Results: The most frequent words from the rep_tweets data, Democrats data and Republicans data was visualized from the word cloud analysis and the world clouds are as follows:

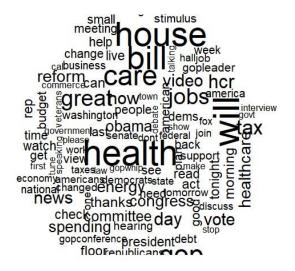


Figure 6: Rep_tweets data Word cloud



Figure 7: Word cloud of Democrats data

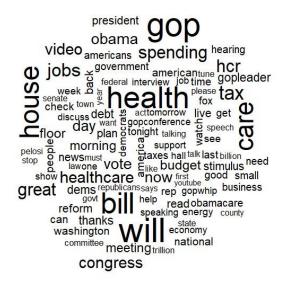


Figure 8: Republicans data word cloud

To find the correct value if K for LDA, we have tuned our data and the LDA tuning results are as follows:

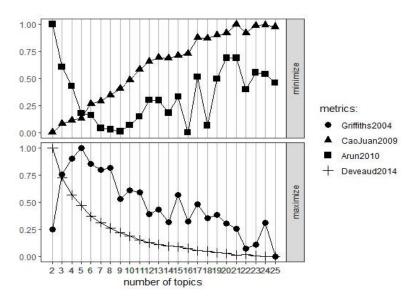


Figure 9: LDA tuning for the overall data set

LDA Tuning for the Rep-Tweets data gave us the K value to be 5 and we have done topic modelling with K=5 and the results of the topic modelling are as follows:

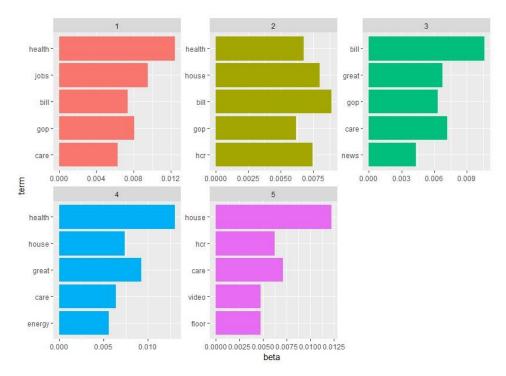


Figure 10: Topic modelling on over all dataset

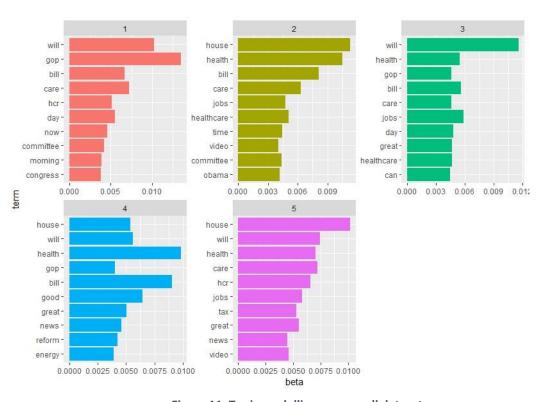


Figure 11: Topic modelling on over all dataset

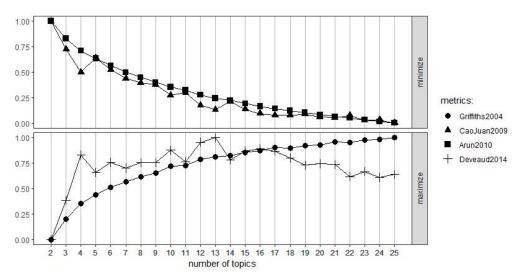


Figure 12: LDA Tuning on Republicans dataset

LDA Tuning for the Republicans-Tweets data gave us the K value to be 13 and we have done topic modelling with K=13 and the results of the topic modelling are as follows:



Figure 13: Topic modelling on Republican dataset