Analysing the sentiment behind tweets using #MeToo – 2017 vs 2020

MSc Information Technology – Social Media and Web Science UFCFJJ-15-M: Student Number 10031478

Introduction and Research

#MeToo is a movement against sexual harassment and sexual assault of women started by Tarana Burke in 2006 (metoomvmt.org). Similar to other social justice and empowerment movements based upon breaking silence, the purpose of "Me Too", is to empower women through empathy and solidarity through strength in numbers, especially young and vulnerable women, by visibly demonstrating how many women have survived sexual assault and harassment, especially in the workplace (Ohlheiser, 2017).

Me Too began to spread virally in October 2017 when actor Alyssa Milano shared her experiences of sexual assault and harassment with the hashtag #MeToo following the sexual abuse allegations against Harvey Weinstein (Kavanagh, 2018). Milano encouraged other victims to tweet and demonstrate the widespread prevalence of sexual assault and harassment, especially in the workplace.

After millions of people started using the phrase and hashtag in English, the expression began to spread to dozens of other languages (Snyder & Lopez, 2017). Researchers have identified over 19 million tweets containing the hashtag, and have demonstrated that the most prevalent topics of conversation have been about the movement and activism, sexual abuse and assault, harassment, and politics. Researchers have also explored the early tweets to determine whether this movement is a leading indicator of societal change, and to identify the demographics of individuals using the hashtag to see how different communities may be participating in the discussion (Anderson, 2018).

Now 3 years on the Me Too movement is back at the forefront of peoples minds with the accusations of sexual harassment and assault against Joe Biden (Devine, 2020) so has the overall tone of the movement changed? Using a dataset of tweets from 2017 and a cache of more recent tweets I want to analyse the following:

1. What are some of the most common words used (2017 vs 2020)?
2. Is the sentiment behind tweets generally positive or negative (2017 vs 2020)?

Methodology

Data gathering 2017: I used a dataset from data.world (Turner, 2018) which consists of 390,000 tweets found under the #MeToo tag from 29/11 – 25/12 2017

Data gathering 2020: I collected 52,540 tweets with the same hashtag using NodeXL Pro.

Process: The tweets from the NodeXL collation were manually imported into another spreadsheet mirroring the dataset for 2017 ready for coding manipulation.

Coding: Both sets of data were manipulated using the statistical computing environment and language R. To perform an analysis of the overall tone and content of the tweets, each word is separated into it's own row and joined with a sentiment library from the NRC Emotion Lexicon* (Mohammad, 2016).

Findings

Sentiment Analysis

Figure1: 2017 Sentiment

The movement shifts from positive to mainly negative in 3 years

Figure 2: 2020 Sentiment

*There are drawbacks to using sentimental libraries – 'sex' and 'female' are coded as positive in most libraries but context can dictate they are negative

Words by Sentiment
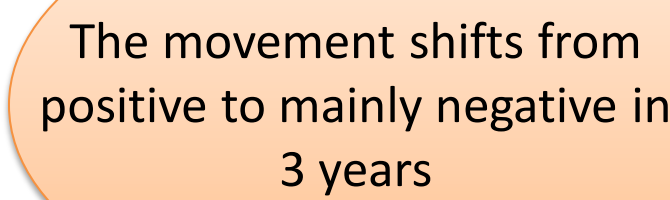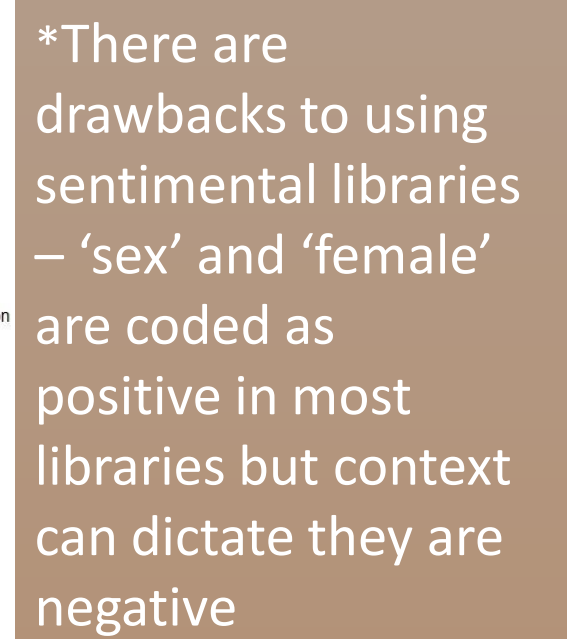
If all the women who have been sexually harassed or assaulted wrote 'Me too' as a status, we might give people a sense of the magnitude of the problem – Alyssa Milano (October 2017)
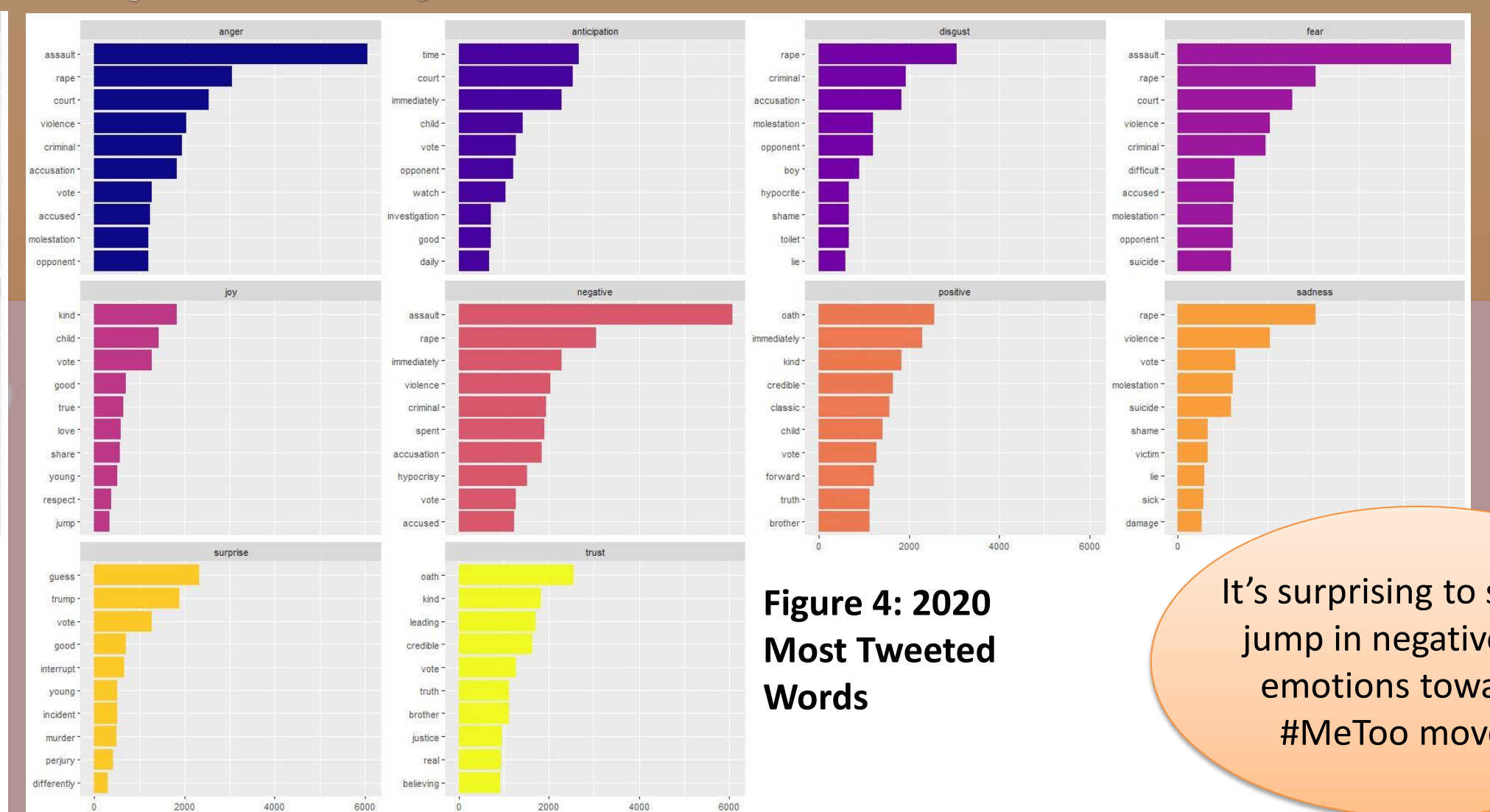

Figure 3: 2017 Most Tweeted Words

Figure 4: 2020 Most Tweeted Words

It's surprising to see such a jump in negative related emotions towards the #MeToo movement

Conclusion

Figure 5: Most common words 2017

Figure 6: Most common words 2020

Comparing some of #MeToo's most common words used in 2017 versus 2020 shows that most words associated with the movement are still being used however the sentiment has now changed, Alyssa Milano for example was praised in tweets in 2017 but now she is being called out for her double standards behind the movement (see fig 5 & 6). The main focus in the tweets of 2020 is Joe Biden and Tara Reade whereas 2017 the words were more an illustration of support. From this research we can see that the sentiment behind Me Too is no longer a positive one (see figs 1 & 2), and the word 'assault' has increased usage in 2020 (fig 3 &4).
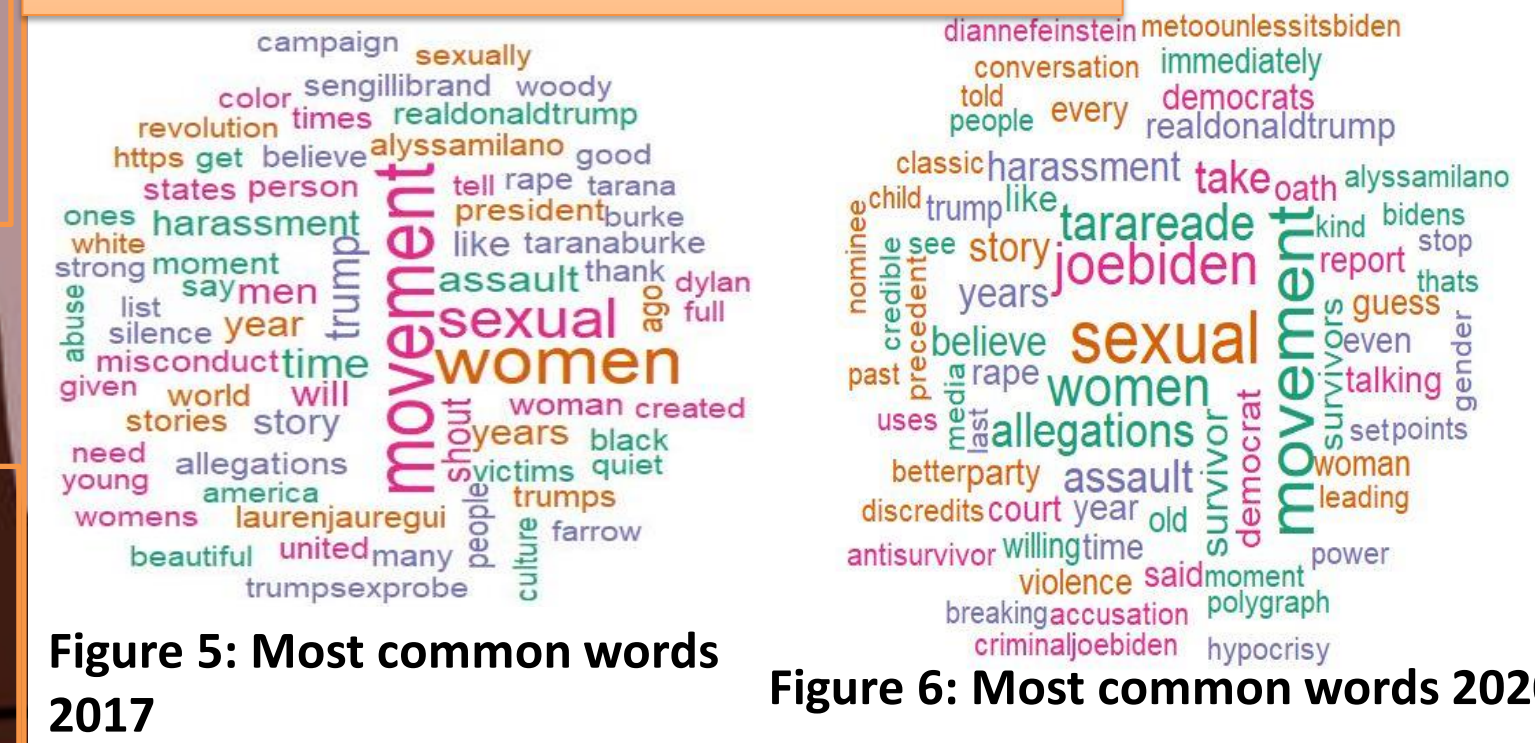
Figure 2 shows that people are no longer surprised by harassment allegations in their tweets but are still displaying anger (both anger and fear have increased over the last 3 years) in the language used showing that the movement has shifted into a more general discussion.

Tweets are a good way to understand the international conversation about sexual harassment and looking at #MeToo we can see how users have discussed the topic and how their tones change over time. This research could be taken further to enable us to look deeper into the subject analysing the subject from the pre-viral Me Too era (<2016) to post-Me Too (2017 to 2018, 2019 and 2020) as well as using direct contact with men and women who have used the hashtag to better understand their views on the language used and if to them it is a positive or negative experience.

References

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