

# BLM Project

# Abstract and introduction

In the study, our goal is to delve into protest music, using the recent BLM protests as a lens. The aim is to address key research inquiries by examining the music shared within the context of BLM, using its lyrical, musical, and extra musical elements and comparing with those of mainstream music from the same timeframe. Additionally, the experiment extends to the evolution of protest music in the United States, comparing contemporary compositions with those crafted half a century ago.

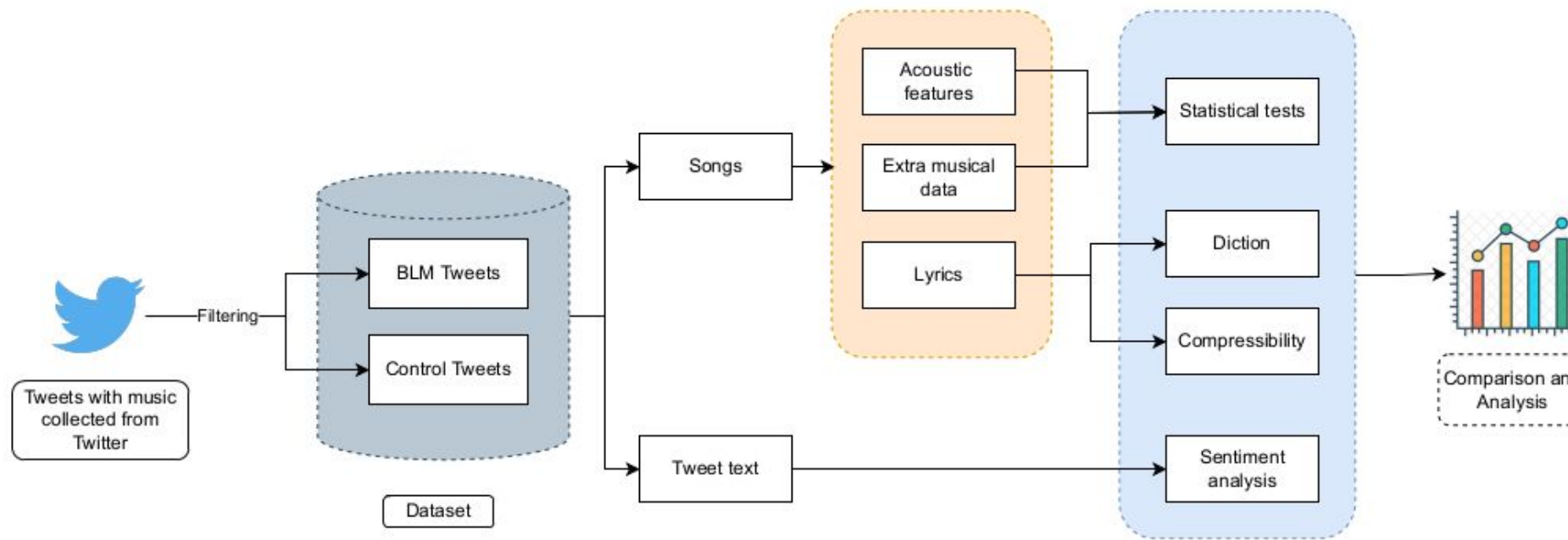


Figure 1: Flowchart describing the pipeline used for the analysis

# Dataset

The dataset used for this study was created using, the tweets shared by users during a chosen time period, relevant to the Black Lives Matter protest.

- The twitter post should contain link to a spotify track, playlist, or album
- The tweet should have been made between 27th May 2020 and 27th November 2020
- The tweet should contain the BLM hashtag or some variation of the same or some keywords related to black lives matter (like #BlackLivesMatter, #blm etc)

<b>Metric</b>	<b>Control</b>	<b>BLM</b>
Number of tweets	14,672	12,661
Total songs (w playlists)	19,613	11,131
Single tracks	1,726	4502
Tracks with lyrics	1,398	3,727

# Sample blm tweet

## https://t.co/20... @realDonaldTrump I wrote a song about how you you treated the Black Lives Matter. Thanks again for singing in it Trump. <https://t.co/nlEazfcoql>

Wow. Wow wow wow.

Sault's two double albums are instantly iconic. Mysterious, genius, powerful music and some absolute bangers in there too. Mr Kiwanuka can do no wrong. Give them a listen:

▶ ▶ <https://t.co/Taz0wbZrPm>

<https://t.co/zu2KFjXm9l>

## https://t.co/20... #BlackLivesMatter

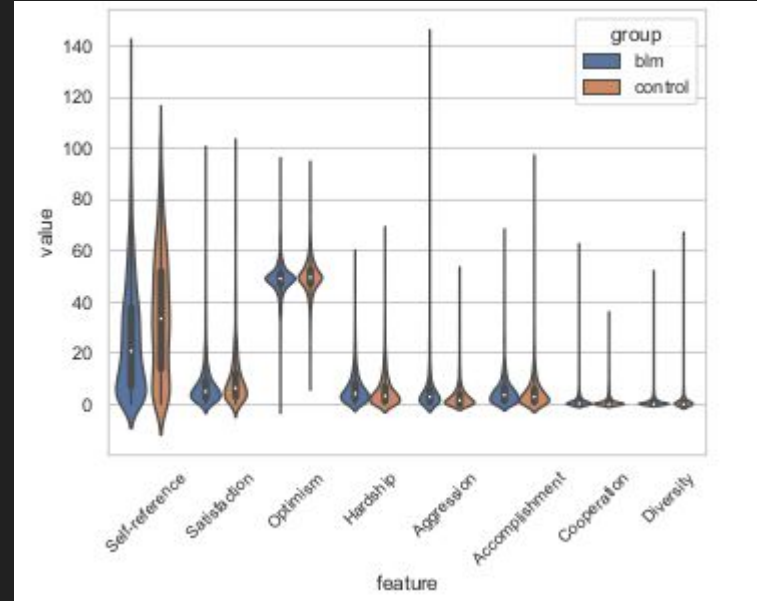
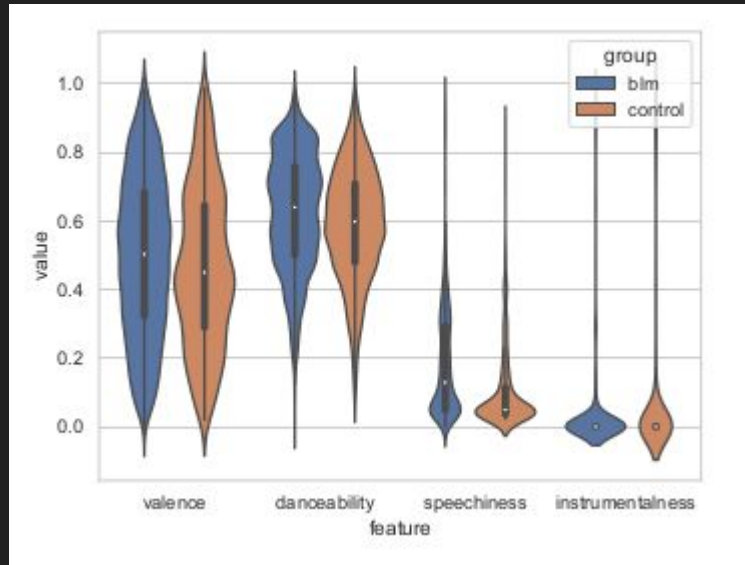
"Said Sum" Out Now! 🔥🔥🔥

▶ ▶ <https://t.co/zULuu0EBGt>

## https://t.co/20... #rap #trap #hiphop #spotify #SpotifyPlaylist #SpotifyxBTS #spotifywrapped #SpotifyCharts#SpotifyPremium #AppleMusic #applemusicplaylist #Beats #Producer #SoundCloud #BlackLivesMatter

# Results from the work

- The work identified disparities between protest music and other genres within the Black Lives Matter (BLM) movement.
- Protest music exhibited distinct characteristics including higher valence, danceability, and speechiness compared to non-protest music.



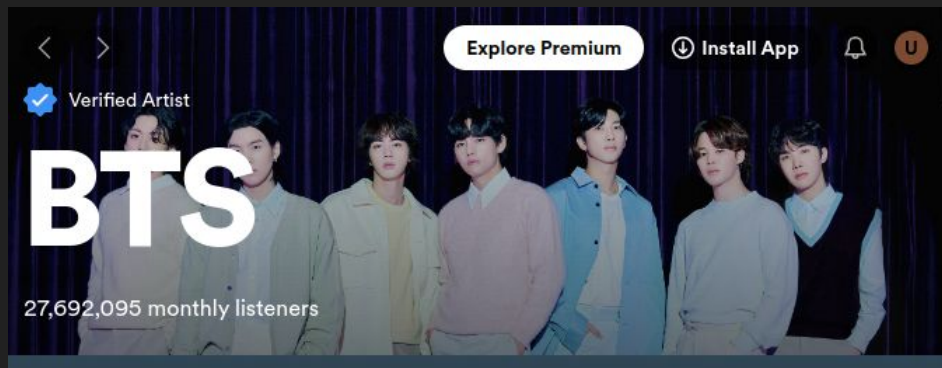
# Results from the work

The songs shared were by lesser known artists:

Top artist in BLM dataset :

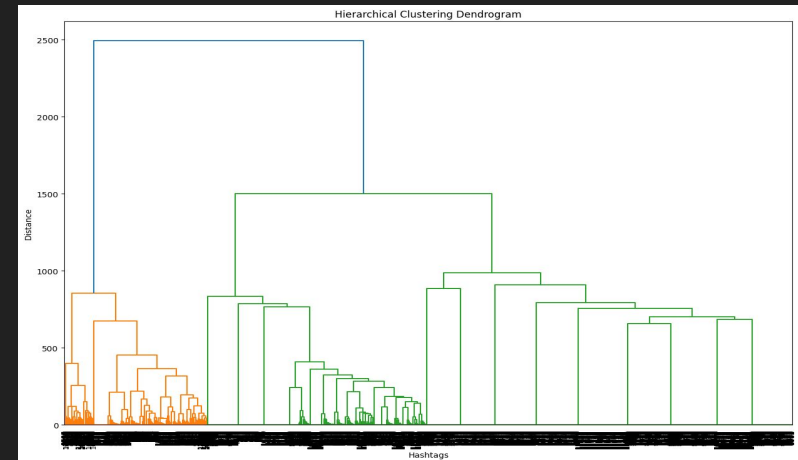
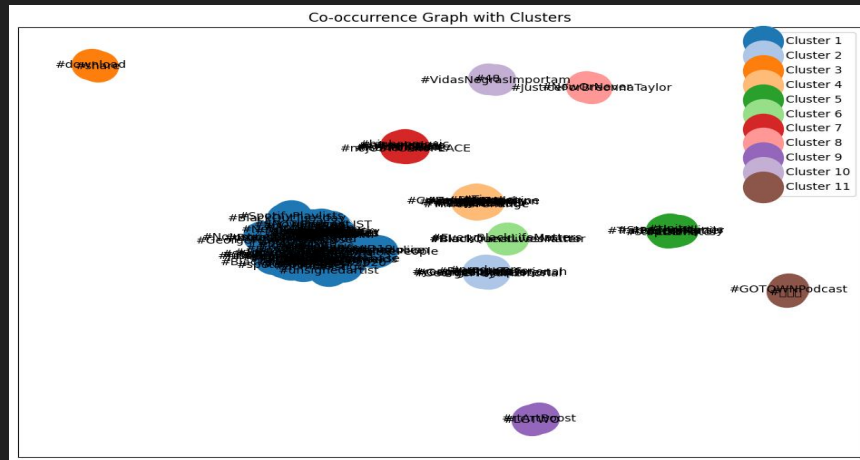


Top artist in the control dataset :



# Work done

-> The hashtags have been clustered on the basis of co-occurrences.





[illegible]

Word Cloud for Cluster 2

George Floyd protest  
trump producers  
record labels rappers  
George Floyd Memorial  
Breonna Taylor  
you good by mistar jonah

Word Cloud for Cluster 3



A word cloud visualization for Cluster 3. The words 'share' and 'download' are the most prominent, displayed in large, bold, blue font. The word 'share' is positioned above 'download'. The background is white.

Word Cloud for Cluster 4

A word cloud for Cluster 4. The words are arranged in a circular pattern. The most prominent words are 'LeeMerritt' in large blue font, 'BunB' in large teal font, 'KrayzieBone' in large yellow font, 'DavidBanner' in large dark blue font, 'TraeThaTruth' in large teal font, 'Mysonne' in large yellow font, 'StylesP' in large dark blue font, 'AnthonyHamilton' in large dark blue font, 'TamiKaMallory' in large green font, 'Tip' in large purple font, 'TimeforChange' in large green font, 'ConwayTheMachine' in small dark blue font, 'E40' in small dark blue font, 'INK' in small green font, and 'Word Cloud for Cluster 4' in small dark blue font.

LeeMerritt

BunB

KrayzieBone

DavidBanner

TraeThaTruth

Mysonne

StylesP

AnthonyHamilton

TamiKaMallory

Tip

TimeforChange


ConwayTheMachine

E40

INK

Word Cloud for Cluster 4

Word Cloud for Cluster 5



TransLivesMatter  
PodernFamily  
Unity LGBTQ  
StopTheKillings  
stopthehate

Word Cloud for Cluster 6

BlackQueerLivesMatter  
EveryBlackLifeMatters  
BlackTransLivesMatter

Word Cloud for Cluster 7

alternative PINKi  
noJUSTICE noPEACE  
hiphopmusic  
icantbreathe  
soulmusic

Word Cloud for Cluster 8

JusticeForBreonnaTaylor  
NowOrNever

Word Cloud for Cluster 11

GOTOWNPodcast



Word Cloud for Cluster 9

rtArtBoost  
LGTWO

Word Cloud for Cluster 10

VidasNegrasImportam

# Clusters formed using connected components approach

Cluster 1: ['#PowerToThePeople', '#spotifypodcasts', '#fuckthepolice', '#BayAreaRap', '#listige', '#California', '#Podcast', '#SpotifyPlaylists', '#WeWillVote', '#DonToriano', '#indiepop', '#NewMusicFriday', '#Eminem', '#museboost', '#Viral', '#spotify', '#Spotify', '#rapper', '#podcasts', '#podcast', '#ICantBreathe', '#protest', '#GeorgeFloydProtests', '#BlackOutTuesday', '#newmusic', '#50DJs50States', '#podcastlife', '#music', '#podcasting', '#IG', '#LeTour2020', '#Rap', '#DatPiff', '#COVID19', '#IndiePopDatabase', '#spotifyplaylist', '#racism', '#NoJusticeNoPeace', '#WashYourHands', '#vivalarevolucion', '#rap', '#indie', '#AppleMusic', '#Fillmore', '#hiphop', '#SPOTIFYPLAYLIST', '#BreonnaTaylor', '#fuck', '#love', '#protests2020', '#SoundCloud', '#HipHop', '#NowPlaying', '#zombies', '#KeepingItPeel', '#NewRelease', '#producer', '#Listen', '#GeorgeFloyd', '#justiceforgeorgefloyd', '#FolloForFolloBack', '#Zombie', '#itunes', '#NewMusic', '#Rapgame', '#playlist', '#SanQuinn', '#independentartist', '#Music', '#coronavirus', '#artist', '#hiphopculture', '#np', '#Spinrilla', '#newrelease', '#youtube', '#COVID—19', '#GainyourWay', '#BlackLivesMatters', '#protests', '#SpotifyPlaylist', '#applemusic', '#unsignedartist']

Cluster 2: ['#GeorgeFloydMemorial', '#GeorgeFloydprotest', '#producers', '#BreonnaTaylor', '#recordlabels', '#yougoodbymistarjonah', '#rappers', '#trump']

Cluster 3: ['#download', '#share']

Cluster 4: ['#LeeMerritt', '#BunB', '#KrayzieBone', '#TamikaMallory', '#DavidBanner', '#TraeThaTruth', '#Tip', '#Mysonne', '#INK', '#TimeforChange', '#StylesP', '#AnthonyHamilton', '#ConwaytheMachine', '#E40']

Cluster 5: ['#PodernFamily', '#StopTheKillings', '#LGBTQ', '#stopthehate', '#Unity', '#TransLivesMatter']

Cluster 6: ['#BlackTransLivesMatter', '#BlackQueerLivesMatter', '#EveryBlackLifeMatters']

Cluster 7: ['#hiphopmusic', '#icantbreathe', '#PINKi', '#soulmusic', '#AndroidEddie', '#noJUSTICEnoPEACE', '#alternative']

Cluster 8: ['#JusticeForBreonnaTaylor', '#NowOrNever']

Cluster 9: ['#rtArtBoost', '#LGTWO']

Cluster 10: ['#VidasNegrasImportam', '#48']

Cluster 11: ['#ゴタボ', '#GOTOWNPodcast']

# Cluster 1

1. #Spotify <https://t.co/ABKbIKigRg> Mac Jeff "Street Grind To Elevate" ft. @rapperllove #SanQuinn and #DonToriano @DynoRTs #SpotifyPlaylist #GainyourWay #Music #Listen #BayAreaRap #Fillmore #Rapgame #IG #Viral #50Djs50States #DatPiff #Spinrilla #NewMusic.

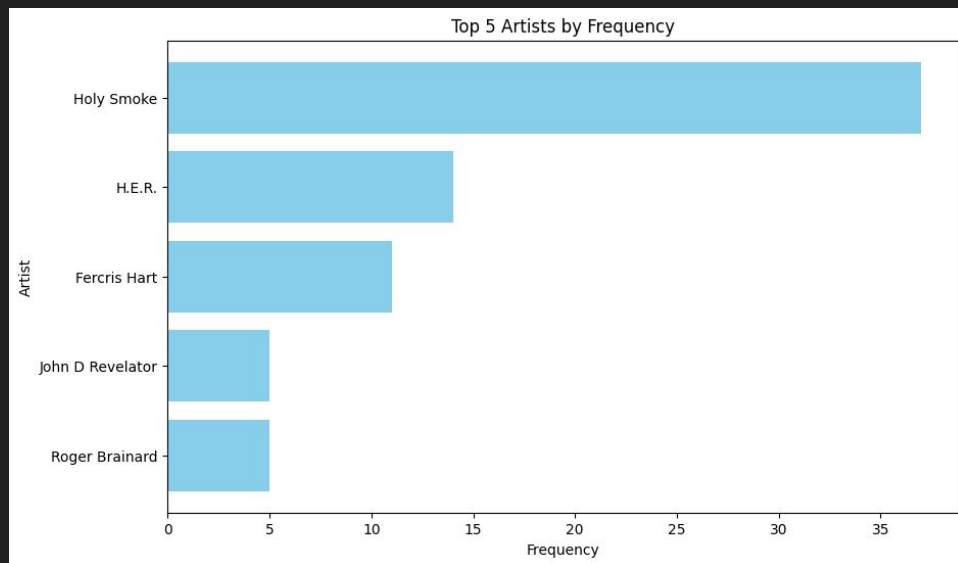
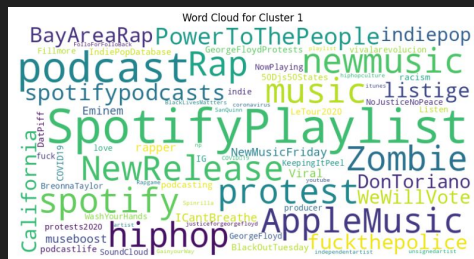
Hashtags: #Spotify #SanQuinn #DonToriano #SpotifyPlaylist #GainyourWay #Music #Listen #BayAreaRap #Fillmore #Rapgame #IG #Viral #50Djs50States #DatPiff #Spinrilla #NewMusic

2. #Spotify <https://t.co/ABKbIKigRg> Mac Jeff "Street Grind To Elevate" ft. @rapperllove #SanQuinn and #DonToriano @DynoRTs @RexRTs #SpotifyPlaylist #GainyourWay #Music #Listen #BayAreaRap #Fillmore #Rapgame #IG #Viral #50Djs50States #DatPiff #Spinrilla #NewMusic.

Hashtags: #Spotify #SanQuinn #DonToriano #SpotifyPlaylist #GainyourWay #Music #Listen #BayAreaRap #Fillmore #Rapgame #IG #Viral #50Djs50States #DatPiff #Spinrilla #NewMusic

3. #Spotify <https://t.co/ABKbIKigRg> Mac Jeff "Street Grind To Elevate" ft. @rapperllove #SanQuinn and #DonToriano @DynoRTs #SpotifyPlaylist #GainyourWay #Music #Listen #BayAreaRap #Fillmore #Rapgame #IG #Viral #50Djs50States #DatPiff #Spinrilla #NewMusic.

Hashtags: #Spotify #SanQuinn #DonToriano #SpotifyPlaylist #GainyourWay #Music #Listen #BayAreaRap #Fillmore #Rapgame #IG #Viral #50Djs50States #DatPiff #Spinrilla #NewMusic



# Cluster -2

1. 7 Why is everybody listening to Mistar Jonah • You Good ? 🤔 <https://t.co/A6YGilzzmX>

#GeorgeFloydprotest #GeorgeFloydMemorial #BreonnaTaylor berlin #producers #recordlabels #rappers #trump #yougoodbymistarjonah  
RETWEET

Hashtags: #GeorgeFloydprotest #GeorgeFloydMemorial #BreonnaTaylor #producers #recordlabels #rappers #trump  
#yougoodbymistarjonah

2. 6 Why is everybody listening to Mistar Jonah • You Good ? 🤔 <https://t.co/A6YGilzzmX>

#GeorgeFloydprotest #GeorgeFloydMemorial #BreonnaTaylor berlin #producers #recordlabels #rappers #trump #yougoodbymistarjonah  
RETWEET

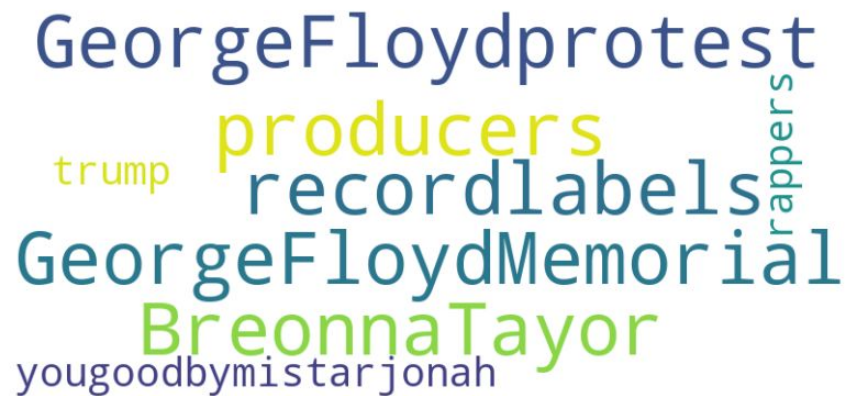
Hashtags: #GeorgeFloydprotest #GeorgeFloydMemorial #BreonnaTaylor #producers #recordlabels #rappers #trump  
#yougoodbymistarjonah

3. 5 Why is everybody listening to Mistar Jonah • You Good ? 🤔 <https://t.co/A6YGilzzmX>

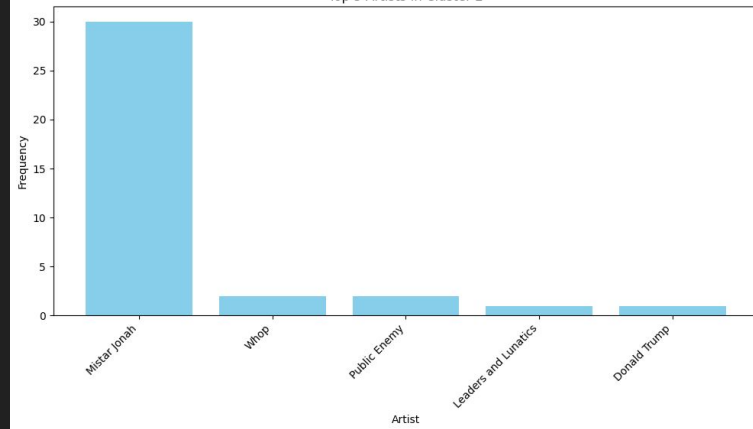
#GeorgeFloydprotest #GeorgeFloydMemorial #BreonnaTaylor berlin #producers #recordlabels #rappers #trump #yougoodbymistarjonah  
RETWEET

Hashtags: #GeorgeFloydprotest #GeorgeFloydMemorial #BreonnaTaylor #producers #recordlabels #rappers #trump  
#yougoodbymistarjonah

Word Cloud for Cluster 2



Top 5 Artists in Cluster 2



# Cluster -3

1. Black Lives Matter by Don Floss on Spotify #download #share #SupportSmallStreamers #SupportSmallStreams #musicwithameaning #WHYDONTWE #Fightthecowards #FightForFreedom #getthroughthistogether #GetReady #WhatDoYouThink #whataboutus #BlacklivesMaters <https://t.co/LmRzv8usOL>

Hashtags: #download #share

2. Black Lives Matter by Don Floss on Spotify #JusticeForGeorgeFloyd #JusticeforBreonnaTaylor #share #download S #BlacklivesMaters s Minneapolis #BlackLiveMatters <https://t.co/LmRzv8usOL>

Hashtags: #share #download

3. Black Lives Matter by Don Floss on Spotify #share #download #LosAngelesriots #MinneapolisUprising #NewarkProtest #NewYorkriot #AtlantaRiots #americariots #GeorgeFloydprotest S # <https://t.co/LmRzv8usOL>

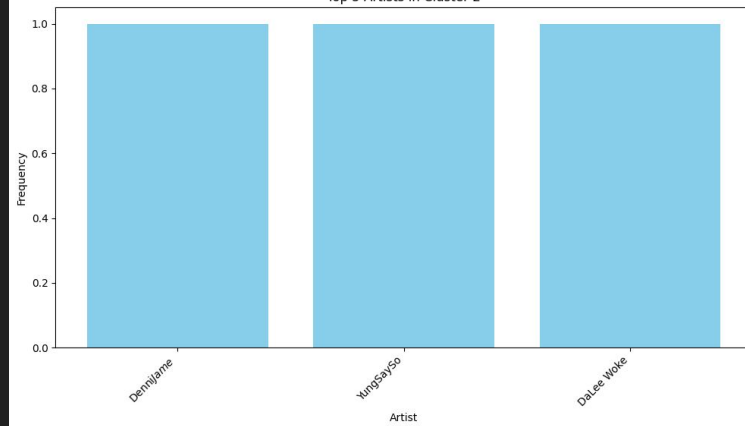
Hashtags: #share #download



Word Cloud for Cluster 3

share  
download

Top 5 Artists in Cluster 2



# Cluster -4

1. #SalutesONSunday #TimeforChange () (feat. T.I. #Tip, #StylesP, #Mysonne, #INK, #AnthonyHamilton, #ConwaytheMachine, #KrayzieBone, #E40 E-40, #DavidBanner, #BunB, #TamikaMallory & #LeeMerritt) by #TraeThaTruth<https://t.co/aKZEmG9jC8>Hashtags: #TimeforChange #Tip #StylesP #Mysonne #INK #AnthonyHamilton #ConwaytheMachine #KrayzieBone #E40 #DavidBanner #BunB #TamikaMallory #LeeMerritt #TraeThaTruth

2. #WednesdayThoughts#TimeforChange () (feat. T.I. #Tip, #StylesP, #Mysonne, #INK, #AnthonyHamilton, #ConwaytheMachine, #KrayzieBone, #E40 E-40, #DavidBanner, #BunB, #TamikaMallory & #LeeMerritt) by #TraeThaTruth#SayTheirNames<https://t.co/2Uk4HbHVJn>Hashtags: #TimeforChange #Tip #StylesP #Mysonne #INK #AnthonyHamilton #ConwaytheMachine #KrayzieBone #E40 #DavidBanner #BunB #TamikaMallory #LeeMerritt #TraeThaTruth

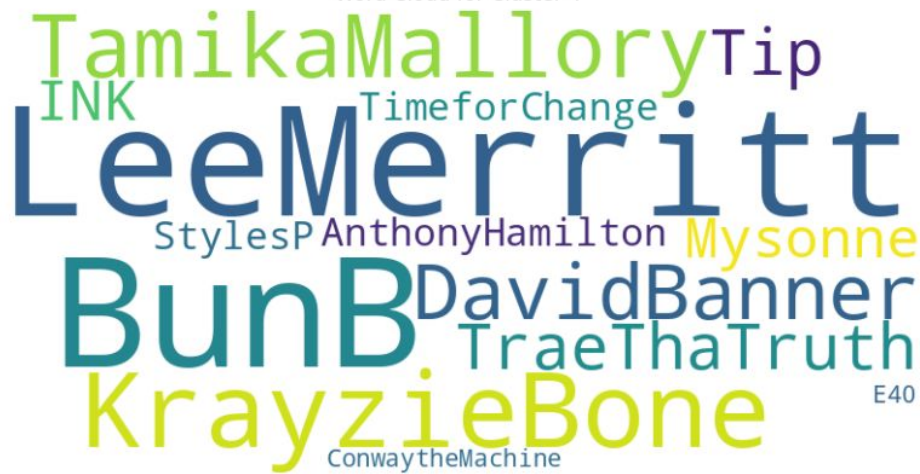
3. #NowPlaying

#TimeforChange () (feat. T.I. #Tip, #StylesP, #Mysonne, #INK, #AnthonyHamilton, #ConwaytheMachine, #KrayzieBone, #E40 E-40, #DavidBanner, #BunB, #TamikaMallory & #LeeMerritt) by #TraeThaTruth

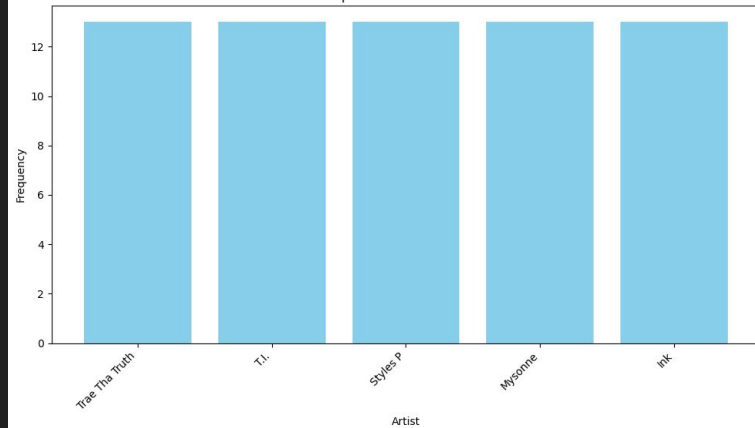
<https://t.co/ab0Jpbxkkr>

Hashtags: #TimeforChange #Tip #StylesP #Mysonne #INK #AnthonyHamilton #ConwaytheMachine #KrayzieBone #E40 #DavidBanner #BunB #TamikaMallory #LeeMerritt #TraeThaTruth

Word Cloud for Cluster 4



Top 5 Artists in Cluster 2



# Cluster -5

Cluster 5 Top 3 Tweets:

1. Checkout the Stop The Hate series of The Real Talk Podcast. Guest Hosts: @HVHPodcast @thespirit95 @eilmovies @cult45podcast @Christinefor24 & more

#stopthehate #StopTheKillings #LGBTQ #TransLivesMatter #Unity #NBC #PodernFamily

<https://t.co/LC6cZgP4ev> Hashtags: #stopthehate #StopTheKillings #LGBTQ #TransLivesMatter #Unity #PodernFamily

2. Checkout the Stop The Hate series of The Real Talk Podcast. Guest Hosts: @HVHPodcast @thespirit95 @eilmovies @cult45podcast @Christinefor24 & more

#stopthehate #StopTheKillings #LGBTQ #TransLivesMatter #Unity #ABC #PodernFamily

<https://t.co/LC6cZgP4ev> Hashtags: #stopthehate #StopTheKillings #LGBTQ #TransLivesMatter #Unity #PodernFamily

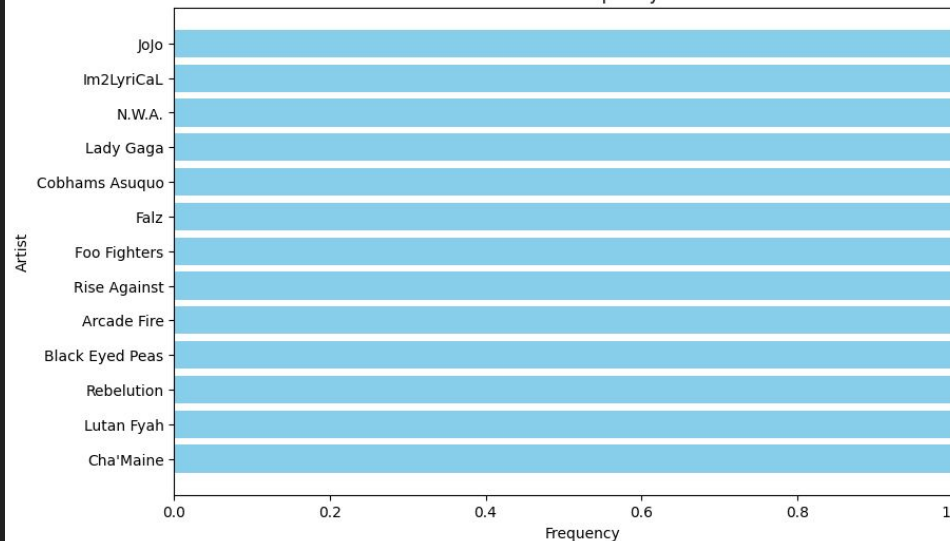
3. Checkout the Stop The Hate series of The Real Talk Podcast. Guest Hosts: @HVHPodcast @thespirit95 @eilmovies @cult45podcast @Christinefor24 & more

#stopthehate #StopTheKillings #LGBTQ #TransLivesMatter #Unity #ABC7 #PodernFamily <https://t.co/LC6cZgP4ev> Hashtags: #stopthehate #StopTheKillings #LGBTQ #TransLivesMatter #Unity #PodernFamily

Word Cloud for Cluster 5

TransLivesMatter  
PodernFamily  
Unity LGBTQ  
StopTheKillings  
stopthehate

Artists Frequency



# Cluster -6

1. @KingJollof HANDS UP DON'T SHOOT

#BlackQueerLivesMatter #BlackTransLivesMatter #EveryBlackLifeMatters <https://t.co/HZWs5fQwR1> <https://t.co/RVZpPq05id>  
<https://t.co/evkA8K50bC> Hashtags: #BlackQueerLivesMatter #BlackTransLivesMatter #EveryBlackLifeMatters

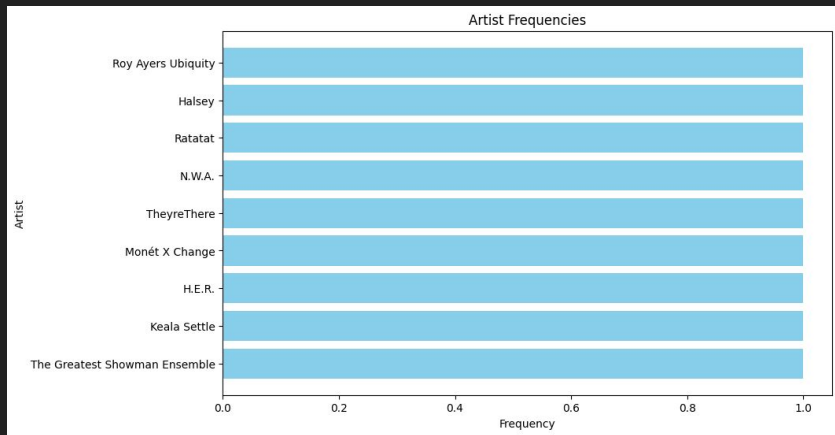
2. @BenFrankIV HANDS UP DON'T SHOOT

#BlackQueerLivesMatter #BlackTransLivesMatter #EveryBlackLifeMatters

<https://t.co/HZWs5fQwR1> <https://t.co/RVZpPq05id> <https://t.co/evkA8K50bC>

Hashtags: #BlackQueerLivesMatter #BlackTransLivesMatter #EveryBlackLifeMatters

3. @VampireSilk HANDS UP DON'T SHOOT #BlackQueerLivesMatter #BlackTransLivesMatter #EveryBlackLifeMatters  
<https://t.co/HZWs5fQwR1> <https://t.co/RVZpPq05id> <https://t.co/evkA8K50bC> Hashtags: #BlackQueerLivesMatter  
#BlackTransLivesMatter #EveryBlackLifeMatters



Word Cloud for Cluster 6

BlackQueerLivesMatter  
EveryBlackLifeMatters  
BlackTransLivesMatter

# Cluster -7

Cluster 7 Top 3 Tweets:

1. ALL LIVES cannot matter until #noJUSTICE noPEACE #icantbreathe #PINKi + #AndroidEddie + @66notes + @benjaminoaks  
#hiphopmusic #soulmusic #alternative <https://t.co/UMm9iAaYHt>

Hashtags: #noJUSTICE noPEACE #icantbreathe #PINKi #AndroidEddie #hiphopmusic #soulmusic #alternative

2. ALL LIVES cannot matter until #noJUSTICE noPEACE #icantbreathe #PINKi + #AndroidEddie + @66notes + @benjaminoaks  
#hiphopmusic #soulmusic #alternative

<https://t.co/UMm9iAaYHt>

Hashtags: #noJUSTICE noPEACE #icantbreathe #PINKi #AndroidEddie #hiphopmusic #soulmusic #alternative

3. ALL LIVES cannot matter until #noJUSTICE noPEACE #icantbreathe #PINKi + #AndroidEddie + @66notes + @benjaminoaks  
#hiphopmusic #soulmusic #alternative <https://t.co/UMm9iAaYHt>

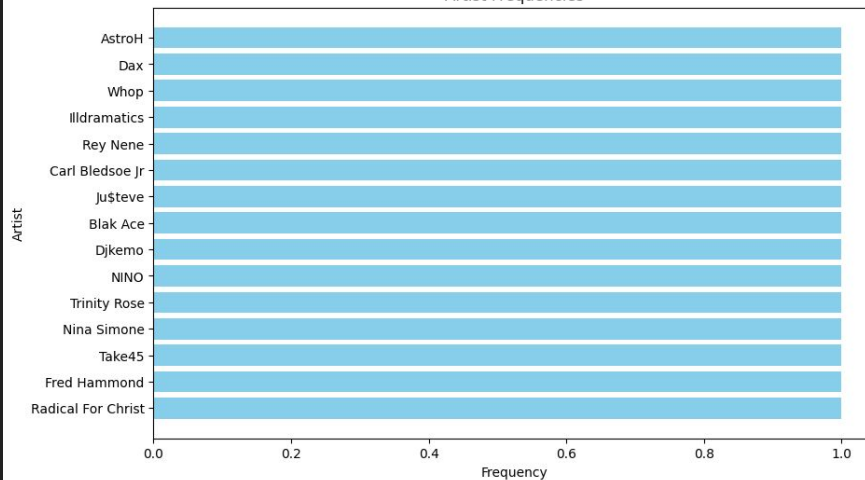
Hashtags: #noJUSTICE noPEACE #icantbreathe #PINKi #AndroidEddie #hiphopmusic #soulmusic #alternative



Word Cloud for Cluster 7



Artist Frequencies



# Cluster -8

1. The time for Change and healing is upon US! We can all be apart of a better tomorrow! Listen to “ Now Or Never” out now on all platforms! #NowOrNever #JusticeForBreonnaTaylor

[@1BANKSUNIVERSE](https://t.co/JQI7Sji9Na) ., Hashtags: #NowOrNever #JusticeForBreonnaTaylor

2. The time for Change and healing is upon US! We can all be apart of a better tomorrow! Listen to “ Now Or Never” out now on all platforms! #NowOrNever #JusticeForBreonnaTaylor <https://t.co/JQI7Sji9Na>

@1BANKSUNIVERSE .

Hashtags: #NowOrNever #JusticeForBreonnaTaylor

3. The time for Change and healing is upon US! We can all be apart of a better tomorrow! Listen to “ Now Or Never” out now on all platforms!

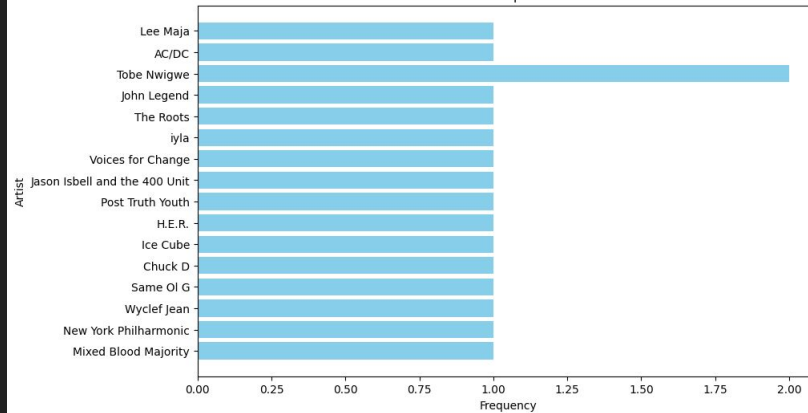
#NowOrNever #JusticeForBreonnaTaylor <https://t.co/JQI7Sji9Na>

@1BANKSUNIVERSE Hashtags: #NowOrNever #JusticeForBreonnaTaylor

Word Cloud for Cluster 8

JusticeForBreonnaTaylor  
NowOrNever

Artist Frequencies



# Cluster -9

1. WindDownTime @Velocyraptus1 #listige #spotify @YHHTMPC #indie #music #LGTWO @dorner\_martina @connectalot @Ifyouareanarti1 @my\_sphera @ITHERETWEETER1 @manni\_best @aliciagrimes71 @TwitterRetweets @Jtkwon3 @rtltBot #rtArtBoost @ultimate\_indie @OilyBeatz <https://t.co/AMlAcjr0xV>

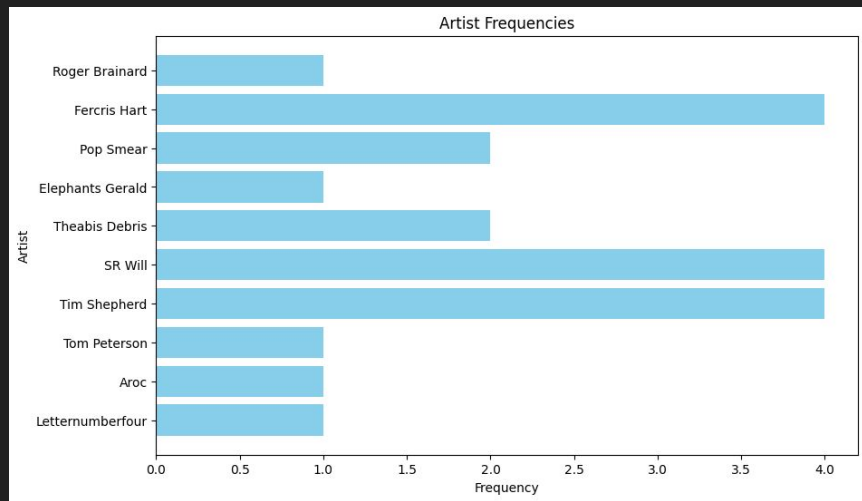
Hashtags: #LGTWO #rtArtBoost

2. IsMondayReallyBlue? @Velocyraptus1 #spotify #spotifyplaylist @YHHTMPC #indie #music #LGTWO #newmusic @Wendy\_Sokoloff @connectalot @Ifyouareanarti1 @my\_sphera @ITHERETWEETER1 @aliciagrimes71 @TwitterRetweets @Jtkwon3 @rtltBot #rtArtBoost @Sofi\_Sound <https://t.co/W5pMJZmVrx>

Hashtags: #LGTWO #rtArtBoost

3. HotOrCold?@Velocyraptus1 #listige #spotify @YHHTMPC #indie #music #LGTWO @dorner\_martina @connectalot @Ifyouareanarti1 @my\_sphera @ITHERETWEETER1 @manni\_best @aliciagrimes71 @TwitterRetweets @Jtkwon3 @rtltBot #rtArtBoost @ultimate\_indie @OilyBeatz <https://t.co/KxaGd806Sj>

Hashtags: #LGTWO #rtArtBoost



Word Cloud for Cluster 9

rtArtBoost  
LGTWO

# Cluster -10

Cluster 10 Top 3 Tweets:

1. Aqui está um programa para você... POR QUE OS NEGROS BRASILEIROS NÃO SE REVOLTAM? - AFETOS #48 - #VidasNegrasImportam  
Episódio de AFETOS por Gabi Oliveira e Karina Vieira

<https://t.co/51FgHLWjMG>

Hashtags: #48 #VidasNegrasImportam

2. Aqui está um programa para você... POR QUE OS NEGROS BRASILEIROS NÃO SE REVOLTAM? - AFETOS #48 - #VidasNegrasImportam  
Episódio de AFETOS por Gabi Oliveira e Karina Vieira

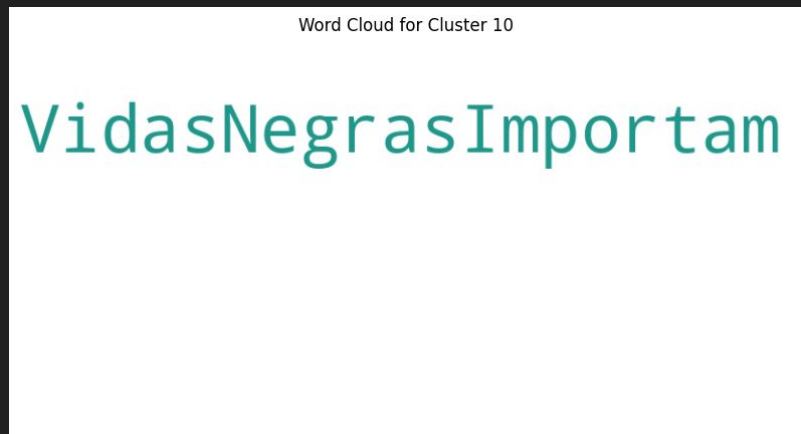
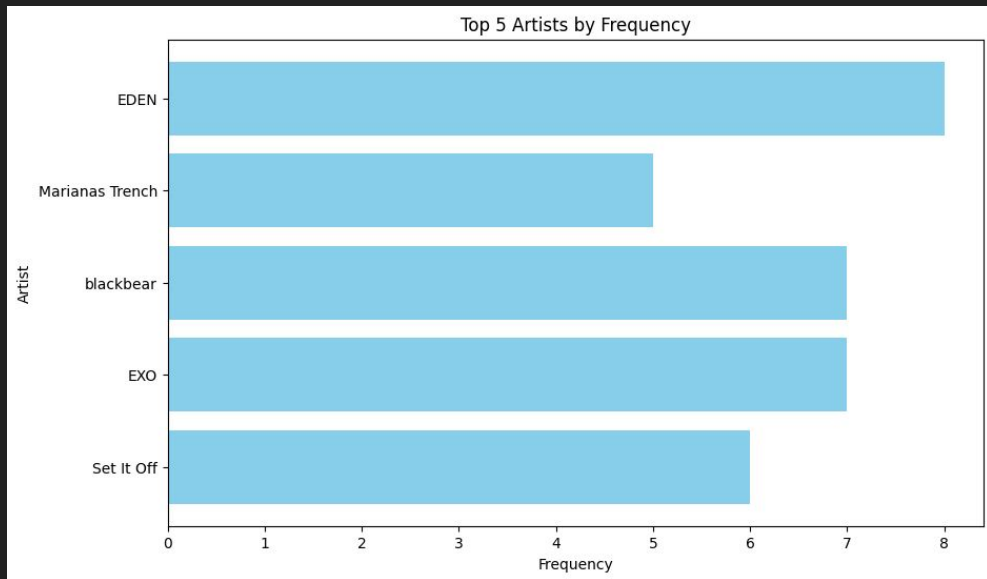
<https://t.co/pi5h1h3utU>

Hashtags: #48 #VidasNegrasImportam

3. Aqui está um programa para você... POR QUE OS NEGROS BRASILEIROS NÃO SE REVOLTAM? - AFETOS #48 - #VidasNegrasImportam  
Episódio de AFETOS por Gabi Oliveira e Karina Vieira

<https://t.co/90g2U5jl41>

Hashtags: #48 #VidasNegrasImportam



# Cluster - 11

Cluster 11 Top 3 Tweets:

1. #GOTOWNPodcast #ゴタポ #13 配信中🎧

#宇野維正さん #金寿煥さんを迎えて、を巡って、音楽の話はもちろん、そもそも差別ではなくて、作られている制度までも。色々な情報を吸収して、自分の考えをちゃんと持っていくことが必要だなあと感じます。https://t.co/vHzem8kaa7

Hashtags: #GOTOWNPodcast #ゴタポ

2. PLAYLISTも合わせて楽しんでください🎧

ゲスト #宇野維正さん #田辺健二さんにも選曲していただきました。宇野さんはをテーマに、過去～最新まで。田辺さんはコロナ後のカラオケ。郷太さんはトーク後に聴きたくなる楽曲を👉 https://t.co/j7z43FvvRS

#ゴタポ #GOTOWNPodcast

Hashtags: #ゴタポ #GOTOWNPodcast

3. #13 Black Lives Matter、いま革命を起こすとき～Guest: 宇野維正、金寿煥 #GOTOWNPodcast #ゴタポ 昨日、鼎談で話したスタイリスト伊賀大介君也大絶賛のポッドキャスト。僕と宇野さん、ふたりの新潮社担当編集、声の良い金さんを迎え新潮社クラブとBlack Lives Matter。https://t.co/RaZVfzxbVk

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Word Cloud for Cluster 11

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