

# Discussion #5

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*July 11, 2016*

I think Twitter is a great example of a social network that utilizes a recommender system. Whenever a user opens up his or her homepage in Twitter, there is a list on the right of the screen entitled “Who to Follow” consisting of three recommended Twitter accounts. The user can then click on a nearby link reading “view all” to be brought to a list with, from what I can tell, an unlimited number of suggested accounts (the page loads more and more accounts as the user scrolls down).

That’s the recommender system as it exists now, on the twitter.com web interface. I did some research on how their recommendation algorithm works, and found an interesting GigaOM article from 2014. (<https://gigaom.com/2014/09/24/twitter-open-sourced-a-recommendation-algorithm-for-massive-datasets/>)

This article mentions that along with recommendations on who to follow, the same algorithm matches appropriate ads to the right users. It also mentions that two of the factors that go into recommending who to follow include accounts that your followers might also be following but you are not (yet), and accounts that tweet a lot of similar words to what you tweet. They describe that all users are pre-processed before being matched with ads or other users in a way that places every user in a smaller matrix, which in turn drastically speeds up the actual matching process.

Since Twitter makes money from ads and “promoted tweets” it’s different than something like Netflix in which the business and user goals are achieved through almost the exact same means. In Twitter’s case, it does need the two distinct recommendations of “who to follow” as well as advertisements. A user is assumed to have more interest in recommended accounts to follow than which ads show up in his or her Twitter feed, and vice versa for Twitter’s business goals. Of course, the two are related, in that the more accounts one user follows, the more data Twitter’s algorithm (known as DIMSUM) will have to assign appropriate and relevant ads.

As a footnote, it seems that Twitter has released versions of this algorithm for its Scala based cascading API, as well as for Apache Spark.