Recommendersystem on Amazon.com

As one of the worlds biggest online web shops, Amazon.com, is one of the leading companies when it comes to recommender systems. With their huge number of users, it is imperative for a company like amazon to always stay ahead. As of 2016 amazon have over 300 mio. Customer accounts [1] and over 20 mio. Items for sale [2]. This means that the company stores tremendous amount of data, and therefore it takes a lot of effort to recommend the right products to the right users.

Amazons recommendation system is primarily based on a model they themselves call “Item-to-item collaborative filtering”. [3] Instead of finding similar users and compare these, like a usual collaborative filtering technique, they focus on the users purchases and rated items. This means they match these items to items that seems familiar, by mapping frequently bought together items[3, s.78]. So, instead of matching users with items, they match items with other items, based on how often they get bought together. This means that when a person is looking at a specific item on the website, the website can quickly find other items that get bought together with this item, and thereby give a recommendation fast and in real time because the data is already stored and easily accessible. This method cuts the amount of real-time calculations it takes to make recommendations, and thereby works great with a large website like amazon that just keeps getting bigger, and the scalability of the item-to-item method is great, since most of the algorithm works offline.

[1] <https://www.statista.com/statistics/476196/number-of-active-amazon-customer-accounts-quarter/> (maybe bad)

[2] <http://expandedramblings.com/index.php/amazon-statistics/>

[3] <https://www.cs.umd.edu/~samir/498/Amazon-Recommendations.pdf>