polystores, and analytics for healthcare.* Springer; 2019. p. 237–48.
6. Anuradha J, et al. Big data based stock trend prediction using deep cnn with reinforcement-istm model. *Int J Syst Assur Eng Manag.* 2021; p. 1–11.
7. Aqib M, Mehmood R, Albeshri A, Alzahrani A. Disaster management in smart cities by forecasting traffic plan using deep learning and gpus. In: *International Conference on smart cities, infrastructure, technologies and applications.* Springer; 2017. p. 139–54.
8. Arulkumaran K, Deisenroth MP, Brundage M, Bharath AA. Deep reinforcement learning: a brief survey. *IEEE Signal Process Mag.* 2017;34(6):26–38.
9. Aslan MF, Unlarsen MF, Sabanci K, Durdu A. Cnn-based transfer learning-bilstm network: a novel approach for covid-19 infection detection. *Appl Soft Comput.* 2021;98:106912.
10. Bu F, Wang X. A smart agriculture iot system based on deep reinforcement learning. *Futur Gener Comput Syst.* 2019;99:500–7.
11. Chang W-J, Chen L-B, Hsu C-H, Lin C-P, Yang T-C. A deep learning-based intelligent medicine recognition system for chronic patients. *IEEE Access.* 2019;7:44441–58.

12. Chaudhari S, Mithal V, Polatkan Gu, Ramanath R. An attentive survey of attention models. arXiv preprint arXiv:1904.02874, 2019.
13. Chaudhuri N, Gupta G, Vamsi V, Bose I. On the platform but will they buy? predicting customers' purchase behavior using deep learning. *Decis Support Syst.* 2021; p. 113622.
14. Chen D, Wawrzynski P, Lv Z. Cyber security in smart cities: a review of deep learning-based applications and case studies. *Sustain Cities Soc.* 2020; p. 102655.
15. Cho K, Van MB, Gulcehre C, Bahdanau D, Bougares F, Schwenk H, Bengio Y. Learning phrase representations using rnn encoder- decoder for statistical machine translation. arXiv preprint arXiv:1406.1078, 2014.
16. Chollet F. Xception: Deep learning with depthwise separable convolutions. In: *Proceedings of the IEEE Conference on computer vision and pattern recognition*, 2017; p. 1251–258.
17. Chung J, Gulcehre C, Cho KH, Bengio Y. Empirical evaluation of gated recurrent neural networks on sequence modeling. arXiv preprint arXiv:1412.3555, 2014.
18. Coelho IM, Coelho VN, da Eduardo J, Luz S, Ochi LS, Guimaraes FG, Rios E. A gpu deep learning metaheuristic-based model for time series forecasting. *Appl Energy.* 2017;201:412–8.
19. Da'u A, Salim N. Recommendation system based on deep learning methods: a systematic review and new directions. *Artif Intel Rev.* 2020;53(4):2709–48.
20. Deng L. A tutorial survey of architectures, algorithms, and applications for deep learning. *APSIPA Trans Signal Inf Process.* 2014; p. 3.
21. Deng L, Dong Yu. Deep learning: methods and applications. *Found Trends Signal Process.* 2014;7(3–4):197–387.
22. bawak, r. e., wamba, s. f., andre carillo, k. d., & akter, s. (2022, march 18). Artificial intelligence in E-Commerce: a bibliometric study and literature review. (R. Alt, Ed.) *Electronic Markets, The international journals on networked business*(32), 297-338.
23. p, R. M., & R, J. (2018). Artificial Intelligence in Human Resource Management. (M. Rajesh, D. V. kannan, S. Kumar, N. Arvinth, M. sureshkumar, V. Janarthanan, & K. Ramakrishnan, Eds.) *International Journal of Pure and Applied Mathematics*, 119(17), 1891-1895.
24. Pilai, r., & Sivathanu, B. (2020, october 14). Adoption of AI-based chatbots for hospitality and tourism. *international Journal of contemporary hospitality management*, 32 .
25. Berghaus, S., & Back, A. (2017). Disentangling the Fuzzy Front End of Digital Transformation: Activities and Approaches. <http://aisel.aisnet.org/icis2017/PracticeOriented/Presentations/4>
26. Berhil, S., Benlahmar, H., & Labani, N. (2019).
27. A review paper on artificial intelligence at the service of human resources management. *Indonesian Journal of Electrical Engineering and Computer Science*, 18(1), 32–40. <https://doi.org/10.11591/ijeecs.v18.i1.pp32-40>
28. Bondarouk, T., & Brewster, C. (2016). Conceptualising the future of HRM and technology research. *International Journal of Human Resource Management*, 27(21), 2652–2671. <https://doi.org/10.1080/09585192.2016.1232296>



29. Johnson, R. D., Stone, D. L., & Lukaszewski, K. M. (2020). The benefits of eHRM and AI for talent acquisition. *Journal of Tourism Futures*, 7(1), 40–52. <https://doi.org/10.1108/JTF-02-2020-0013>
30. Qamar, Y., Agrawal, R. K., Samad, T. A., & Chiappetta Jabbour, C. J. (2021a). When technology meets people: the interplay of artificial intelligence and human resource management. *Journal of Enterprise Information Management*, 34(5), 1339–1370. <https://doi.org/10.1108/JEIM-11-2020-0436>
31. Qamar, Y., Agrawal, R. K., Samad, T. A., & Chiappetta Jabbour, C. J. (2021b). When technology meets people: the interplay of artificial intelligence and human resource management. *Journal of Enterprise Information Management*, 34(5), 1339–1370. <https://doi.org/10.1108/JEIM-11-2020-0436>