

To Study Impact of Artificial Intelligence on Human Resource Management

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Abstract:- In this competitive business world, for any kind of business the human resource (HR) is an mandatory asset /input for improving the organizational performance. To be successful, organizations have to strive for higher customer – satisfaction which is vital key for their survival, and to achieve this, organizations have to adopt innovative hr – practices to improve their performance and be different among its competitors. In near future, HRM is moving away from its foundation administrative functionality like recruitment, selection, appraising to more advanced progress like Automation, Augmented Intelligence, Robotics and Artificial Intelligence that are completely re – defining and re – shaping the way of their workforce characteristics and organizations. At, present the buzz word is AI and how it is completely transforming the human resources , and how AI is seizing millions of jobs globally in each and every sector. However, hr is not traditionally associated with this emerging technology, failure to deploy AI with hr practices could prove to be a dreadful sin which makes the organizations difficult to grow big and survive in this globe driven by these advanced technologies and machines. Global workforce is completely threatened by AI and advanced self learning machines and they are wiping away the interference or involvement of humans in each and every aspect. But, in reality any advanced technology that is created and used for the benefit of humanity not for its destruction. To compete with AI and advanced machines the real challenge now lie's within the respective hr – departments that how well they train and re-transform their workforce in understanding the AI and collaborating and working with AI & Robots.

Keywords:

Automation, Augmented Intelligence, Robotics, Workforce, Performance

Introduction

Artificial intelligence is a tool which use human intelligence in various fields and improve the performance, and it is an emerging technology which is used in all industries to improve productivity and performance.(Brouwer 2015)[1].AI has a tremendous power to act like a human brain and it gives full efficiency. It uses different inputs to give outputs in the human resource management, Robotics is an artificial

intelligence which mainly deals with every aspect in the industry, simply intelligence which is carried out by machines is called artificial intelligence, I works in speech recognition, problem solving etc.(Margaret Rouse)[2].

Artificial intelligence uses certain algorithms and according to the algorithms it performs its actions. A test is made to identify whether the machines can exhibit intelligent behavior alike human beings by Alan turing (computing machinery and intelligence in 1950)[3] the turing test is conducted by using 3 participants i.e., computer, human interrogator, and a human foil. The interrogator asks several questions to the two participants (computer and human foil) to distinguish computer from human. All this communication is done through a display screen and keyboard. The computer will answer all the questions in such a way that wrong identification is done. The human foil will try to give answers to help interrogator to make right identifications. If human interrogator fails to distinguish computer from human being then the computer is considered as intelligent according to the proponents of turing test.

Even though the AI concept is around for centuries but it came into limelight after 1950's where true possibility of it was explored. Many scientists, philosophers, mathematicians all had the AI concept but never highlighted until Alan turing suggested the turing test which distinguish machines(computers) from humans. This test was done based on idea that if humans can store information and solve problems then why can't machines (computers) do the same? Till 1974 computers couldn't store the information but they execute commands and funding was also a problem during this phase. After 1974 computers are much developed and they became more faster and more able to store the information. Some contributions are made by some scientists like Allen Newell and Joseph Weizenbaum's ELIZA of problem solving and interpretation of spoken languages in machines but self thinking, self recognizing was not developed. In 1980 with huge funds and algorithmic tools John Hopfield and David Rumhart developed "deep learning" techniques which helped machines to self learn through experience. Edward Feigenbaum developed expert systems which mimicked decision making process of human expert (Christina Aguis)[4]. Today's AI growing rapidly. Technology has been used widely across all the fields. Intelligence system manages quite a large part of

every human being. It is almost used in every field. The internet has changed our lives a lot. In today's world we are much more dependent on the technology to do our things in easy way and so we are much connected with technology development.

Human resource management is the way of maintaining people in the organization and it is about dealing with people and their attitudes in the organization, it mainly deals with recruitment, selection, training, development etc.,(Margaret rouse)[5],Human resource management mainly deals with compensation management and their payrolls, performance appraisal ,it encourages employees to do their best in the organization and to achieve a productivity so that companys goals and objectives as well as vision and mission can be achieved, employees should understand the importance of organization purpose and its existence in the society, it is the responsibility of every sub department in the organization to achieve organizational success and also human resource management mainly supports employee views towards organization.

Artificial intelligence plays important role in human resource management it mainly reduces the workload of human resource manager because artificial intelligence uses chatbot agnostic solution and algorithms and basing upon algorithms the entire process takes place like recruitment, selection, training, development etc., linking artificial intelligence with human resource will enhance the process and it create more interest for the employee towards work.(Oliver Pickup 2018)[6].It reduces the scope of manual work and paper work and it makes easy for the human resource manager to do the tasks easily, it helps in the sense of like granting leave to employees basing upon the leave request and permissions applied at that time, it provides online services that employees details will be available there and every employee can access from it and automatic scheduling done will be done and results will be provided. In human resource management artificial intelligence have its importance because of its tremendous results and in future definitely it is an emerging trend in every organization and it helps the human resource manager to reduce work load in the organization, it also helps in selecting candidates basing upon their resume and information provided in the resume, so it reduces workload of human resource manager. So AI is an emerging trend in every organization. ALPHA GO :Go is a strategy board game for two players, in this the theme of the game is to surround more territory than the opponent. The game was invented in China more than 2,500 years ago and it is the oldest board game continuously played to the present day. However it's not only the humans game now, in 2016 alphaGo beat 18 times champion Lee Sedol 4/1 games (4 out of 5 games) This go game cannot be predicted unlike chess because there are 10^{170} moves

possible in go. But later alphaGo Zero defeated alpha go in 100 games in a row. It learned to play with zero human intervention. It is not restricted to human knowledge , no historical data was given to it ,it just defeated alpha go in just 40 days of learning it is the best go player in the world [0 days : alphaGo has no prior knowledge of the game and only the basic rules as an input. In 3 days alphaGo zero surpasses the abilities of alpha go lee the version that beat world champion lee sedol in 4 out of 5 games in 2016. In 21 days it reaches the level of alphaGo master the version that defeated 60 top professionals online and world champion in 3 out of 3 games in 2017] . This AI learned how to play Go without human interaction and made up strategies of its own that means there is more non human knowledge about Go. Narrow AI does face recognition and playing games like chess and most complex games like doodle 2 etc., At international open champion 2017 OPENAI destroyed DENDI. Unlike alpha go it learned itself how to play. It all happened through machine learning , that make computers to learn and think like humans which is similar to how new babies learn through observation, interactions etc., the most popular way to mimic the human brain is neural network. There are millions of neurons in the body each neuron contribute its part to solve a problem. The world is full of data and sounds in general form a view on it becomes most difficult to make analysis for humans so here comes the machine learning which not only analysis the data given to it and learn from it but also adapts its own view of it. Ex: alpha Go adapts and make strategies within 40 days. Biological neurons in brain operate at 200HZ. Axons travel about 100m/s its pretty fast and gives good reaction in time. Computers transmit information at a fast of ray (299,792,458 m/s) so there is quite a difference between human and computers reaction.

Literature Review

Anupam jauhari (2017):In the paper title how AI and machine learning will impact hr practices today .AI has becoming more and more important and reshaping the way companies hire and do each and every activity recruitment becomes easy for for the practitioners because machine learning technology will make use of chatbot and proceed all the activities ,AI will screen candidates and send the confirmation or rejection email to the candidates .according to the analysis of India report of deloitte 5th annual global human capital trends 53% of companies are ready to deploy digital tools while 22% have already deployed there tools. AI and machine learning are the current buzzwords in present days HR chatbots to work efficiently, actually hr managers will have many tasks to do they should be capable of using chatbot to get solutions .the major challenge hr manager face is about performance appraisal that means basing upon employees performance the performance appraisal will be decided and it can decide employees career path.

Edge Admin(2017): Now the present world is ruled by the advanced technologies, which is intimidating the global workforce. Out of all the technologies, we can say AI is the most groundbreaking one. As importance in the application of AI almost in each and every sector may it be banking, health care insurance etc., but the results achieved are remarkable. AS most of the companies across the globe are adopting AI, India is also not an exception that new firms especially(start-up's) are now integrating their business with AI to stay more visible and to be competitive. Some of the start-up's that have integrated its business with AI in India are:ARYA.ai, BOXX.ai, cuddle.ai, Imbibe, Edge-networks, and Haptik to name a few.

Eva wislow(2017):

In the title of top ways to use AI in HR it was clearly stated that AI is reshaping the way that companies manage their work force and make the plans which increases productivity and employee engagement in general. Talent acquisition is main important thing ,we can remove tons of stressful and monotonous work from hr managers namely talent acquisition software can scan, read and evaluate applicants and quickly eliminates 75% of them from the recruiting process .AI can plan, organize and can give so many training programs to the newly joined employees through online courses and digital class rooms. AI can predicts the requirements of employees then retention will be more for the employees in the organization it plays a very important role in the organization because work cannot be done manually so with the help of artificial intelligence the work will be done easily.

Lorenzo milani, Dario rahmati, risky nur a k barianti(2017):

In the paper title exploring the impact of AI on HRM .AI was initially introduced in the year 1950 and from 1970-190's stagnation due to excessive expectation and from 2012 new wave of AI has been evolved. It uses many algorithms and concepts .it is an automation in the organization actually AI is a combination of psychology, mathematics, philosophy it delivers better services to the customer and not having excessive costs also. Now at present many companies are using AI and getting many benefits through this like companies such as google, IBM are using this technology .through this AI customers have easy access of information .AI will reduce the work load for hr managers and time also because it helps in recruitment and selection as well as granting leaves to employees in the organization because if it is manual means the person has to check all the records whether there is anyone who applied for leave on that day but if it is AI it gives clear cut information and updating all the information regarding to employees everytime. So there

will be authorized access .there are many areas in which AI has been used such as automatic cars etc .it has its impact on hrm and hr managers work load will be reduced the needs will be fulfilled in multiplied ways

Severin Lemaignan(2017):

Human-robot interaction(HRI) represents a challenge for AI. Even though every work done by humans physically, can done through AI. But emotional intelligence is not there for AI.As this is the major drawback of human-robot interaction become critical. Robots can only do the things which are pre instructed to them. They can't change their actions by their own as they are controlled by humans. It is a difficult task to impose the independent software modules, specially it is not only a technical challenge, but it is also an architectural challenge.

Barbara van pay(sep 30, 2018)In this article how AI is reinventing HR it was clearly stated that all the organizations mostly looking for AI solutions for their business and they are scared of letting a non human entity handle the procedures of business. By using the AI in organization it can reduce the time consumed for filling and hiring the candidates who applied for the job ,through screening multiple candidates, gathers data they rank the candidates by considering other information like experience ,skill set etc., to find right person. After finding the perfect fit for the role next main part is interviewing, now adays AI interviewing softwares such as hike vue, mya are used mostly. AI technology takes care from sourcing to interview which drastically reduces the recruitment timeline and help to hire right candidates with ability to perform in specific roles and make placements much easier and at faster rate.

FAIYAZ Md.iqbal(2018) :

In the paper title can AI change the way in which companies recruit, train, develop, and manage HR in work place .already AI have significance in HR management but there is a necessity to enhance this technology in each and every organization it makes the work of HR manager or superiors easy for instance under armourit is an American company which manufactures footware.so it receives nearly30,000 resumes so in order to shortlist and select the candidates it will be very difficult for the superiors so they used this AI enabled technology called as hirevue to make the task easier by using this technology. Managers in the organization can conduct interviews to applicants with the help of some pre recorded questions so that candidates will attend interviews and there will be algorithms which are already coded to the system suit see how to select the candidates ,on what bases they have to select according to the requirements of an organization this AI technology can be used to reduce employees turnover in the companies and definitely it will be the key era for managers .

Josh bersin (2018):

In the paper titled AI in HR a real killer app it clearly shows that AI is quite used in most of the areas of management and also about the risks that will occur when it is not used properly .AI are human made machines which are controlled by humans .they run based on the instructions given by humans . The systems with algorithms and some learning tools are used in AI because they have the capacity to analyze millions of information and they are very fast unlike human beings. These systems helps us to see all the possible outcomes for any problem and gives alternatives and helps us to choose the best solution. Some of the areas that can get best results by using AI in HR are as follows

Recruitment: the hiring managers may be wrong while selecting the right person for the right job but systems with algorithms checks out profile of candidates and choose the best suitable person.

In learning and development of employees:

It is also useful in development of employees to get better performance .the type of algorithms are entering into world now so that employees can use it and get best performance out of them.

In fraud and compliance:

AI also helps to identify the person who does crime or have bad intention towards the company's network data.

There are risks also in using AI. The results of AI algorithms are based on past they are not transparent. But we need transparent AI so that we can ensure that it is doing the right thing and they are accurate .the AI in HR will be successful only when it has huge correct data to train its system to give accurate results .

Megan marie butler (2018):

In the paper title navigating the hype and impact of AI in HR. AI pays a major role in organizations relating to operations, data generalization that means developing alorithms basing on some criteria. Machines learning can adapt and it can create algorithms that perform better tasks over time the data scientists they create a machine learning algorithms and it sets some metrics and basing upon that metrics decisions will be takes through AI it can be able to detect employee reactions like bad behavior etc., to hr manager .AI mainly helps in feurness that means for example amazon hiring algorithms as we know that is biased towards women .algorithms which are developed need to be explainable and clearly defined and it should be an easy standard for the hr manager to decide the tasks and to take right decisions making .there is endless potential for using AI and it should be ethical.

Michael Heric (2018):

As per the study conducted by Bain and company, the results showed that nearly 87% Of the Hr-leaders agreed that digital-technologies will reshape the way of HR and 57% Opined that there will nearly 1-10%Budget hikes for AI in the next 2 year's. If, we observe the scenario throughout the globe AI, in al it's forms from RPA(robotic process automation) to machine learning to NLP(natural language processing) has shown remarkable results. AI-based screening of the candidate's in talent acquisition will definitely improve the hiring accuracy. Recruiters at Johnson & Johnson, Atlassian, Twitter and other companies are using NLP to improve the quality of their job listings to devise a more inclusive workplace.

DR owais ahmed(2018) :

In the paper titled AI in HR it mainly stated that it increases the effective working of an organization and reduces the burden of hr managers it mainly provides personalized employee experiences like it the new employees join in an organization then they don't know where to go and with whom they have to contact then AI plays an important role in it by providing help desk to the employees they can post their queries in it and can get the possible solutions. AI helps us to take variation requests like to grant leaves .it also helps us to know about the rules and procedures of the company it can be used anywhere at any time and it answers all employees questions there will be some algorithms in AI which makes recruiting process easy for HR practitioner there will be unbiased selection and development in the organization.AI can identify patterns of stress ,employees feels at organizational level and what type of remedies should be taken to overcome them .so mainly it is an automation process that does the repetitive value added tasks.

Peter (2018):

In the paper titled the impact of AI on HR function clearly shows that in near coming future AI is going to bring a drastic change in the way of implementing HR practices with the implementation of ai in an organization .It is true that several jobs may be affected but in reality it raises the productivity of an organization although some of the western companies are successful in integrating AI with some HR practices and became productive and others are still counting on the cost aspects and out of all the hr practices recruitment is the best function in integrating with AI from sourcing ,screening the qualified applicants and finally it is the duty of the governments and the respective organizations to reshape ,re skill and upgrading their work force to compete with these intelligent machines .

Prashant srivastava(2018) :

In the paper title the impact of AI on strategic HR decisions making AI plays a important role in human resources management it mainly help us in manpower planning and productivity management actually it is very difficult to analyze the performance of an employee's manually so by using AI it can be done automatically and moreover recruitment becomes easy like maximum time which is spend by the HR manager on recruitment only so to reduce time this AI helps us a lot either it may be for middle management and senior management hiring decision which are taken by AI will be superior to the decisions taken manually .performance appraisal of employees or officials through AI there will be no discrimination as well as the decisions of the compensation will be done here by using fairly sophisticated algorithms thoroughly AI there will be better development in every organization.

Prasanna tambe, peter cappeli and valery yakubovish(2018):

In the paper title AI in HRM challenges and a path forward AI has been moved too fast trending that means the trend moved from big data to machine learning to AI in that 41% of CEO's are reporting that they are not prepared for using data analytic tools and only 4% are prepared for using tools. AI mainly outfit its technology to human brain it includes decision making .this technology mainly used in marketing, sales forecasting and critical decision making apart from them they are used for selection, recruitment, training and development. In the year 2018 amazon used the AI in its organization to make important decisions. This paper mainly tells about recruiting, selection it mainly see , are we securing good candidates or not it also facilitates on boarding means bringing an employee into organization. In AI it uses algorithmic approaches that means basing upon different algorithms the criteria for selection, training & development are used. If once this algorithms are embedded into system then algorithms will work on basing code embedded in it so definitely AI will have a outstanding benefits and it is one of the best technology to be used in each and every organization .to analyze the performance of an employee it maintain some standards basing upon some standards AI works

Ruby merlin.p, jayam .R (2018):

In the paper titled AI in HRM it was stated that AI will help us to make our job easy and reduce the work load of HR manager but it does not replace the work of human resource manager. Machine learning have a new wave in business it mainly tells that by the year 2020 every organization will use AI always hr departments will face new problems and challenges .that means the problem starts from selecting right candidate and retention of the right candidate so AI will make challenges faster.hr

professionals slowly depend on the technologies like AI to move up their work. AI mainly used in recruitment process like it mainly rejects the resumes which are unqualified it makes tasks easy.AI will make use of performance management like system continuously take feedback from the employees .employee retention is more important in the organizations because according to the requirements of employees the hr manager should implement new policies and procedures so that employees will have interest to work in the organization . Through machine learning we have many results and definitely it has its impact in today's world.

Sheila L.Mc grovern (2018):

In the paper title artificial intelligence for human resources opportunities and function .AI is a tool which can be trained in such a way that humans can do. Regarding to AI in HR it reduces the human work and it will save budget also and through this AI only authorized person can see all the data but the outsiders cannot view all the details regarding to company. By the use of AI it mainly reduces the HR tasks and decision making will become easy regarding to different tasks. New employees don't know where to go and contact in the organizations this AI will help them by answering questions of employees through chatbot. Manager can view the information of an employee in a secured manner.AI is a machine learning capability and it uses natural language processing to know about employee and even if employee want to apply for a leave then this chatbot will show you the bit of leaves available and on that day is anyone opted for leave it will analyze all the data and provides clear solution. The main advantage of this chatbot solution is that it can be accessible anywhere anytime. The solutions will be communicated through secure internet or intranet protocol. By using AI it gives us real benefits and enhance the development process of a company. It should be seen that the implemented AI solution should give correct response always it should be updated and maintenance of logic correctly sp AI defenitly have its impact on the HR department.

Dr. surbhi jain (2018):

In the paper HRM and AI shows that hr in the past used to focus on management of employees in organization but now slowly it shifted its focus to build an organization that adapts to the frequently changing environment because change in environment will effect the organization. The AI is recreating the organization in this digital world so the HR should replan accordingly. AI is a practical exhibition by machines in close association with intelligence of humans.HR should train the employees about the new technologies in order for better future. Transparency has become standard in the world of HR, employees can compare their salaries against those of similar jobs using some of the tools like salary. Company scale etc., there are

many challenges in adapting AI in organization ,HR experts should also prepare themselves in order to face the risks that arises like unemployment, inequity, racist robots,security etc., AI lacks several feature of human common sense.

Dr Jeremy nunn(2019):

In the paper title the emerging impact of AI on hr at present AI became most important in almost every industry it is the dream of every HR manager to use AI in their organization mainly automates communication with candidates the two important things in AI it mainly eliminates biasness while selecting the candidates and increasing efficiency of the candidates AI mainly helps in screening process it analyze candidates profile and interact with them and take a decision of selecting the right candidates it mainly reduces the burden of work and the main focus will be on the top candidates ,AI can do facial recognition and also it conducts the interviews basing upon education levels and their ability etc., through AI the gaps can be filled in HR department like mainly regarding to training and development that means automatically analyzing the skills and requirements to fulfilled by employees it mainly connects company`s vision and to achieve the goals .AI starts from recruitment and atleast compensation level it mainly used so for sure AI will be an emerging technology in every organization.

Sarah fister gale(2019) :

In the paper title AI is coming –and HR is not prepared .AI is emerging and hr managers should be prepared of how to use this technology all the future work will be done by AI so company`s like IBM,PWC and deloitte they are done surveys on impact of AI on hr last 18 months and it is cleared that companies want to implement AI but they doesn't not consists employees with proper leadership to make it happen.IBM predict that 120 million workers in the world's 10 largest economics need to give training to workers regarding AI and if the companies didn't start training definitely they loose competitive edge regarding to development even if company want to establish AI but employees don't show interest to pull it off. 80% of employees in us and uk believe that having AI skills will be useful to them to get benefits to their company and 42% said that they are not that they are not believing that their HR departments can execute it. HRD plays an important role in every organization so it needs technologies like AI to be more competitive in the areas changing business environment and this starts with change in culture where details used to take decisions so that managers and the employees ofHR need to know about AI.

Rajeev bhardwaj :(January 5th 2019)

In this article titled Artificial Intelligence Is

Revolutionizing Hiring To Engagement it was clearly stated that any organization will receive plenty of resumes out which only 10% are relevant. From hiring to employee engagement, artificial intelligence is transforming the way thanks to the advent of AI supported systems. This process is now taken over by software search algorithm that are able to successfully prove out the few people matching your requirements from a pile of irrelevant applications.

Artificial intelligence is re-shaping and revolutionizing every sphere in life including HR management It can be incorporated in process like boarding, performance, review, feedback, training, retention apart from talent acquisition. Hence, it allows HR manager greater time and energy to focus on mentoring and motivating employees. HR department is highly benefited with the AI supporting system.

AI and its impact on various occupations:

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.(By anileshkumar) [7]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.

AI impact on different occupations in future:**1. Teaching (kristin Houser, 11th December, 2017):**

Artificial intelligence plays very important role in teaching profession, students learn differently with the help of AI according to united nations educational, scientific and cultural organization the percentage of primary and secondary school children not attending school is of high percentage, so digital teachers can attract children to learn something with the help of artificial intelligence.

2. Drivers(Vishal Marria,2019):

Artificial intelligence will replace drivers by mid 2030's,it uses certain algorithms for driving a car and prevention of risks and accidents, although driverless cars are existing but it will emerge and transform within few decades by 30%.

3. Bluecollar and white collar jobs(clalum mcclland 2018)

Blue collar and white collar jobs will be eliminated , nearly 20 to 30 million jobs will be eliminated by the year 2030 and it can eliminate 30% of jobs of labour and it can displace jobs of 800 million of people.

4. Doctors(Vinod khosla, silicon valley investor):

He argues robots will replace doctors by the year 2035, and definitely 50% of jobs will be replaced by AI in the next decade, he even said that machines will substitute 80% of doctors in future by healthcare seen entrepreneurs but not by medical professionals.

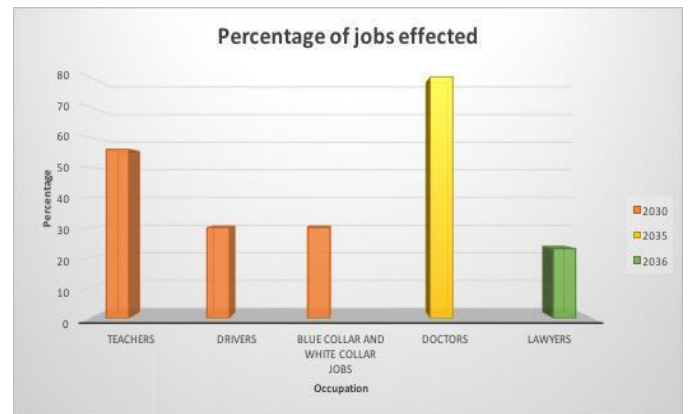
5.Lwyers(Mckinsey Global institute):

AI can predict better legal outcomes than humans ,it is clear that AI and machine learning emerging and transforming at present ,and by the year 2036 1 lakh legal roles will be automated and it reduce the job of lawyers and the way of dealing cases. According to Mckinsey Global institute 23 %of jobs can be automated in future.

Table:1

| SL. NO | Occupation | % of Jobs will be effected | Year |
|--------|-----------------------------------|----------------------------|------|
| 1 | Teachers | 56 | 2030 |
| 2 | Drivers | 30 | 2030 |
| 3 | Blue collar and white collar jobs | 30 | 2030 |
| 4 | Doctors | 80 | 2035 |
| 5 | Lawyers | 23 | 2036 |

Graph:1



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. 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.

3. Captricity:

It is a company which is located in oakland, california, it recieve data from many channels including handwritten document, it increases from manual work to digital workflow, it leads the organizations and companies like metalife and massmutual.

4. Google:

Google is a world wide 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 tensorflow as well as its own tensorflow chip project.

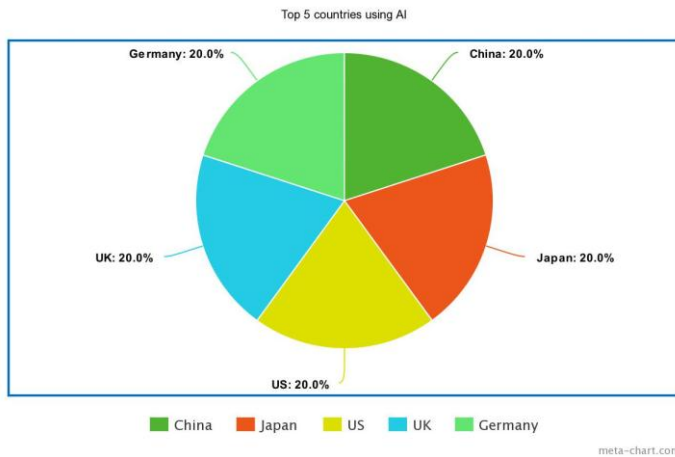
5. IBM:

IBM is a leader inartificial 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.

Source: These artificial intelligence companies are advancing this emerging tech through myriad

developments of AI systems, by Andy patrizio(May 24th 2019)

Graph:2



AI IMPLEMENTATION IN HR – RELATED FUNCTIONS:

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.

Majority of the organizations are still lagging in integrating AI to its HR-Practices because of its cost associated in integration. Now-a-days AI has been successfully integrated. Previously it is used to take lot of time of the recruiters to screen the resumes and select best among them. But the integration of AI in the recruitment has completely reshaped the process used in selecting the candidates with Requisite skill-set. If we observe the current world of recruiting with AI, it can be divide into two :- (1) chatbots Functionality (2) The Machine learning. **(J.Strange)**

Due to the integration of AI in HR/HCM it benefits the organisation by going into Automation and Producing better results. So that the reason AI in hr is the next best exciting thing to be happened in next coming years ahead. It is known fact that AI is completely invading the workplace and AI now has taken a new shape as a hiring managers. At, present AI when compared to other HR-processes, is largely linked with the function of recruitment. With successful integration of AI to HR in recruitment benefited the companies in hiring the right talent.

Fama technologies a california based firm (A Tech Firm) has developed AI based software that searches the candidates Profile, that matches the interests of hiring managers, another example is hyderabad based start-up named Param.ai which uses AI, which automatically Pre-screens the resumes for various companies and tells if the candidate is good, bad (or) Average basing on the past hiring patterns **(Smitha Verma)**

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 atleast half is wasted (Forgotten, Inappropriately applied, waste of time and money) **(JOSH – BERSIN)**.

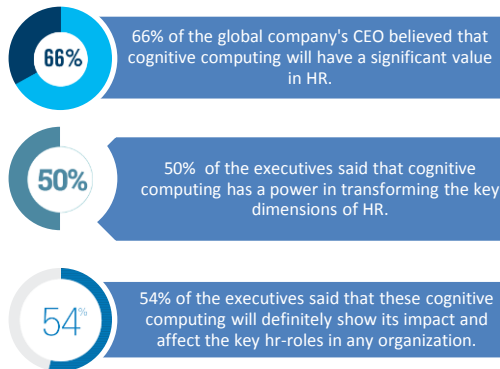
But now, the use of AI in training has become a powerful avenue in organizations and the T&D programmes are more effective by the application of AI based Algorithms that monitors and studies the skills, behaviors and attitudes of the employees working at various levels. Different people have different styles of learning so by using the AI, customization of training programs can be made. After the training the trainees feedback is taken in order to make any improvisations in the program. The AI helps both the employer and the employee to know about the gaps in their skills, performance, personality, knowledge etc., and helps them to improve and give their best in their work.

In Performance Management:

Traditional appraisal of evaluating employees performance is decreasing due to implementation and usage of AI. Most, of the employees viewed that while conducting appraisals, most of the managers showed bias and they also viewed even the error rate is also very high. **(Shaw.S)** Now all will have the bigger question is will AI integration in company's performance management systems will really improves the employees performances or not?. But the answer is yes where some of the top companies like Microsoft, adobe accenture and deloitte been successful with AI based applications in evaluating the performances. **(P. Andrea)**.

At present AI integration is largely related to recruitment practices and sooner AI is going to be implemented in each and every aspect of hr – practice through chatbots, AI based applications. **(Dom Nicastro)**.

As, per the latest survey conducted in the year 2017 by IBM over 6000 executives, " Extending Expertise": How cognitive computing is going to transform hr, and the key results of the survey are as follows: **(Dom Nicastro)**.



as coming to implementation of AI with Hr majority of the company's are hesitating because of the high cost. But, majority of the experts argued that AI can really measure the employees value and to prove this, a survey was conducted among 800 enterprise decision – makers revealed the following key results: **(Chris Nerney)**

66% of the respondents believed that the use of AI in management systems will give rise to more transparent meritocracy in the workplace.

74% opined and predicted that within the next 10 years, AI will be standard practice for measuring the employee performance.

• majority of the organizations are not implementing AI because of the high cost but soon they will implement it.

Other functions:

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.,

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.

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.,

Conclusions:

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.

Acknowledgment

This research was supported by MVGR College of engineering. we are thankful to our guide Prof. Kalyan Kumar who provided expertise that greatly assisted the research.

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