Filter Bubble Vs Self-Actualization Recommendation Systems

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I watched an interesting ACM conference on Recommender System for Self-Actualizaiton[1]. It was presented by Bart P. Knijnenburg and his students Sonu Sivakumar and Daricia Wilkinson from Clemson University. The conference video discusses about how traditional recommender systems, based on similarities, could be placing us in a Filter Bubble.

To be in a Filter Bubble (term introduced by internet activist Eli Pariser[2]) means a recommender system only shows the items it thinks we will like, shielding us from discovering other varieties and experiences. Users are separated from information that they would not like and thus putting them in bubbles. Mr. Knijnenburg mentions that even more troubling is that users unknowingly might be embracing Filter Bubble mechanism. He goes on to explain that recommenders can be quite persuasive to get users to better fit in the system. This system is so convincing that rather than users having their own profile, the system keeps serving them with their similar preferences.

Moreover, some scholars believe that placing a good algorithm to find the right prediction of an item is not good enough. What we do right now online whether reading an article, purchasing an item, or watching a movie cannot be a good predictor of wanting the same in the future. This can only add to how unpredictable behavior of humans can be and shortcomings it can produce.

To overcome these deficiencies, Mr. Knijnenburg and team have proposed few ideas by building recommendations systems through Self-Actualization. A recommendation system that does not replace our decision-making skills but rather supports us in exploring the unknowns. Here are couple of the ideas they proposed.

Things We Don't Like

Traditional methods are to discover things we like and discard the ones we don't. However, they propose to also offer things that fall on the other side of the spectrum. Things that users have rated lower than average rating of others. If these users happen to like the item, add it to their profile else add weight to the highest predicted item.

Things We Have No Clue About

Show highly uncertain items and if you happen to like them, they will be added to your profile. This is achieved by applying few different recommendation algorithms and the item that shows predictions with most variance is determined to be an "uncertain" item.

These were two of the proposed ideas. From watching this video, I understand the concerns coming from Mr. Knijnenburg, but I believe a recommendation type should depend on the service being provided. If I am shopping for a product on Amazon or any other retailer store, I would prefer recommendations similar to the product I need to get. However, if I am listening to music or watching a movie, I would like a recommendation that would enrich my experience. This is my take on watching the conference online.

[1] https://www.youtube.com/watch?v=qfhDLI1dYCo&list=PLaZufLfJumb8Nv9lOK2IVwaF21cM5rkoP&index=5

[2] https://en.wikipedia.org/wiki/Filter_bubble