

Bibliography

O'Neil, Cathay. *Weapons of Math Destruction: How Big Data Increase Inequality and Threatens Democracy*. New York: Crown Books, 2016

Summary

Cathy O'Neil discusses how mathematical models have been destructing many people's lives that are created with a certain intent or belief. From her personal stories in the hedge fund company as a quantitative analyst to many other examples in various fields including college, job seeking, and insurance redlining, a destructive use of algorithms and mathematical models is illustrated in different circumstances. As a new credit score system, e-score, arises, there has been lots of issues with its inner system accessibility concerning one of the ethical issues in data science.

A careless use of data of other people concerns their privacy and security issues as they might be targeted in the system's ranking. We need to be aware of the destructive impact of biased algorithms and try to discern whether it will benefit or harm others when we do our own data collection and analysis.

Quotation

"Internet isn't the equalizing, democratizing force it promised to be. Instead, companies created categorizations and rankings of people that target their vulnerabilities, feed them predatory ads, and exploit their finances"

Personal Response

It was interesting to see how mathematical modeling and algorithms were abused in various fields and they are embedded in our lives already. The unjust and opaque algorithms bring a huge negative impact on our society. I read a book *Data Action: Using Data For Public Good* for my CS perspective class and this is a great complementary resource as it provides the ways to conduct data collection and analysis that can benefit the society and ensure people have access to transparent data. The common idea these two books keep focusing on is that data is biased and not neutral. It carries the underlying ideologies and beliefs of those who handle it. So as we will be diving into the real world as a data expert, I hope we can all discern whether our data is going to benefit or harm people and especially those who are on the society's margin.