Visualizing Changes in Personal Music Listening Patterns

Using your Spotify data

Jonatan Engstad
Welcome to the end of a decade. Ready for your 2019 Wrapped?

Relive and discover the artists, music, and podcasts you've loved most.

LOG IN  SIGN UP

One lucky artist was your #1.

Billie Eilish
We Can Do Better
GET /v1/artists/{id}/related-artists

Get an Artist's Related Artists
GET /v1/me/top/{type}  Get User's Top Artists and Tracks
GET /v1/artists/{id}/related-artists  Get an Artist's Related Artists
GET /v1/playlists/{playlist_id}/tracks Get a Playlist’s Items
GET /v1/me/top/{type} Get User's Top Artists and Tracks
GET /v1/artists/{id}/related-artists Get an Artist's Related Artists
GET /v1/me/player/recently-played
Get the Current User’s Recently Played Tracks

GET /v1/playlists/{playlist_id}/tracks
Get a Playlist’s Items

GET /v1/me/top/{type}
Get User’s Top Artists and Tracks

GET /v1/artists/{id}/related-artists
Get an Artist’s Related Artists
Goal

- Retrieve complete Spotify listening history
- Visualize how listening patterns and preferences change over time
- Interactive visualizations that allow users to explore their data
Ideas

- Changes in genre preference
  - Interactive streamgraph that supports for increase/decrease in level of detail (#genres shown)
  - Could do the same for artists and tracks

- Visualize listening activity over time
  - Interactive: Allow users to zoom in and out, choose time interval, reveal additional details (specific artists or tracks) upon inspection.
Ideas 2

- Create “social network” of artists you have listened to.
  Edge => a1 is in related artists list of a2.
  - Perform community detection.
  - Support interactive community search.
  - Find artists you’ve never listened to who have many related artist occurrences

- How obscure or mainstream are your music preferences?
Challenges

- Music played at parties, work, through Spotify sessions etc. do not reflect personal preferences
- Genre is only granular to the artist level, no data available for tracks
  - Alternative: Gather genre data from Last.fm, which has user-provided tags for all songs
- Too much detail – how to aggregate data
  - Group similar (how to judge?) genres
  - Group similar artists?
- Gathering complete history will take time, may have to be an offline procedure
- Spotify may change its API