



# “MODERNISATION OF HUMAN RESOURCES WITH ARTIFICIAL INTELLIGENCE”

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## ABSTRACT

The aim of the article is about how Artificial intelligence (AI) is currently viewed as the most important and disruptive new technology for large organizations and used to perform cognitive functions within the organisation . However, the technology is still in a relatively early state in large enterprises, and mostly absent in smaller ones other than technology start-ups. Surveys suggest that fewer than half of large organizations have meaningful AI initiatives underway, although the percentage is increasing over time. It is also widely used by enterprises for employee training. Many organizations have already started using AI in their learning strategy. This essay titled “**Mordernisation of human resources with Artificial intelligence**” details challenges and scope that might arise from AI applications in learning and development programs, reasoning, natural language processing, and human resource planning and the ways to overcome such challenges to realize the potential of this emerging technology.

**Keywords: Artificial Intelligence, Challenges, Human Resource Management, Implementation, Scope, Human resource planning, AI software**

## INTRODUCTION

Artificial intelligence refers to the technology that allows software and computer systems to make decisions the way that a human would. Machine learning algorithms analyze the data to automatically recognize underlying trends and patterns to precisely predict and improve outputs. The HR professionals nowadays are concentrating to optimize the combination of human and automated work to achieve a seamless and intuitive work environment. It is going to provide them time for creativity and intelligence to deliver an enhanced candidate and employee experience. Although HR is lacking behind the

implementation of AI related to other company business functions, such as service operations or marketing and sales, HR departments can majorly influence the control of AI. The influence of AI is expanding to a greater extent in human resource management. It starts from the recruitment process to exit process of an employee that includes on-boarding, training, engagement, and so on. This paper will explain about challenges and scope in Human resource management while using Artificial Intelligence in HR tasks. It has been concluded that AI will provide promising solutions for the HR managers to optimize talent acquisition, recruitment, learning by taking over time-consuming repetitive tasks such as sourcing and screening applicants, to eventually improve the quality of the hiring process and neglect human biasness. Artificial intelligence will be used widely and increasingly to produce better and more effective results.

## LITERATURE REVIEW

HR specialists must be aware of rapidly developing technology and use it to enhance the learning processes. In terms of AI, HR experts explore and implement AI improvements to develop new strategies and techniques. AI can modify the companies to manage the manpower and policies which help in increasing the productivity. AI will enable the HR to improve outcomes and monitor employees more efficiently. (Wislow, E. 2017). HR department need to balance the cognitive tech advancements with transparency as the technology of HR is going to agitate by AI. There should be a clear understanding of how the decisions are taken without any biasness in the program. This transparency is going to create trust among the employees for the new technology (Ahmed, O. 2018). AI can be present in the recruitment whereas in the predictive analysis replacing the regular tasks in recruitment with zero involvement of humans. This technology facilitates the process of recruitment by doing screening of resumes, sending automated messages and helping reference checks. Also working by a machine the results are going to be accurate and will reduce the attrition rate and will help in retaining the talent. (Verma, R. 2019). AI can be considered as a tool that can function inappropriately based on the given data. Even then too, artificial intelligence can be a valuable resource. AI should be embraced as it is likely to be used in future. (Arora, S. 2020)

## PURPOSE OF THE STUDY

The need of my study is to understand and critically analyse the scope, benefits and role of AI in human resource organizations.

1. To study the scope of artificial intelligence in HR diverse processes.
2. To study insights into various HR-related processes.
3. To suggest the ways of applying AI in refurbishing HR processes.

4.To measure the ways to overcome the AI challenges.

The current research, therefore, examined the thoughts and perceptions of employees toward the modernisation of AI in human resource through a qualitative approach. Thus, the present study addressed the following research questions:

1.What is the impact of AI on learning and development in your organisation?

2.What do you think about the uses of AI in human resource?

3.What are your suggestions on future AI implementations?

a.What are the advantages of AI in HR?

b. What are the disadvantages of AI in HR?

## RESEARCH METHODOLOGY

This research is inclined on primary and secondary method of data comprised from research papers, printed resources, online websites, HR blogs, and survey reports accessible by various IT companies like – Deloitte, KPMG, EY, Sharechat,G2 and respondents have been taken as a sample size for the study of this research paper.The methodological approach taken in this study is a qualitative one majorly based on the perceptions about qualitative studies. Data were collected using in-depth interviews.. In-depth interviews are used to understand the use and challenges faced during implementation of AI in the HR department.In-depth interviews are a type of qualitative data collection that enables collection of information based on the interviewees' thoughts, attitudes, and perceptions.Researchers and participants have the opportunity to discover valid arguments and modify the direction of the process as needed during in-depth interviews. It is not based on any other research approach which can use a variety of strategies depending on the needs of the research.

## RESPONDENTS

Respondents of this research were one employee chosen among each of the organization using AI in some or the other way. In other words,one were chosen from each company for an in-depth interview. The respondents were chosen who have best of their knowledge for the required domain.Their ages were between 25-30 who have experience of 2 to 5years. Table 1 illustrates the distribution of the respondents and their experience.

In this research the respondents have been denoted as R1,R2,R3,R4,R5 respectively.

RESPONDENTS	EXPERIENCE(years)
R1	2
R2	2
R3	3
R4	4
R5	5

## DATA COLLECTION PROCEDURE

The research was conducted in the form of a qualitative research in which the data is gathered through in-depth interview technique. In-depth interview technique has a lot of advantages. For collecting the data, the researcher has to communicate with the respondents. Thus, a software app, named 'Zoom' was used to carry out the interview process. The second one is its being convenient for the researcher as a recruiter, because they have been into this domain and working with this new technology. The last one is that the respondents were from different organizations which enabled the perspective and thoughts about AI to be individual and different. A semi-structured set of questions were prepared by the researcher that aimed to identify the thoughts of the respondents regarding the implementation and challenges faced by using AI. During the interview session, they were asked the research questions in the same order but also some random conversations regarding to the research topic. The interview took around 15 minutes each with every employee working in the HR department of their respective organizations. After the interview session, the data was analysed by the researcher itself.

## DATA ANALYSIS

Data obtained from the Zoom interview were analyzed through qualitative content analysis. Based on the interview conducted with HR employees and leaders to understand the challenges and gaps while implementing AI. Qualitative content analysis is used to classify the data obtained from interviews into categories that represent similar meanings. Therefore, similar data were brought together into the main categories.

## FINDINGS

Analysis of data revealed the thoughts of the respondents about the modernization of AI in human resources. The results of each research question are displayed below.

**QUESTION-1****What is the impact of AI on learning and development in your organisation?**

R1- AI can basically compute the large data sources and can easily identify the gaps in an individual's knowledge. So based on this data we can enhance the overall experience of learning and can also teach required skills to an employee. If companies can identify the knowledge gap of their employees, it can be easy and more cost-effective to teach them that skill and build up their expertise.

R2- We can utilize your learning management system data while using AI in L&D. This data can be utilized to obtain feedback of individual employee performance as well as other analytics that can provide a variety of insights into the company's L&D initiatives.

R3- AI has a great impact as providing the same material to every employee for training was a waste of time because some employees may already have the knowledge of the provided material. So by using AI its easier to know about the required skill of an employee without wasting a lot of time.

R4- AI systems that are made for learning and development can measure and evaluate performance, and gather other data for the individual, all while providing immediate in-depth analysis of the results. The AI tool can evaluate tests and provide a custom assessment that takes into account the employee's skills and learning capacity. As a result, the performance result is more accurate, and the risk of human error is reduced.

R5- We can give training courses on-demand using AI learning platforms that retain the employee's learning materials and preferences and keep the motivated while learning that particular skill. This type of learning platform enables HR managers to keep a check on their employees' progress.

GENERAL CATEGORIES	CODES	R(out of 5)
Cost-effective	Cost-effective to teach the required skill and build up the expertise	3
Less time consuming	To know about the needed skill of an employee without wasting a lot of time	3
Knowing learning gaps	Evaluate performance, and gather other data for the individual	2
Immediate feedback	Provide immediate in-depth analysis of the results	2

**QUESTION-2****What do you think about use of AI in your organization?**

R1- The AI has been made the process of talent acquisition convenient which involves screening candidates, reviewing resumes, scheduling interviews, and working with potential candidates. With the help of artificial intelligence and machine learning, we use chatbots to communicate with potential hires and narrow down the list for the individuals that best fit the job requirements and description given by the company.

R2- Since AI has been introduced, employees have experienced with improved productivity and employee attitude towards their respective job which results in increasing the quality of work.

R3- AI based HR applicant have strong potential to boost employee productivity and help HR professionals to raise the performance of employee.

R4- By using AI, candidates don't have to resubmit information when applying to several opportunities because the AI platform can recognise important information and save it in a database for future purpose making the process of recruitment easy. Now the information can also be compared to background check information and other references if they proceed further when applying to several positions.

R5- With the use of artificial intelligence we can analyze large amounts of data to determine which employees need which type of training and in which specific domain. The information obtain ensures that the employees learn better and faster. We can also involve them with the tools to identify career paths based on the chosen training plan.

GENERAL CATEGORIES	CHALLENGES	R(out of 5)
Talent acquisition	Biasness in HR decision making	3
Recruiting	Adaptation of new technology	3
Improved employee productivity	Limited proven applications	4
Improved training programs	Financial Barrier	2

**QUESTION-3**

**What are the advantages and disadvantages of AI?**

GENERAL CATEGORIES	CODES	R(out of 5)
ADVANTAGES	1) Time is saved	5
	2) Engagement is encouraged	3
	3) The learning process is automated	3
	4) ROI is growing	2
	5) Boost engagement	3
DISADVANTAGES	1) Financial Constrain	3
	2) Required Infrastructure	3
	3) Training and development Facilities	4
	4) Data Back-up	3
	5) Hacking	3
	6) Data Security	3

Within the set-up of the first category “Advantages of AI in HR” several codes were identified and almost every employee supported the fact that the use of AI in HR is time saving process. Three employees said that engagement is encouraged by the application of AI. Learning system with AI analyses each learner and introduces a learning program based on his or her past performance and objectives. Three of the respondents think that learning process has been automated with the help of AI, and they can build a platform for learning where all data, programs, materials, will be centered on individual employee’s experience, preferences, and objectives. Two of the respondents said that ROI is increasing. Better learning results will lead to a positive return on a company’s learning investment. Three of the respondents think that it boost engagement when we personalize the learning programs according to the need of the employees.

As for the second category ‘Disadvantages of AI in HR’, several codes were formed.

- 1)Financial Constrain
- 2)Required Infrastructure
- 3)Training and development Facilities
- 4)Data Back-up
- 5)Hacking
- 6)Data Security

## SUGGESTIONS

- ◆ Employees are going to get affected by the implementation of AI in variety of ways, so it is necessary to focus on the needs of employees.
- ◆ Stability and consistency of AI solutions should be maintained with the change in the technology.
- ◆ Businesses need to see that machines must perform as designed and the data remain secure.
- ◆ Timely updation of the strategies and machines should be done to avoid unintended issues coming in the way.

## DISCUSSIONS AND CONCLUSION

Artificial intelligence is already having actionable impacts on human resources today. Machine learning models have streamlined the HR process, and advantages can be seen everywhere, from recruiting and on-boarding to professional development of employees. AI in HR can boost productivity while also lowering operating expenses and reducing time spent on monotonous, repetitive duties. It can also improve the entire employee experience, increasing retention rates. The way human resources professionals connect with their teams has changed significantly, and the usage of technology will only continue to develop and improve their efforts. The top three artificial intelligence applications in HR are the following: talent acquisition and recruitment, employee on-boarding, and personnel development.

Finding the proper talents at a low cost and in a short amount of time is a major issue in today's business. Corporate leaders, on the other hand, want them to work well together and show a great cultural fit with the organization. Human resource departments must also help with this. Artificial intelligence (AI) is rapidly transforming. The repercussions of this change must be understood by organizations. However, as we've seen, people's interactions with technology at work are highly situation-specific, and responding to the environment is essential. At the end of the day, artificial intelligence is nothing more than a tool. The industrial sector has experienced tremendous growth in this competitive environment. One of the issues that industries face is managing continuous improvement. Most sectors are using new technologies to increase speed and efficiency in ordinary operations. The majority of researchers and professionals also advise businesses to use artificial intelligence tools and digital technology. Many companies have used artificial intelligence and machine language in the field of human resource management, where AI plays an important role in recruitment, selection, hiring, analysing performance, collecting data on employees, providing real-time information, and providing accurate information.



**REFERENCES AND BIBLIOGRAPHY**

1. Arora, S. (2020). REVAMPING HUMAN RESOURCES WITH ARTIFICIAL INTELLEGENCE. IJRAR-International Journal of Research and Analytical Reviews (IJRAR), 7(1), 595-600.
2. Amla, M., & Malhotra, P. M. (2017). Digital Transformation in HR. International Journal of Interdisciplinary and Multidisciplinary Studies (IJIMS), 4(3), 536-544. Retrieved from <http://www.ijims.com>
3. Buzko, I., Dyachenko, Y., Petrova, M., Nenkov, N., Tuleninova, D., & Koeva, K. (2016). Artificial Intelligence technologies in human resource development. COMPUTER MODELLING & NEW TECHNOLOGIES, 26-29.
4. D Tambe, Prasanna; Cappelli, Peter; Yakubovich, Valery (2019). Artificial Intelligence in Human Resources Management: C <scp>allenges and a Path Forward</scp>. California Management Review, (), 000812561986791-. doi:10.1177/0008125619867910
5. Dr. Owais Ahmed, (2018) Lecturer at Dept. of Management Studies, North Campus, University of Kashmir, JK ,IJRAR December 2018, Volume 5, Issue
6. Dirican, C. (2015). The Impacts of Robotics, Artificial Intelligence On Business and Economics. Procedia - Social and Behavioral Sciences, 564-573.
7. Duchessi, P., O'Keefe, R., & O'Leary, D. (1993). A Research Perspective: Artificial Intelligence Management and Organizations. INTELLIGENT SYSTEMS IN ACCOUNTING, FINANCE AND MANAGEMENT, 151-159.
8. Eva Wislow (2017) Top ways to use artificial intelligence in HR, October 24th, 2017. □ McKinsey (2017), 'Smartening up with artificial intelligence', McKinsey & Company[Online].<https://www.mckinsey.com/industries/semiconductors/our-insights/smarteningup-with-artificial-intelligence> [Accessed: 1 November 2018]
9. HRPA. (n.d.). A NEW AGE OF OPPORTUNITIES : WHAT DOES ARTIFICIAL INTELLIGENCE MEAN FOR HR PROFESSIONALS? Toronto: Human resource professional association

10. International Fellowship Journal of Interdisciplinary Research Volume 1, Issue 1, 2021, 66 – 73 DOI: 10.5281/zenodo.4480245
11. Jain, D. S. (2018, March). Human Resource Management and Artificial Intelligence. International Journal of Management and Social Sciences Research (IJMSSR), 7(3), 56-59.
12. Jain, S. (2017). IS ARTIFICIAL INTELLIGENCE –THE NEXT BIG THING IN HR ? International Conference on Innovation Research in Science, Technology and Management (pp. 220-224). Rajasthan : Modi Institute of Management & Technology .
13. Jarrahi, M. H. (2018). Artificial Intelligence and the Future of Work: Human-AI Symbiosis in Organizational Decision Making. Business Horizons, 61(4), 1-10. doi:10.1016/j.bushor.2018.03.007
14. Joshbersin.(2018), AI in HR: A Real Killer App. HR TECHNOLOGY
15. Kapoor, B. (2010, December). Business Intelligence and Its Use for Human Resource Management. The Journal of Human Resource and Adult Learning, 6(2), 21-30.
16. Merlin.P, R., & Jayam.R. (2018). Artificial Intelligence in Human Resource Management. International Journal of Pure and Applied Mathematics, 119(14), 1891-1895. Retrieved from <http://www.acadpubl.eu/hub/>
17. Murgai, D. A. (2018). Role of Artificial Intelligence in Transforming Role of Artificial Intelligence in Transforming. International Journal of Trend in Scientific Research and Development (IJTSRD) , 2(3), 877-881. Retrieved from [www.ijtsrd.com](http://www.ijtsrd.com).
18. R, G., & D, B. S. (2018, July). RECRUITMENT THROUGH ARTIFICIAL INTELLIGENCE: A CONCEPTUAL STUDY. International Journal of Mechanical Engineering and Technology (IJMET), 9(7), 63-70. Retrieved from <http://www.iaeme.com/ijmet/issues.asp?JType=IJMET&VType=9&IType=7>
19. Rajesh, D. S., Kandaswamy, M. U., & Rakesh, M. A. (2018). The impact of Artificial Intelligence in Talent Acquisition Lifecycle of organizations. International Journal of Engineering Development and Research, 6(2), 709-717. Retrieved from [www.ijedr.org](http://www.ijedr.org)
20. Richa Verma,Srinivas Bandi, (2019), “Artificial Intelligence & Human Resource Management in Indian It Sector”(January 6, 2019).

21. <https://www.researchgate.net/profile/Alka-Agnihotri/stats>
22. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3263878](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3263878)
23. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3263878](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3263878)
24. <http://hj.diva-portal.org/smash/get/diva2:1322478/FULLTEXT01.pdf>
25. [https://www.ey.com/Publication/vwLUAssets/EY-the-new-age-artificial-intelligence-forhuman-resource-opportunities-and-functions/\\$FILE/EY-the-new-age-artificialintelligence-for-human-resource-opportunities-and-functions.pdf](https://www.ey.com/Publication/vwLUAssets/EY-the-new-age-artificial-intelligence-forhuman-resource-opportunities-and-functions/$FILE/EY-the-new-age-artificialintelligence-for-human-resource-opportunities-and-functions.pdf)
26. [https://www.employmentstudies.co.uk/system/files/resources/files/mp142\\_The\\_impact\\_of\\_Artificial\\_Intelligence\\_on\\_the\\_HR\\_function-Peter\\_Reilly.pdf](https://www.employmentstudies.co.uk/system/files/resources/files/mp142_The_impact_of_Artificial_Intelligence_on_the_HR_function-Peter_Reilly.pdf)
27. [https://www.employmentstudies.co.uk/system/files/resources/files/mp142\\_The\\_impact\\_of\\_Artificial\\_Intelligence\\_on\\_the\\_HR\\_function-Peter\\_Reilly.pdf](https://www.employmentstudies.co.uk/system/files/resources/files/mp142_The_impact_of_Artificial_Intelligence_on_the_HR_function-Peter_Reilly.pdf)
28. <https://www.sciencedirect.com/science/article/pii/S0149206396900136>
29. <https://knowledge.wharton.upenn.edu/article/using-ai-in-human-resources/>
30. <https://www.cmswire.com/digital-workplace/7-ways-artificial-intelligence-is-reinventinghuman-resources/>