**Lesson 08 Discussion**

Recommender algorithms are useful and widely applied. However, recommender results can have significant biases. Describe a situation where you might expect a detrimental bias in recommender results. How does this bias arise? What might be done to correct or minimize this bias?

As discussed in this class recommendation systems/engines are not only for physical products, but they are also about things of interest in general, such as ideas, music, movies, news, etc. As such this other side of recommendation systems can carry a lot of baggage in terms of the use or misuse of such technology specially since these algorithms for the most part are optimized for clicks and exposure time (time spent in a particular platform) as this increment the possibilities to obtain monetary benefits. Therefore, other factors as social impact, mental health and/or general well being could be ignored. We see examples of this every day, in the feed we get on Facebook, YouTube, etc. Where the recommendations could lead to the so called “echo chambers” and we do not get exposed to new ideas, but we position ourselves in a dangerous place where we continuously get recommendations from others like ourselves). This phenomenon could result in users only being exposed to recommendations that reinforce their own biases and purchase patterns, which could result negative results socially and economically. Socially, these effects limit exposure to diverse and contrary ideas leading to a more divided and divisive society. Economically, these effects limit the variety of products to which consumers are exposed, limiting a business’ potential to increase product demand.

One option to minimize this bias is to build a system that provides additional recommendations based on the preferences of others who are different (different cluster), but not too different. In this way the recommendation is not totally out of place, and the user keep exposure to other ideas/products.

<https://towardsdatascience.com/overcoming-echo-chambers-in-recommendation-systems-using-movie-ratings-3686f50fc053>