# Introduction

The general topic my term paper will be about is the effect of automation and algorithms on economic class. More specifically I want to concentrate on the North American economy, most of which is concentrated in the United States. Some fragments of this topic are explored in O’Neil’s book, *Weapons of Math Destruction,*[1] but I want specifically examine the effects of these technologies on economic inequality.

It is generally known that economic inequality is increasing between the working and ruling class since the 1980s.[2] I want to explore the extent which advancing technologies like machine learning algorithms and automation are affecting the inequality, and argue that it is likely the case that the working class are not reaping the benefits that technology can bring. I believe this is one of the most important issues relating to the social implications of technology, as the United States is inarguably the most influential country in the world and history has shown that a large disparity of wealth distribution has never ended well for society.

# Potential Topics/Questions

I want to explore analogous events to the technological boom we’ve had in the last forty years like the industrial revolution and compare how it is similar and also how it is different this time because of automation.[3] Questions like “what economic inequalities are exacerbated by technology”; “to what extent can we allow technology to govern our society”, and “are automating jobs currently beneficial to all of society” are more questions I would like to research, answer, and speculate on.

From my limited knowledge of the book, *Weapons of Math Destruction*, another question I strive to find more about if we have gone too far in using mathematics to innovate to the point where it is unethical, and where this line can be drawn. The physical sciences have examined this question closely before, and in World War II with the only two uses of nuclear weapons, there was a clear line drawn that these weapons of mass destruction have gone too far. The book might already deeply explore this topic (hence the title), but I want to provide my own interpretation and more questions may arise while reading the book for further research. What incident analogous to the bombs on Hiroshima and Nagasaki could occur in the application of algorithms for a clear line to be drawn of what is right and wrong? What can data and history tell us about this to prevent such an incident from happening? These are the kinds of questions I want to explore on this topic

# Hypotheses

To give a clearer picture of the questions I want answers/confirmation on, I will describe some of my personal beliefs based on limited research done for this proposal and my own background knowledge.

While I think there is a significant difference in the innovations in automation compared to innovations in the past like engines and steam power, the social problem of economic inequality persists because of the means which to produce these products (whether it be AI models, combustion engines, etc.) are only accessible to the privileged class. This is more pronounced in the use of algorithms to moderate lower skilled workers. Whether it be search engines, resume screeners, workplace management algorithms, these are all built on top of some dataset, which the top company leaders decide what counts as success to optimize towards. The use of algorithms like this are certainly used to maintain the status quo and, in my opinion, a detriment to economic equality in the long term.

# References & Planned Readings

[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).