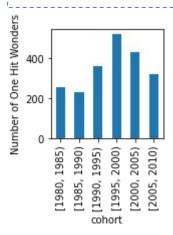
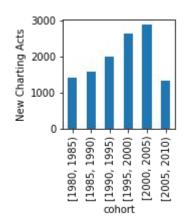
From 1980-2010, 2113 one hit wonders were identified

One Hit Wonders were defined by when an artist achieved top 40 success in the charts, with the majority of their success being concentrated (2/3rd of weeks) in one song.

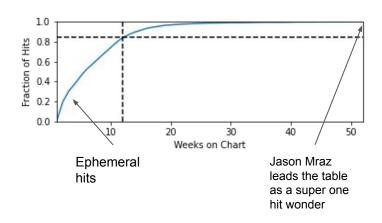
One hit wonders were most prevalent in the late 90s.

Their growth and decline coincided with that of the number of new acts entering the charts in the late 2000s and the rise of streaming.





Only 16% of one hit wonders are successful beyond the 12 week mark (topping the list is Jason Mraz @ 54 Weeks).

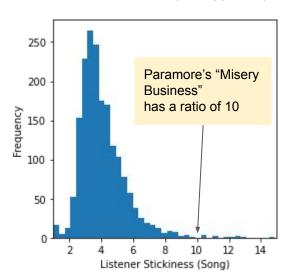


Streaming habits indicate a song's commercial potential

Listener Stickiness

The plays/listeners ratio for a song tells us something about how concentrated a song's repeat listeners are. For example, a score of 5 means that each listener has played the song 5 times.

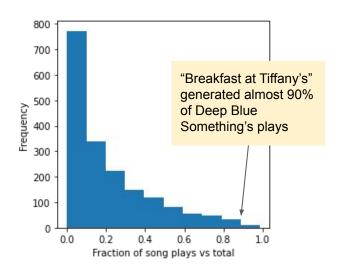
A high score suggests a smaller number of listeners are required in order to generate royalties. As a genre, "Rock" tends to have slightly stickier listeners than "Dance" (see appendix).



Play Concentration

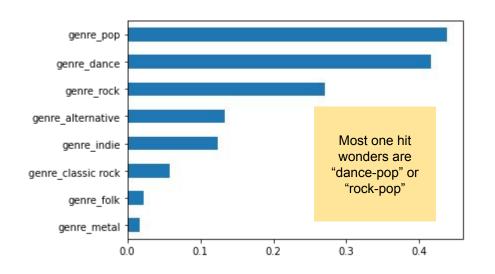
The fraction of plays a song receives relative to the rest of an artist's catalogue indicates how much an artist depends on this particular song for income.

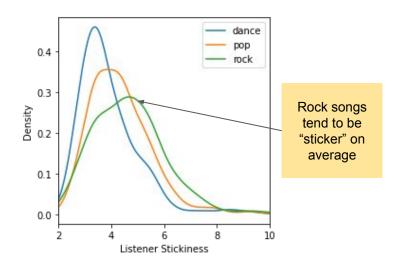
A very high concentration can signify that the artist isn't particularly popular outside of their hit, so may not be memorable enough for consumers to seek out the songs to listen to.



Rock listeners appear the most loyal

If we break down the listener stickiness by genre data from Last.FM, we can see where different genres might have more loyal listeners

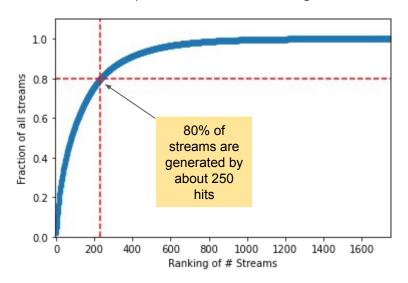


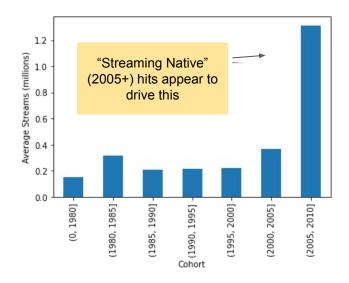


A small proportion of hits dominate streaming plays

80% of the streams (580 million) in the Last.FM dataset came from 250 (11%) of the hits.

Tracks released after 2005 ("Streaming Natives") likely will have benefited from the fact they were streamable during their charting period, so more data would be required to understand the longer term streaming performance of these songs compared to older songs.





Recommendations

Using the insight from the data, candidate songs were identified using the following criteria:

Pick songs that people listen to (>50% of total streams)

But avoid potentially costly super hits (10% of total streams)

Aim for songs with wider audience exposure/memorability (>12 weeks of chart time)

Focus on artists with broader appeal (Play concentration < 50%)

Weight by year to manage cohort risk (e.g. over-reported long term "streaming native" income)

Prioritise songs with a higher Listener Stickiness Score (Focus on songs with stickier "customer" base)

Artist	Song	Year	Genre	Total Streams	Listener Stickiness	Play Concentr ation
Temper Trap	Sweet Disposition	2009	Indie Rock	9,455,762	9.49	0.33
Journey	Don't Stop Believin'	1982	Classic Rock	8,982,453	6.97	0.27
Caesars	Jerk It Out	2003	Indie Rock	3,002,434	6.47	0.39
Spence None The Richer	Kiss Me	1999	Pop	4,677,837	5.93	0.46
Vanessa Carlton	A Thousand Miles	2002	Pop	3,722,367	5.55	0.31

Appendix

Identifying similar songs using clustering analysis

To demonstrate how data science can be applied to this use case, I created a quick and dirty "proof-of-concept" clustering model in order to group together songs according to their Last.FM data.

On the right, we have an alternative set of targets that are similar to those recommended in the main section based on their listener stickiness (song & artist), play concentrations, peak chart position, and % of chart time for the track in weeks (if they had other smaller hits).

This may be useful as:

- Songs may correlate in other ways for example, they may have similar royalty trends to songs we do know about that could then be inferred in a "comp" style analysis
- Groupings of songs can be made to inform decisions about portfolio balancing (counterfactuals)

Artist	Song	Year	Genre	Total Streams	Listener Stickiness	Play Concentration	Similar To
Jose Gonzalez	Heartbeats	2006	Indie	9,539,488	9.31	0.21	"Sweet Disposition"
Tracy Chapman	Fast Car	1988	Folk	4,496,842	6.73	0.21	"Don't Stop Believin'"
Dexy's Midnight Runners	Come On Eileen	1982	Рор	4,271,605	6.47	0.39	"Kiss Me"
Junior Senior	Move Your Feet	2003	Dance	2,342,399	5.51	0.46	"Kiss Me"
New Radicals	You Get What You Give	1999	Rock	3,231,926	5.48	0.60	"Kiss Me"

Extra: The decline and fall of chart hits

The right hand plot shows the average chart position of entrants that were on the chart for 12 weeks.

This gives us a window into how commercial performance declines over time as new entrants appear and popularity fades.

We can see that as of the 90s, that the average song has lost about 6 positions per week.

