



Automation and Artificial Intelligence- A Risk on Different Jobs of the Economy

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Abstract:

The insurgency of technology is replacing human beings with machines in practically every sector of the worldwide economy. In recent years, due to automation many jobs have gone astray as machines have overpowered human tasks. Millions of workers have been permanently fired and the entire work categories have shrunk. Countries like India face the bigger brunt on jobs due to automation in sectors like banking, education, medicine, etc. The whole era of artificial intelligence along with digitization is accelerating at a pace that employers and employees will face a sustained skills gap. The year 2020 will be the year of robots which will subsequently takeover million of jobs. The robots will not just make cars but also drive them, replacing the job of humans by taking over trains and taxis. Artificial intelligence will be better at diagnosing medical images or researching legal cases in comparison to human jobs. Globalization and technical innovation is causing a threat to the work opportunities of millions of workforce across the globe. Hence, it is rational and logical that we should turn to education so as to understand and prepare for the robotic workforce of tomorrow. The objective of the study is to know the impact of automation and artificial intelligence on different jobs and professions.

Keywords: Artificial Intelligence, Automation, Robots, Jobs

1. Introduction

The link between human workforce and fully automated machines is a key issue in today's development of technology. Considering the industrial age in which we are working nowadays, specialists in the robotic and automation field have made a mark regarding the human workforce and fully automated lines. The vision of creating intelligent computers has fascinated many people for as long as computers have been around and its ability to perform those activities that are normally thought to require intelligence. Without a doubt, there is a huge wave of change happening because of these technologies and many jobs are under threat. The fretfulness over job security is comprehensible as we're seeing artificial intelligence, robots and automation, taking over in areas we imagined of being safe. However, the stress is not that robots will take human jobs causing unemployment but speed of automation and its impact on jobs could lead to large number of people not working.

2. Research Objectives

1. To study the meaning of artificial intelligence and automation
2. To study the impact of automation and artificial intelligence on different jobs.

3. Research Methodology

For the fulfillment of the above objectives, data is collected basically on secondary basis. The data for the study was collected from different sources such as articles, websites. The study is basically descriptive in nature.

4. Meaning of Automation and Artificial Intelligence

Automation is a set of technologies that results in operation of machines and systems without significant human intervention and achieves performance to a manual operation. In simple words, the use of various control systems for operating equipment such as machinery, processes in factories, boilers and heat treating ovens, switching on telephone networks, steering and stabilization of ships, aircraft and other applications and vehicles with minimal or reduced human intervention. Artificial intelligence is already transforming the world of work, but the future is hard to predict. Some see most jobs at risk due to automation, while others say robots will only take over in the coming decades. Undeniably there is a huge change happening due to these technologies but many jobs are under threat causing many workers without any work or jobless.

5. Impact on Different Jobs

In a world of automation, where robots can create qualitative, cheaper products, then our placement of value shifts. Displacement of jobs is one of the impacts of automation. The following points show the major impact on different key sectors:

- It's true that many manufacturing jobs have been lost to automation in recent years. In contrast to 500,000 steel workers prevalent now are 100,000; whereas in cotton textile 400,000 workers and now existing are 16,000.
- Automation will lead to further job losses in manufacturing, warehouse operations, and truck driving,
- India's IT services industry will lose 6.4 lakh "low-skilled" jobs to automation by 2021 and net decrease of about 1.4 million jobs including U.K., Philippines.
- "low-skilled" jobs will fall by 30%, "medium-skilled" jobs will increase by 8% and high-skilled jobs will rise by 56%
- There are monthly visits to the collection of health websites has increased rather than a personal visit to all the doctors in the United States.
- In U.S. (New Jersey), due to artificial intelligence wave, the gas attendant job has disappeared. Hundreds of thousands of jobs vaporized and now 168,000 gas stations which are upsetting for the individuals who had them.
- In the future, robots won't just build cars, they'll also drive them, replacing human jobs by taking over taxis, semi trucks and trains.
- Within maybe five years, AI will be better than humans at diagnosing medical images and better than legal assistants at researching case law.
- The robotization of work will consume into more knowledge-based jobs.
- Low-level accounting will get consumed by software and so will the basic writing reports.
- Robots today can be better stock traders than humans.
- Few years down the line, an artificial intelligence doctor through your smart phone, may talk to you about your symptoms by using your camera; give diagnosis and tell you to pop a pill or visit a specialist.
- 2020 is the year where robots will apparently take over 5 million jobs.
- Technological breakthroughs are endangering up to 47% of total employment in the US
- By 2018, almost 1/3 of more efficient robots will be capable of collaborating with other robots and working safely alongside humans.
- By 2019, 30% or more of the world's leading companies will employ a chief robotics officer around the world and have drafted or implemented specific legislation.
- By 2020, average salaries in the robotics sector will increase by at least 60%
- In all three key employment sectors - agriculture, manufacturing, and services, machines are quickly replacing human labour and an economy of near automated production by the 21st century.

- The world's farmers are being made redundant and irrelevant by the computer which is disconcerting. Even more upsetting is the manufacturing and service sectors, which have traditionally absorbed rural workers to undergo technological revolution, flaking millions of jobs.
- Automation of factories has already decimated jobs in traditional manufacturing, and the rise of artificial intelligence is likely to extend this job destruction deep into the middle classes
- By 2030 the Dubai, police stations might be fully autonomous, and over 25 percent of the police force to be robots.
- 8.5% of Wikipedia's total content is written by bots. Efficient software is up to the task. This means fewer human news reporters and more will be writing opinion pieces than news.
- With online college classes and degrees, the Internet is eliminating the need to go to college to pursue higher education. This reduces both the salary and the number of teachers required.
- Accounting software for businesses is becoming easier to use. Demand for professional accountants will decline significantly in the next 10 years.
- In the world of disputes, 60 million disagreements among eBay traders are resolved using “online dispute resolution” rather than lawyers and judges.
- electronic tax returns from almost 50 million people who had relied on online tax-preparation software rather than human tax professionals
- In 8 years, 1/3 of all trucks on the road will be driverless themselves.
- 16% of US jobs will be replaced which is a net loss of 7% of US jobs by 2025.
- Office and administrative support staff will be the most rapidly disrupted.

6. Conclusion

A technology revolution is fast replacing human beings with machines in virtually every sector of the global economy. Already, millions of workers have been permanently eliminated from the economic process, and whole work categories and job assignments have disappeared. Artificial intelligence and increasing automation is going to devastate middle class jobs, worsening inequality. Probably, soon be at a point when artificial intelligence can get built to do almost anything, including the job. Robots and artificial intelligence will worsen economic inequality and place a burden on many workers to learn new skills. And many employers will face a continued “skills gap” because too few workers have learned to work with the new machines. The speed will be difficult to handle. New inventions usually permeate society only when people are ready for them. One by one, companies will eliminate your work. It will happen to the least educated first and fastest, hitting drivers, waiters, factory workers and office administrators. The concern is not that robots will take human jobs. The worry is that the speed of artificial intelligence could lead to a large percentage of people unemployed. With millions of jobs at risk and a worldwide employment crisis looming, it is only logical that we should turn to education as a way to understand and prepare for the robotic workforce of tomorrow. It is vital that we are responsible and spend time thinking how to create a future for the benefit of all. These technologies offer powerful ways of improving life and work for us all and can give us the opportunity to create a better future for ourselves and the planet. However, how we choose to use and deploy these technologies and what we choose to do by working with them is the biggest influence on how our future will turn out.

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