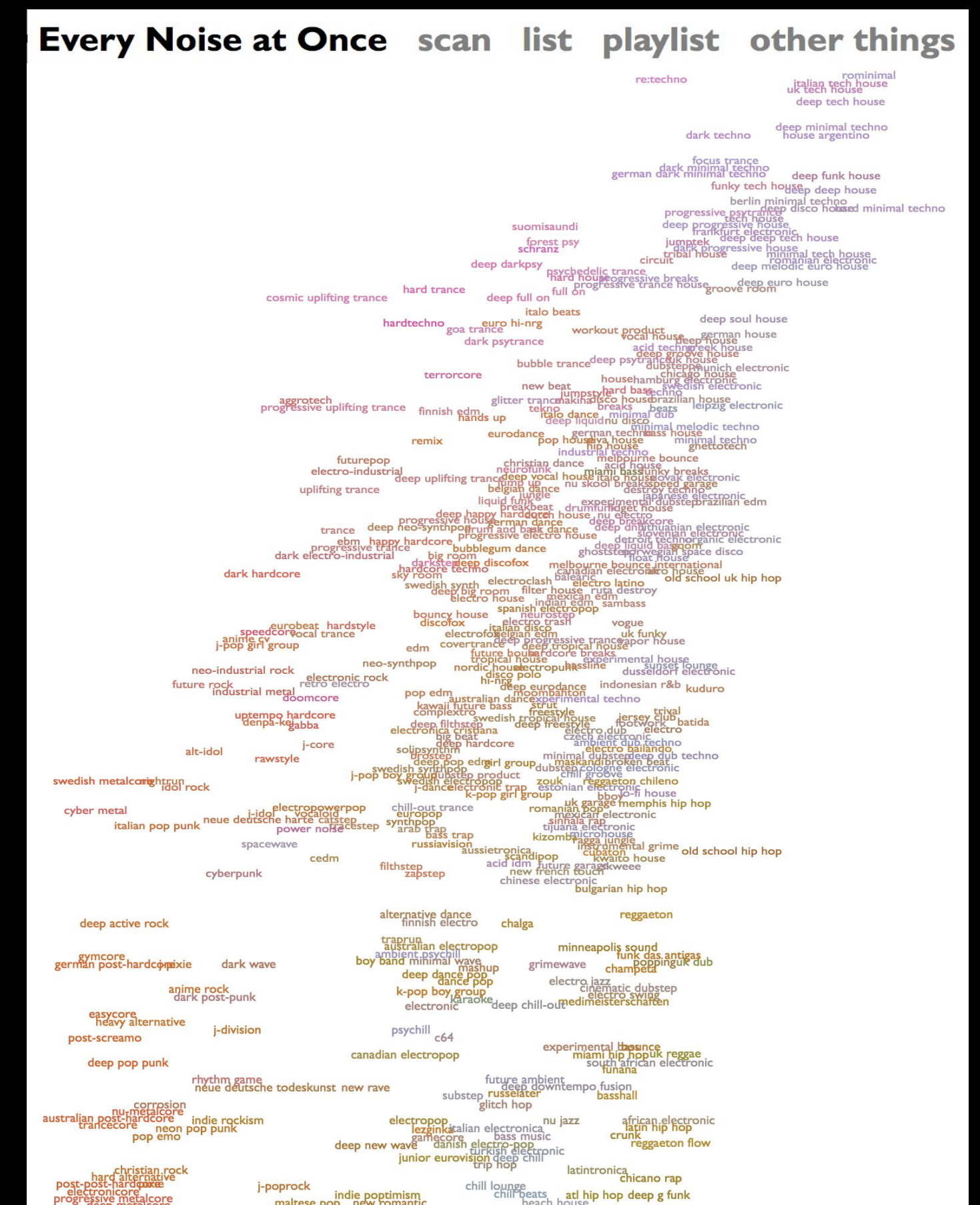# MUSICAL WAYFINDER:

## A LOOK INTO YOUR SPOTIFY LIBRARY

Problem

Although most of us listen to music, there are few tools available that allow us to examine our musical tastes. Services like Spotify have invested vast resources into categorizing and recommending music algorithmically based on listening habits and quantifiable measures of sounds, but they have not made this data available to the end user in a meaningful and accessible way. The Musical Wayfinder is a visualization tool that bridges a gap between us and our music. With our tool you can investigate the contents of your Spotify library throughout time, uncover which of the > 3000 Spotify catalog genres you listen to the most, and gain an appreciation for how your musical tastes fit into the universe of music curated by Spotify.

Source: http://everynoise.com

Motivation

Currently, the best tool for exploring musical genres is Every Noise at Once (right), a web page which maps genres in Spotify's catalog along two axes representing sonic density and acousticness. Every Noise at Once is a landmark visualization of music, laying out a detailed map of subgenres that reveals relationships between them and enables deep exploration. While this visualization is very compelling, it raises more questions than it answers when when it comes to our personal listening habits. Specifically, we want to know: where is my place in this musical landscape?
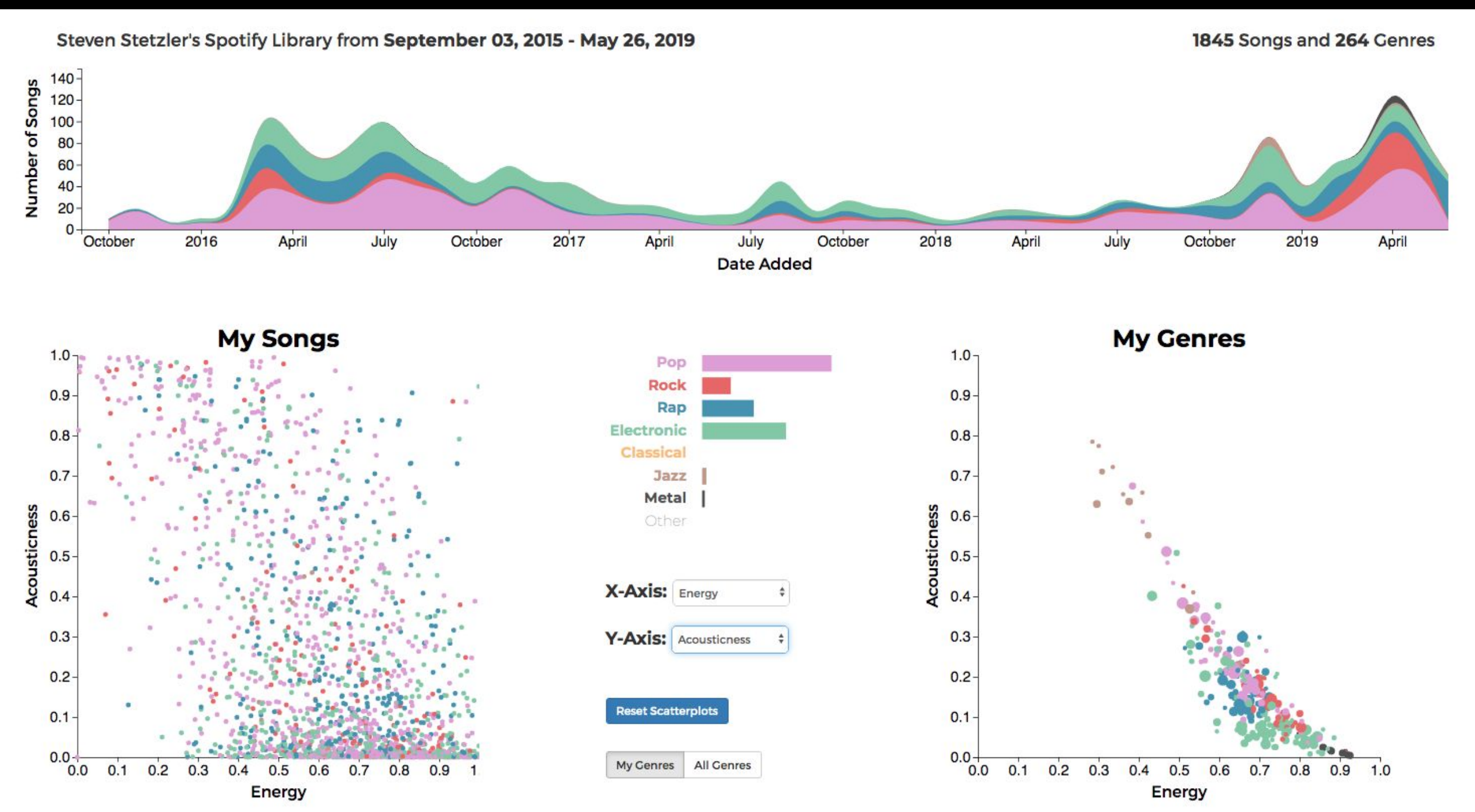

Approach

Our visualization builds upon Every Noise at Once, displaying genres and songs in a user's library plotted along two musical attributes. The user can filter by genre and choose which attributes to plot along each axis, allowing them to explore correlations in qualities of songs and genres. We classify Spotify's subgenres into broader umbrella categories, indicated using color, and include a dynamic, interactive bar chart legend that reflects the umbrella category composition of the user's library. Finally, a timeline of the user's library allows them to see how their listening has changed over time in both number of songs added and umbrella category composition. A linked brush filter can be used to view a subset of the library in a selected time range, updating the song plot, genre plot, and legend to allow exploration of listening trends over time.

Insights

Below, we show how using the brush filter on the timeline changes the view of the genres plot. The genres added at an earlier time (bottom left) span a small region of the plot. More recently (bottom center), the user's musical tastes have expanded, particularly with a broader inclusion of Jazz, Pop, and Metal genres. The user can hover over individual points to see which new genres were added to their library and click on a point to obtain a playlist representing that genre (bottom right), enabling further musical discovery.
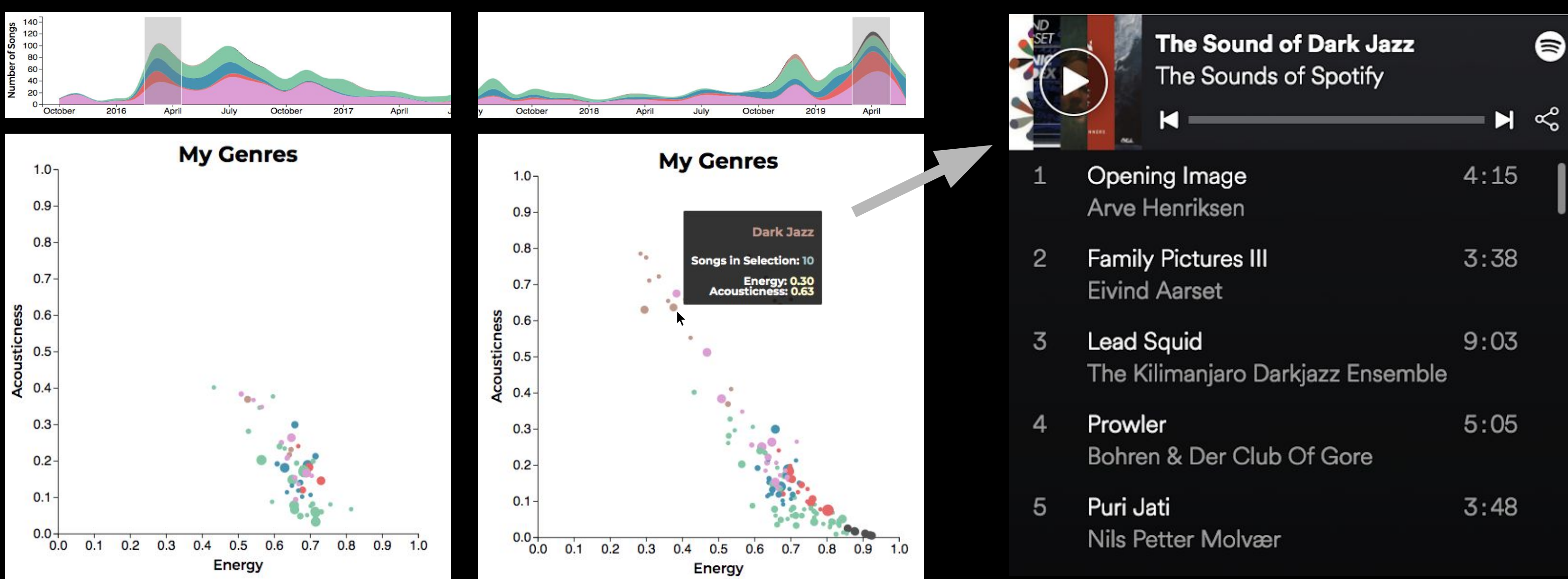
In addition to exploring individual libraries, our tool allows for extensive exploration of all of the genres Spotify catalogs. Interesting trends are revealed when we plot genres, colored by their umbrella category, along different attribute axes. Plotting Classical, Jazz, Rap, and Metal along the axes of Energy and Acousticness shows that these genres are very different and lie along a continuum of sound in this space. Plotting Valence and Danceability, we see that Classical and Metal can sound quite similar along certain axes and that Rap pops out as a uniquely danceable genre.