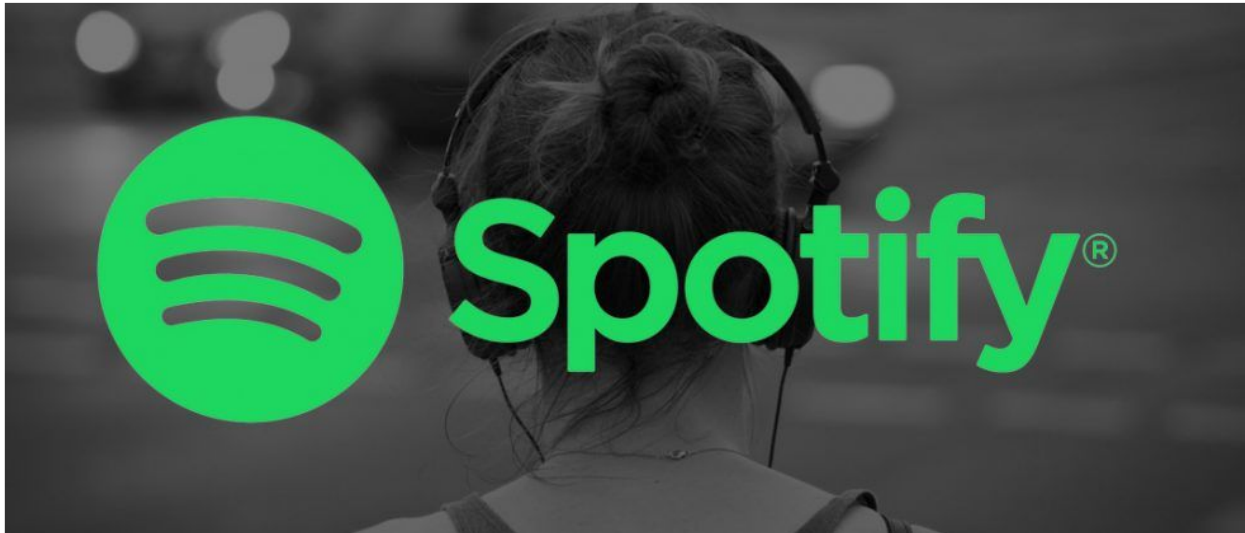


*Now that we have covered basic techniques for recommender systems, choose one commercial recommender and describe how you think it works (content-based, collaborative filtering, etc). Does the technique deliver a good experience or are the recommendations off-target?*



According to Wikipedia, "Spotify is a music, podcast, and video streaming service, officially launched on 7 October 2008". (<https://en.wikipedia.org/wiki/Spotify>)

The Spotify recommender uses collaborative filtering for the song suggestions. The following slideshare explains in depth:

<https://www.slideshare.net/erikbern/collaborative-filtering-at-spotify-16182818>

Some key notes from the article:

- "If a lot of users all listen to tracks x, y, z, then those tracks are probably similar"
- Hadoop stores all tracks played per user
- They throw away the "when" and focus on the play counts per user
- Using training and test sets, they try to predict future given the past (plays). (ie - they sample January through July, and then predict and test using August.
- They use similarity metrics such as Pearson, Jaccard
- It is similar to Amazon's "customers who bought this also bought" suggestions - only it is expressed in the next played song
- They use song similarity AND user similarity ("personal recommendations" and "similar tracks")
- They AB test different strategies

- Besides just the next song, they also apply this strategy to "concert recommendations", "new release recommendations"

This technique seems to deliver a good experience (enjoying the music as I write this). At times, there may be a certain "category" of song that I am looking for. For example, I enjoy artist A because they specifically are part of genre G, and I'd like to hear more of genre G right now. In this case I don't think spotify is getting the job done effectively. In this case, the target users song of choice is not based so much on their history, but more on a combination of their history and their current mood. Maybe this should be taken into account (or maybe it already is).

Final thoughts:

I don't like country music at all, and that is what they are playing for me now :) So maybe it doesn't work so well.



