

# MOOSIC PLAYLISTS

Can Machine Learning Capture Mood & Style?

# KEY QUESTIONS



n° 1

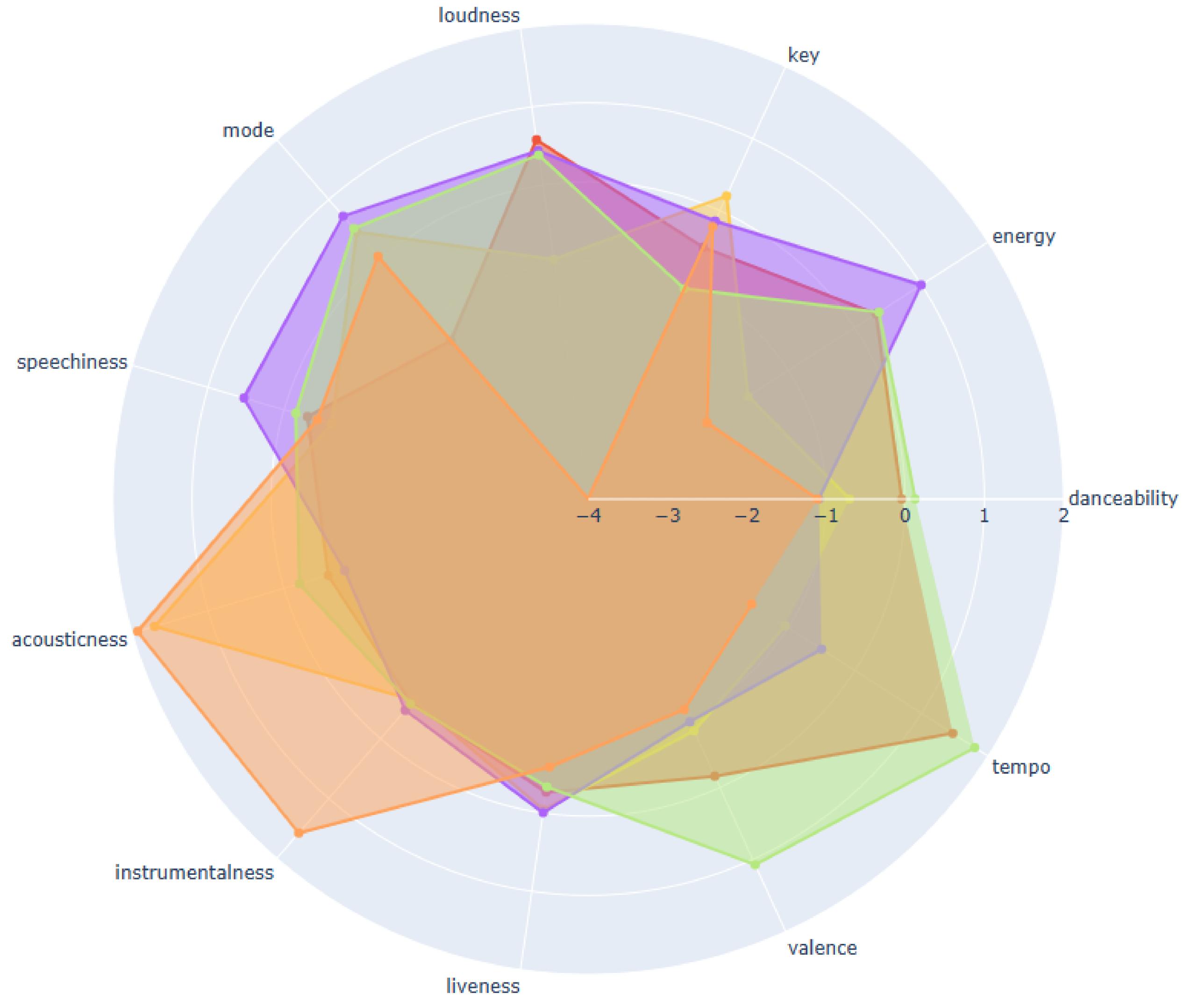
Can ML  
capture  
mood &  
style?



n° 2

Is K-Means a  
good method  
to create  
playlists?

# SPOTIFY FEATURES

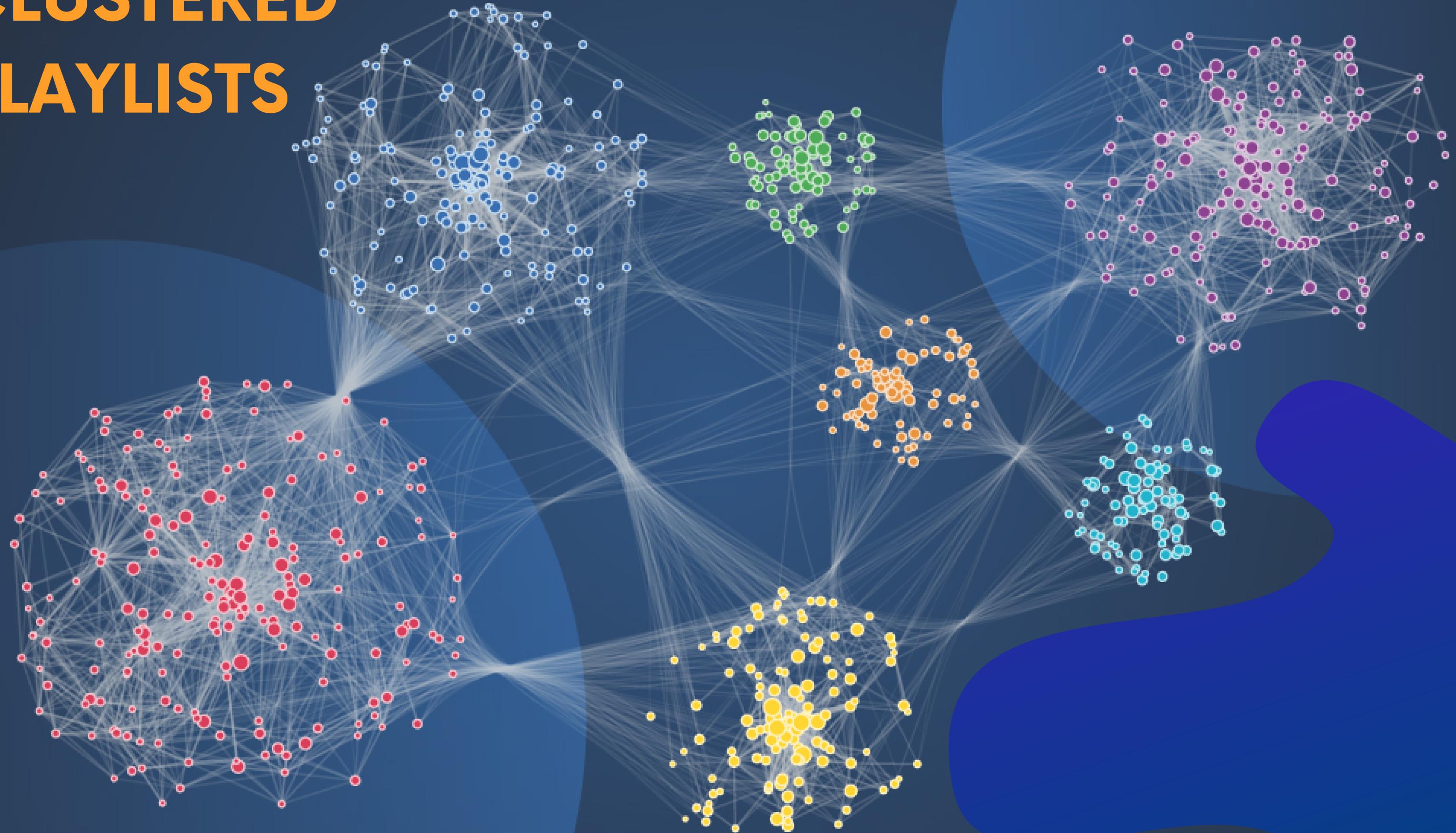




# RAW DATA PREPARATION

- CLEANING
- SCALING
- KMEANS CLUSTERING

# CLUSTERED PLAYLISTS



The screenshot shows a mobile application interface for a music player. At the top, there are three circular icons: a bell, a person, and a profile. Below this, the title "Public Playlist" is displayed, followed by the name "Weekday Wind Down". Underneath the title, it says "brett.veitch • 27 songs, 1 hr 44 min". The main area shows a list of 10 songs with their titles, artists, albums, and durations. The first song is "Different Pulses" by Asaf Avidan from "Different Pulses". The tenth song is "Art School" by Frankie Cosmos from "Zentropy". The bottom of the screen shows playback controls: a play/pause button, volume, and a progress bar indicating 0:16 of 2:57.

#	Title	Album	Duration
1	Different Pulses	Different Pulses	4:27
2	Que No Sea Kang, ...	Unidad De Des...	4:44
3	Inbetween Days	The Head On ...	2:58
4	Let's Explode	The Ghost of F...	4:10
5	Gemini (Birthday S...	Elephant Eyelash	5:28
6	Cali in a Cup	Bend Beyond	3:22
7	En Ningún Lugar	En Ningún Lugar	4:22
8	The Hymn For The ...	The Fidelity W...	3:53
9	Aquellos Ojos	Aquellos Ojos	2:43
10	Art School	Zentropy	1:53

# EVALUATING

01

02

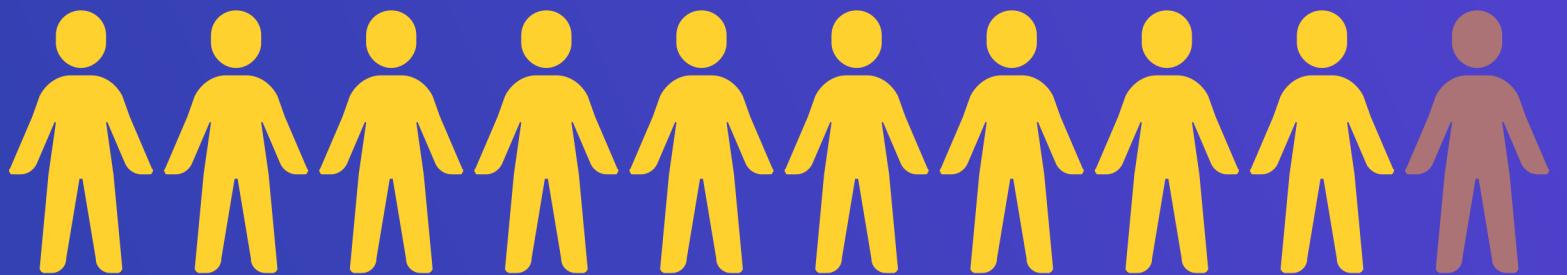
**Genre Mapping**  
Do playlists contain similar genres?

**Critical Listening**  
Do playlists capture 'mood' or 'style'.

# SUCCESS CRITERIA

Can a playlist match 'mood'  
or 'style' for at least 90% of  
its songs

90%



< Bell Profile

Public Playlist  
**Sunday Acoustics & Blues**  
brett.veitch • 19 songs, 1 hr 10 min

II ⚡ ⌂ +👤 ... Q Custom order ⚡

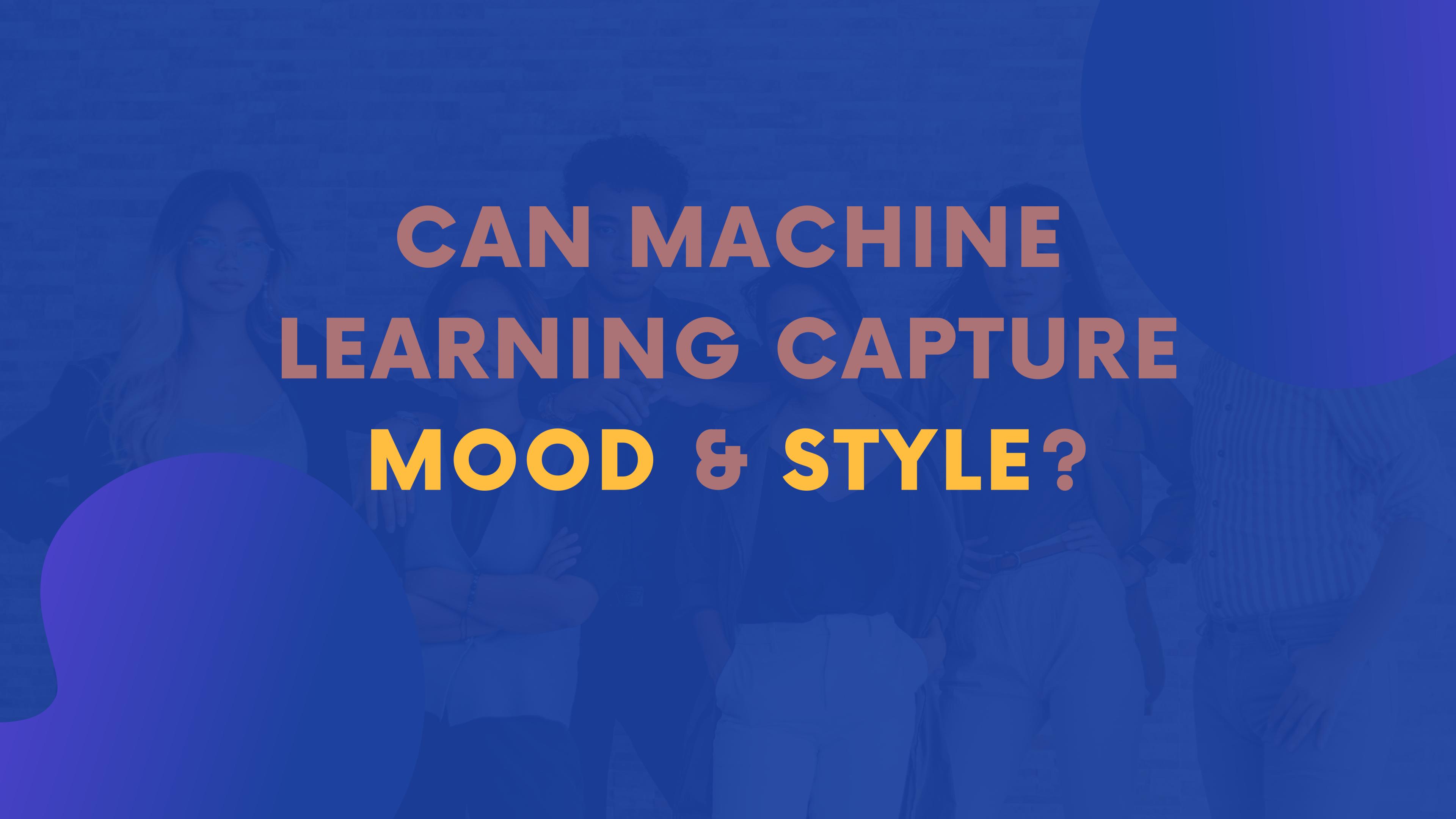
#	Title	Album	⌚
1	Rosa Morena - Live...	Getz/Gilberto ...	4:05
2	Se eu quiser falar c...	Luar	4:49
3	Don't Stop the Car...	The Essential S...	6:06
4	O Pato (The Duck) ...	Getz/Gilberto ...	2:17
5	Pais Tropical	Foursider	2:47
6	Samba Da Minha T...	Getz/Gilberto ...	3:08
7	Mama África	Aos Vivos	3:35
8	Á Primeira Vista	Aos Vivos	3:37
9	Sabor Colorido / M...	Cantoria 2	4:18
10	Kenha Ki Ben Ki Ta ...	Studio 105 (Live)	5:30

Mama África Chico César

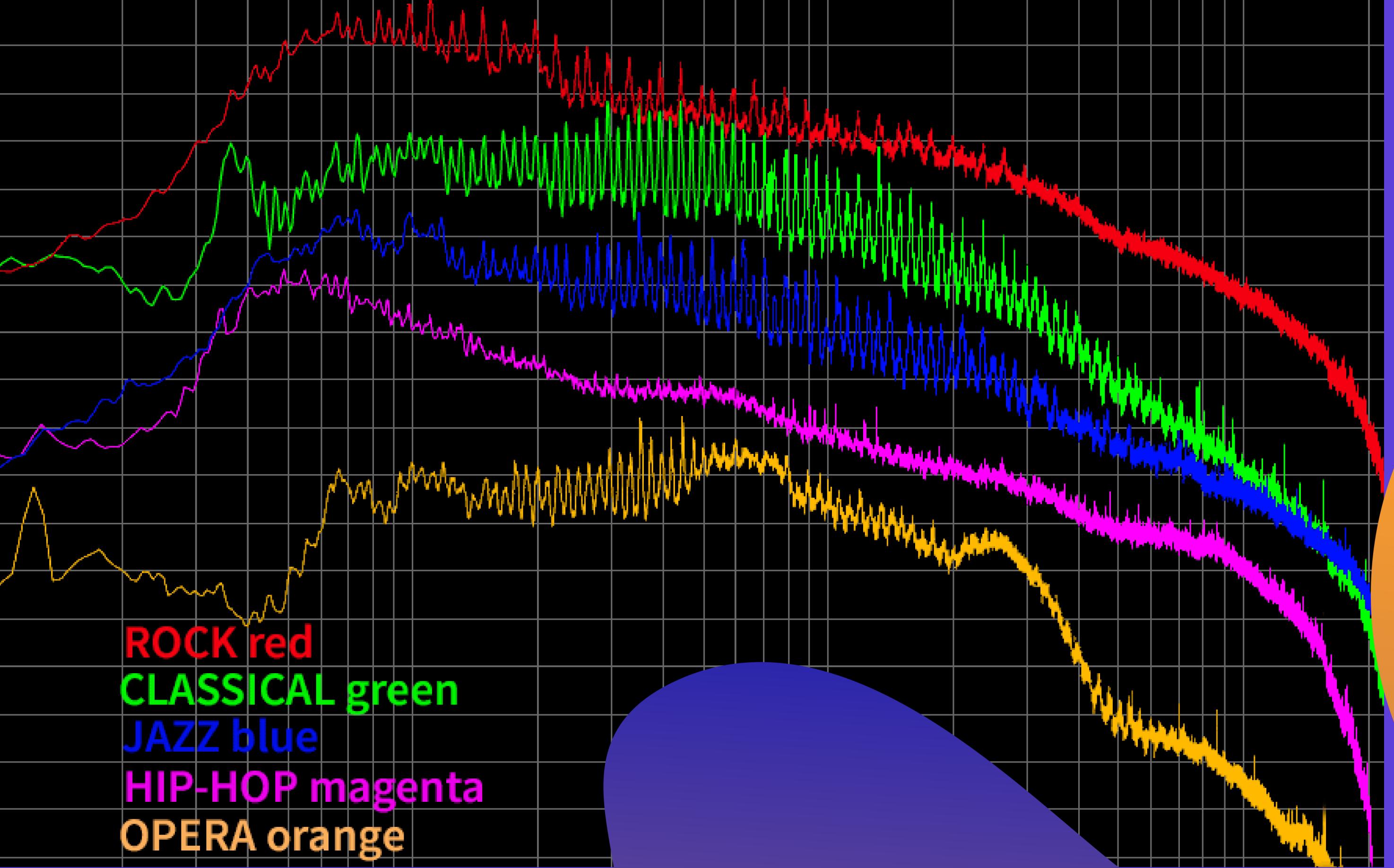
2:01 3:34

# SAMPLE PLAYLIST

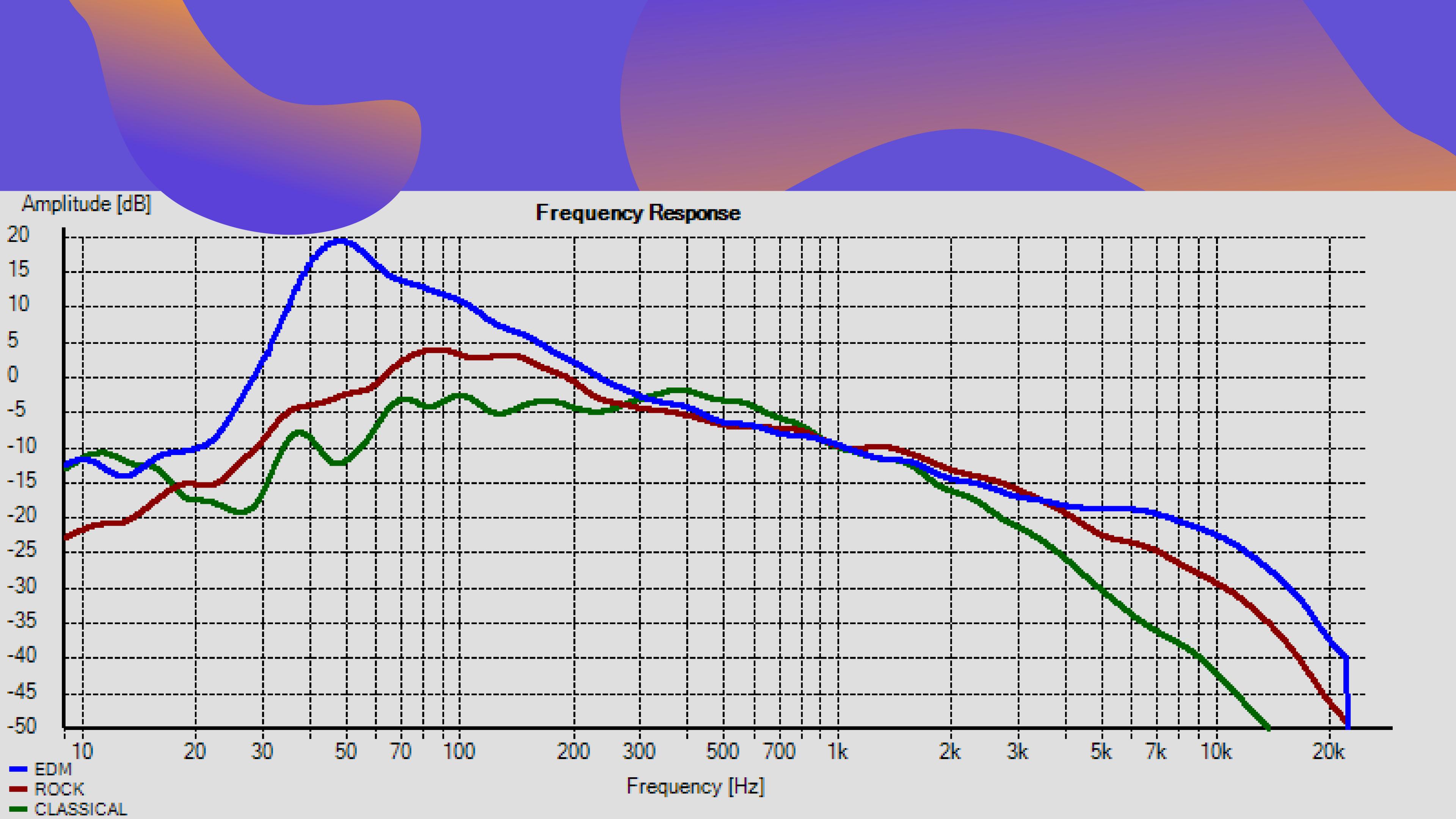




CAN MACHINE  
LEARNING CAPTURE  
**MOOD & STYLE?**



**ROCK** red  
**CLASSICAL** green  
**JAZZ** blue  
**HIP-HOP** magenta  
**OPERA** orange





**CLUSTER SEPARATION  
BY FREQUENCY**

**XLN XO SOFTWARE**

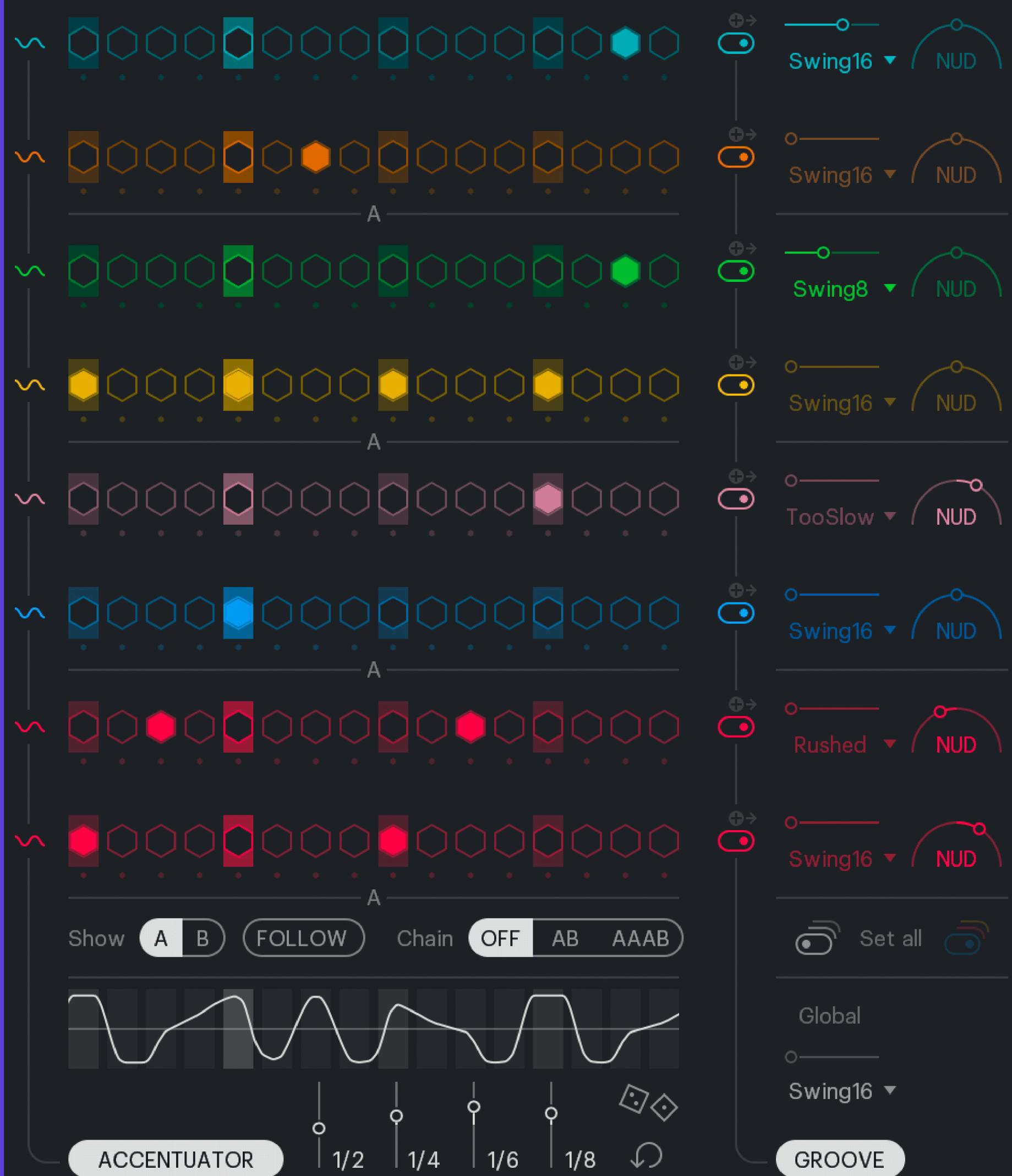


**CAN ML CAPTURE  
MOOD & STYLE?**

**YES**

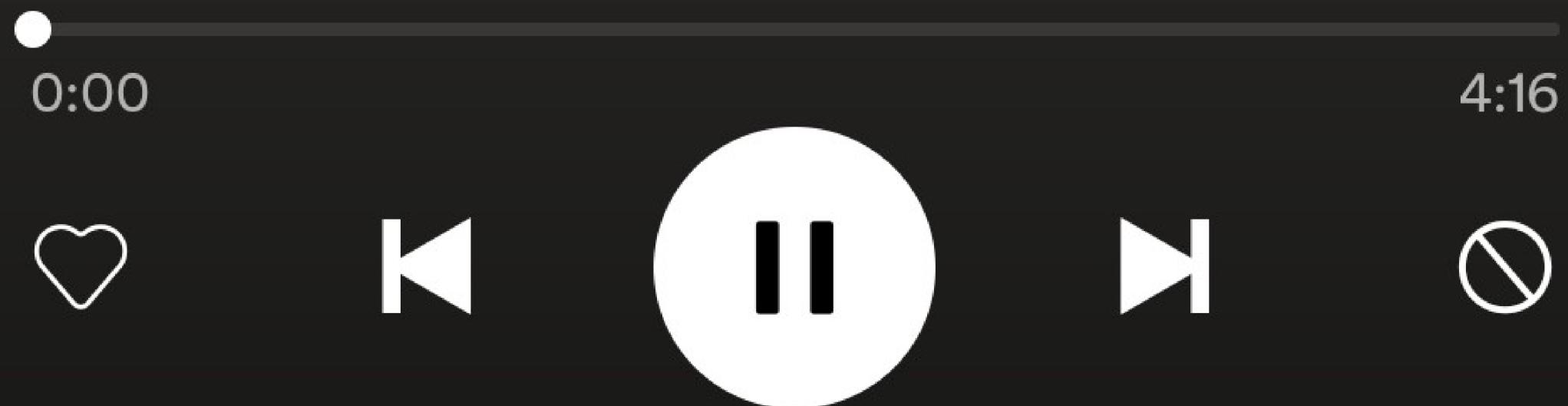
# ADDITIONAL FEATURES

## DATA ENRICHMENT



# USER INPUT FEATURE

Fight Test  
The Flaming Lips



We won't play that song in this playlist.

UNDO

# IS K-MEANS A GOOD METHOD TO CREATE PLAYLISTS?

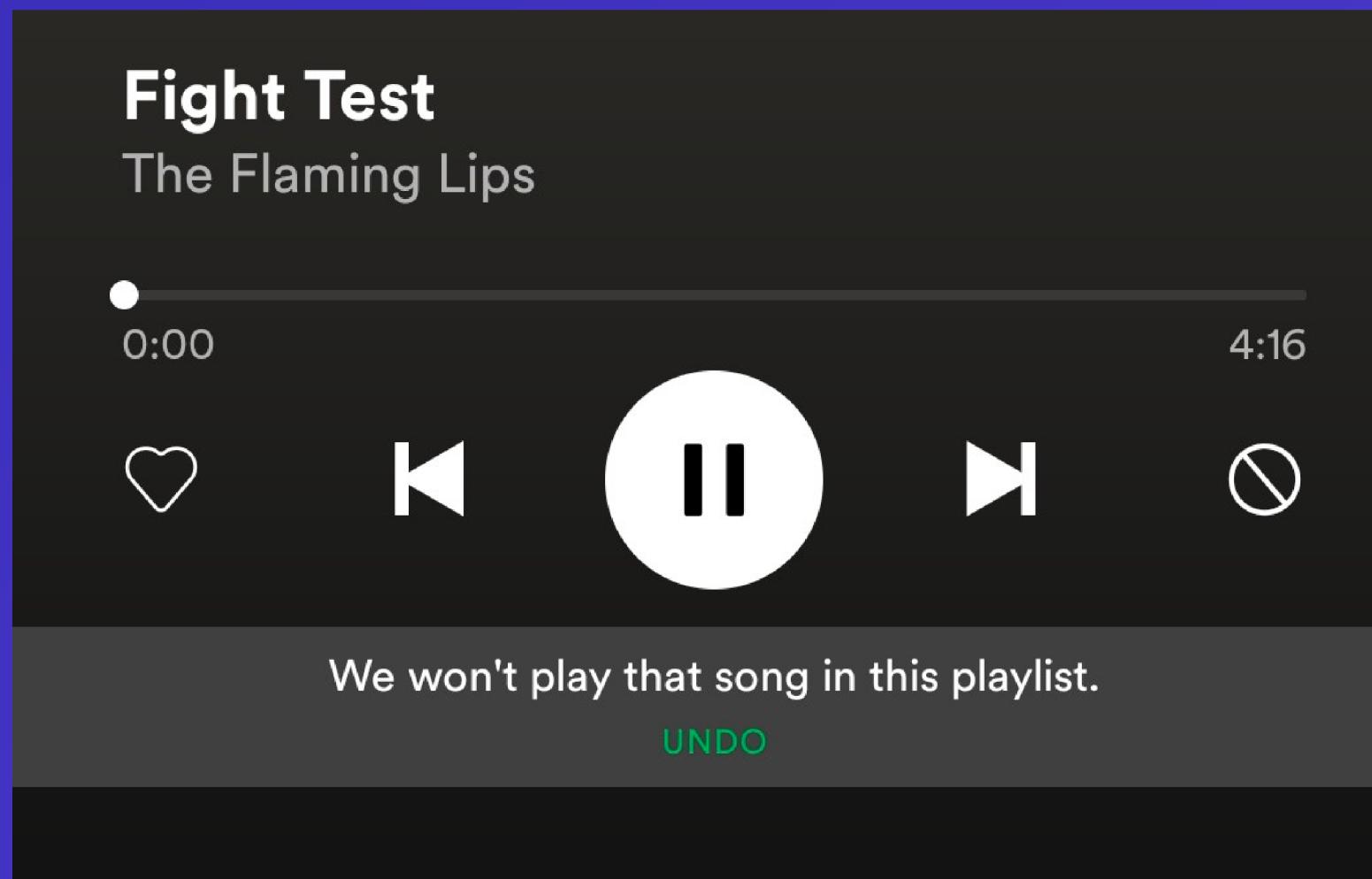


**ALTERNATIVE  
METHODS**

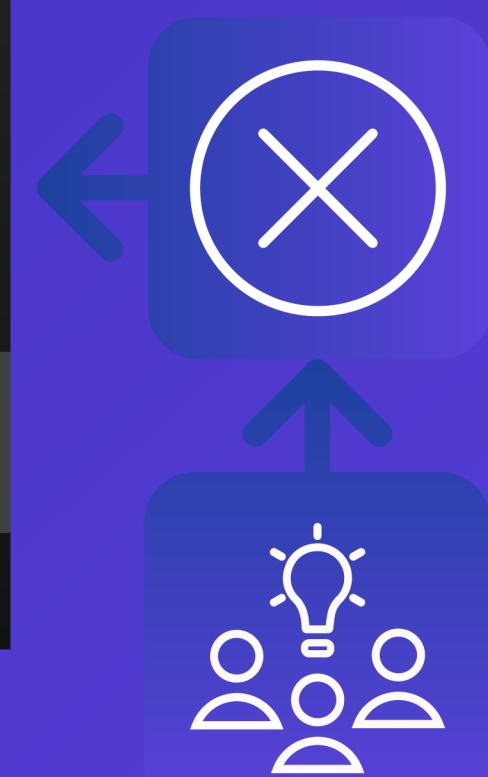
**SUPERVISED  
MACHINE  
LEARNING**

# SUMMARY

## USER INPUT FEATURE



**INTEGRATION  
& DATA  
ENRICHMENT**



# THANK YOU

FROM AFSHEEN, BRETT, KAIKO & VINCE