

HOW ARTIFICIAL INTELLIGENCE (AI) CAN HELP IN POVERTY REDUCTION IN INDIA

Rudra Tiwari

Doon International School, Dehradun

DOI: 10.46609/IJSSER.2021.v06i09.004 URL: <https://doi.org/10.46609/IJSSER.2021.v06i09.004>

ABSTRACT

The researchers don't just see AI (Artificial Intelligence) as something that is fetching addresses or something else, but it can be used to solve some of the most important social and economical problems that we are facing right now. With the help of the data mining ability of AI, the scientists are saying that we will be able to fight against poverty which is one of the biggest global challenges. With the help of AI, we will be able to pinpoint the regions that need maximum attention. With the help of these data, the researchers will be able to find out which parts of the world needs antipoverty programs and make the policymakers aware of it. India being a country that is dependent on agriculture needs to focus and employ more resources in improving the sector. It has to find out a plant that will grow perfectly in the climate and has the potential to bring growth and economic stability to poor farmers. Also, the country faces a lot of corruption issues which ultimately leads to the poverty of few people in the country. With the ability of AI applications to work on large datasets, one can reduce a lot of manual handling and reveal and predict any fraud or corruption. With the help of AI, one can also find the right investments opportunities. The researchers can find out areas where students are receiving subpar education in schools and provide self-guided education programs with the help of AI. The natural disaster that affects so many communities with death and destruction of poverty can be avoided with the help of AI which can predict it. Natural disasters like floods and earthquakes can be predicted and emergency aid can be readily available so that these places are minimally affected.

Keywords: Poverty, Agriculture, Education, Corruption, Natural Disaster, Investment Opportunities

1. Introduction

AI or Artificial Intelligence has changed that world in many ways. Today, whatever we do, we are somehow our lives are associated with AI. We are constantly getting recommendations for new shopping items from the AIs and targeted Ads on various social media platforms are constantly crawling your account to learn your behavior and helps you in day-to-day life. Therefore, it is not unnatural when it comes to solving the biggest problem in the country, we need the help of AI. They will be able to identify the areas that need the maximum aid. With AI constantly getting improvised so that it can be integrated to elevate the financial status of many people. With the help of AI, one will be able to get access to information that will boost the education and literacy of many people. The researchers will be able to know where poverty occurs and how. With the help of surveys and data collected during the census, researchers will know which parts of India has the maximum number of a poor neighborhood. With the help of pictures that are constantly taken by the satellites, one will be able to see those global economic activities. During the nighttime, the regions that glow the brightest tend to be wealthy and will help us locate it easily. AI will help poor farmers with guidelines to better agriculture. Most of the research found that agriculture and poverty are somehow linked together as it consists of a maximum number of poor working adults who make the least amount of money. Thus, investing time and resources in the agriculture sector can be effective in reducing poverty. Poverty can be reduced when corruption in the country is reduced. With the help of AI-assisted procedures, one can replace any processes that are prone to corruption. Education and poverty are also related to each other and AI can help in that as well. With the implementation of self-learning education programs, the children of people who cannot afford to send their children to the best schools and colleges can get proper education that will help them get out of poverty.

2. Research Methodology

For this research, several papers and literature have been read and reviewed to understand the situation of AI development in various fields. The experiences of people who have used AI in the past and how it has helped them have been understood and incorporated in the paper. Papers submitted by many research organizations are reviewed and included. To understand the relationship between AI and development in various parts of the country, data is collected and learned how it has helped in all the impoverished areas. We can understand how AI and ML technologies are predicting impoverished areas and using the data to find solutions to solve global hunger issues. With the help of technology, the organization is improving crops on a global scale and the papers are published on it. These research papers can be used to provide evidence to all that can be achieved with the help of AI. These are substantial evidence to prove that AI can also bring the solution to this global problem of poverty.

2.3 Improvements in Agriculture due to AI

AI helps in curbing the reoccurring problem of poverty by examining the emerging technology and find the best and optimal solution to poverty. With the help of ML and AI, technical leaders predicting the impoverished regions around the globe and using the right data to find the solution to global hunger. India is a country that is mostly dependent on agriculture and with the help of AI the farmers will be able to grow high-value crops that will help in improving the economic status of these families. With the help of robots, high-quality cameras, and sensors, lands can be found that are most fertile for the farmers to grow high-yielding crops. In an article published by NBC, author Joseph Bennington-Castro says how global poverty is linked with agriculture and most of the poor working adults are making their living working in fields.

2.4 Improvements in Education due to AI

Poverty and education are also interconnected and AI can help people get educated even when they are not able to get the best education due to the lack of resources. It is natural that the parents who are poor won't be able to afford to send their children to the best schools and colleges, in such cases, children can learn from online websites where AI will be able to provide the right education for free. These children achieve their goals when AI will be able to provide access to all the right courses for the students.

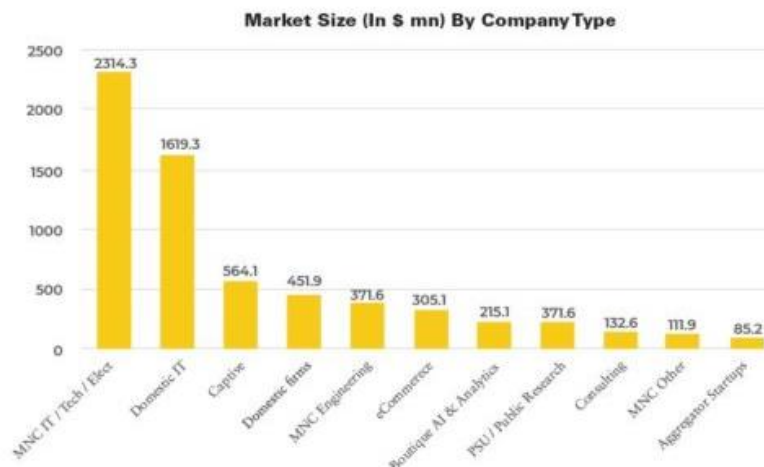


Fig. 1. AI Market Size With Company Type

With the help of Figure 1.1, we can see that AI has the maximum effect in the MNC and IT sectors. It also opens up a lot of job opportunities for the people. It opens up markets for the people so that there are more job opportunities for the students with the right technical education which will be improving their life and reduce poverty.

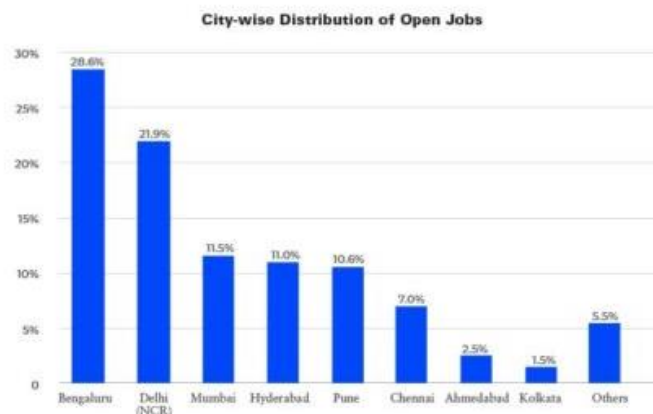


Fig. 2. Distribution of Open Jobs in India City-Wise

With the help of figure 2, we are able to see that places like Bengaluru have the maximum number of open jobs. Most of these jobs are in the sector of AI and ML with salaries of 3-4 lakhs per annum for students who are graduating in the right subject.

2.4 Reduction of Corruption due to AI

Most of the third world countries have the biggest problem of poverty due to the fact that it has the most corrupted government. AI plays a huge role in reducing corruption. It will be very easy to detect fraudulent activities with the help of an AI and also the manual work that can lead to corruption can be taken care of by AI so that resources can be saved and at the same time double the work can be managed by an AI. With the help of large datasets where manual handling is impossible, AI can help in revealing and even predicting fraud which would have been impossible to predict otherwise. Most of the data can be digitized and in places where there are privacy issues, AI-driven systems can be used to take care of ethical challenges.

2.5 Better Disaster Management due to AI

With the help of AI, better disaster management can be done so that we can ensure that people are not much affected by natural disasters. Most of the countries and also India face a lot of

natural disasters such as earthquakes, flood, and famine that affects a lot of people. With the help of AI, we can predict these natural disasters so that people can be ready with what is to come for them and also are prepared to face it when the time comes. The poorer communities are mostly highly affected due to natural disasters and with the help of AI, it has become much easier to predict anything with the help of satellite images. The patterns of weather can be tracked and the course and severity of the disaster can be predicted. With the help of this technology, civilians can get more time to evacuate and reduce injury and loss of life.

5. Conclusion

Poverty is a global issue that is being faced by many countries and it is only natural that something that is so intricate to our life such as artificial intelligence will be able to solve the issue. With the help of research, it can be seen that AI has the ability to solve the issue of poverty if it is used in the right manner. The researchers will be able to find out which parts of the world need maximum support with the help of data that is revealed by AI. Agriculture can give maximum support with the help of AI suggesting to the farmers which crops to grow and determining the ability of the soil. Education which is also an important cause of poverty can be taken care of by AI. Corruption can be reduced in the country when AI is used to reveal fraudulent activities. Finally, the natural disasters that disrupt the life of people can be predicted with the help of AI.

Acknowledgments

This research work would not have been possible without the help and support of many people such as my teacher and guides. I want to thank my peers who read by numerous revisions and helped me in making sense of many confusions. Thanks to my school for providing me the opportunity to write on such an interesting topic. Finally, thanks to all my family members for their constant support and belief in me.

References

- [1] Bennington-Castro, J. (2017, June 22). *Ai is a game-changer in the fight against hunger and poverty. here's why.* NBCNews.com. Retrieved September 9, 2021, from <https://www.nbcnews.com/mach/tech/ai-game-changer-fight-against-hunger-poverty-here-s-why-ncna774696>.
- [2] Hanania, P.-A. (2021, May 31). *AI 4 education – how can AI help to ensure sustainability in education?* Capgemini India. Retrieved September 9, 2021, from

<https://www.capgemini.com/in-en/2021/05/ai-4-education/>.

- [3] *How AI can help fight poverty*. Dell Technologies. (2018, November 14). Retrieved September 9, 2021, from <https://www.delltechnologies.com/en-us/perspectives/how-ai-can-help-fight-poverty/>.
- [4] Karandish, D. (2021, June 23). *7 benefits of AI in Education*. THE Journal. Retrieved September 9, 2021, from <https://thejournal.com/articles/2021/06/23/7-benefits-of-ai-in-education.aspx>.
- [5] Kobis, N., Starke, C., & Rahwan, I. (2021). Artificial Intelligence as an Anti-Corruption Tool (AI-ACT) -- Potentials and Pitfalls for Top-down and Bottom-up Approaches. Retrieved September 10, 2021, from https://www.researchgate.net/publication/349546498_Artificial_Intelligence_as_an_Anti-Corruption_Tool_AI-ACT_-_Potentials_and_Pitfalls_for_Top-down_and_Bottom-up_Approaches.
- [6] Philipp, J., & Thelwell, K. (2020, September 3). *Artificial intelligence and poverty*. The Borgen Project. Retrieved September 9, 2021, from <https://borgenproject.org/tag/artificial-intelligence-and-poverty/>.
- [7] Thomas, S. (2021, August 24). *Report: State of Artificial Intelligence in India - 2020*. Analytics India Magazine. Retrieved September 9, 2021, from <https://analyticsindiamag.com/report-state-of-artificial-intelligence-in-india-2020/>.