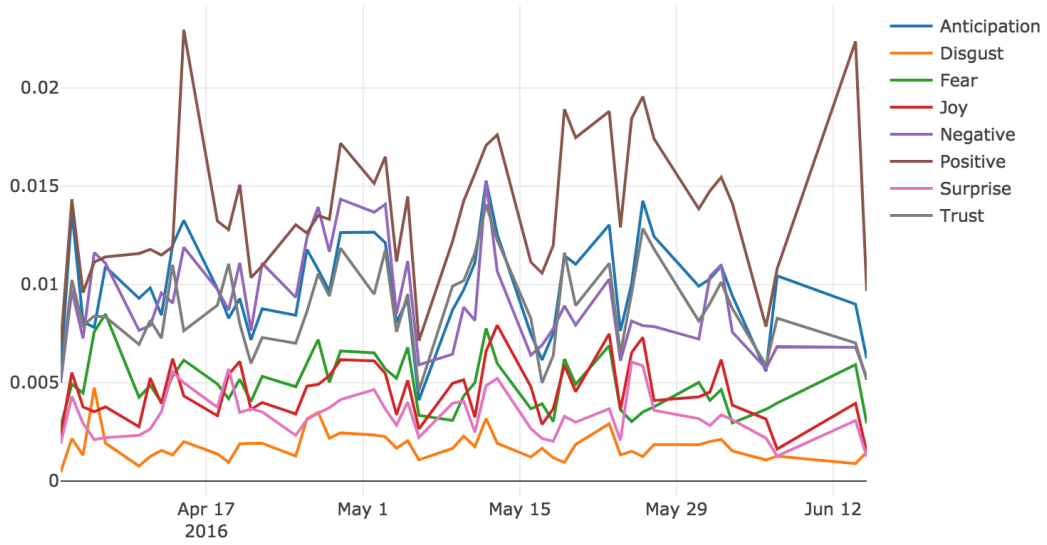
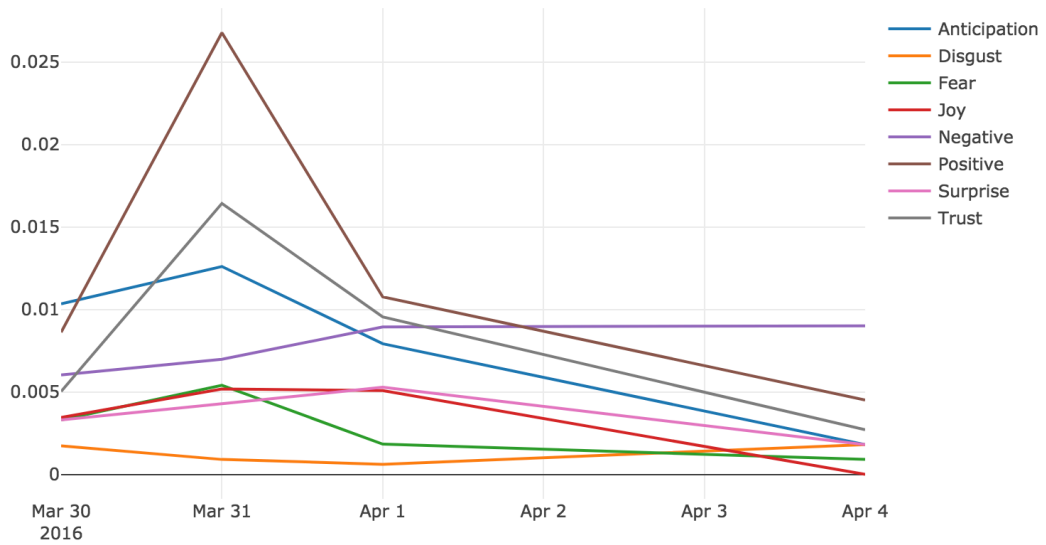


Plot1: Sentiments over time for the 8 Emotions – Apple

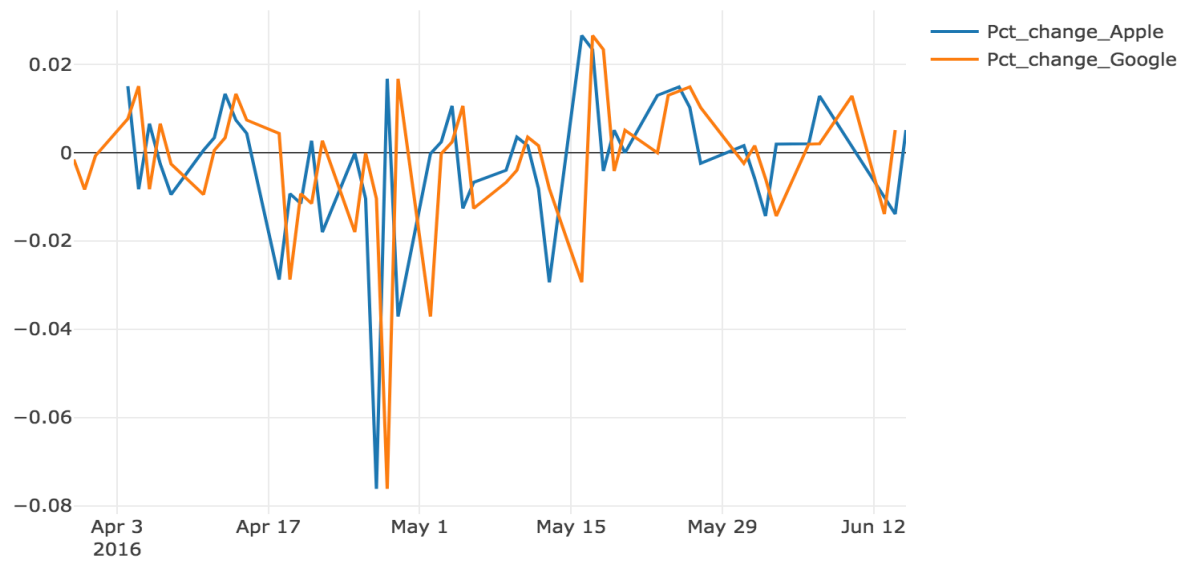


Sentiments over time for the 8 Emotions – Google



The 8 sentiments have almost the same trend over time in both plots. However, 'positive' sentiment is the largest all the time, while 'Disgust' is the lowest. The plots are consistent with the fact that Apple and Google are large technology companies and have good reputation. Compared to Apple, Google has more stable patterns except the peak in March. It may be because that Apple produced a lot of electronic devices and consumers tend to write various comments continuously.

Plot2: Pct\_change over Time for Apple & Google



The percentage changes of the stock price of Apple and Google share almost the same pattern. It is consistent with the fact that they are both from the same field and have similar size, and their stock prices are generally affected by same market factors.