



NOTE FOR NATIONAL DEFENCE: **Artificial Intelligence: Ethical Challenges of Labor Market**

Authors: M. R. Nematollahi¹ and K. Khorasani²

¹ Graduate Student, Department of Electrical and Computer Engineering, Concordia University, Montreal, Canada

² Professor, Department of Electrical and Computer Engineering, Concordia University, Montreal, Canada

SUMMARY

- ✚ The automated decision-making capabilities of AI continues to reach an inflection point and to provide countless opportunities for progress in technological fields. Yet, it seems to be a threat to human integrity and autonomy.
- ✚ Automation, mechanization, computing, and AI have created ethical concerns among people regarding the labor market and their likely displacement with AI systems and machines. There is widespread concern that advancements in AI will result in mass unemployment and will put a wide range of occupations at risk.
- ✚ There are disagreements between experts on how AI, robots/autonomous systems, and sensors will influence and transform the workforce. A group of experts believe that a significant number of both 'blue' and 'white' color workers will be affected and displaced by digital agents that in the long run will raise concerns to the increase in income inequality, the number of unemployable people, and breakdowns in social order.
- ✚ While, other experts expect that technology would create more professional opportunities than destroying them by 2050. They claim that human ingenuity will continue to develop novel careers and industries that replace those that were made obsolete by AI. On a general scale, most see this condition as a major alteration in the workforce.
- ✚ Labor-market discrimination comes to light as another ethical issue. The major changes that follow advancements in the field of AI seem to impact people on differing and various levels. Different demographics will be at risk on various levels and those who lack technical skills or specialty trades will have to overcome more stringent difficulties.

- ✦ Concentration of power among the top five tech companies might influence the vulnerable populations adversely both from an economic and legislative points of view. These circumstances may also result in political instability and disruptions within the labor market.
- ✦ It is suggested that the pervasive growth of AI is likely to disrupt the labor market and workers will need to learn new skills in a short time and switch jobs that could lead to mass unemployment and great economic inequality and uncertainty.
- ✦ The concept of a “universal basic income” has been suggested as a way of addressing the ethical challenges that may arise as a result of AI-driven job losses. This scheme offers the possibility of paying legal citizens a basic unconditional income out of taxation.

CONTEXT

- ✦ Many experts have examined the downsides of AI from an existential point of view and claim that AI presents major ethical concerns that have to be addressed by experts and policy makers in order to realign AI with humanity.
- ✦ For instance, unmanned vehicles and autonomous drones have substituted human function and intervention. Therefore, it is believed that as computers become more sophisticated, creative, and versatile more professional positions will be made obsolete.
- ✦ However, it is worth mentioning that such advancements throughout the human history have substituted human work force in the short-term, but have led to more career opportunities in the long-term. Also, economists believe that prospects of AI on economic growth are promising.
- ✦ Robotics added an estimated 0.4 percentage points of annual GDP growth and labor productivity for 17 countries between 1993 and 2007. For instance, if AI led to economic growth, it would increase the share of workers in leisure and hospitality sectors, as people would be able to afford more meals out and travel.
- ✦ Brynjolfsson and McAfee argue that, “technological progress is going to leave behind some people, perhaps even a lot of people, as it races ahead ... there’s never been a better time to be a worker with special skills or the right education because these people can use technology to create and capture value. However, there’s never been a worse time to be a worker with only ‘ordinary’ skills and abilities to offer, because computers, robots, and other digital technologies are acquiring these skills and abilities at an extraordinary rate”.
- ✦ It is anticipated that within the next 20 years 47 percent of U.S. workers will see their jobs become automated. Among them are telemarketers, mathematical technicians, watch repairers, cargo agents, library technicians, data-entry specialists, etc. On the other hand, however, mental health social workers, recreational therapists, audiologists, oral surgeons, firefighter supervisors, and dieticians are anticipated to be among the survivors of the technological and digital revolution.

- ✦ Due to labor market discrimination not all young people will have the opportunity to acquire relevant expertise and to be trained in science and technology, as a result of which, the younger generation will enter the labor-market disproportionately.
- ✦ According to the U.S. Department of Education (2014), there will be a 14 percent increase in STEM jobs between 2010 and 2020, but only 16 percent of American high school seniors are proficient in mathematics and are interested in a STEM career.
- ✦ Women working in caregiving positions are likely to be disproportionately affected by robots. Similarly, poor people lacking in high-skill training will face obstacles in adapting to the new economy and many of them do not even have access to high-speed internet which limits their chances of getting a proper and relevant education for employment.
- ✦ It is anticipated that AI and robotic technologies will in near future “exacerbate existing social and economic divisions, via putting current job classes at risk, eliminating jobs, causing mass unemployment in automatable job sectors. Discrimination may also be an issue, with young people potentially being disproportionately affected, alongside those without high-skill training”.
- ✦ Social inequality is another major ethical issue in the context of AI advancements. Job loss is not the only concern around the problem of automation and digitalization. New forms of employment and job quality raise concerns regarding the dull and repetitive nature of performing tasks such as tagging and moderating content. These jobs that are collectively called ‘mechanical turk’ include positions such as scanning and identifying offensive content for deletion and manually tagging objects in order to create training data sets for machine learning system.
- ✦ These jobs were first looked upon as ways for people to make some extra money in their time off and they were termed as ‘ghost work’ due to the hidden nature of the value chain providing the processing power on which AI is based upon. In other words, the AI consumers are normally unaware of the role of the person who has been part of the process and the value chain remains opaque. Such workers are inequitably reimbursed for work that is essential to the functioning of AI technologies.
- ✦ Workers who are required to monitor offensive content for media platforms are exposed to hate speech, violent pornography, and cruel killing of animals on a daily basis which raises ethical concerns with regard to the nature of their professional position as they are more likely to suffer mental health issues such as trauma symptoms and panic attacks while receiving ineffective counselling. These hidden workers are often low-paid and undertake working responsibilities that are tedious and psychologically harmful.

CONSIDERATIONS

- ✦ Although AI has the potential to provide society with greater levels of efficiency and productivity at lower cost, the issue that these benefits might accumulate unequally and will not be accessible by all human demographics, is a significant ethical concern.
- ✦ It is believed that future impacts of AI are not limited to their technological capabilities and inventors of such technologies are bound to consider their wider non-technical potential and incentives. Automation is more likely to benefit business owners and to put workers at disadvantage and potentially increasing wage inequality.
- ✦ According to Brundage and Bryson “while electricity can make many areas more productive, remove barriers, and bring benefits and opportunity to countless lives, it has taken many decades for electricity to reach some markets, and indeed over a billion people still lack access to it”. Consequently, it is crucial to ensure that AI’s benefits will be distributed fairly through making it not a private good but instead one for the benefit of all.
- ✦ For this purpose, alterations in cultural norms and policy are required and national and governmental guidelines must be developed. Such policy makings will help to retain the public trust in AI.
- ✦ In order to address the anticipated economic impacts, labor shifts, inequality, technological unemployment, and social and political tensions that may arise as a result of the expansion of AI, it has been recommended that displaced workers will have to be provided with retraining programmes, as well as social and financial support.
- ✦ To tackle these problems economic policies such as universal basic income and robot taxation schemes are required. Policies must concentrate on disadvantaged and vulnerable groups such as caregivers and women through taking proactive approaches. Also older workers who are unable to acquire new skills or to retrain for new jobs must receive financial support in case they lose their jobs.
- ✦ The rise and implementation of AI has created a diverse myriad of ethical challenges and upheavals for governments, businesses and individuals alike. Whether the issues are legal, regulatory or ethical, both the governments and private sectors will have to be prepared for the imminent alteration in the social and economic landscape.

REFERENCES

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