YOUTUBE SENTIMENT ANALYSIS

May 22, 2023

[1]:
```
import pandas as pd
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt
```

[2]:
```
comments = pd.read_csv('D:\YoutubeData.csv' , error_bad_lines=False)
```

```
C:\Users\HP\AppData\Local\Temp\ipykernel_11960\384184408.py:1: FutureWarning:
The error_bad_lines argument has been deprecated and will be removed in a future
version. Use on_bad_lines in the future.


  comments = pd.read_csv('D:\YoutubeData.csv' , error_bad_lines=False)
b'Skipping line 41589: expected 4 fields, saw 11\nSkipping line 51628: expected
4 fields, saw 7\nSkipping line 114465: expected 4 fields, saw 5\n'
b'Skipping line 142496: expected 4 fields, saw 8\nSkipping line 189732: expected
4 fields, saw 6\nSkipping line 245218: expected 4 fields, saw 7\n'
b'Skipping line 388430: expected 4 fields, saw 5\n'
C:\Users\HP\AppData\Local\Temp\ipykernel_11960\384184408.py:1: DtypeWarning:
Columns (2,3) have mixed types. Specify dtype option on import or set
low_memory=False.
  comments = pd.read_csv('D:\YoutubeData.csv' , error_bad_lines=False)
```

[3]:
```
comments.head(10)
```

[3]:

	video_id	comment_text	likes	replies
0	XpVt6Z1Gjjo	Logan Paul it's yo big day	4	
1	XpVt6Z1Gjjo	I've been following you from the start of your…	3	
2	XpVt6Z1Gjjo	Say hi to Kong and maverick for me	3	
3	XpVt6Z1Gjjo	MY FAN . attendance	3	
4	XpVt6Z1Gjjo	trending	3	
5	XpVt6Z1Gjjo	#1 on trending AYYEEEEE	3	
6	XpVt6Z1Gjjo	The end though	4	
7	XpVt6Z1Gjjo	#1 trending!!!!!!!!!	3	
8	XpVt6Z1Gjjo	Happy one year vlogaversary	3	
9	XpVt6Z1Gjjo	You and your shit brother may have single hand…	0	

```
0       0
1       0
2       0
3       0
4       0
5       0
6       0
7       0
8       0
9       0
```

1 lets find out missing values in your data

[4]:
```
comments.isnull().sum()
```

[4]:
```
video_id         0
comment_text    25
likes            0
replies          0
dtype: int64
```

2 drop missing values as we have very few & lets update dataframe as well..

[5]:
```
comments.dropna(inplace=True)
```

[6]:
```
comments.isnull().sum()
```

[6]:
```
video_id        0
comment_text    0
likes           0
replies         0
dtype: int64
```

[ ]:
```

```

[ ]:
```

```

3 PERFORM SENTIMENT ANALYSIS

[7]:
```
from textblob import TextBlob
```

[8]:
```
comments.head(6)
```

[8]:
```
      video_id                                          comment_text likes  \
0  XpVt6Z1Gjjo                 Logan Paul it's yo big day        4
1  XpVt6Z1Gjjo  I've been following you from the start of your…     3
2  XpVt6Z1Gjjo                Say hi to Kong and maverick for me     3
3  XpVt6Z1Gjjo                                  MY FAN . attendance     3
4  XpVt6Z1Gjjo                                          trending       3
5  XpVt6Z1Gjjo                           #1 on trending AYYEEEEE     3

  replies
0       0
1       0
2       0
3       0
4       0
5       0
```

[9]:
```
TextBlob("Logan Paul it's yo big day   ").sentiment.polarity
```

[9]:
```
0.0
```

[10]:
```
comments.shape
```

[10]:
```
(691375, 4)
```

[11]:
```
# for those of you who dont have good specifications , considering sample of␣
 ↪data is a good option !

sample_df = comments[0:1000]
```

[12]:
```
sample_df.shape
```

[12]:
```
(1000, 4)
```

[13]:
```
polarity = []

for comment in comments['comment_text']:
    try:
        polarity.append(TextBlob(comment).sentiment.polarity)
    except:
        polarity.append(0)
```

[14]:
```
len(polarity)
```

[14]:
```
691375
```

[15]:
```
comments['polarity']  = polarity
```

```
### Inserting polarity values into comments dataframe while defining feature␣
 ↪name as "polarity"
```

[16]:
```
comments.head(5)
```

[16]:
```
      video_id                                          comment_text likes  \
0  XpVt6Z1Gjjo                  Logan Paul it's yo big day       4
1  XpVt6Z1Gjjo  I've been following you from the start of your…     3
2  XpVt6Z1Gjjo                 Say hi to Kong and maverick for me     3
3  XpVt6Z1Gjjo                                  MY FAN . attendance     3
4  XpVt6Z1Gjjo                                        trending      3

  replies  polarity
0       0       0.0
1       0       0.0
2       0       0.0
3       0       0.0
4       0       0.0
```

4 Wordcloud Analysis of your data

[17]:
```
filter1 = comments['polarity']==1
```

[18]:
```
comments_positive = comments[filter1]
```

[19]:
```
filter2 = comments['polarity']==-1
```

[20]:
```
comments_negative = comments[filter2]
```

[21]:
```
comments_positive.head(5)
```

[21]:
```
        video_id                                          comment_text likes  \
64    XpVt6Z1Gjjo                                 yu are the best     1
156   cLdxuaxaQwc  Power is the disease.  Care is the cure.  Keep…     0
227   WYYvHb03Eog  YAS Can't wait to get it! I just need to sell …     0
307   sjlHnJvXdQs                                This is priceless     0
319   sjlHnJvXdQs                               Summed up perfectly     0

    replies  polarity
64        0       1.0
156       0       1.0
227       0       1.0
307       0       1.0
319       0       1.0
```

[22]:
```
from wordcloud import WordCloud , STOPWORDS
```

[23]:
```
comments['comment_text']
```

[23]:
```
0                          Logan Paul it's yo big day
1          I've been following you from the start of your…
2                        Say hi to Kong and maverick for me
3                                    MY FAN . attendance
4                                             trending
                                  …
691395
691396     qu'est ce que j'aimerais que tu viennes à Roan…
691397                              Ven a mexico!   te amo LP
691398                                        Islığı yeter…
691399     Kocham tą piosenkę  byłam zakochana po uszy …
Name: comment_text, Length: 691375, dtype: object
```

[24]:
```
type(comments['comment_text'])
```

[24]:
```
pandas.core.series.Series
```

[25]:
```
### for wordcloud , we need to frame our 'comment_text' feature into string ..
total_comments_positive = ' '.join(comments_positive['comment_text'])
```

[26]:
```
wordcloud = WordCloud(stopwords=set(STOPWORDS)).
↪generate(total_comments_positive)
```

[27]:
```
plt.imshow(wordcloud)
plt.axis('off')
```

[27]:
```
(-0.5, 399.5, 199.5, -0.5)
```

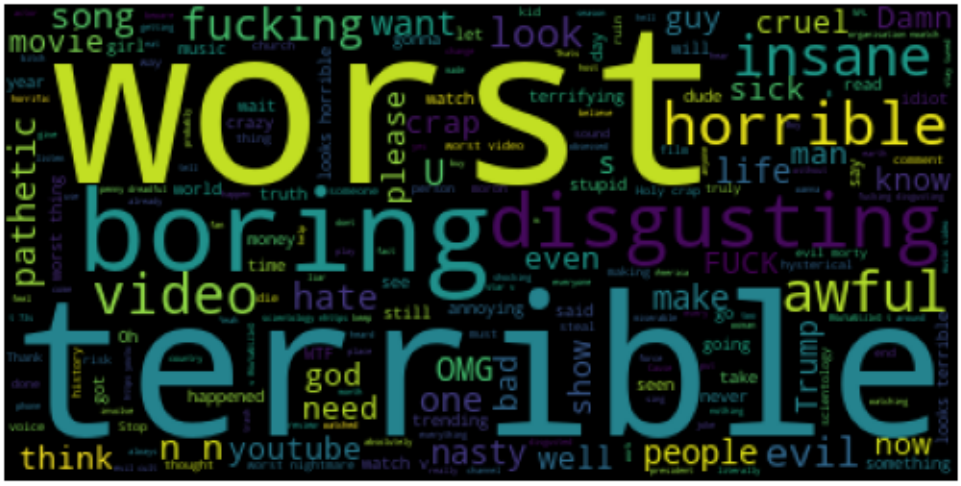
[28]:
```
### Conclusion-->> positive Users are emphasizing more on best , awesome ,␣
↪perfect , amazing , look , happy  etc..
```

[29]:
```
total_comments_negative = ' '.join(comments_negative['comment_text'])
```

[30]:
```
wordcloud2 = WordCloud(stopwords=set(STOPWORDS)).
↪generate(total_comments_negative)
```

[31]:
```
plt.imshow(wordcloud2)
plt.axis('off')
```

[31]:
```
(-0.5, 399.5, 199.5, -0.5)
```



[32]:
```
### Conclusion-->> Negative Users are emphasizing more on Terrible , worst␣
↪,horrible ,boring , disgusting etc..
```

[ ]:
```

```