Advanced Data Analysis in R

Final Project Presentation

Modeling Musical Diversity

STUDENTS

Yonatan Amaru, Nitzan Bakalchuk, Eden Bar Kochva

How newly available sound data can help us better measure Musical Diversity

Quantifying diversity can give us a powerful tool in music analysis

How can music be quantified ?

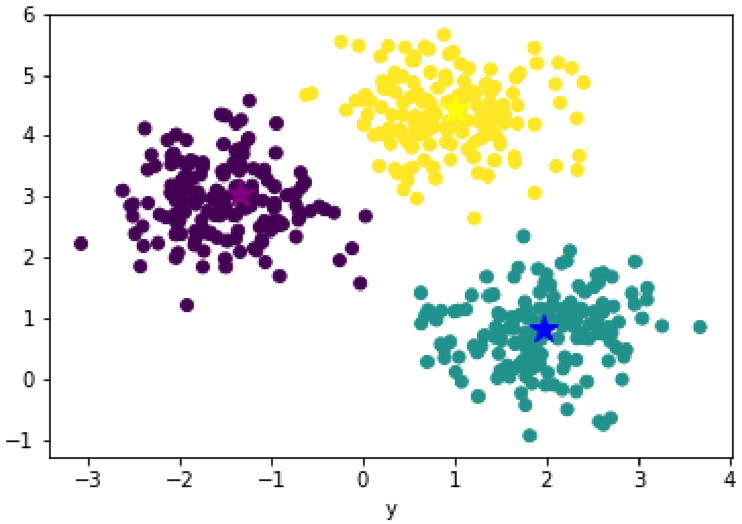
A data based approach using the Spotify API

Genre Distribution

Genre Diversity

A direct approach

RMSE



Vector Concentration

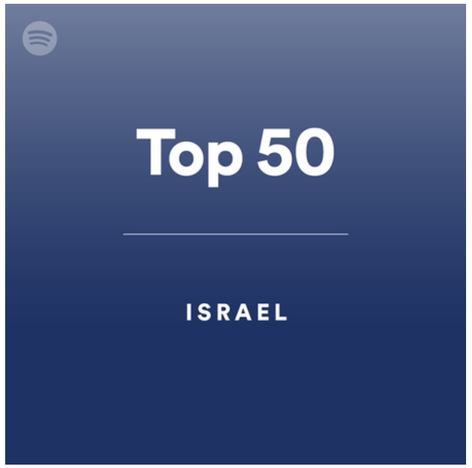
A Mathematical and Statistical approach

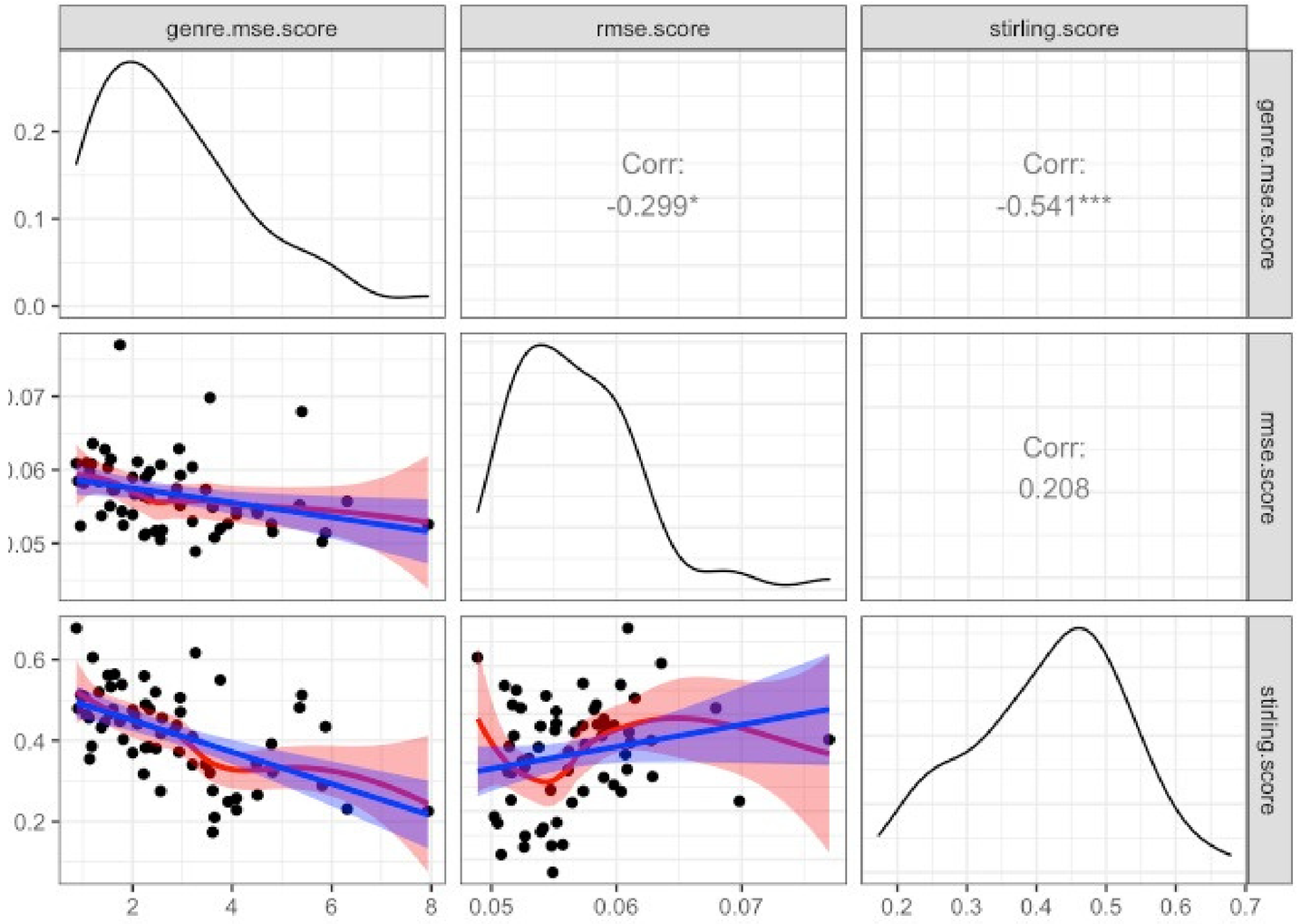
Rao stirling

Cultural research

A Social and Economical approach

50 songs from 62 countrys




genre.mse.score
rmse.score
stirling.score
genre.mse.score
rmse.score
stirling.score
Corr:
-0.299*
Corr:
-0.541***
Corr:
0.208
0.2
0.1
0.0
.07
.06
.05
0.6
0.4
0.2
2
4
6
8
0.05
0.06
0.07
0.2
0.3
0.4
0.5
0.6
0.7

Genre Distribution

Reflects classification diversity with its biases

RMSE

Sensitive to musical Segregation

Rao stirling

A normalized range of diversity for comparacent

Thank you for listening

B**** BE HUMBLE, SIT DOWN