Luxury Brands Social Media Mining Case

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My goal of this small project is to calculate sentiment scores of tweets on 10 luxury brands, which would help gain an understanding of the attitudes, opinions and emotions expressed about the luxury brands on Twitter.

1. Twitter Data Crawling

I generated my Twitter Customer Key for data crawling. The program to crawl the data is written in Python by myself. I crawled 200 tweets for each of the 10 brands: Coach, Burberry, Chanel, Gucci, Hermès, Kate Spade, Louis Vuitton, Michael Kors, Prada and Mouawad.

For each brand, I crawled 200 tweets containing the hashtag of the brand name. For example, 200 tweets containing #Coach were crawled for the brand Coach.

The crawled data is shown in the format as .txt:

```
877931962534567936
People only work like a team when someone leads like a coach! #MooreThoughts #leadership
#coach… https://t.co/1FjWdKyNcc


877931779088199680
RT @coachestribune: Simple game!  No shortcuts!  #truth #sports #youthsports #motivation
#coach #coaching #coachestribune 🔥🔥🔥 https://t.co/…


877931687858065408
RT @stancareerblog: Find a Summer Job Now!
 https://t.co/6XajJfDk7P
#jobs #coach #success #jobsearch #jobsearch #summerjob #summerjobs #su…


877930904324386816
#watch #truth #life #coach #car #vehicle #no #worries #faith #mission #people #god #favor…
https://t.co/OKtxhu9wQN


877930511896674304
Find a Summer Job Now!
 https://t.co/6XajJfDk7P
#jobs #coach #success #jobsearch #jobsearch #summerjob #summerjobs #summer-camp-jobs
```

2. Word Clouds

Word Clouds show the top words occurred in the 200 tweets of each brand. I made two word clouds as an example.

Figure 1: Top 27 Words Word Cloud of 200 Tweets on Michael Kors

Figure 2: Top 27 Words Word Cloud of 200 Tweets on Hermès

From the two word clouds we can tell that both of the two brands focus on bag, with "satchel" and "shoulder" occurring in Michael Kors while "birkin" and "handbag" occurring in Hermès. On the color, "black" occurs a lot in the tweets on Michael Kors while more color words occur in the tweets on Hermès such as "blue", "white" and "gold". Another interesting thing is that "silk" and "leather" occur in Hermès, "leather" also occurs in Michael Kors but together with "protesters" and "anti-fur". After googling, I find some news like *Anti-fur protesters disrupt Kors event in New York,* showing the conflict between leather bag brands and anti-fur protesters.

3. Sentiment Scores

The sentiment score is calculated for 200 tweets of each 10 luxury brands. The program is written in R by myself.

Number of positive words and Negative Words are counted to calculate the sentiment score:

Sentiment Score = Number of Positive Words – Number of Negative Words

Positive words and negative words I used are defined by Hu&Liu (2014), which could also be found on:

https://raw.githubusercontent.com/pchest/Text_as_Data/master/HW2data/positive-words.txt

and https://raw.githubusercontent.com/pchest/Text_as_Data/master/HW2data/negative-words.txt

The table and figure below show the sentiment scores on 200 tweets of 10 luxury brand:

Luxury Brand	Sentiment Score on 200 Tweets
Coach	58
Burberry	24
Chanel	21
Gucci	38
Hermès	23
Kate Spade	40
Louis Vuitton	19
Michael Kors	3
Prada	40
Mouawad	41

Table 1: Sentiment Scores on 200 Tweets of 10 Luxury Brands

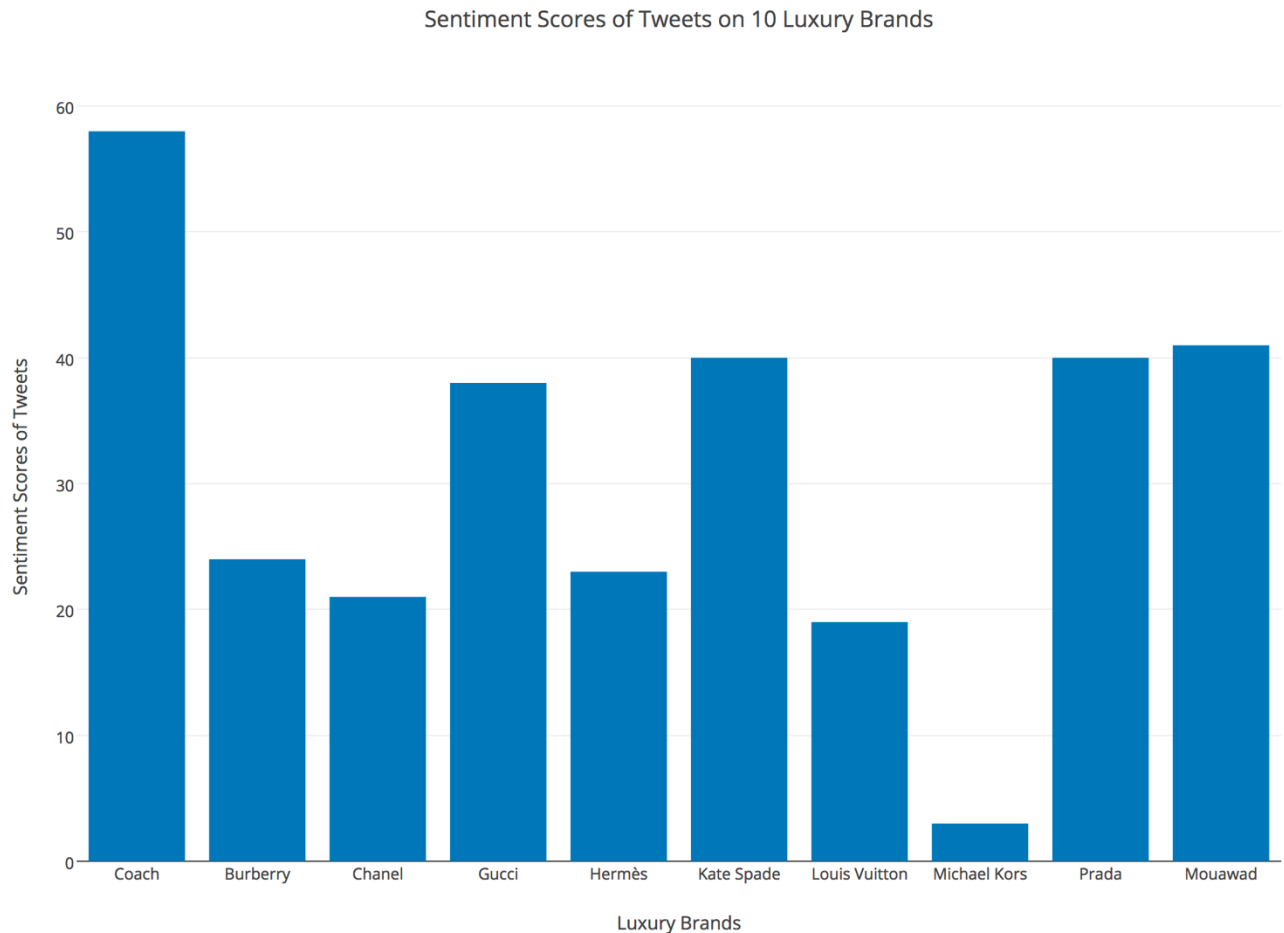Sentiment Scores of Tweets on 10 Luxury Brands

Figure 3: Sentiment Scores on 200 Tweets of 10 Luxury Brands

We can tell that while all of the 10 luxury brands have positive sentiment scores on 200 tweets, Coach has the highest sentiment score of 58 with Michael Kors has the lowest sentiment score of 3. Michael Kors is going through a tough time on social media with the information provided by or about the anti-fur protesters.

An interactive plot of Figure 3 could be found here: https://plot.ly/~cx495/90/