

A study on impact of AI on the jobs in India special reference to Health and Education Industries

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ABSTRACT

Artificial intelligence (AI), driven by machine learning (ML), computer vision and the Internet of things (IoT), is very soon sprouting as a substantial general-purpose technology. This is no longer associated only to computer-based companies but also slowly moving to all major sectors, such as manufacturing, agriculture, healthcare, retail, banking and financial services, and public utilities. AI is also being considered by defense and security organisations. While an increasing number of industries have already embraced AI and started to reap its benefits, many others seem willing to explore the significant business opportunities and societal value offered by AI.

The push adoption and success of AI is due to the support, eagerness and initiatives taken by government authorities. This adhesion has already inspired visionaries to develop solutions that are assimilating human touch and machine aptitude. The implementation of AI is to enhance the human ability to perform tasks more effectively and efficiently with taking right decision with humans or with support from machines. Chatbots, connected worker spaces, predictive asset maintenance, smart agriculture and many other such business cases serve as precedents for successful human-machine interaction models. The introduction of AI, has created an exhilaration and also a perceived uncertainty with regards to future employability.

In this research, the researcher has given importance to current development of AI specially in India with respect to various key sectors. The researcher has further tried to identify the perception of industry professionals regarding the effect of AI on their businesses and also to find the reality of the hype created that AI will risk jobs and further will reduce the functional roles of human resource.

Keywords: Chatbots, Assimilating, Machine Learning (ML), Artificial intelligence (AI), employability, exhilaration

INTRODUCTION

This paper tries to review the available literature on technological change, automation, and further their influence on the future of work and, education and skills Artificial intelligence is composed to release the next trend of digital distraction, and companies should prepare for it now. It's been seen that few early adopting firms have made benefits and have progressed, so therefore others have focused on accelerating their digital transformations. Through this research the findings lead to focus on five AI technology systems: robotics and autonomous vehicles, computer vision, language, virtual agents, and machine learning.

The investment in AI is growing debauched, that is being conquered by digital titans such as Google and Baidu. Industries globally, are spending on AI R&D, placement, and also on its acquisitions. AI or Machine learning, as an empowering technology, has received the largest share of both internal and external investment.

Recent there was headline that specifies the growth and development of modern technologies will radically modify the jobs scenery in India, possibly dislocating large percentages of the workforce. While commotions are unavoidable, but it is not yet clear as how much automation and technology will have its influence on employment, job roles and skilling requirements. India has a growing youth population who require regular

and relevant employment opportunities therefore the authorities should create these new opportunities in order to meet their requirement.

As per a survey conducted it was observed that there are about 72 percent of the Indian population are of working age (18–55 years), 75 percent of whom are under the age of 35. The result of the research analysed that there are huge number of people every year who are entering into the workforce. While the Government of India has made strides in improving business environments for both established companies and start-ups, and is working on improving the skilling landscape, the task to increase the number of jobs and the magnitude of an appropriately skilled workforce is formidable. India faces the twin challenge of automation and digitisation resulting in a potential reduction of jobs, at the same time as the number of people entering the job market continues to rise.

As job requirements change, so do the skills and competencies required of workers. India must repurpose the poorly performing education and skills ecosystems to meet future requirements, while also safeguarding the education needs of a growing number of young people. To address this challenge, the Government of India has set up a number of initiatives to match skill-training with the future skills needs of the labour market.

The authors then suggest a conceptual framework that can be used in subsequent research to study the future of work, education and skills in India. Given the limited availability of academic studies in this area that focus on India, the paper refers to a range of sources, including consulting reports and publicly available data. This provides as complete a picture as possible on factors that will likely shape the future of work in the country.

The paper first discusses the impact of technological and digital change on employment in India, highlighting consequences, e.g. technology substitution and job creation, increased wage inequality, the stagnation of manufacturing jobs, skill and wage polarisation, and changing task and skill requirements. It then identifies a set of other factors in India's labour market that will be crucial in shaping the future of work, including a structural shift in employment from agriculture to non-farm activities, increased use of contract labour over permanent labour, the formalisation of firms, and the low productivity of many of India's firms, especially in manufacturing. The paper also discusses a set of broader societal forces at play, such as demographic shifts, the role of women in the labour market, globalisation and protectionism, the varying quality of education, rapid digitisation, and the subnational variation in development and growth between geographies in India. Finally, the paper outlines a framework for studying an inclusive future of work in India, which will be applied in subsequent research

LITERATURE REVIEW

According to Arntz (2016) AI uses a mission-based tactic to guess the concept of automation based budding of employment in many countries and found out that, there is a possibility of, only some percent of jobs are at risk. There is a difference between country to country, therefore this also reflects various differences in workplace depending on organisations also, to this previous automation, and educational attainment also plays a vital role.

As per reports mentioned in Artificial Intelligence and Robotics – 2017 there is a robust occurrence in Artificial Intelligence with giving importance and considering it necessary to have R&D for a nation to gain a forefront in an automation-determined future. Thereby, the national policy needs to study the current and future demand by the AI experts. The governments need to build up a strong network to evaluate the current educational paths and syllabi and, if required, revamp the same to provide skill upgradation inventiveness for a workforce that tries to seek and stay relevantly upgraded in a fast-sprouting technology scenery.

OBJECTIVES OF THE STUDY

- To observe how artificial intelligence is used currently in Human Resource Development recruiting process.
- To understand the importance of artificial intelligence in current and future scenario in health and educational institution.

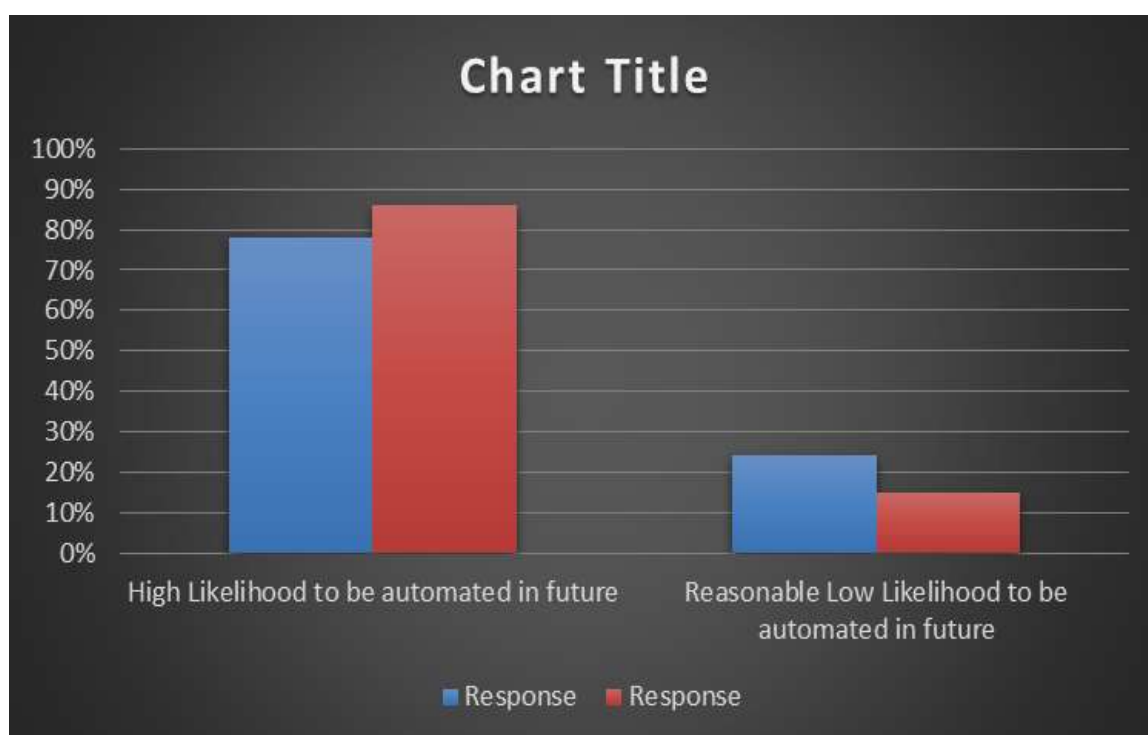
RESEARCH METHODOLOGY

For understanding this study, the data has been collected from both primary and secondary sources. The primary data collected through the investigation of various organizations with a structured questionnaire. The sample size chosen for the study is 50 respondents from both educational institutions and organisations and they were selected through simple random sampling method. The were requested to provide the information that are related to the presence of AI in their organistions and its effect on health and educational industries especially in areas related to its future functioning. The analyzed data have been represented in a table and interpreted.

DATA ANALYSIS AND INTERPRETATION

What is the Perception of automation in education and health sectors?

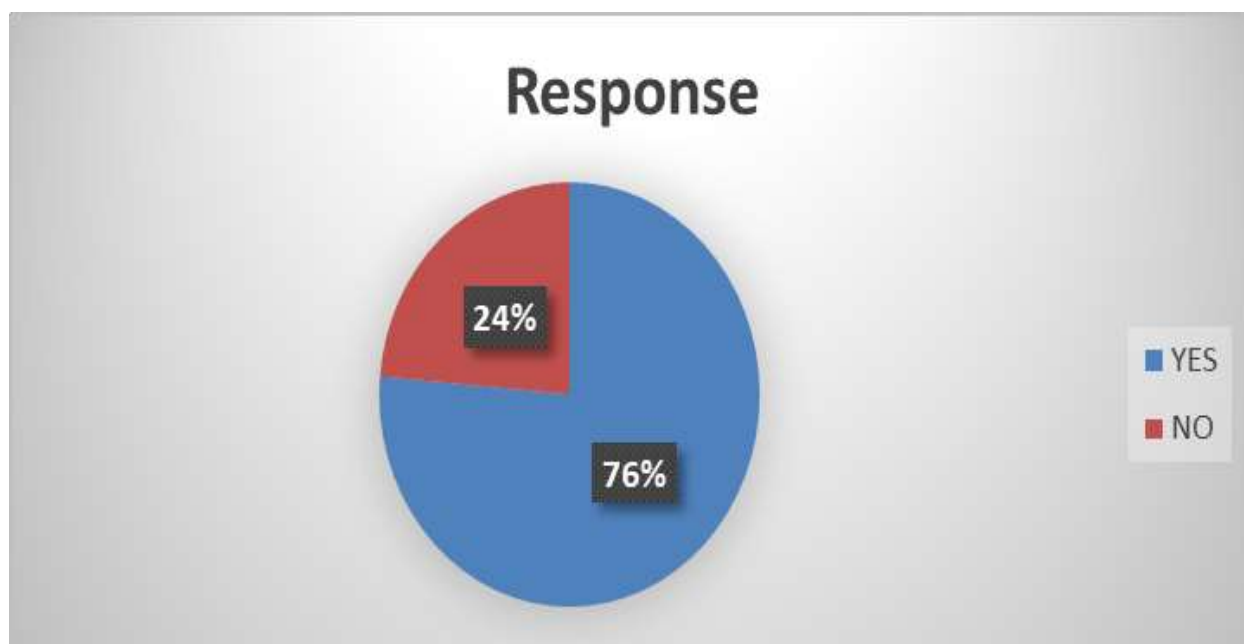
Particulars	Response	
	Education Sector	Healthcare Sector
High Likelihood to be automated in future	78%	86%
Reasonable Low Likelihood to be automated in future	24%	15%



To understand whether AI is transforming the job scenery and also to see if there is likelihood of job automation to this 78% of participants education industry and 86% of participants of health care industry felt that job automation within their sector was reasonably likely in the near future, with humans being retained for precise proficiency. Further only 24% from education and 15% participants from healthcare industry felt that there would low likelihood of automation in the future.

Table-2: Upgradation of skill in education and teaching in order to maintain specific roles and responsibilities in the coming years

	Response
YES	84%
NO	26%



When asked the respondents about the requirement of upgradation of skill in education and teaching it was felt that 84% of the respondents felt that there is requirement of upgradation to understand the specific roles and to have proper responsibilities but 24% of respondents denied the fact that there is no requirement of upgradation in both the industries.

Though the survey specified that upgradation is required but there were few employment-related worries due to automation that cannot be overall ruled out, it would allow humans to get more involved in tasks that need higher specialization and critical thinking.

CONCLUSION

As per this research it's been understood that there would be a changed job scenery in 2022 and further there also would be a changed scenario in the potential job market by 2022

Artificial intelligence is at the forefront of the next technological revolution and is expected to play a key role in India's digital vision. In this report we have tried bringing AI's impact on Indian businesses and society and the readiness of the workforce in adapting to and collaborating with AI systems in the near future.

FINDINGS

The researcher found out that AI will cause role changes, not necessarily job losses

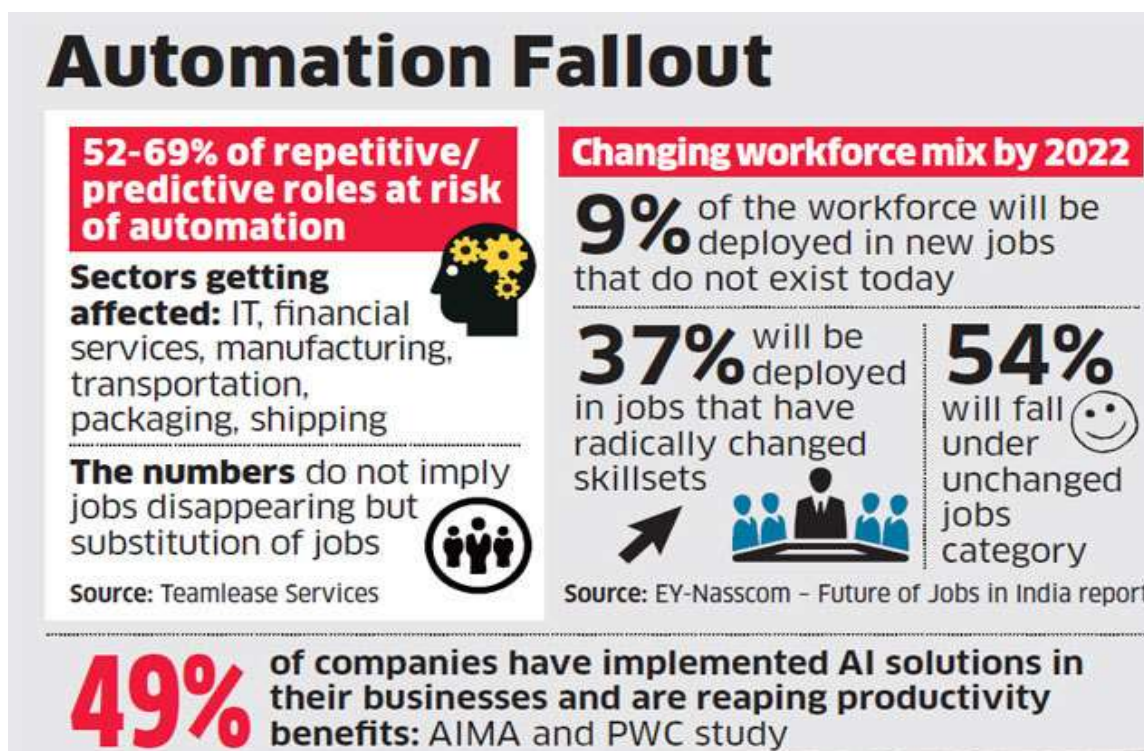
A study estimates 52-69% of repetitive and predictive roles to get exposed to the risk of automation in the next couple of years. More than half of generic work profiles in education and health industry are facing the risk of distraction over the next two years due to automation, according to an estimate by Teamlease Services.

But the research specifies that there is risk of automation, but, that does not mean that it would lead to a job loss necessarily. Therefore, it's been seen that as robots, automation and artificial intelligence perform more tasks and there is enormous commotion of jobs, experts say a wider display of education and skills-building programs will be created to meet new demands. But to this there are two uncertainties:

Will well-prepared workers be able to keep up in the race with AI tools?

And will market capitalism survive?

This could be understood with the help of following figure:



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