

Impact of Artificial Intelligence on HR Opportunities & Functions

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ABSTRACT

Artificial Intelligence is rapidly revolutionizing so many industries at such an alarming rate that one such advanced AI robot, Sophia, joined the panel and was pitched questions during the United Nations convention on sustainable development. Artificial intelligence is producing multiple solutions for hiring managers including basic recruiting tools, intermediate applications and advanced AI solutions. Together or independently, these tools are creating a more effective way for human resources to predict a candidate's future success with their company. Artificial intelligence (AI) is transforming the human resources field altogether. The current study would throw some light on artificial intelligence breakthroughs and implications with respect to HR.

Almost all companies are using artificial intelligence to increase efficiency of human resources in IT Sector. The initiative begins with automated process in recruitment till performance appraisal of employees. Organizational leaders and human resource executives have faith that merging artificial intelligence (AI) into HR functions like on-boarding and administration of benefits can and will improve the overall employee experience. We have focused on the challenges and limitations of artificial intelligence in the present industry scenario. The study will also give a brief understanding of the future aspiration of artificial intelligence.

We identify four challenges in using data science techniques in HR practices:

- 1) Complexity of HR phenomena.
- 2) Constraints imposed by small data sets.
- 3) Ethical questions associated with fairness and legal constraints.

4) Employee reaction to management via database algorithms.

We propose practical responses to these challenges and converge on three overlapping principles - causal reasoning, randomization, and process formalization—that could be both economically efficient and socially appropriate for using data analytics in the management of employees.

KEYWORDS:- *Artificial Intelligence, HR Functions, Data Analytics, Robotics*

INTRODUCTION

“AI” refers to a broad class of technologies that allow a computer to perform tasks that normally require human cognition, including decision-making. AI represents the ability of machines to mimic adaptive human decision making. Only 22 percent of firms say they have adopted analytics in human resources. The effective application of AI to human resources problems presents very different challenges. They range from practical to conceptual, including the fact that the nature of data science analyses when applied to people has serious conflicts with criteria societies typically see as important for making consequential decisions about individuals. AI technologies offer significant opportunities to improve HR functions, such as self-service transactions, recruiting and talent acquisition, payroll, reporting, access policies and procedures. 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 resources 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 how to execute and operate.

LITERATURE REVIEW

The concept AI was first coined by McCarthy (1956), it is referred to as a thinking machine which includes cybernetics, automation theory and information processing (as cited in McCarthy, 1959). Now AI is defined differently such as solving cognitive problems (Marr, 2018); a system which can perform a task like an intelligent being (Copeland, 2018) to mention a few. The development and innovation in AI have come a long way and many organizations have incorporated it in their day to day business activities. Few of the business fields where it is use extensively are healthcare, manufacturing, retail, sports, HR, accounting and finance. According to a report by Narrative Science, it was found that around 61% of the businesses have already adopted AI in their operations which are higher compared to 38% in 2016 (as cited in Rayome, 2018), this explains that organizations are positively considering AI for their business operations. Based on previous articles and reports some of AI use case that has been implemented in different sectors is explained below:

1)Artificial intelligence in finance:

Artificial intelligence in finance is transforming the way we interact with money. AI is helping the financial industry to streamline and optimize processes ranging from credit decisions to quantitative trading and financial risk management.

Banks can use AI technology to stay in compliance and identify fraud. Artificial intelligence helps financial services companies make money by enhancing the accuracy of trading and by making wealth management more efficient.

2)Artificial intelligence in Automation and Robotics:

Automation through software is of utmost importance for corporations to stay competitive and achieve operational excellence by meeting (or surpassing) Service Level Agreements (SLAs). Harnessing the power of so-called software robots, these engineering companies have opened up new avenues for process engineering in the IT industry.

Information processing mechanisms are now created considering RPA as a viable and more reachable option than ever before.

3)Artificial intelligence in IT sectors (IoT):

Artificial intelligence plays a growing role in IoT applications and deployments Internet of Things is used to collect and handle the huge amount of data that is required by the Artificial Intelligence algorithms. In turn, these algorithms convert the data into useful actionable results that can be implemented by the IoT devices. IoT is transforming business models by helping companies move from simply making products and services to companies that give their customers desired outcomes.

4)Artificial intelligence in Healthcare:

Artificial intelligence (AI) in healthcare is the use of complex algorithms and software to emulate human cognition in the analysis of complicated medical data.AI in few of the areas such as patient care: automated prescription, pregnancy management, personalized medications and care, medical imaging and diagnostic, drug discovery and other healthcare management

5)Artificial intelligence in Transportations:

Transportation comprises of both cargo and public transportation which is used by the general public as well as by industries. Applying AI in transportation is a critical task about reliability and safety .However many regions have tested automation in transportation with the help of AI such as autonomous buses, trucks and self-driving cars.

Integrated AI companies:

1. **HealthTech:** It is a company which is located in Chicago, Illinois, it analyze

massive pools of clinical data with the help of AI it provides health assistance to each individual ,it also checks past history of patient and diagnose according to it, it also focusing on cancer research.

2. **Centricity:** It is a company which is located in Oakland, California, it receives data from many channels including handwritten document, it increases from manual work to digital workflow, it leads the organizations and companies like Metlife and Massmutual.
3. **AEye:** It is a company which is located in pleasant on, California, it builds vision algorithms which is the main core for autonomous vehicles like it give its preference for animals on the roads ,people rather than giving preference to sky and other things.
4. **Google:** Google is a worldwide search engine, it is leading AI companies in the world and also started 12 AI leading companies in four years, the main AI efforts in Google are oriented towards services it consists of major software project in tensor flow as well as its own tensor flow chip project.
5. **IBM:** IBM is a leader in artificial intelligence since 1950, IBM has cognitive based service, AI software as a service which is used for cloud based analytics it purchased three AI startups in the recent years.

AI IMPLEMENTATION IN HR

Recruitment: Predicting the best hire in the future is most important in every organization. The use of AI integrated systems helps the recruitment team to analyze the received resumes and then compares the them with already existing employee of same job role and then based on the result it will select the best candidate. So as there is zero human intervention there will be zero human bias. The use of AI integrated systems will help to speed up the recruitment process.

Training: The organizations design their training programmes without any pre-defined parameters and, in real sense most of the organizations don't know how to train their employees perfectly. Most of the learning Professionals argued that whatever the trainees learn during the training programmes at least half is wasted.

SOME OTHER FUNCTIONS:

- 1. Talent management:** Human's are the main important assets of any organization. Talent management means planning made by the organization to meet the workforce needs. So the activities that are done by hr includes succession planning, talent acquisition, employee management etc., for example greenhouse software is using AI tool (they are integrating IBM-AI capabilities through the IBM Watson Candidate Assistant). This tool helps to select the best candidate for the job by analyzing the skills, personalities etc., it also collects the data from different sources like social media etc.
- 2. Access of information:** Both the employer and the employee will have easy accessibility for the required information. Employees can access their personal information like, address, emergency contacts, organization details, vacation days spent and available, approval or rejected status of vacation requests, and authorized HR business data etc., The employer can access employee data like, an employee's job history, team information, number of projects submitted in time by each team, performance rate, head count, top performers and pending transaction requests etc.
- 3. Scheduling / maintenance:** There are repetitive and low value tasks in every day work life. So by using the AI, automation of these repetitive works can be done so this will save the time and helps the hr specialists to more concentrate on strategic useful, creative work to achieve the company's goals and objectives. For example

company spends a lot of time for some standard ongoing process for new employees etc., so by automation of such tasks will save the time.

RESEARCH METHODOLOGY

The project was carried by collecting both the primary and the secondary data. This collection of data was done by reading various materials such as books, journals, magazines, newspaper articles, etc.; looking about the employability skills on the Internet. The project work was carried out on the basis of the data collected through primary and secondary source.

OBJECTIVE

While it is clear that artificial intelligence will continue to positively shape the field of human resources management in the coming years, HR professionals should also be aware of the challenges that they might face.

The most common concerns that HR leaders have focus primarily on making AI simpler and safer to use. In fact, most common factor preventing people from using AI at work are security and privacy concerns.

SCOPE OF STUDY

AI assists the HR professionals to do their work in more ease way. This AI has positively impacted some aspects like: improving the hiring and orientation process: Talent sourcing is one of the important function of AI in HR. AI strengthen HR teams, they can check and process through a more number of resumes to identify the best among them . By using this AI the organization saves time as well as it is able to select the best suitable candidate for the job by assessing the elements like values, skills, experience etc., each new joined employee has different learning preferences so by analyzing the employee behavior personalization or customization of training/coaching of employees is implemented so this is considered as one

of the important impact of AI.

Retention of talent and ongoing of employee satisfaction :retention of employees is most important and is also most difficult one so AI helps hr professionals to focus on employees performance, work life balance etc., and trying to create belongingness in the organization irrespective of the benefits provided by the organization. Prediction: predicting the future turnover is most essential. The AI should use the past data and predict the future more accurately than ever before. The information obtained can be used to advice the organization for further changes.

SAMPLE SIZE

Sample size should be optimum as it should fulfill the objective of the Research.

The Sample size is around 70.

Among these, 70 random samples are selected and are analyzed further according to their attributes under the sub headings of AI helpful for HR functions and Opportunities.

SAMPLING METHOD

Simple Random Sampling is a sampling process that utilizes form of random selection. Samples are selected randomly. Simple Random Sampling has been adopted for this research. Under which I have considered the sampling which has been done for a specific designated population, because here a small cluster of students has been considered out of the total population which has been analyzed. Simple Random Sampling is the method used to do the sampling in this mentioned Project.

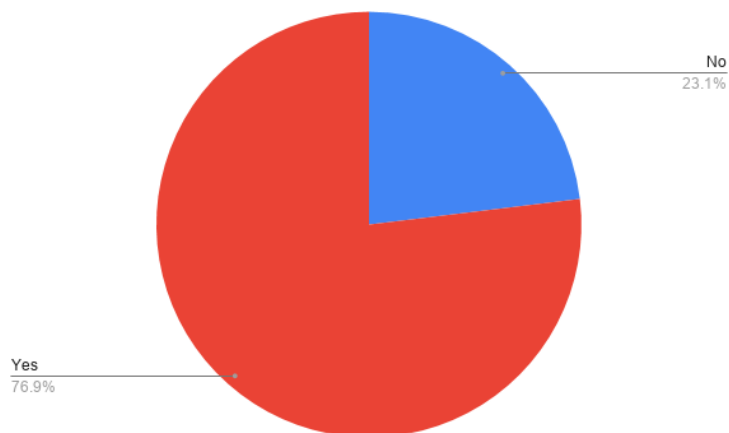
DATA ANALYSIS

The analysis of the data is done according to the survey finding. The percentage of response is analyzed and expressed in the form of chart through Excel sheets and is placed in

next few pages of the research.

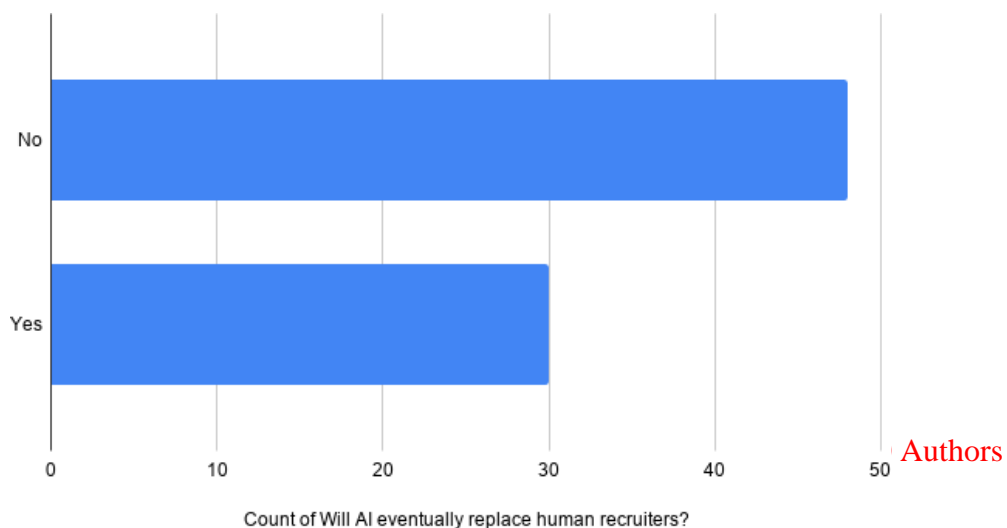
FUTURE OF AI

Clearly, your view on whether AI will take over the world will depend on whether you think it can develop intelligent behavior surpassing that of humans – something referred to as "super intelligence". So let's take a look at how likely this is, and why there is much concern about the future of AI.



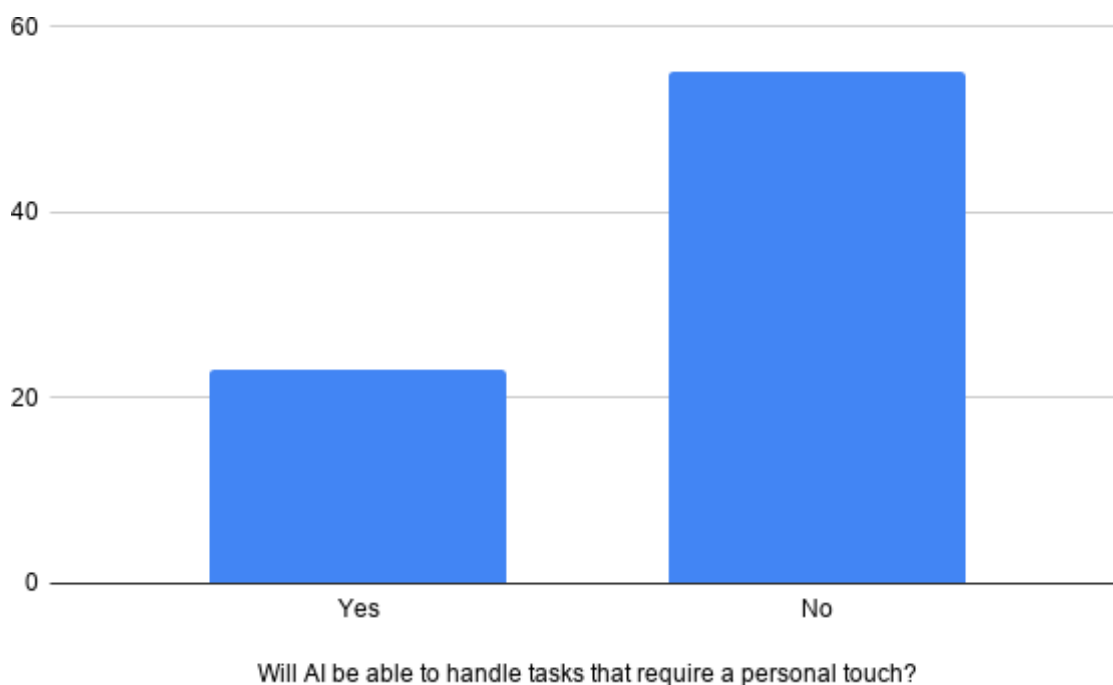
AI FOR RECRUITING

To help you better understand this new field of artificial intelligence for recruiting, we created this definitive guide for HR professionals on how AI can automate your workflow to more effectively engage, screen, and assess candidates.



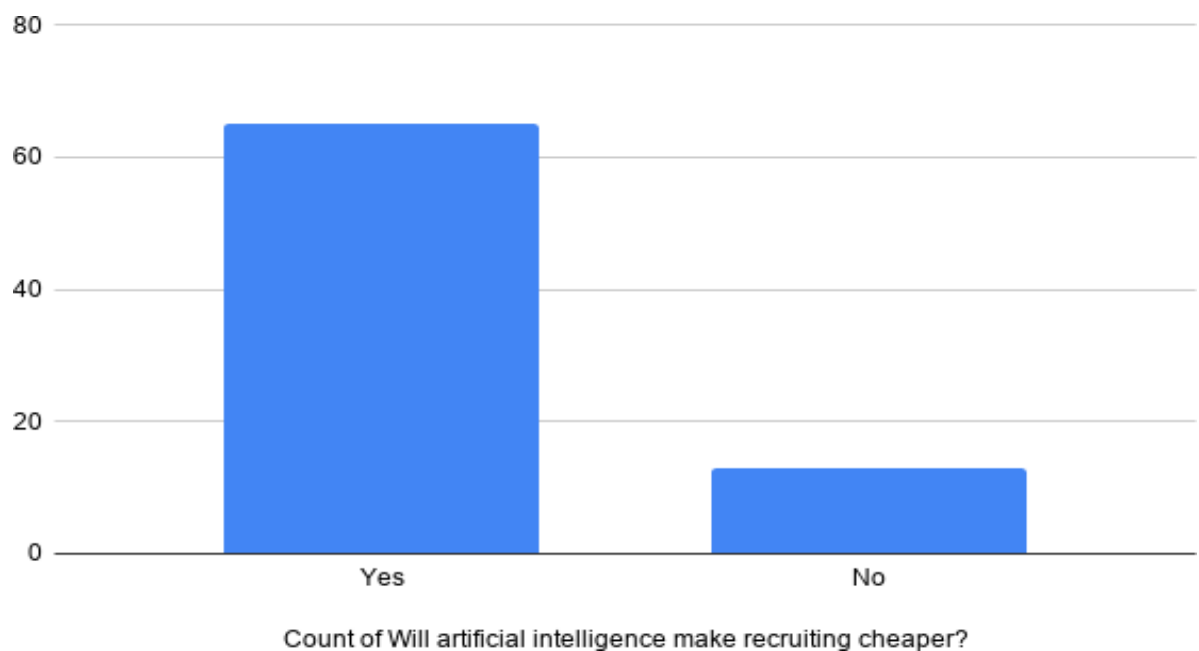
AI TO HANDLE TASK

The AI of today is far more dynamic and nimbler than the archaic technology it replaced. It can go much further than just sending a customer in the right direction. Consumers can now ask questions, get advice and understand options before making a purchase and hopefully avoid having to make any unwanted calls or visits to a store.



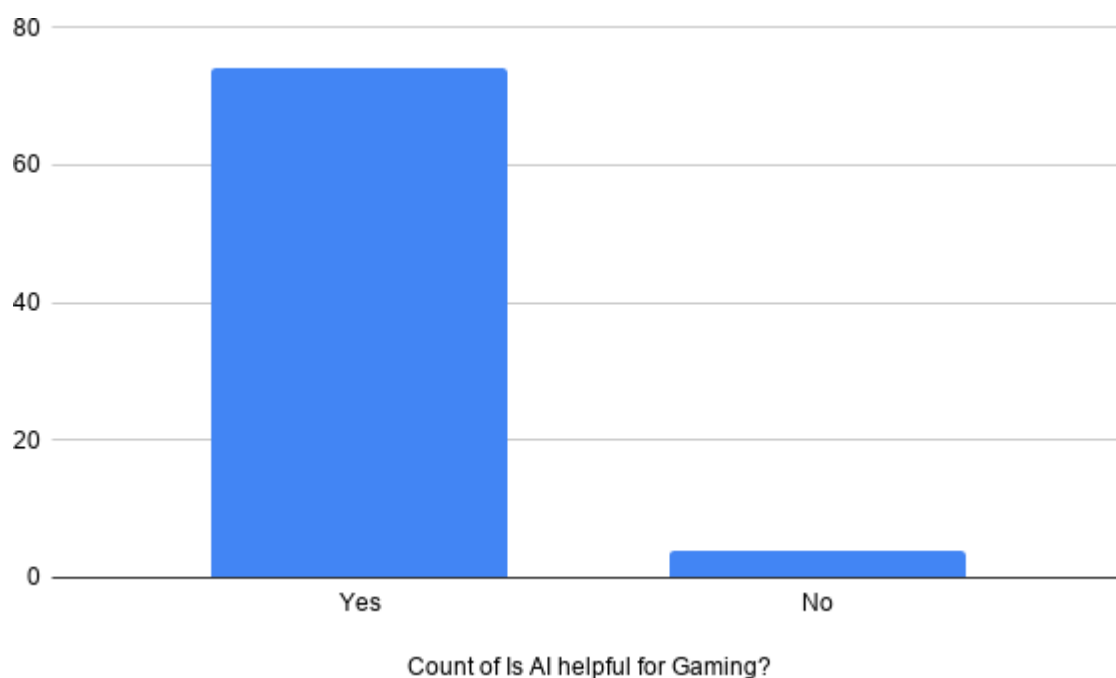
AI TO MAKE HIRING FASTER AND CHEAPER

To find the people you want to hire, you historically had to spend countless hours scouring the web to identify and connect with desirable passive candidates. When I was leading recruiting at my last company, I learned firsthand how the lack of smart sourcing tools resulted in unnecessary frustration and a misuse of time during critical periods. Our mission in building Scout is to equip managers with the tools they need build a talented and diverse pipeline of candidates for every role. We want to level the playing field in hiring and automate the most time-consuming and frustrating parts of hiring.



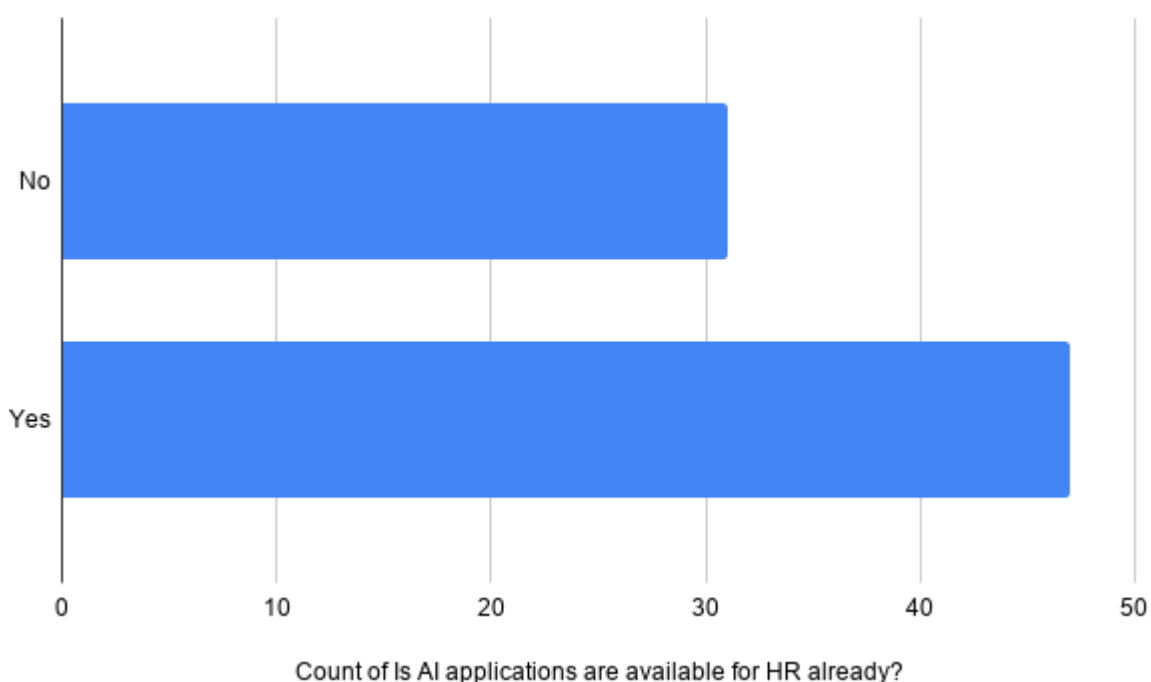
AI IN GAMES

AI in games is the real thing; game developers have used techniques from AI research to create more challenging opponents. They can examine player behavior and change their responses to make the games more challenging using emergent behaviour.



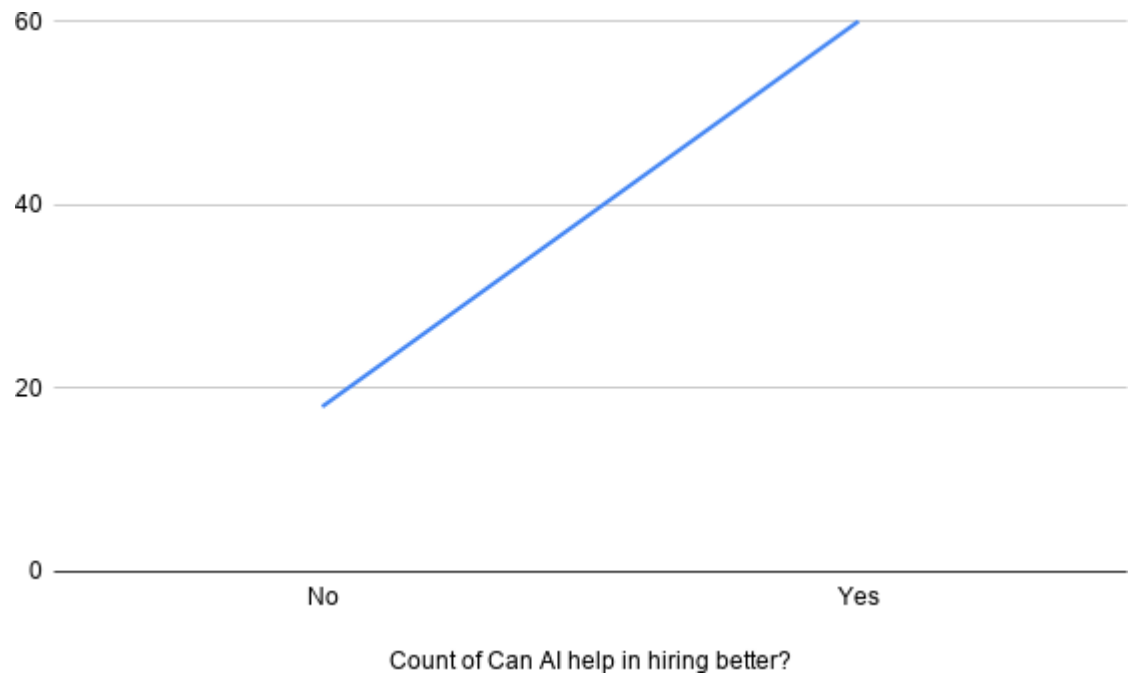
AI application for HR

HR departments offer a huge opportunity for AI software. Datasets with potential job candidates, past candidates, and current employees all create a very fertile environment for artificial intelligence to yield analytics-backed insights into various HR-related processes. The Oracle study on advanced analytics in HR departments identified areas where AI is being used the most among respondents.



AI HELP IN HIRING BETTER

The promise of AI for improving quality of hire lies in its ability to use data to standardize the matching between candidates' experience, knowledge, and skills and the requirements of the job. This improvement in job matching is predicted to lead to happier, more productive employees who are less likely to turnover.



CONCLUSION

Integration of HR practices with AI based applicants definitely have a stronger impact in enhancing the organizational performance. Even though AI applications may not possess the abilities like humans the emotional and cognitive abilities, but these powerful AI based HR applications can analyze, predict, diagnose, and it is powerful resource for any kind of organization. But, the real fear that is daunting the Global workforce is how AI is showing its impact in job cutting across various sectors throughout the world. But, the reality is that it is not the advanced technologies that are replacing people, but it is all about how the people should change and view these technologies in creating wealth and prosperity. In, true sense there will be some percentage of employees are affected by the AI based functions, so it is the duty of the HR leaders and organizations to focus on its employee needs and possible outcomes. And, finally based on our study most of the organizations are successfully integrating AI based tools in recruitment but in near future

AI is everywhere in HR: May be in recruitment, training, on boarding, performance analysis, retention etc., But Majority of the organisations are still lagging in integrating AI to its HR-Practices because of its cost associated in integration. To, conclude the AI implementation should be viewed as an optimistic opportunity, because AI enhances the lives, AI creates better future if it is clearly understood and utilised in a proper way.

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