The Effect of Emerging Technology on Economic Inequality: The Role of Automation, Algorithms, and Beyond

# Topic Description

Innovative technology has always been a driving factor in economic development because technological advances allow for productivity to increase beyond its previous limits [1]. This was true for the steam engines in the first industrial revolution and remains true for emerging technologies such as automation and big data machine learning algorithms. However, this growth is not equally received by all; in fact, global wealth inequality by 2020 is compared to the level it was it in the early 20th century, at the height of Western imperialism [2]. Some interesting patterns have been discovered with the addition of powerful technologies like robot automation and some associate the rise in unemployment with these technologies in part. Many complex factors can contribute to our rising economic inequality, and understanding the history of advancing technology on the socioeconomic status of society is perhaps key to prevent a modern economic disaster.

# Historical Prevalence of Economic Inequality

It is important to preface any analysis of economic inequality which the fact that global inequality has always been a prevalent issue, with the global top 10% of the population consistently owned over half the world’s income for centuries [2].

# References

[1] Z. Qureshi, “Technology and the future of growth: Challenges of change,” Brookings, https://www.brookings.edu/articles/technology-and-the-future-of-growth-challenges-of-change/ (accessed Jul. 17, 2023).

[2] Chancel, L., Piketty, T., Saez, E., Zucman, G. et al. World Inequality Report 2022, World Inequality Lab.

[1] C. O’Neil, Weapons of Math Destruction How Big Data Increases Inequality and Threatens Democracy. London: Penguin Books, 2018.

[2] Z. Qureshi, *“Rising inequality: A major issue of Our time,”* Brookings, https://www.brookings.edu/research/rising-inequality-a-major-issue-of-our-time/ (accessed Jun. 21, 2023).

[3] A. Korinek and J. E. Stiglitz, *“Covid-19 driven advances in automation and artificial intelligence risk exacerbating economic inequality,”* The BMJ, https://www.bmj.com/content/372/bmj.n367.full (accessed Jun. 22, 2023).

[4] M. Walsh, “Algorithms are making economic inequality worse,” Harvard Business Review, https://hbr.org/2020/10/algorithms-are-making-economic-inequality-worse (accessed Jun. 22, 2023).

[5] D. Acemoglu and P. Restrepo, “Robots and Jobs: Evidence from US Labor Markets”, Cambridge, Mass: National Bureau of Economic Research, 2017.

[6] J. Mokyr, C. Vickers, and N. L. Ziebarth, “The History of Technological Anxiety and the Future of Economic Growth: Is This Time Different?,” The Journal of economic perspectives, vol. 29, no. 3, pp. 31–50, 2015, doi: 10.1257/jep.29.3.31.