

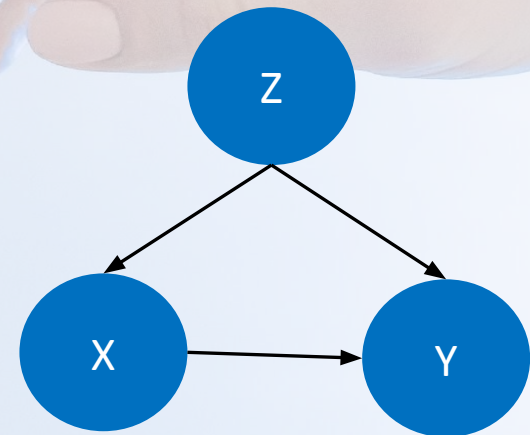
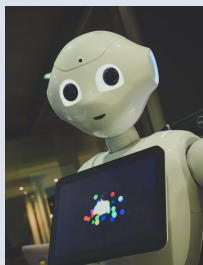
Why is my System Biased? : Rating of AI Systems Through a Causal Lens

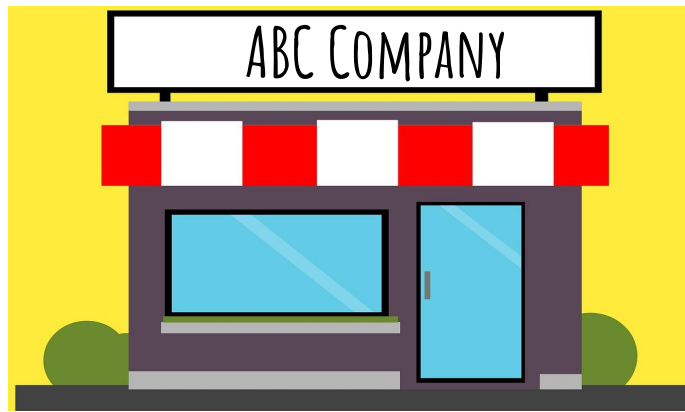
- Kausik Lakkaraju

(Mentors: Dr. Biplav Srivastava and Dr. Marco Valtorta)

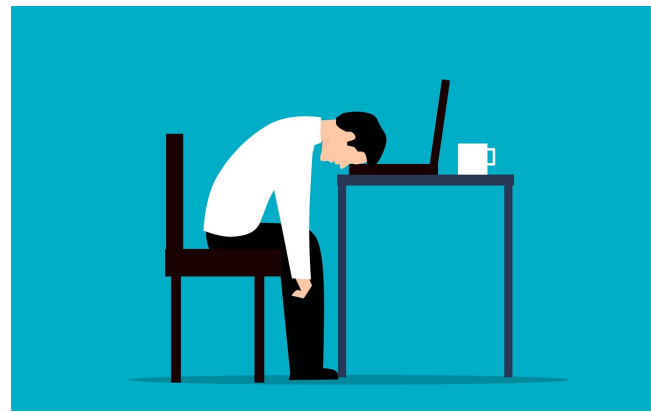
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John works for a household essentials company called 'ABC' where his job is to **analyze the customer reviews** which will be provided to him in a '.csv' format.



John realized that segregating and analyzing each of the reviews manually is a **tedious job**.

ID	Review	Gender	Age
...
...

The .csv file has user ID and their review. It also has some sensitive attributes of users like **gender and age**.



One of John's friends suggested he use a **sentiment analyzing tool** which would assign a positive or negative score to a given text and this would be useful to classify the reviews for his report. But John found that there are many such tools at his disposal and he could not decide which one to use.

Rating is given to different SASs. Click on each of them for a detailed description.

SAS name	Rating
XYZ	Unbiased
LMN	Data-sensitive Biased
.....

In cases like this, our **rating system** would help user understand which one to use for a specific application. We build a causal model and use it to know the reason for the uncertainty or bias present in the system. We then assign a rating based on that.



The rating would tell the user what to expect from an AI and thereby trust the system appropriately. It would also have a real-world impact like **legal accountability**. John was able to pick the right tool for his model and he was happy with his final report!