21082022 Question 3

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June 2023

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This report provides an overview of the two institutional legends in music history, Coldplay and Metallica. The report ends off by giving some insight into other popular contemporary music.

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Introduction

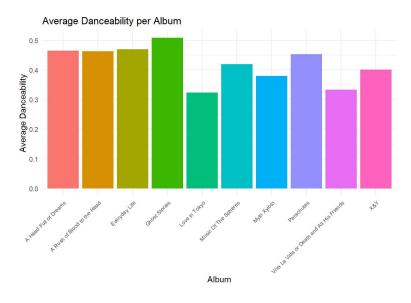
Coldplay and Metallica are two of the most famous bands of all time.

This report examines major trends in popularity, danceability and energy in their respective albums.

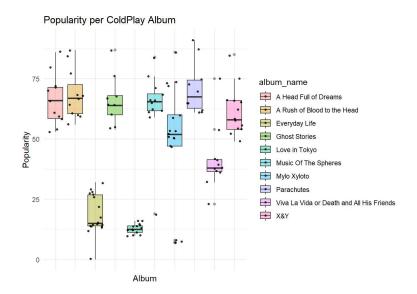
Coldplay

Coldplay is examined first. Albums are filtered to exclude any live or tour versions.

By looking at danceability, it can be seen that "Ghost Stories" has the highest danceability. People find it difficult to dance to "Love in Tokyo".



When looking at popularity per album, it is a close call between Parachutes, A Rush of Blood to the Head, and A Head Full of Dreams. Love in Tokyo is the least popular album.



The correlation between popularity and danceability for these Coldplay albums is plotted too. On average, the correlation is positive at 0.3. THe correlation per album is also broken down in the table below, where a Head Full of Dreams has the highest and strongest positive correlation between danceability and popularity.

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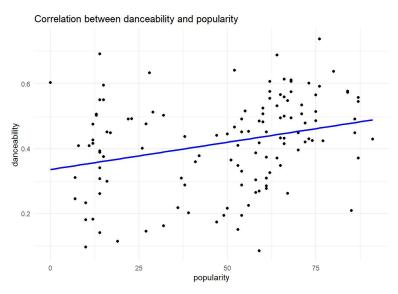
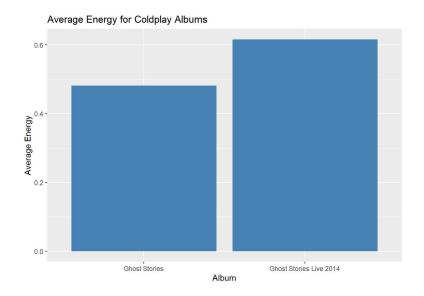


Table 1: Correlation between popularity and danceability for each Coldplay album

	album_name	Correlation
1	A Head Full of Dreams	0.7454545
2	A Rush of Blood to the Head	0.5056961
3	Everyday Life	-0.0130624
4	Ghost Stories	0.6025157
5	Love in Tokyo	0.4325984
6	Music Of The Spheres	0.7157939
7	Mylo Xyloto	0.4864880
8	Parachutes	0.2439070
9	Viva La Vida or Death and All His Friends	0.2687934
10	X&Y	0.2620712

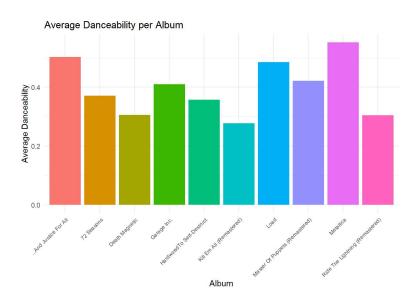
Comparing the studio version and live version of "Ghost Stories", the energy level in the live version is much higher. This implies that Coldplay is much better live.



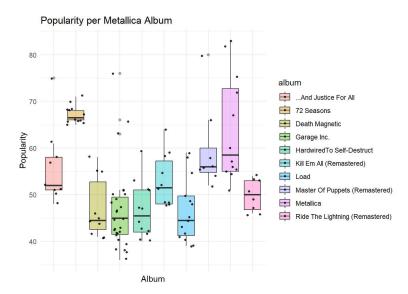
Metallica

Averaging danceability per album for Metallica, we can see that their classic "Metallica" album score the highest danceability.

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Interestingly, the most popular album on average is 72 Seasons. It is followed by Metallica, which has the widest ranging popularity scores among listeners.

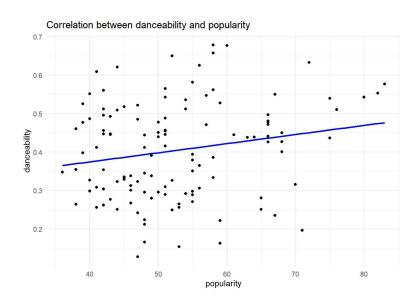


Similar to that of coldplay, Metallica has a positive correlation between danceability and popularity. The breakdown among albums is also tabled below.

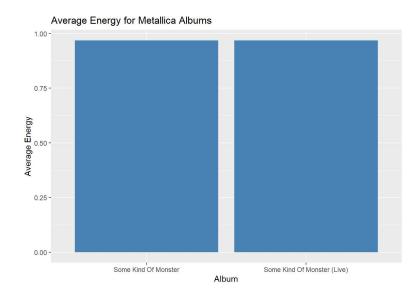
Table 2: Correlation between popularity and danceability for each Metallica album

	album	Correlation
1	And Justice For All	0.1087876
2	72 Seasons	-0.2370698
3	Death Magnetic	0.1590281
4	Garage Inc.	0.2308643
5	HardwiredTo Self-Destruct	-0.2535274
6	Kill Em All (Remastered)	0.5127504
7	Load	-0.1584159
8	Master Of Puppets (Remastered)	0.7425283
9	Metallica	0.3852896
10	Ride The Lightning (Remastered)	0.1807360

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When comparing the studio and live version for Some Kind of Monster, the average energy is the same. This show Metallica puts in just as much effort at the shows as in the studio albums. Legends!



Broad Music Trends

When looking more broadly at the music scene, the 10 most danceable songs on Spotify are listed below. The number one most danceable song in recent history is Leave Me Now by Herbert, receiving a danceability score of 0.986.

Table 3: Top 10 Most Danceable Songs

	name	artist	danceability
1	Leave Me Now	Herbert	0.986
2	Go Girl	Pitbull	0.985
3	Funky Cold Medina	${\rm Tone\text{-}L\bar{o}c}$	0.984
4	State of Shock	The Jacksons	0.982
5	Teachers	Daft Punk	0.980
6	Give It To Me	Timbaland	0.975
7	Ice Ice Baby (Radio Edit)	Vanilla Ice	0.975
8	Tape Song	The Kills	0.974
9	Heavy Machinery	Scuba	0.973
10	Long Shot Kick De Bucket	The Pioneers	0.971