

AI: Job Creator or Jobless Future

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Abstract

It is said that, "Necessity is the mother of Invention"; and this is absolutely true for Homo sapiens. Living in 21st century, man has made everything to his comfort. Today we have so many machines around us in our service. Just one click or tap to a button and your task is done. Such is the level of ease, we are having today for most of our routine lifestyle work. Man had continuously make efforts to improve what they are currently. From easy job to critical task, we had made machines to do all our operations. Today we had such a breakthrough in technology, that we had made machines to learn, think and act like humans. This is when the Artificial Intelligence, come into the picture.

In this research paper, we will be analyzing the fact that there are equal positive aspects too, when we talk about Artificial intelligence. Through this paper, we want to highlight the fact that, AI is not purely meant for human replacement. Our research with try to break the myths and negative opinion of the readers about AI as Job snatcher. Amidst discussing the favorable aspects with respect to AI, we will also through light on potential challenges from AI. Our research is based on secondary data, and our data sources are like-minded journals, websites and magazines.

Keywords: Artificial Intelligence, Machine Learning, Human Replacement, Technology, Deep Learning, Job creations, Robotics, Employment, Trends in AI.

1.1 Introduction

Artificial Intelligene is changing the way we live today. Machines are turning smarter to tackle our routine problems. If we specifically talk about the employment generation, potential of technology in general, and Artificial Intelligence in particular it is endless.

A simulation of human intelligence, by machine or computers is called as Artificial Intelligence. AI is the capacity of the machines to judge, memories, think and speak in a manner of mankind. It is like training the machines to do all task usually associated with human intelligence. Driving a car without the usage of human driver, ordering the necessity groceries stock to refill your granaries via automatic machineries or automatically switch on the air conditioning as soon as the person enters the room. This is the kind of ease one can enjoy with the advent of technology in general and Artificial Intelligence in particular. From different names of Alexa, Siri and Cortana, Artificial Intelligence is bringing out gigantic changes in our daily life. From Speech Recognition Technology to Generative chatbot like ChatGPT, machines are getting even smarter with every single upgradation. We are making machines to solve our problems, make decisions and handle our workplace as well. Amidst the following milieu, when AI is making our life easy and replacing humans from many jobs, it is also true that AI is a wonderful platform who is generating millions of jobs on the same way. As per, **World Economic Forum (May 2023)**, AI snatching 85 million

jobs after its introduction, it is equally generating good amount of job opportunities close to around 97 million jobs, post its introduction.

A product of Industrial revolution 4.0, Artificial Intelligence is a range of computer systems and software. AI is available in different forms, for instance as in-built voice assistant, chatbots, intelligence system, image recognition system etc. There are seamless opportunities for mankind, to utilize Artificial Intelligence for job creations and ensuring employment for all at a large scale. Some of the job posts available after the advent of AI technology are discussed in **Model 1**

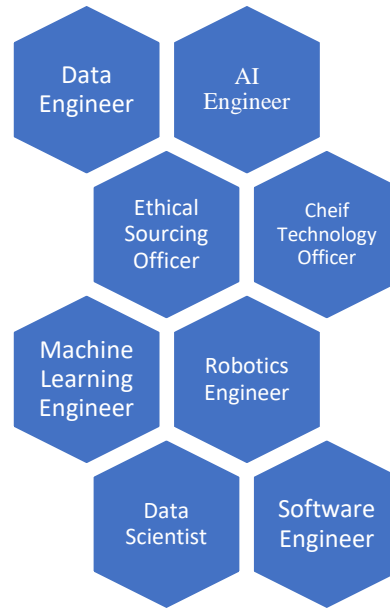
1.2 AI as a catalyst for Creating Job Opportunities

If the future of lifestyle is technology, we can't turn away from reality that technology will be a future job option for most of us. We need to be well-equipped with technological know-how for getting future jobs. We need to learn co-working with machines, robots or Artificial Intelligence to win our bread. Present status of jobs will get replaced with new type of jobs, supported by AI and other technologies. AI will be creating more jobs and we need to adjust our self to the changed system. We have to imagine our self as a future Leader or Manager, not leading or managing traditional human resources rather leading or managing the humanoid robots or AI powered Robot. Now to become their manager or leader, we don't need human skills, instead we'll be requiring technical skills to get the job done. Hence it is clear that AI will be having a deep impact on the job creation mechanism. AI is opening the doors for multiple new sectors and new business hierarchies. Some new career prospects that will be breakthrough with AI are –

- Technicians
- Logistics Operators
- Software Engineers
- Hardware Engineers
- Drone Manufacturers
- Cyber specialists
- Machine Learning Experts
- Design Engineer

1.3 Impact of AI on Old Sectors or Business Hierarchies

At the same time, AI will close the door for many old sectors and Business Hierarchies. Career prospect of the following will be on the verge of danger. The affected community will include the following people. **Model 2** is showcasing which job would be potentially replaced by whom in the upcoming future after the advent of Artificial Intelligence.



Model 1

S.No.	Current (Old) Job Scenario	Future Job Scenario
1.	Delivery Executives	Drone Delivery
2.	Content Writers	Generative Chabot's
3.	Human customer service agents	AI powered Chatbots
4.	Manual Scavengers	AI powered robotics scavenging machines
5.	Drivers	Driverless AI powered Cars
6.	Data Entry Clerk	Automated Kiosk
7.	Telemarketer	Robot-caller
8.	Anchor/news presenters	Robot Anchors
9.	Proofreaders	Proofreading software
10.	Traffic Police Personnel	Humanoid Robot
11.	Translators	AI tools like Google Translate
12.	Assembly & Factory Workers	Robots & Hydraulic conveyor Machines

Model 2

Despite all these jobs will going to be replaced by technology and AI tools in the coming days, it must be kept in mind that still many sectors and jobs will remain untouched with the developments of Artificial Intelligence and technological innovations. These are discussed in **Model 3**.

S.No.	Jobs unaffected with AI	S.No.	Jobs unaffected with AI
1.	Teachers/Professors	6.	Authors/Writers
2.	Doctors/Nurses	7.	Event Planner
3.	Lawyers/ Judges	8.	Human Resource Manager
4.	Surgeons	9.	Singers/Artist
5.	Web Designers	10.	Athletes/sportsperson

Model 3

2.1 Theoretical Framework

According to **Poquet, O., & de Laat, M. (2021)**, modern humans are utilizing better technologies and AI-based tools today for meeting our learning & communication needs. AI put a deep impact on the way we learn things. They demonstrated that we will be needing more AI tools to support human decision making process. In the nutshell they stress on the fact that lifelong learning can be actively transformed by using Artificial Intelligence for learning and work. Thus AI based tools are optimistic for learners to support their learning.

Relating to the fact cited in this particular article, we can narrate that if we are propelling the usage of artificial Intelligence in our learning system, then it will surely revolutionize our employment system. Because it will make our learning easy and will provide future employment. We can easily utilize our AI learned capabilities in creating jobs of our type and need.

Jay Dixon, Bryan Hong, Lynn Wu (2021), In this paper, authors focused on ‘The Robot Revolution’, which is changing the employment scenario of total employment, non-managerial employment and managerial employment. According to them robots are revolutionizing every part of employment. Robots will surely change the type of demand with respect to labors. Definitely post Robot revolutionisation, we will not be requiring more manual hands for work, rather we will be needing more minds to manage these robots, make these robots and repair them. If we talk about Total Employment, the demand for middle skilled labors will be replaced by technology however a big demand push will come ahead in higher skill and lower skill personnel.

Martin Obschonka, David B Audretsch (2020), discussed the impact of Artificial Intelligence and Big Data on entrepreneurship. How AI will transform real-world phenomenon. However they narrated that AI can never replace human creativity, intuition, imagination and cognitive ability, upon which entrepreneurship and start-ups thrive. Therefore we can conclude that despite Artificial Intelligence is a big shift and a future technology, it can’t cut short the significance of disciplines like Entrepreneurship. However ideation of entrepreneurship idea will remain limited to humans, but AI can play a significant role in making that start-up or entrepreneurship, a big success.

Kamran Shaukat, Farhat Iqbal, Talha Mahboob Alam, Gagandeep Kaur Aujla, Liton Devnath, Abdul Ghaffar Khan, Rimsha Iqbal, Irum Shahzadi, and Afifah Rubab (2020),

Through this paper, the author confirmed the fact that, with the advent of technologies such as AI, mass unemployment would never be a scenario by any chance. It is rather makeover of the jobs what we are already doing over of period of time. Human Resource will be handling and managing the smart options vis-à-vis employment opportunities. Artificial Intelligence will be reshaping every job we are currently doing. Interestingly, the job structure would be at ease for ease after AI to be implemented on a large scale. We all have to go through lifelong learning and development so as to adjust our self with the benefits of AI. We all are going to survive in mind-boggling design around us, machines would be having human like intelligence, to ensure our consistency with the changing time, we all need to enhance our capacities to match the future employment demands.

According to **Martens, Bertin, Tolan, Songul (2018)**, AI based machines can improve labor productivity on an overall basis. Despite the history of innovation showcase painful transitions, but it must be understated that innovation always ended up creating plethora of jobs opportunities that too with higher incomes. AI will be a game changer for various industries and sectors, as it will increase labor productivity and increase output that would leads to growth in income, standard, more welfare and prosperous economy. However, impact of AI on employment will create several inequalities in the society to cope with. But one thing is sure that AI machines and tools will equip human resources to do their jobs in a better way, resulting in cost saving and enhanced responsibilities.

Morgan R. Frank, David Autor, James E. Bessen and Iyad Rahwan (2019), According to this study, the authors also agree to the fact that technology generally increases productivity. AI in particular may reduce today's valuable employment opportunities for workers. The worker force who was very friendly with the technologies of past, may find it concerning for adherence of technology like AI today. Large improvement may yield deleterious effects for employment. Automation, Computerization and Artificial Intelligence are already affecting the employment pattern of in Finland, Germany, US and Europe. In the nutshell, the optimists suggest that AI may substitute for some types of labor, but AI only increase future employment challenges like one need to add more skill-set in them so as to meet future employment demands with AI.

As a result labour trends forecast will also get evaluated. Therefore future employees must poses specific skill-set to handle alterations to skill demands and perform resilience working in dynamic conditions. Also, they suggested a decision framework that focuses upon maintaining resilience to unexpected scenarios in addition to general equilibrium behavior.

According to **Samwel Macharia Chege, Daoping Wang (2020)**, they observed that technology innovation positively impacts the employment generation for the small businesses. Also the authors utilized the Seven-Step approach in their literature review for synthesizing their relevant data. Effective use of Information technology in small business play a major role on their competitiveness and to increase their access with respect to international markets. Therefore the policy makers need to understand the dynamic role of Artificial Intelligence & Information and Communication technology for future employment. And thus we need to draft a framework for AI as it will be an important aspect for future job creation as well as for economic development. In the nutshell, small businesses will be positively impacted by them.

Dr. Bharati Rathore (Feb 2023), AI tools are going to be the reality for every sector in general. AI is used for developing intelligent assistant that can do conversation with the humans. AI tools will be useful for the businessman to develop tailored conversations and campaign for their customers. And to provide them with seamless satisfaction as well as customer loyalty. The findings of this research paper clearly indicate that the future of business in general and employment in particular is going to be more tech-oriented supported with AI and ChatGPT.

3.1 Recent Trends in AI

As we know the fact, that AI is still a developing technology and its finest version is yet to be discovered by the scientific community. Therefore more and more trends keeping on adding ahead to the Artificial Intelligence, to make it one of the most prolific scientific innovation ever. For now, the recent trends to be observed in AI are -

1. Development in predictive analytics
2. Large Language Models (LLM)
3. Information security (InfoSec)
4. Create customized Digital Avatars.
5. AI Ethics & AI Governance laws.
6. Develop state of the art military weapons for defense sector.
7. Process discovery with AI
8. Embedded Application (EA)
9. Launch of better autonomous systems
10. Art through NFTs
11. AI can be a driver of sustainability
12. AI-powered virtual assistants will also become more prevalent in the workplace.
13. Ethical and Explainable AI
14. Generative AI algorithms take existing data
15. The use of AI trends will help every financial firm offer tailored products and services to customers
16. AI in Healthcare to Accelerate Contactless Patient Care.
17. Responsible AI to Gain More Traction
18. Smart automation into security systems, after AI introduced in Cybersecurity field.
19. AI plus Operations can create AIOps, to optimize Operations.
20. AI can be a game changer vis-a-vis National Security.

3.2 Barriers in AI adoption

AI will not be going to be a potential job creation technology or an employment option for most of us, until and unless we are going to adopt it at large scale. Despite it is the future of employment, still there are innumerable barrier before AI ripe its sweet fruit of ease of employment. A good number of global population are still aware about its potential and its benefits. From rural-urban divide to digital divide, there are plethora of challenges before AI actually make some impressive changes in the employment options. Some of the key barriers for AI adoption vis-à-vis future employment opportunities are –

- ✓ Lack of knowledge lead to delay in AI adoption.

- ✓ AI is still a costly technology for many people in many nations.
- ✓ AI had not still resolved privacy issues.
- ✓ It still had many ethical and legal issues.
- ✓ Cyber security is still a challenging concern for AI adoption.
- ✓ Still many countries had no laws and regularity mechanism for AI & other data centric technology.
- ✓ Many firms & people resist to adopt AI.
- ✓ Lack of AI strategy.
- ✓ Lack of AI expertise and know-how.
- ✓ Skill shortage is another barrier to AI adoption rate.
- ✓ Digital divide is also another barrier for AI adoption.
- ✓ Lack of trust among people.
- ✓ Fear of failure.
- ✓ High risk factor associated with AI to be implemented in day-to-day operations.

4.1 Conclusion

Considering to the fact that, Artificial Intelligence is still an evolving technology, which is still on development stage. More of its innovations are yet to come. However on the basis of our study, we have reached to the conclusion that AI will be bringing a paradigm shift in every sector and new opportunities will be knocking at our door vis-a-vis employment opportunity. The kind of jobs, we are doing now will get replaced with new type of jobs in the upcoming decades. New jobs and new sectors will thrive in the upcoming days. AI will be turning as new oil or gold, thus making the future employment opportunities to be more competitive. Service sector along with manufacturing sector will go to be thrive with a big push in upcoming days. More and more robots as well as machines will be manufactured inside the factories. Which will create demand for quality human resource who can understand scientific know-how. Access usage of technology will push youth to inculcate towards STEM (Science, Technology, Engineering and Mathematics) subjects. Education policy makers will too add AI to curriculum of the future learners as well, thus paving a way for improving educational policies as tech-savvy. Information Technology will be made as mandatory subject for future pedagogy and andragogy. A big count of students will get enrolled in these STEM subjects in future. Complete digitalization will be initiated globally; as a result, new data digitalization and protection laws have to be made by all the countries to keep a check on data privacy theft of their citizens. A leap and bounce transition will be coming ahead with Artificial Intelligence.

In the nutshell, many things will be going to change soon. Many things need to be learned and adopt by all of us in future. The future of employment opportunities will be in safe hands until we all adopt the change with time. We all must not worry about mass unemployment, as it would never be a case. Rather more jobs are waiting for us, in new form and new name, that will be requiring new skills and new creativity. The only thing that we will be requiring is to upgrade ourself. We need to practice reskilling and upskilling tech-based skill-set, so as to meet the changed requirements of the jobs.

Meanwhile a giant tech-based revolution in general is waiting for us. It will be definitely going to thrive the current employment pattern and will be opening Pandora box of opportunities for human being to earn and change their lifestyle. AI have a lot of potential for change the way we work. Probably we have to prepare our self for upcoming AI revolution. And this revolution had already begin its entry in our normal

life, more of its impact are soon to be in front of us in the upcoming time period. So be ready to be in the era of AI.

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