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Miss Americana: Taylor Swift's Journey From Country to Pop

I. INTRODUCTION

Recently titled the American Music Awards' *Artist of the Decade*, Taylor Swift has had an undeniable influence over contemporary American music. Notably, she is one of the few artists who have switched genres during their career and have attained incredible success afterward. Using our visualization tools, we aimed to look at Taylor Swift's transition from country to pop and whether that had an affect on her success as a musician.

II. GATHERING DATA

To collect related data, we searched the internet for pre-existing datasets and found a file *taylor_swift_lyrics.csv*. As we loaded this csv with Python, we were able to extract the corresponding song lyrics for each album. Our preprocessing steps included the following:

- Converting all lyrics to a lowercase string

- Removal of non-punctuation characters
- Removal of stopwords
- Keeping track of word counts through a global dictionary
- Sorting the counts at the end at returning the 200-250 words that are most occurring in both country and pop respectively

```
wordCountC = defaultdict(int)
totalWordsC = 0
worddumpcountry = []
for i in range(len(df['lyric'])):
    if df['genre'][i] == 'Country':
        t = df['lyric'][i].lower() # lowercase string
        t = [c for c in t if not (c in punct)] # non-punct characters
        t = ''.join(t) # convert back to string
        filtered_sentence = [w for w in t.split() if not w in stop_words]
        for w in filtered_sentence:
            w = w.lower()
            totalWordsC +=1
            wordCountC[w] +=1
        worddumpcountry.append(w)
```

Here is a code snippet of the preprocessing for country music: Once we had the relevant information, we were able to proceed.

III. CHARTS

Once we had the data, we started building charts based off of a few observations we had in mind:

- Observation A: First, we created a 3d Donut Chart on the Highcharts platform to illustrate the sales in the United States for each Taylor Swift album. This information gives the audience an idea of how well the United States receives her album. We used a 3D donut chart to display this breakdown because it clearly communicates the difference in album sales and it can be seen that the album *Fearless*

was her top-grossing album. We chose to color all the country albums the same color and all the pop albums the same color to bring to light the fact that the aggregated revenue from her country albums is higher than that of her pop albums, despite the higher levels of fame she has achieved during her pop era and greater number of pop albums she has produced.

- Observation B: Second, we created two separate word clouds to analyze the song lyrics. Once we had the most frequently occurring lyrics in her country albums and her pop albums, we were easily able to project these words on a word cloud. As you can see in the word cloud illustrating country lyrics, Taylor Swift sings about “hope”, “think”, “night”, “mcgraw”, “truck”, etc. On the flip side, the pop word cloud contains lyrics such as “loving”, “kissing”, “like”, “somebody”, etc. We visualized her lyrics in a word cloud to show how her writing has changed as she has transitioned from one genre to another. The word clouds highlight how her songs have taken a slightly more mature and darker tone as she has grown.
- Observation C: One problem we thought of when comparing the success of two albums was the inherent popularity that would arise in a later album (based off of

her fame). We wanted to know whether her later albums were more popular because they featured a different genre or whether Taylor, as an artist, was getting more popular. This is why we decided to analyze her popularity within genres. These pie charts convey how well Taylor’s songs in the two genres did, with the bulk of her songs with a #1 Billboard ranking being in the Country genre. The spread in Billboard rankings for her pop albums could indicate the strength of her fanbase. While she no longer generates the number of Billboard hits that she used to as a Country artist, her fanbase is strong enough to perpetually keep her songs within the Billboard 100.

- Observation D: We aggregated the number of Grammys that Taylor has been nominated for or she has won. We summed them based on the album and visualized them. Instead of using a simple bar graph to convey this visualization, though, we included the actual number of Grammys won as a part of the chart, therefore further connecting the idea of “awards won” to each of her albums. Taylor received the highest critical acclaim for her pop album, *1989*.
- Observation E: The last concept we wanted to illustrate was the difference in location and population between her country

tour for *Fearless* and her pop tour for *Red*. We were able to plot tour data from Wikipedia, with the latitude and longitude of the tour city, and the number of people who attended. With this visualization, we aimed to show the difference between her tour stops on the *Red* tour (a pop album and tour) and contrast it with stops on her *Fearless* tour (a country album). From the visualization, it can be seen that Taylor spent more time in American “heartlands” during her *Fearless* tour, places where country music is more popular. Taylor visited bigger cities during her *Red* tour, showing a geographic shift that incurred from her genre shift.

IV. CONCLUSION

To conclude, it appears that Taylor Swift has achieved greater success as a country artist than as a pop artist. Her aggregated revenue from her country albums were higher than that of her pop albums, although she has written more pop albums and received greater critical acclaim for them. The dip in Taylor’s success as a pop musician could be attributed to many things, including the public drama and scandals that she has become embroiled in recently. Overall, though, we can conclude that Taylor Swift’s transition from country to pop did indeed affect her success as an artist.

Given more time, we would have liked to analyze each album further, including what made each song popular and to better quantify “popularity” of a song. In addition, we would like to have explored more dynamic visualization and improve the CSS that ties our visualizations together. In addition, we would have liked to spend time with the CSS and formatting for the page, and display it in a more dashboard-like manner on one page. We would also have liked to incorporate a FlatUI for a sleeker display.

Through this assignment, we were able to gain even further clarity on HTML/Javascript/Highcharts syntax. A major challenge we faced was putting all the maps together. Another hurdle that we continuously faced was with the fundamental lack of understanding on containers in HTML. Once we crossed this bridge, we were able to proceed efficiently. Learning about HTML containers really helped us create a website with cohesive styling and dashboard-like aesthetic.

Just a note - we would like to thank the Professor and the rest of the teaching staff for all their help this quarter! We really learned a lot and would have definitely not been able to do this project ten weeks ago.