

# Data 612 - Research Question #3

## Human Bias with Recommender Systems

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### Overview

As more systems and sectors are driven by predictive analytics, there is increasing awareness of the possibility and pitfalls of algorithmic discrimination. In what ways do you think Recommender Systems reinforce human bias? Reflecting on the techniques we have covered, do you think recommender systems reinforce or help to prevent unethical targeting or customer segmentation? Please provide one or more examples to support your arguments.

### Thoughts

When dealing with any Recommendation System based on big data, that results in analysis, predictions, recommendations and/or insights, is going to be prone to bias, or influence. This is by no means not a new problem. However, it has just become more evident with the new tech waves of Big Data and Machine Learning.

“Garbage in means Garbage Out.” Models are a reflection of their creators and environment. However, over time, Models have evolved in order to align to new reality of current realities.

Recommender Systems are more and more being used to help in decision making in things beyond buying your new consumer product or your new movies. However, more critical things such as prioritizing manufacturing lines or routes for transportation are being calculated using Recommendation Models.

Algorithms are well known to amplify bias and negative connotations, such as the Mortgage Crisis of '08 in the US, so taking care of the use of your data that promotes inclusiveness and neutrality. Factors like race and origin are generally social bias generators, even on penalty of sacrificing accuracy, will be better than constantly amplifying personal bias.