

AN EXPLORATION OF BEST-SELLING SONG LYRICS: GENDER DIFFERENCES?

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Explored lyrics of songs written by the 50 best-selling artists of all time

1. The Beatles
2. Elvis Presley
3. Michael Jackson
4. Elton John
5. Madonna
6. Led Zeppelin
7. Rhianna
8. Pink Floyd
9. Eminem
10. Taylor Swift

11. Mariah Carey
12. Eagles
13. Queen
14. Whitney Houston
15. Celine Dion
16. AC/DC
17. The Rolling Stones
18. Drake
19. Garth Brooks
20. Kanye West

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30% Female Artists

Goals

Discover

Discover topics based solely on lyrics

Investigate

Investigate topical difference in lyrics between genders

Create

Create recommender that suggests songs written by opposite gender

Data came from a BigML Dataset



BAND



SONG



LYRICS

Pop music can be broken down into just 4 topics

Love

- 1.love
- 2.know
- 3.baby
- 4.way
- 5.time
- 6.say
- 7.heart
- 8.one
- 9.need
- 10.got

Heartbreak

- 1.love
- 2.heart
- 3.never
- 4.know
- 5.could
- 6.see
- 7.mine
- 8.alone
- 9.arms
- 10.cry

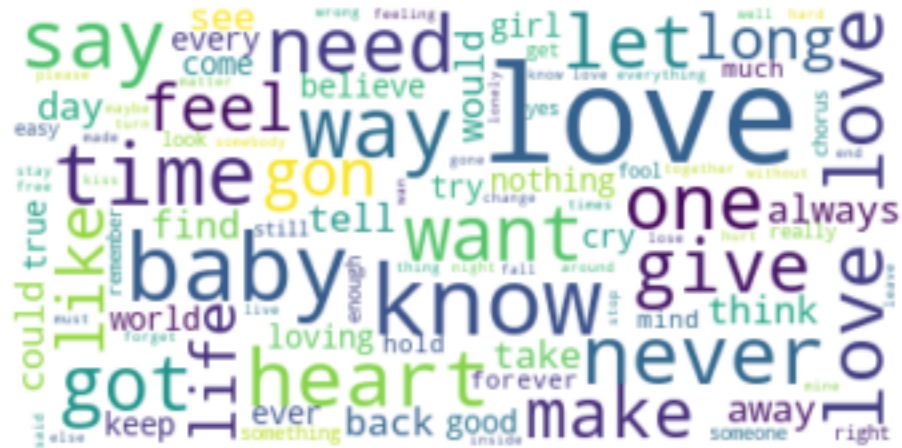
Party

- 1.night
- 2.long
- 3.home
- 4.one
- 5.like
- 6.come
- 7.dance
- 8.sing
- 9.see
- 10.time

Hip-Hop

- 1.got
- 2.like
- 3.get
- 4.baby
- 5.know
- 6.want
- 7.girl
- 8.take
- 9.little
- 10.money

Love



Heartbreak



Party



Hip-Hop

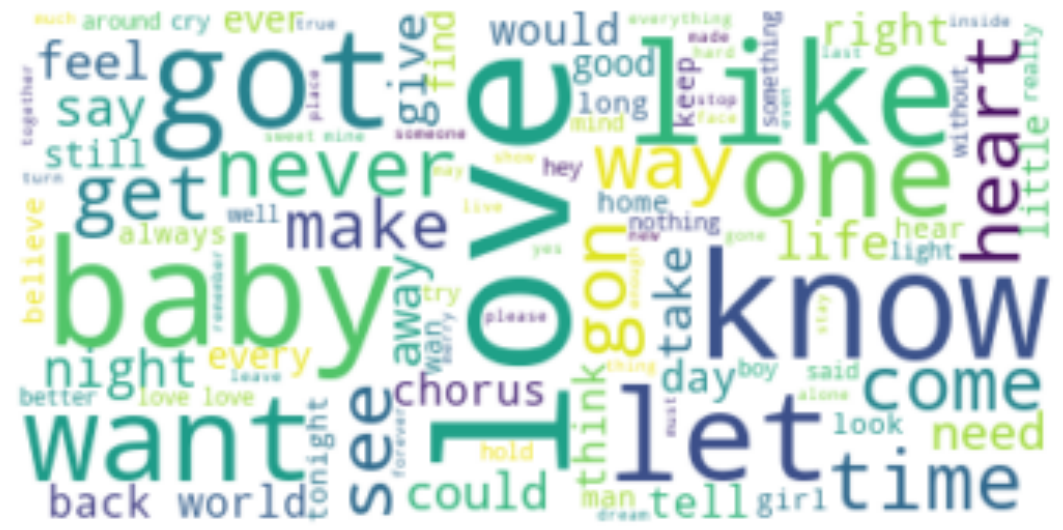


In General

Male



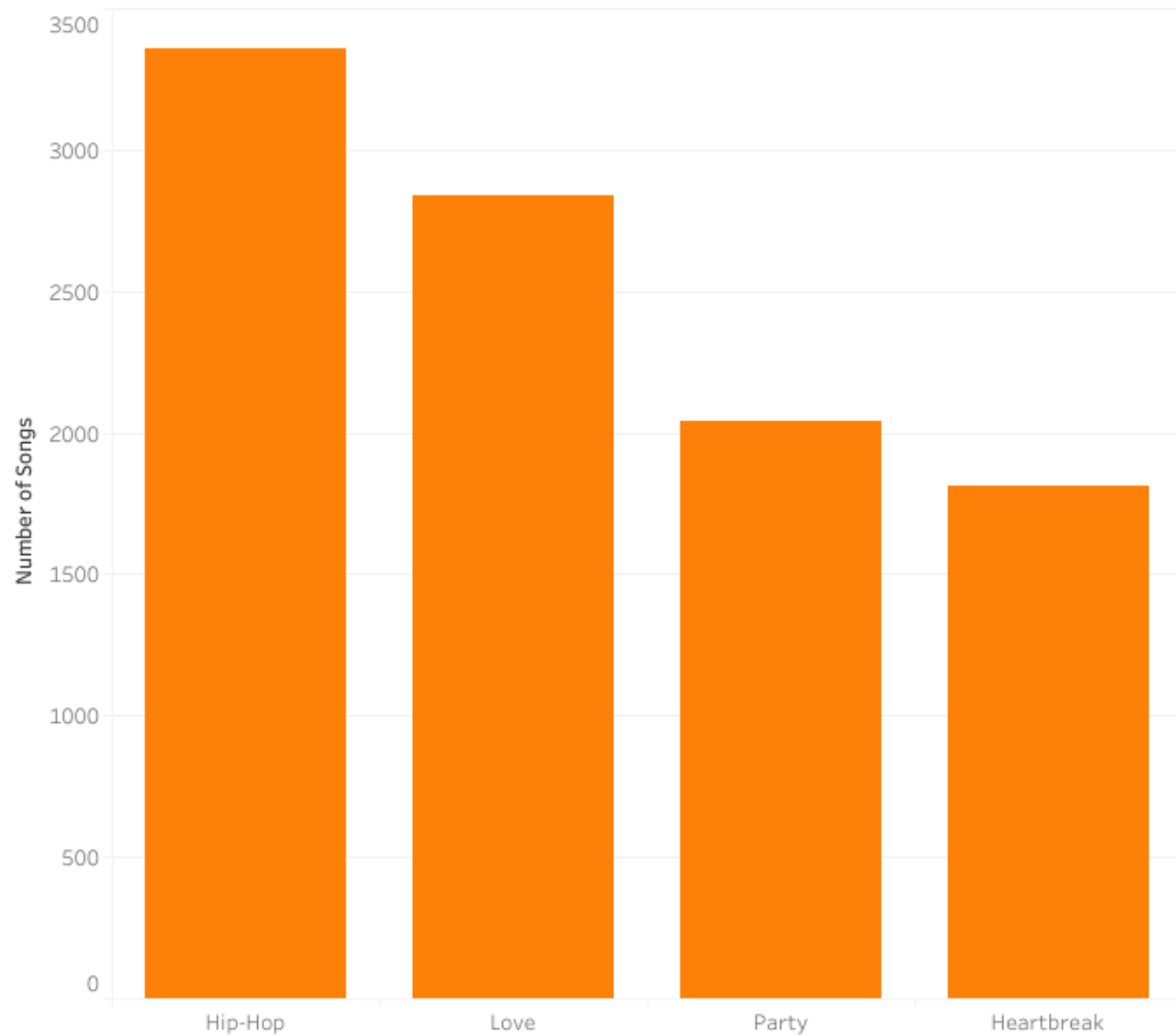
Female



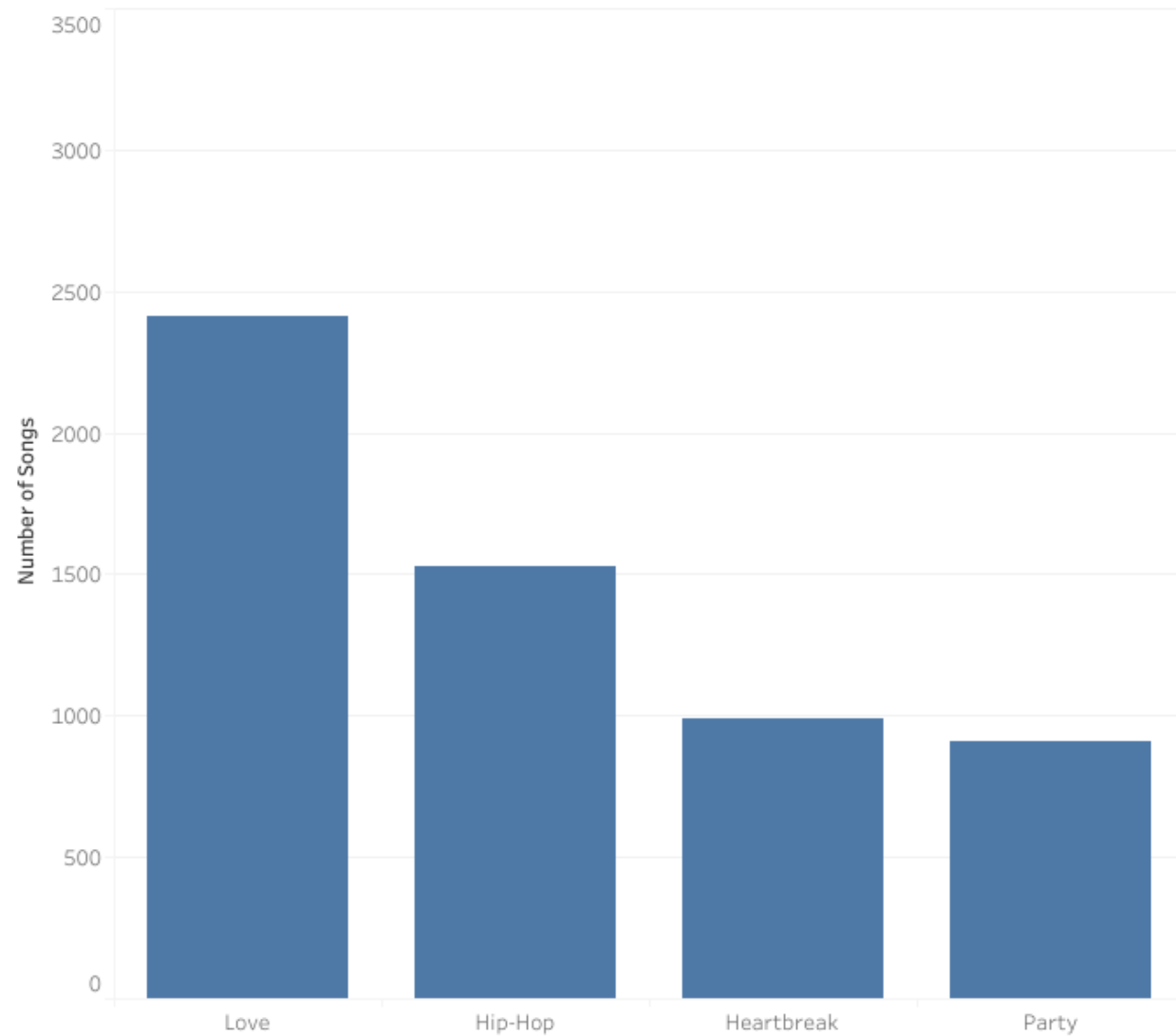
No Obvious Difference

Considering Topics

Male Distrubtion of Topics



Female Distribution of Topics

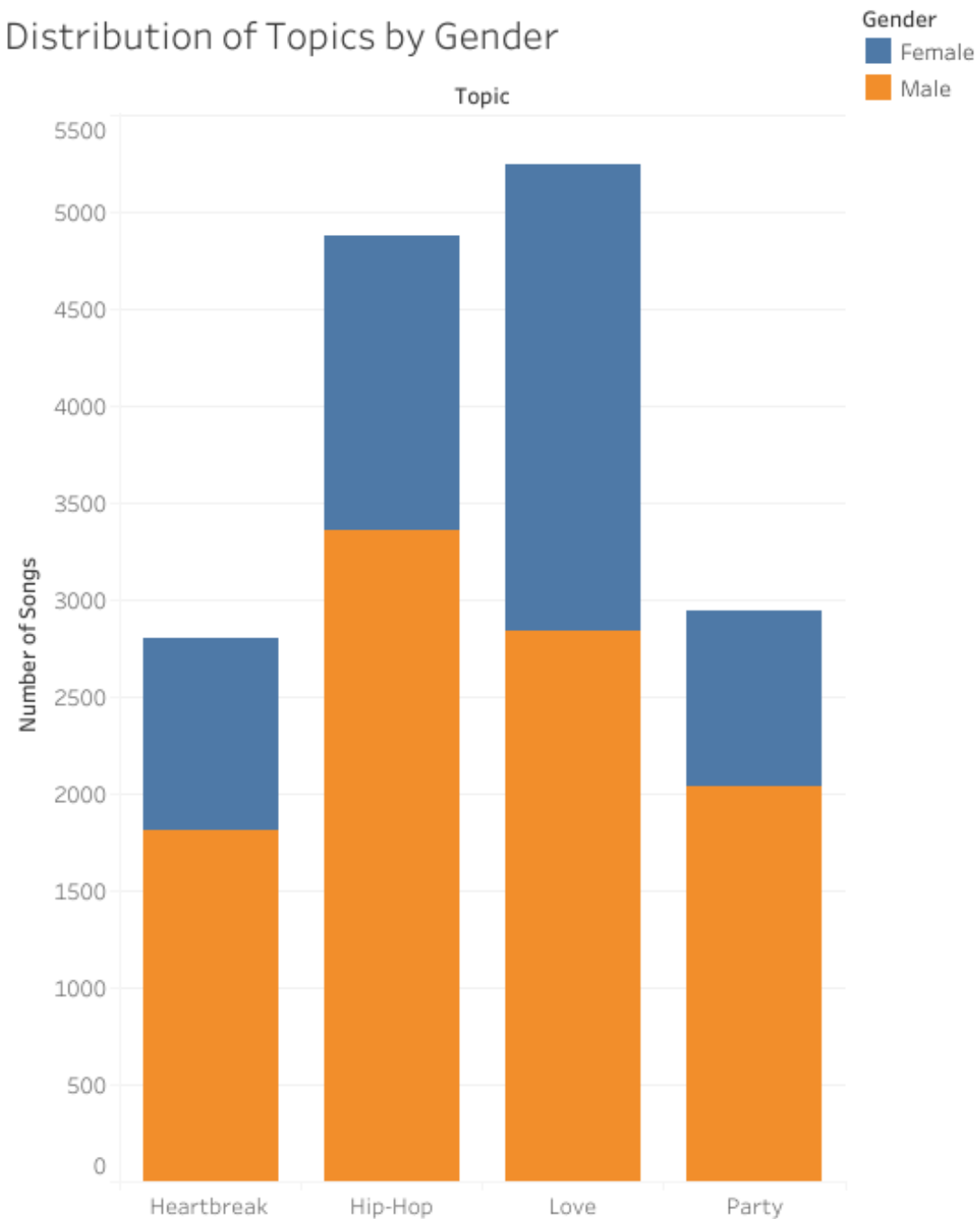


Considering Topics

More Male than Female Songs

No Obvious Biases

Distribution of Topics by Gender



Recommendation System

The screenshot shows a web browser window with the address bar displaying 'localhost:8501'. The browser's tab bar shows a single tab titled 'Song_Recommender_App - Str...'. The application interface features a search bar at the top with the text 'Accidents Will Happen'. Below the search bar, a list of song titles is displayed: 'Down in the Bottom', 'Memphis Tennessee', 'Bright Lights, Big City', 'Cops and Robbers', 'Diddley Daddy', 'Tell Me Baby, How Many Times', and 'Anybody Seen My Baby? [Live]'. At the bottom of the page, the text 'WordClouds of Recommended Songs' is visible.

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Song Title

Accidents Will Happen

Down in the Bottom

Memphis Tennessee

Bright Lights, Big City

Cops and Robbers

Diddley Daddy

Tell Me Baby, How Many Times

Anybody Seen My Baby? [Live]

Deanna C. Cooper [2nd Floor] [11:42]

0	Sinatra	What Time It Was	I say it was grand Grand to be alive to be young to be mad to be yours alone Grand to see your face feel your touch near your voice say I all your own I did know what year it was life was no prize I love and here it was shining out of your I wise and I know what time it is now
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1 Elvis Don't Do do that what you say Each time that I hold you this way When I feel like this and I want to hold you baby do say do Do do leave my embrace For here in my arms is your place When the night cold and I want to hold you baby do say do If you think that this is just a game I If you think that I do mean every word I saying Do do do Do feel that way I your love and yours I will stay This you can believe I will never leave you Heave I Baby do say do

	Can You	a calm surrender To the rush of day When the heat of the rolling world Can be turned away An moment And it me through enough for this restless warrior Just to be with you
2	Elton John	Feel the Love Tonight? [DVD]
		Chorus And can you feel the love tonight It is where we are enough for this wanderer That we got this far And can you feel the love tonight How laid to rest enough to make and Believe the very best a time for everyone If they only learn That the twisting kaleidoscope us all in turn a rhyme and reason To the wild outdoors When the heart of this voyager in time with yours Chorus enough to make and Believe the very best

WordClouds of Recommended Songs

Takeaways / Future Considerations

1. Pop songs can be broken down into just 4 topics
2. Male and Female songs are very similar in terms of lyrics
3. Want to expand investigation to larger corpus

Questions?