



THE STUDY OF IMPACT OF A.I. ON EMPLOYEES:

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INTRODUCTION:

Technology has made some truly creative innovations till date and one of them is Artificial Intelligence. Artificial Intelligence (A.I.) is basically intelligence demonstrated by machines, as opposed to the natural intelligence displayed by animals including humans. A very recent example of A.I. would be the invention of 'Sophia the Robot'. She is a social humanoid robot developed by a Hong Kong-based company called Hanson Robotics. Sophia was activated on February 14, 2016 and made its first public appearance mid-March, 2016 at Texas, United States. She even received a legal citizenship of Saudi Arabia!

Now by just reading the above example, you can imagine how much A.I. has progressed and how it has already started thinking and behaving like humans. Artificial Intelligence, in some form or the other has always played an important role in our life, then whether it is asking the weather update to an A.I. assistant like Alexa or searching for the best route on Google Maps. Just like that, Artificial Intelligence has impacted the lives of employees working in different fields like education, business, science and technology, arts and culture, etc.

During the deadly corona virus outbreak and the lockdown which followed after that, many employees working in the fields mentioned above had to resort to a new method of working which was: Work from Home.

Now everybody working in the education field specially, found this work from home thing a little difficult at first, but then A.I. in the form of Google Meet and Zoom came to the rescue! Google Meet with its amazing feature of taking attendance virtually is just one of the examples of how A.I. turned out to be useful. Even now, when we are in the phase of unlocking, A.I. is continuously impacting an employee's life inside the workplace. For some employees, A.I. is still a very new concept of working and many of them are not used to it, so they are pretty much resistant to the sudden change.

Some of them are even worried about losing their job, because somewhere in the back of their mind they are thinking that robots are much smarter and efficient than humans, it does sound bizarre, but it's true. And then

there is another group of employees who think that A.I. is a boon to mankind. It makes an employees work easy and it also helps in the process of decision making. It is also believed that, A.I. can make no errors while solving complex problems unlike humans.

Hence, these contradicting perceptions about A.I. usually give rise to an argument whether, A.I. is negatively or positively impacting the lives of employees? Well, no one exactly knows the correct answer to this question but researchers are determined to arrive to a firm conclusion in the near future.

Key words: A.I., employees, impact of A.I. on employees

RATIONALE & GAP ANALYSIS:

Very less research has been done on the “Impact of A.I. on Employees” topic. So far, research has been done only on individual topics like effect of A.I. on employment, job performance, flexibility of job etc. but never as a whole. Hence, it was necessary to bring this topic into light and make people aware that A.I. affects an employee’s life as a whole.

According to an Accenture survey on the future workforce, 60% of workers have a positive view of the impact of A.I. on their work. And two-thirds acknowledge that they must develop their own skills to work with intelligent machines. Large companies, however, are not on the same page as their employees. Reason being, business leaders believe that only about one-quarter of their workforce is prepared for the adoption of A.I. Still only 3% of business leaders are planning to increase their training budgets to meet the skills challenge posed by A.I.

Primary research tool (Google Form) will be used for my survey purpose. For the variables, sample size will be 43 respondents, it will be a mix of both male and female employees working in a private/public sector and aged between 22 to 60.

OBJECTIVES:

- 1) To study the awareness about A.I. among the employees.
- 2) To study the impact of A.I. on the employees.
- 3) To analyze whether A.I. helps an employee work more efficiently and effectively.

HYPOTHESIS:

H₀ – There is no awareness about A.I. among the employees

H₁ - There is awareness about A.I. among the employees

H₀ – There is no significant impact of A.I. on the employees

H₁ – There is a significant impact of A.I. on the employees

RESEARCH METHODOLOGY:

Research Universe: Universe is aggregate of all the elements which is used for studying specific problem and also defines the prior sample of population. For this study, respondents are from Mumbai.

Method of Sampling: For this study, the method of sampling which is used is convenience sampling. Through WhatsApp, a link for the Google form was sent to all the respondents.

Sample Size: The sample size of the study is 43 respondents. The respondents were asked to answer a total of 14 questions. Responses were collected from both male and female employees, ranging from age 22 to 60 and working in either a private / public sector company / organization.

Method of Primary Data Collection: Primary data collection in the form of Google Forms has been used in order to collect the required data for this research paper. Since, a questionnaire is a more feasible and efficient research method than in-depth interviews, specially taking this covid situation into account an online questionnaire method was preferred for this study. It also saves time, as the respondents can fill the form as per their convenience.

Method of Secondary Data Collection: Secondary data was collected for another purpose for this research paper. The purpose was to know what all research has been done on this topic before or what all new trends are coming in. The sources of secondary data used for this research paper were different websites and e-journals.

Data Analysis Technique: In this research paper, pie chart was used to analyze the data gathered and to draw conclusion based on it.

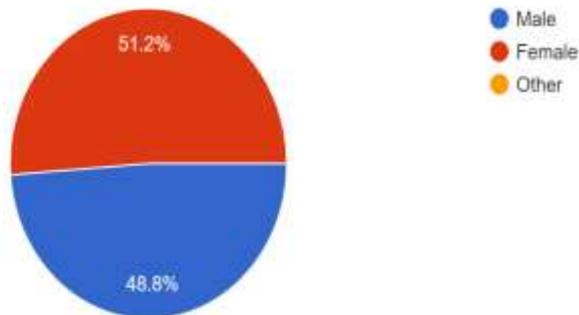
REVIEW OF LITERATURE:

The recent developments and progress made by A.I. has given rise to a debate related to the impact of it on various organizations. The areas impacted are, productivity, job-security, growth, insecurity, data confidentiality etc. As per an article written by Nishtha Malik, Shalini Tripathi, Arpan Kar and Shivam Gupta which was published in the International Journal of Manpower (2021), there are both positive as well as negative impacts of A.I. on employees. The positive ones are, work-related flexibility, creativity and innovation, overall enhancement in job performance. A.I. can negatively impact employees in ways such as, job-security, information security, data privacy and insecurity. Eventually all this results in techno-stress, work overload and complexity. According to another article written by Akanksha Jaiswal, C. Joe Arun and Arup Varma which was published in the IJHRM Journal (2021), there is a strong need of employee upskilling in this ever-changing technological world. Since, new and challenging jobs will emerge with the introduction of A.I. it is necessary for employees to keep themselves up-to-date and work closely with A.I. systems so that there is less job-risk. And hence, the idea of human-A.I. collaboration will become a success. A University of Kansas interdisciplinary team led by relationship psychologist Omri Gillath had published a paper in the Computers in Human Behavior Journal (2020), the paper showed that how people's trust in A.I. is related to their relationship or attachment style. In simple words, those people who are anxious about their own relationships are usually the ones who are bound to have trust issues with an A.I. system. The research also suggests that, the trust level in A.I. can be increased only when people are reminded about their secure relationship with others. According to an article which was written by Arwa Y. Aleryani which was published in IJDIWC Journal (2019), A.I. will somewhat replace employees in the near future; indeed, new jobs will emerge when that happens since A.I. cannot function on its own and it needs constant human supervision. Humans in return have to co-operate with this change by upgrading their skills to match with that of the technological developments. Prasanna Matsa and Kusuma Gullamajji had published a paper in the IRJET Journal (2019), the paper pointed out that what all jobs will be replaced by A.I. in the near future. First is Teaching: A.I. helps students learn differently. According to United Nations educational, scientific and cultural organization the percentage of primary and secondary school children not attending school is high so digital teachers can attract children to something with the help of A.I. Drivers: A.I. will replace drivers by mid-2030's, it uses certain algorithms for driving cars and prevention of risk and accident. Blue-collar and White-collar jobs: 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 also eliminate 30% of jobs of labor and it can even displace jobs of 800 million of people. Lawyers: A.I. is much better at predicting legal outcomes than humans. The way that A.I. and machine learning is progressing, by the year 2036, 1 lakh legal roles will be automated and it will reduce the job of lawyers and also the way of dealing cases. According to McKinsey Global Institute, 23% of jobs can be automated in the future.

PRIMARY WORK / SURVEY:

- Gender –

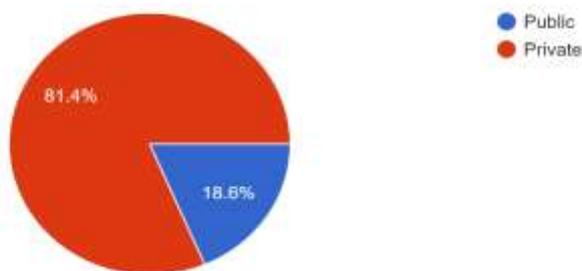
Gender
43 responses



The above pie chart highlights the percentage of males (48.8%) and females (51.2%) who have responded to this survey respectively.

- Sector-

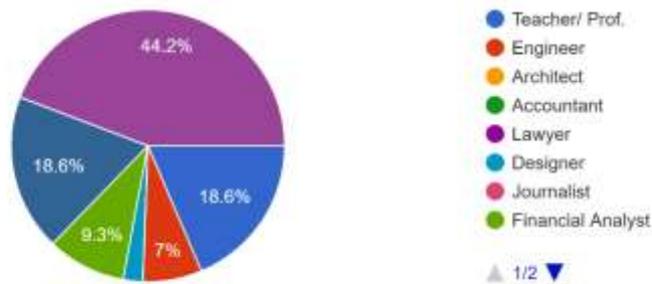
Sector
43 responses



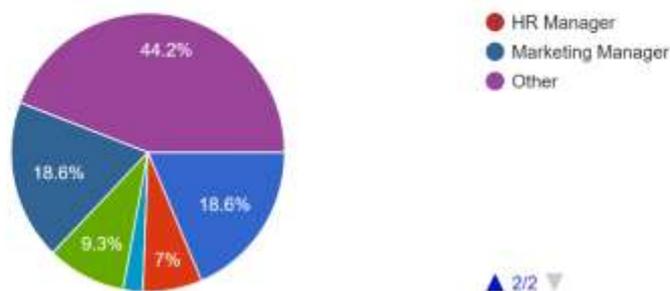
Out of the total 43 respondents, 81.4% work in private sector and the remaining 18.6% work in public sector.

- Occupation –

Occupation
43 responses



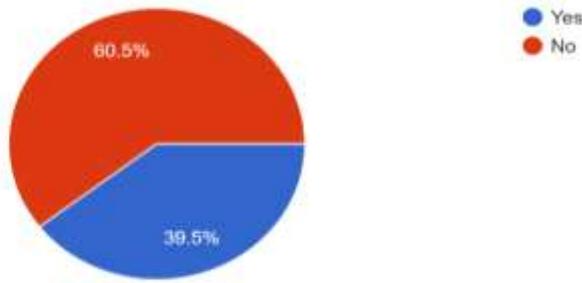
Occupation
43 responses



Among all the occupations mentioned above, it is observed that 44.2% respondents fall under the 'other' category (which includes non-teaching, retail banking etc.) followed by a tie between the marketing manager and teacher/prof. category (18.6%). The next category is of financial analyst which occupies 9.3% of the whole pie chart whereas engineer occupies only 7%. And last but not the least, a very small percentage is occupied by a designer.

1) Is Artificial Intelligence (A.I.) a part of your workplace?

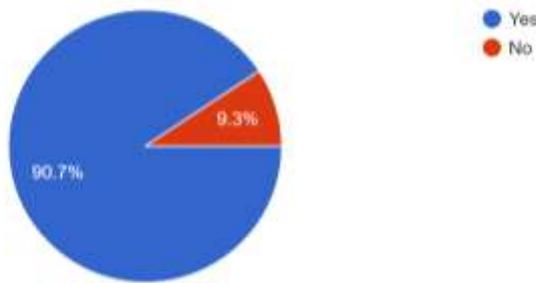
43 responses



In the above pie chart, it is clear that only 39.5% employees have A.I. as a part of their workplace whereas the remaining 60.5% do not have A.I. as a part of their workplace.

2) Are you aware of the concept of A.I.?

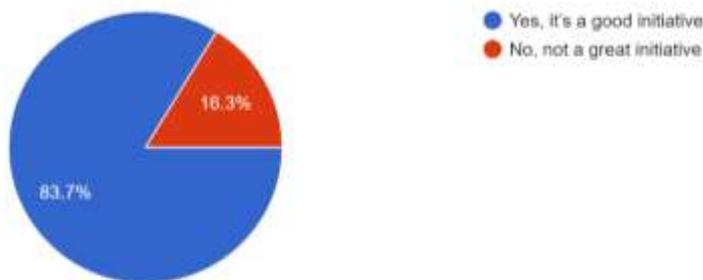
43 responses



According to the above pie chart, 90.7% people are aware about the concept of A.I. and the remaining 9.3% people are not aware about the concept of A.I.

3) As an employee of a company / organization, what do you think about the introduction of A.I. into the company's/ organization's daily operations?

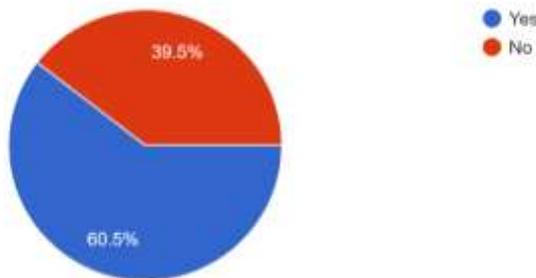
43 responses



Most of the employees (83.7%) think that involving A.I. into the company’s daily operations is indeed a good initiative. On the other hand, 16.3% of the employees think that involving A.I. into the company’s daily operations is not a great initiative which explains why some people are worried about losing their job.

4) According to you, is the employees’ data safe in an A.I. system?

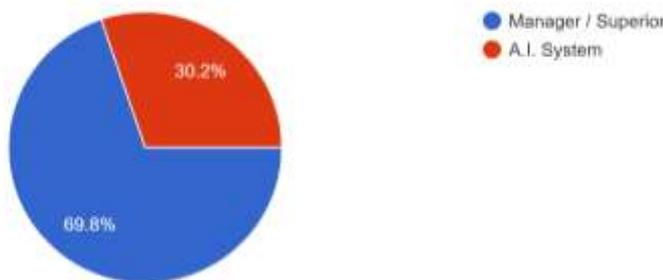
43 responses



According to the above chart, 60.5% people agree that an employees’ data is safe in an A.I. system. This proves that people do have trust on an A.I. when it comes to security. But, the remaining 39.5% people say that an employees’ data is not safe in an A.I. system, here it shows that there is a lack of trust and also another reason could be that there is a possibility of the system getting hacked.

5) According to you, is following the instructions from a manager / superior is easy or from an A.I. system is easy?

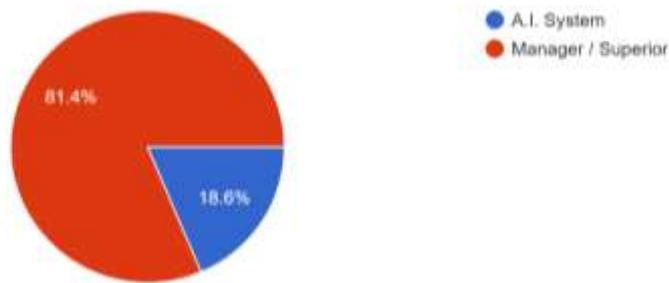
43 responses



69.8% employees are comfortable with following instructions from a manager / superior whereas 30.2% employees are comfortable with following instructions from an A.I. system. The latter statement shows that there is bonding between an A.I. and a human, on the other hand maximum people are comfortable to bond with a human because it includes a proper two-way conversation.

6) As an employee if any challenges are faced at the workplace, then whom would you prefer to approach the most?

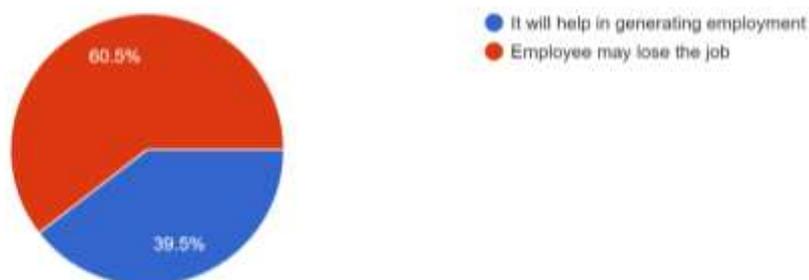
43 responses



Again, in this case 81.4% employees would prefer to approach a manager / superior if any challenges are faced at the workplace. The remaining 18.6% employees would prefer to approach an A.I. system instead.

7) According to you, what will be the impact of A.I. at the workplace?

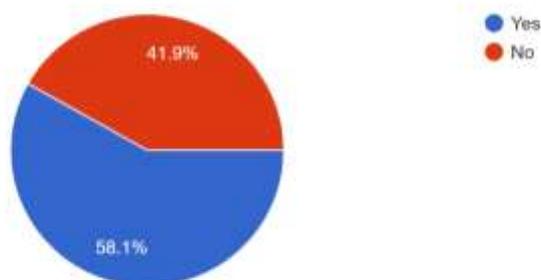
43 responses



In the above pie chart, 60.5% people say that employees will lose their jobs thus A.I. will have a negative impact at the workplace. 39.5% people say that A.I. will positively impact the workplace by generating employment instead. Here both the opinions are right, since there are such jobs which will be eliminated due to A.I. but at the same time other new jobs related to A.I. and its maintenance will emerge.

8) Do you think an A.I. system will help the organization in taking crucial decisions?

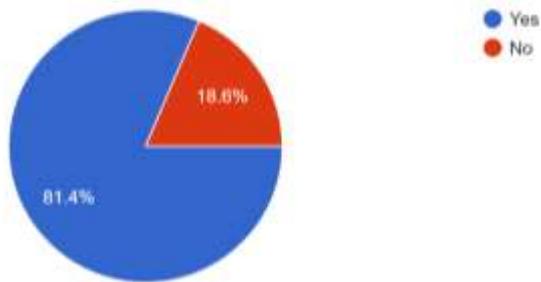
43 responses



Here, 58.1% employees say that an A.I. system will help the organization in taking crucial decisions. But, 41.9% employees say that an A.I. system will not help the organization in taking crucial decisions. Even though the percentage of people in the latter statement is less than the former, it cannot be denied that it is after all humans who have the ability to think and make any kind of decision in a rational manner.

9) Do you think that an A.I. system helps an employee work more efficiently and effectively?

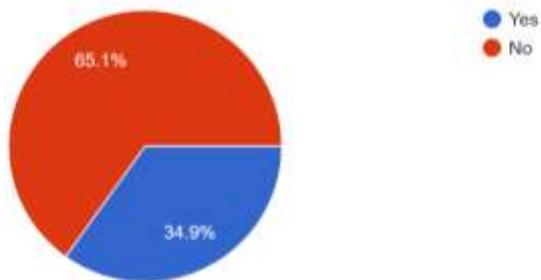
43 responses



81.4% people here agree that an A.I. system indeed helps an employee work more efficiently and effectively. Whereas, 18.6% people do not agree that an A.I. system helps an employee work more efficiently and effectively. Up to a certain level here, the former statement can be logically correct since an A.I. system makes an employees' task faster and easy with hardly any errors. Hence, making an employee work more efficiently and effectively.

10) A.I. is basically intelligence demonstrated by machines. But can an A.I. system ever beat the intelligence of a human being?

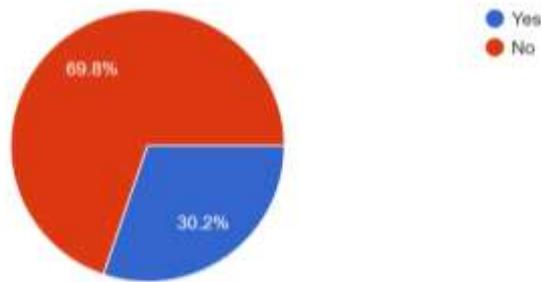
43 responses



In the above chart, 65.1% people say that an A.I. can never beat the intelligence of a human being. But, the remaining 34.9% people say that an A.I. system can beat the intelligence of a human being. For the latter statement to come true, it's going to take at least a decade or so, since A.I. is still in the process of proper development and implementation.

11) Do you think that a result / output displayed by an A.I. system is always accurate?

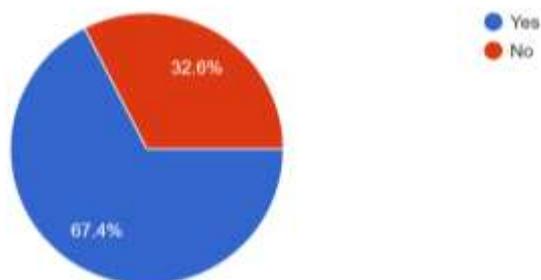
43 responses



In this case, 69.8% people say that a result / output displayed by an A.I. system is not always accurate. On the other hand, 30.2% people say that a result / output displayed by an A.I. system is always accurate. Here, there is a chance that the result / output which is displayed by an A.I. system can be wrong due to some technicality issues. Well, if humans can make mistakes, then so can machines.

12) Do you think that A.I. will reduce the ability of decision making of the employees?

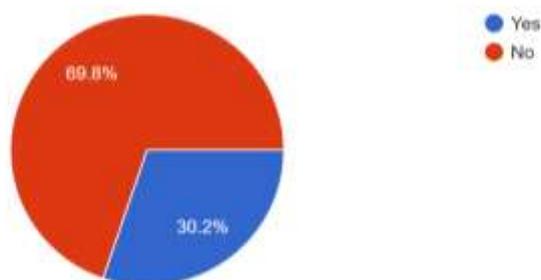
43 responses



Here, 67.4% employees think that an A.I. will reduce the ability of decision making of the employees. Whereas, 32.6% employees think that, A.I. will not reduce the ability of decision making of the employees. Too much dependency on A.I. will surely reduce the ability of decision making of the employees, since employees will constantly rely on A.I. for every little decision that they have to make.

13) Do you think that A.I. would be more effective in resolving employee conflict?

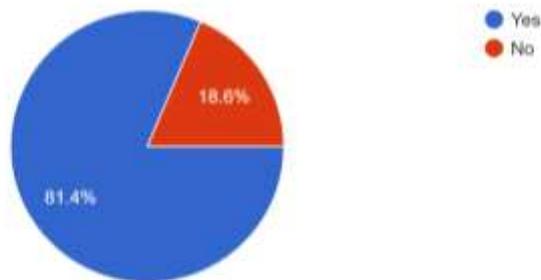
43 responses



69.8% people think that A.I. will not be effective in resolving employee conflict. The remaining 30.2% people think that A.I. will be effective in resolving employee conflict. Since, a conflict involves emotions and negotiations etc. as of now, humans are the one who know how to display emotions and can negotiate with ease.

14) Do you think that A.I. is the new future of the human dominated world?

43 responses



In the above pie chart, 81.4% people think that A.I. is the new future of the human dominated world. Whereas 18.6% people think that A.I. is not the new future of the human dominated world.

EXPECTED OUTCOMES:

The expected outcome of the entire research was to make people realize that it's high time now to start preparing ourselves for the future. There is a strong need to upgrade ourselves and our skills in order to work alongside with intelligent machines. According to the survey conducted, 90% of the employees are aware of what A.I. is but at the same time the remaining 10% employees are still clueless. Hence, there needs to be awareness generated among employees about A.I. But, that's not where it should stop, as per the survey, 60.5% employees said that A.I. is not a part of their workplace. So, the first thing to be done here is to introduce A.I. in the form of either smart assistants like, Alexa or Google or even chatbot system can be set up inside the workplace. This will help employees to get acquainted with the A.I. environment. Training sessions should be organized by companies in order to train and develop employees' skills so that they are prepared for the future challenges and outcomes that A.I. will bring. Employees should slowly start building up trust towards A.I. and at the same time employees shouldn't be too much dependent on A.I. for every small thing that comes up.

BENEFITS TO THE SOCIETY:

This study is beneficial for the society as a whole since people become aware about the current trends in technology and its impact on the world. This research is beneficial for the government since A.I. can make all the tough tasks like tracking the population, tracking the unemployment level etc. easy so that the government can focus on other important work. Along with the government it is also beneficial for the people since self-driving vehicles (like the brand-new Joy-e-bike) are being launched into the market, which in turn saves fuel and money, and it also benefits the economy in some way or the other. A.I. also helps recruiters to hire suitable candidates for their company, whereas earlier this same process of hiring was tedious and time consuming. Hence, in conclusion, A.I. benefits all if it is implemented and executed in a proper manner.

FUTURE SCOPE:

In the near future A.I. will play a significant role in every aspect like, economy, science & technology, healthcare etc. Many new jobs will emerge with the introduction of A.I. and there will be a strong impact of A.I. on not only employees but also the general society as a whole. Recently, one country has developed an A.I. prosecutor that will charge citizens with crimes with '97% accuracy'. And according to researches this has replaced human prosecutors "to a certain extent". If this is not the best epitome of how A.I. can replace humans then what is? It is sure that in the next 10 years technology is going to make an immense progress with the emergence of self-driving cars and even robots! It sounds scary but this is how the development of a country and its people will take place. A.I. won't take over on humans but it will help us in building a strong future.

LIMITATIONS:

This research, however, is subject to certain limitations like –

Lack of previous research studies: As said before, very less research has been done on this topic, which in turn made it difficult for me to find the appropriate data for my research study.

Lack of time: Due to respondents responding late to the questionnaire, I had very less time in my hand to interpret the data and arrive to the conclusion accordingly.

Lack of proper sample size: Initially the sample size was supposed to be 100 respondents. But due to lack of cooperation from the participants, I could only receive responses from 43 respondents.

REFERENCES:

1. Alwa, A. (2019). Refutation of Artificial Intelligence Myth "Artificial Intelligence will ultimately replace human employees" (Reality and Fiction), International Journal of Digital Information and Wireless Communications (IJDIWC) 9(1): 1-7
2. Prasanna, M.& Kusuma, G. (2019). To Study Impact of Artificial Intelligence on Human Resource Management, Volume: 06 Issue: 08
3. Omri, G.; Ting, A.; Michael, B.; Shawn, K.; Rob, D.; Ryan, S. (2020). Attachment and Trust in Artificial Intelligence, Computers in Human Behavior Journal, 106607 DOI: 10.1016/j.chb.2020.106607
4. Akanksha, J.; C.Joe, A.; & Arup, V. (2021). Rebooting employees: upskilling for artificial intelligence in multinational corporations, The International Journal of Human Resource Management, DOI:10.1080/09585192.2021.1891114
5. Nishtha, M.; Shalini, T.; Arpan, K.; Shivam, G. (2021). "Impact of artificial intelligence on employees working in industry 4.0 led organizations", International Journal of Manpower, <https://doi.org/10.1108/IJM-03-2021-0173>
6. www.google.com