

Finding the Missing Link

*Simplifying the Search for
Music Rights*

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Quick Overview of Sync Licensing

- When a song is used in Film, TV, Ads, Trailers, etc., it is synchronized with the picture and requires a **Sync License**
- Rights need to be cleared/secured with the MASTER and PUBLISHING
 - MASTER refers to the actual recording, usually owned by the **Record Label**
 - PUBLISHING refers to the underlying composition, often represented by **Publishers**
 - i.e. Covers are different masters but the same composition
- Sometimes, a dozen or more parties are involved with the use of a single song
 - **If there is an issue with any stakeholder, the entire deal could fall through**

Research is Key!

- Doing extensive research online can help avoid problematic songs
- There are dozens of sites to check and cross reference to build the complete picture of the song
- But thoroughly checking each song is time consuming

Example

You just received word an editor wants to use **“Milkshake - Kelis”** in a cut of the episode to be released tomorrow.

TL;DR - less than 24 hours to find out if this song is ok

Check Spotify - Copyrights from Elektra (WMG), Virgin (UMG), and Arista (Sony)

- Hmmmm all three labels? Suspicion level: 50%

Check publishing: One source says 4 writers (and 4 publishers), others say only 2

- Another discrepancy, suspicion raised to 70%

BUT according to Tunefind, it was used in Looking for Alaska (2019)

- That helps! We might hit road bumps but this seems ok

You tell the editor, all good! But he says now they don't like it and want similar options. So the cycle continues.....

How can we speed up the process of finding and analyzing song ownership to ultimately decide if a song is clearable?

Data Gathering

- Gathering the data was the most difficult part.
- Each new source required looping through the dataframe to match observation
 1. Random song list to start
 2. Scraped **What-Song** to have synced (in dataset) vs not synced (not in dataset)
 3. **Deezer** API for master/recording info
 4. Scraped **LyricsFreak** for publishing/composition info
 5. **Spotify** for audio features (i.e. Danceability & Liveness scores)

Cleaning and Calculating Accuracy

- The scraped sources required lot of text cleaning
- Since each row was from multiple sources, I created a “fuzzy” match score to remove songs that were matched incorrectly

“Titanium” - David Guetta

“Titanium (feat. Sia)” - David Guetta

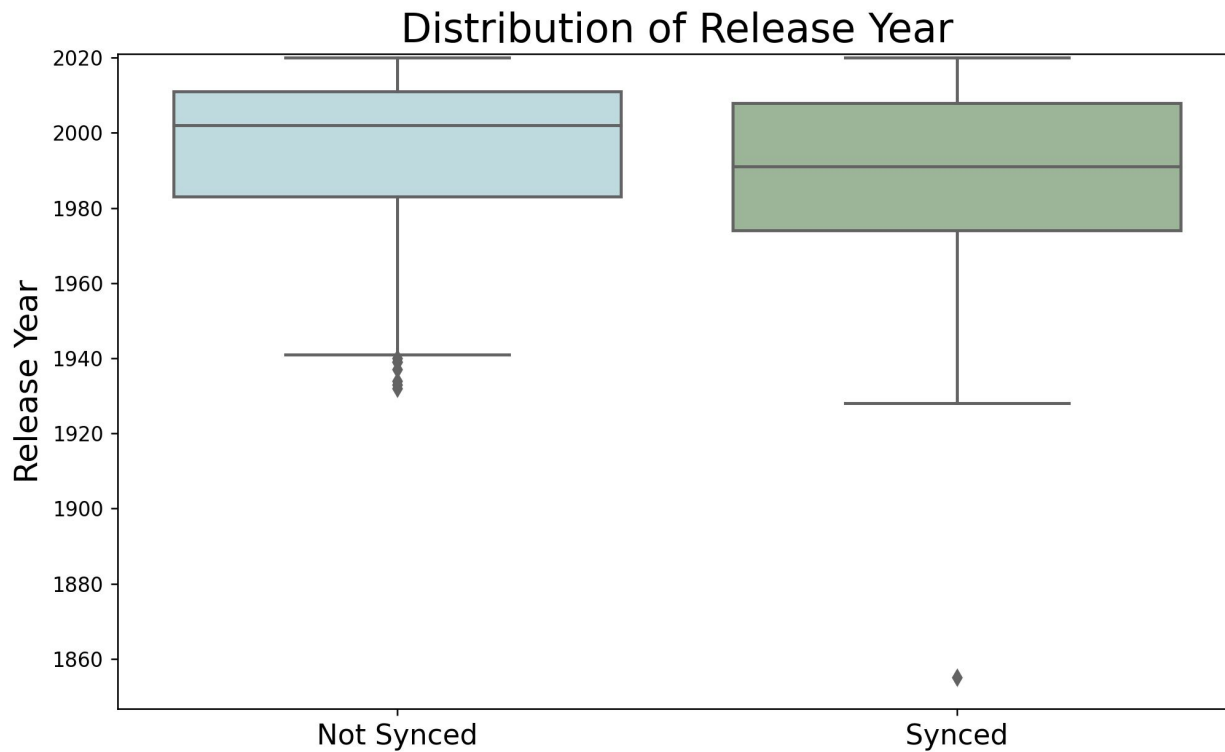
43%

“The Full Monty Medley” - Robbie Williams

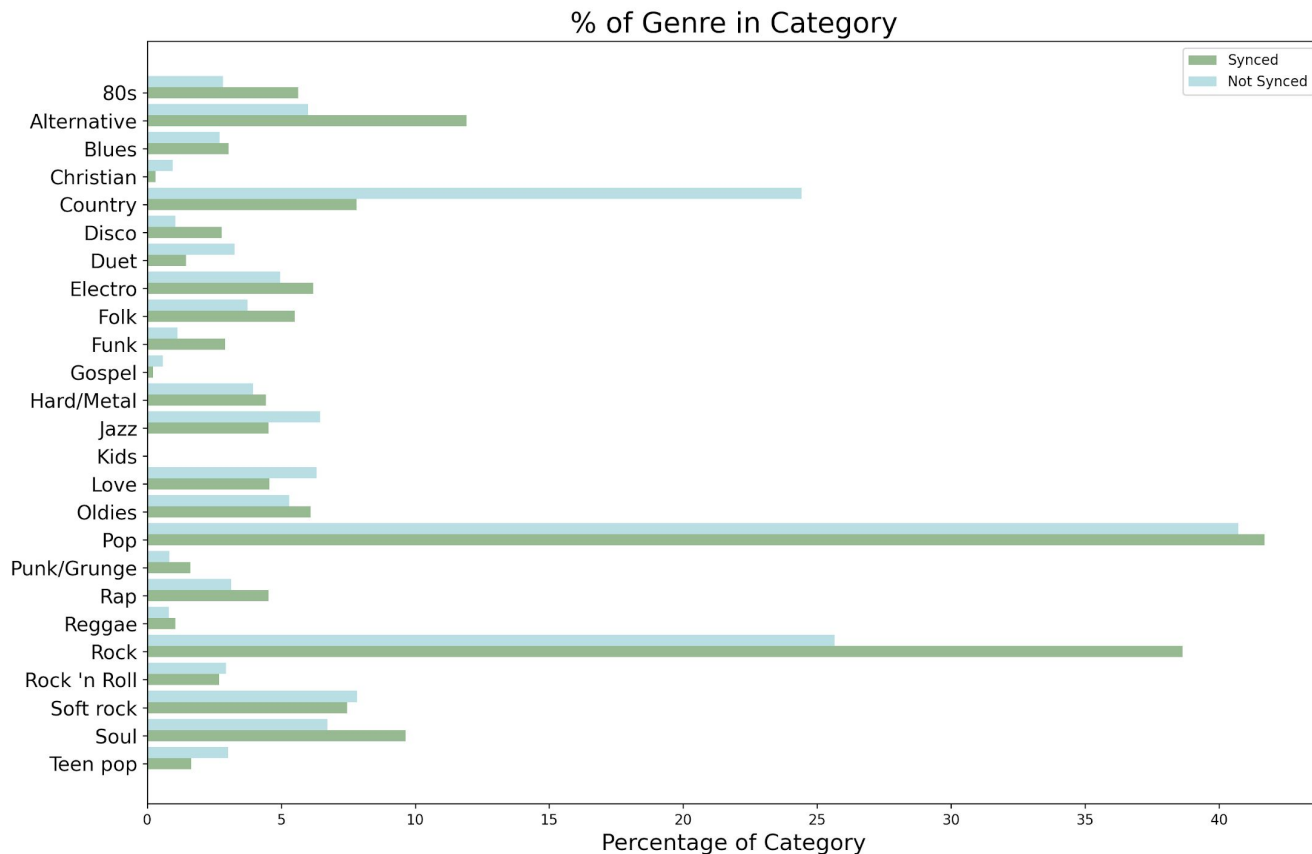
“The Full Monty Medley” - Tom Jones

8%

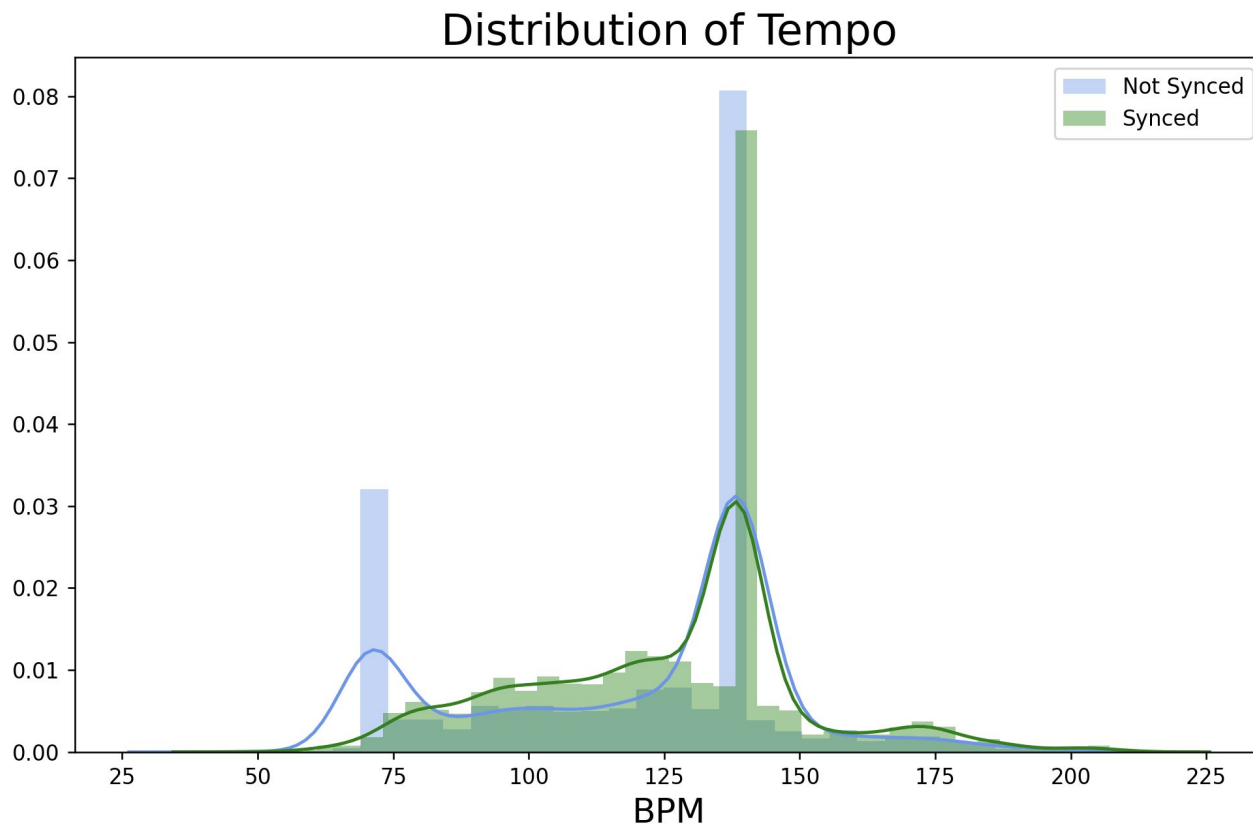
Exploring the Data: Release Year



Exploring the Data: Genres



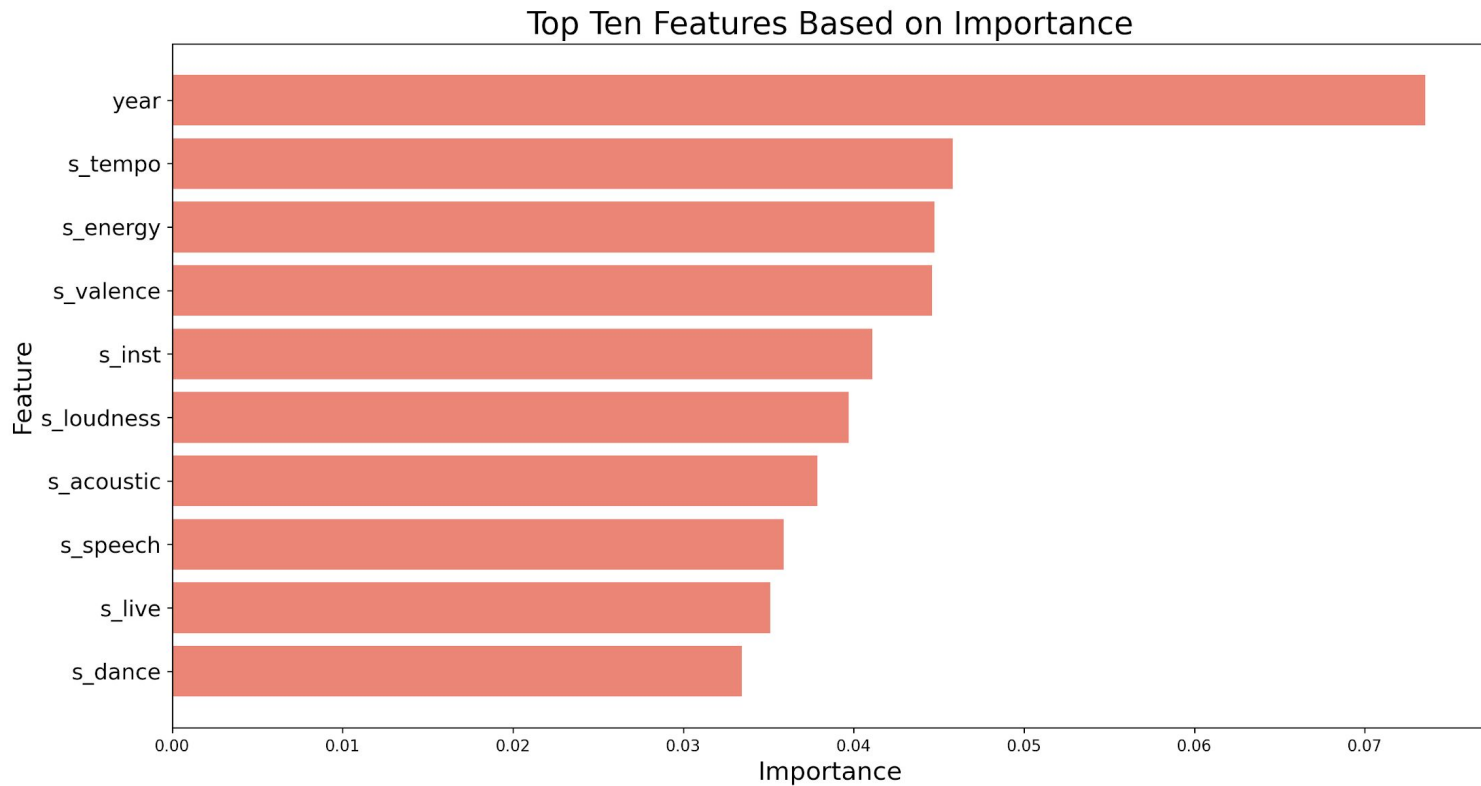
Exploring the Data: Tempo



Modeling

- Tried a variety of classification models and landed on Random Forests
- Scaled numeric features, Count Vectorized the artist, publishers, and writers
- Accuracy of 70%

Modeling: Feature Importance



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- ISRC searched on **MusicBrainz**
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Additional

- **Lyrics** from **Genius**
- **Artwork** and **audio** from **Spotify**
- **Sync Score** generated with Random Forests **model**

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Sync Link displays: Master, Composition, Lyrics, Artwork, Audio & Sync Score

Demo

Next steps

- Build a larger and more accurate dataset
 - The “synced” vs “not synced” determination was based on one crowdsourced site. It doesn’t cover the scope of songs being used
- Add more sources to the app
 - Goal would be 4+ sources for master and publishing
- Deploy the app