CMSC 23900: Project 1 Writeup

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May 8, 2018

Purpose

Kanye West is an extremely influential figure in the 21st century. Throughout his life he has gone through many transformations as he has evolved and become both the visionary and controversial character that he is today. The purpose of our project is to explore this transformation through analysing the lyrics in his 7 solo albums as well as the mood that each album means to portray and reflects.

Pre-processing

We first obtained the lyrics to the songs in Kanye's solo 7 albums through pulling the lyrics from Genius. We then obtained a score for each song in 6 different attitudes (positive, negative, strong, weak, active and passive) and 6 different emotions (anger, sadness, fear, disgust, surprise and joy) shown in his song lyrics. The score is a interval variable from 0100. We found these scores by using a text analysis API created by IntenCheck. It can be found on intencheck.com. This website takes in a string of text and returns the scores for all these attributes based on the text entered. We found that the software does not work well with extremely long strings of text. Thus, for the scores of entire albums, in order to get more accurate scores, we averaged the scores of all of the songs in the albums. After this we created 2 json files: one containing the scores for each song in all of the albums and one containing the scores for the entire albums. This was the data used in our project.

Explanation

Our design shows several different variables. The first is that it uses the location in horizontal space corresponds to the album that the data is related to. On the far left is his first album The College Dropout and as we move right we proceed through all of his albums until we reach his final album The Life of Pablo. The second variable we represent is the location in each album of each song. This is represented in horizontal space. On the top chart, we should the total score in each album and underneath it, we display the scores of each song in each album. This means that there are eight total charts, one for the overall scores of each album and seven for the individual scores of each song in each album.

Each chart is used to display 12 different attributes, 6 attitudes and 6 emotions. Each chart has two separate graphs, one for attitudes and one for emotions. We chose to separate the categories into two different charts as the attitudes had clear polar opposites while the emotions did not.

The right or top graph shows the attitudes. In the program it gave us scores for 6 attitudes. Each of these attitudes had a polar opposite attitude: weak is the opposite of strong, positive is the opposite of negative and passive is the opposite of aggressive. This means that we had 3 pairs of 2 polar attitudes. Thus, for the chart, we chose to put two stacked graphs connected to each other about a fixed central axis. We chose to color these in a diverging color scheme as it looked the best and makes sense when you consider the two groups of polar attitudes. The three attitudes shown in blue are the more negative attitudes and the three attitudes shown in red are the positive attitudes. The positive attitudes start at the central axis and the value is shown as an increase away from the axis displaying the names. The negative attitudes start

at the central axis and increase towards the axis displaying the names. The left or bottom graph shows the emotions. As there are no clear polar emotions, the emotions are represented as a normal stream graph. In addition, we chose to use a qualitative color scheme as none of the emotions are related.

Finally, we added a title, short description, legends and annotations. In addition, the annotations display a few facts and key moments in time and key songs in each album. We found that by adding these annotations, we create a more lively and active visualization with more information.

This visualization provides us with an overall visualization that displays the attitudes and emotions of Kanyes music as a function of both location in time and within each individual album.

Alternatives and Arbitrariness

Our original idea and another way that this data could be displayed is using word clouds. We originally intended to make a word cloud for each album and an overall word cloud. We figured that the most commonly used words would reflect how kanye directed his thoughts throughout each song and would have outlined major themes used by the artist. We chose to switch to stream graphs as we felt that this provided a much stronger visualization as it includes time and location in each album. In addition, there is no promise that the words in the word cloud would display actual relevant and important information that conveys the emotions and themes of the albums.

Another way we could have visualized our data is by having one long stream graph that displays all of the songs he released in order. We found that this would not be a good idea as the x-axis would represent both passing of time and the ordering of songs within each album and this would be confusing as all songs in each album were released at the same time. In addition, by switch to the way that we did it, we show both attitudes and emotions within each album and in the overall album.

All of the axes and graphs are the consequence of data driven layouts. They are the consequence of the chronological releases of Kanyes artwork and the song chronology of each album.

The location of the different charts were part of our free decision to improve the viewers experience: the main axis was put at the top and the album breakdown under the main graph. However, The title as well as the keys and the explanatory text also result of our free choice of placement.

Who Did What

We mostly worked on the project together when we were sitting next to each other and both committed an equal share of effort to the project. Both of us collected the data. We both worked together on the design and making sure the colors looked pretty and were meaningful in regards to the emotions and attitudes. Brendan concentrated his work on creating the individual components of the visualization. This includes the stream graph, double stacked graph, the scales, the title and the annotations. Ruben concentrated on polishing up the visualization and making it look better. He worked on making sure that everything was in line and making minor adjustments where necessary. He also worked a lot on formatting the axes and the keys and making sure everything lined up. Both of us contributed equally to the write up and project proposal.