

Text Analysis Topic: Communities – Sentiment Analysis

- Analysis tool: VADER

1. General analysis of community texts

The text in 'tech support' and 'mental health' were integrated into two larger texts separately. Then use VADER to analyze the sentiment intensity of the two texts. The result is as follow.

	Negative Emotion Score	Neutral Emotion Score	Positive Emotion Score	Compound
Tech Support	0.066	0.843	0.091	1.0
Mental Health	0.151	0.726	0.123	-1.0

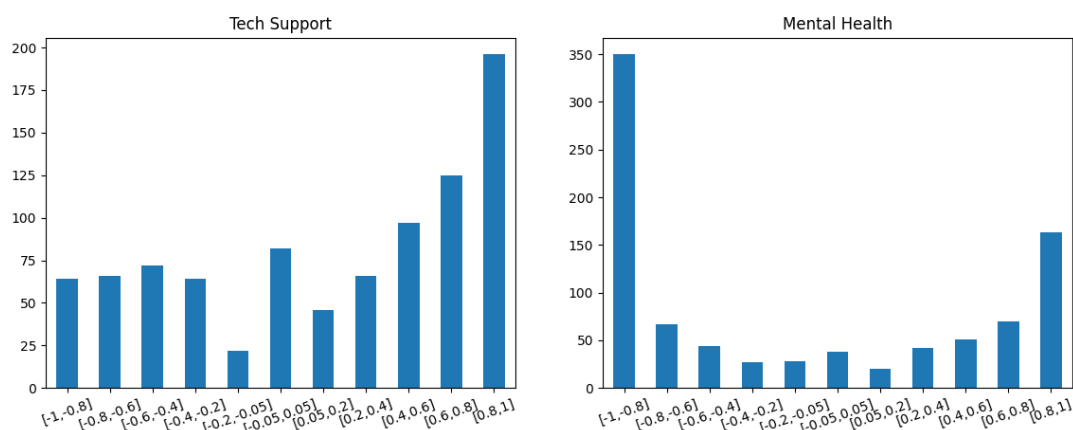
For compound:

	[-1, -0.05]	(-0.05, 0.05)	[0.05, 1]
Emotion	Negative	Neutral	Positive

As can be seen from the above results, for the texts in the 'tech support' community, there are fewer expressions that contain emotions, 84.3% of the texts show neutral emotions and the overall sentiment of this community is positive (the value of compound is 1). The texts in the 'mental health' community, on the other hand, contain more emotions than the 'tech support' community, with 15.1% of texts showing negative emotions and 12.3% showing positive emotions, and the overall sentiment of this community is negative (the value of compound is -1).

2. Analysis of individual texts one by one

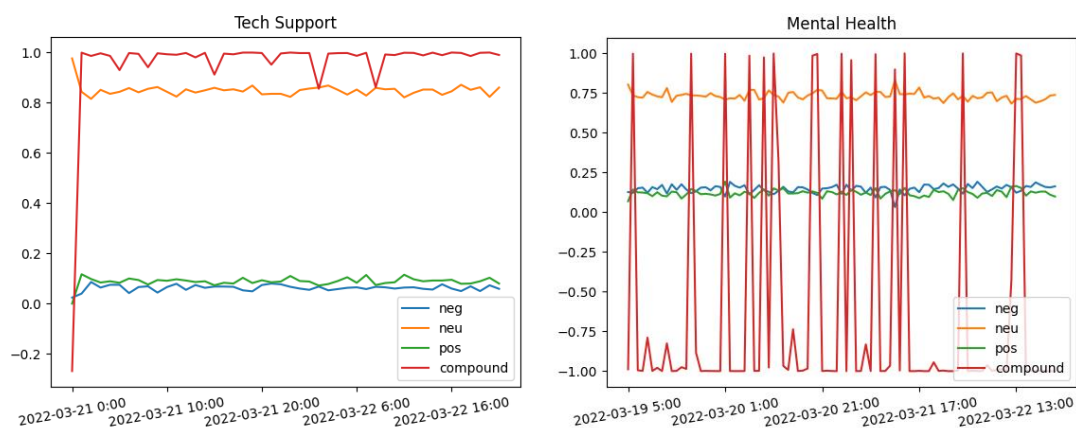
In this part, the sentiment of each post is analyzed individually. Use VADER to get the sentiment score for each post and group them according to the compound value and count the number of posts in each group. The final result is presented by the following bar charts.



As can be seen from the graph above, in the 'tech support' community the sentiment in the texts is more evenly distributed, with the highest number of texts containing positive sentiment. In the 'mental health' community, the texts are more extreme, either very positive or very negative.

3. Analyzing the relationship between sentiment and time change

Texts from the two communities are combined by time, in units of one hour. Analyze the sentiment of the texts for each hour to find out whether the sentiment of the different communities changes over time.



As can be seen from the graphs above, the sentiment of the 'tech support' community has remained stable and positive over time. The sentiment of the 'mental health' community, on the other hand, fluctuates frequently between positive and negative.