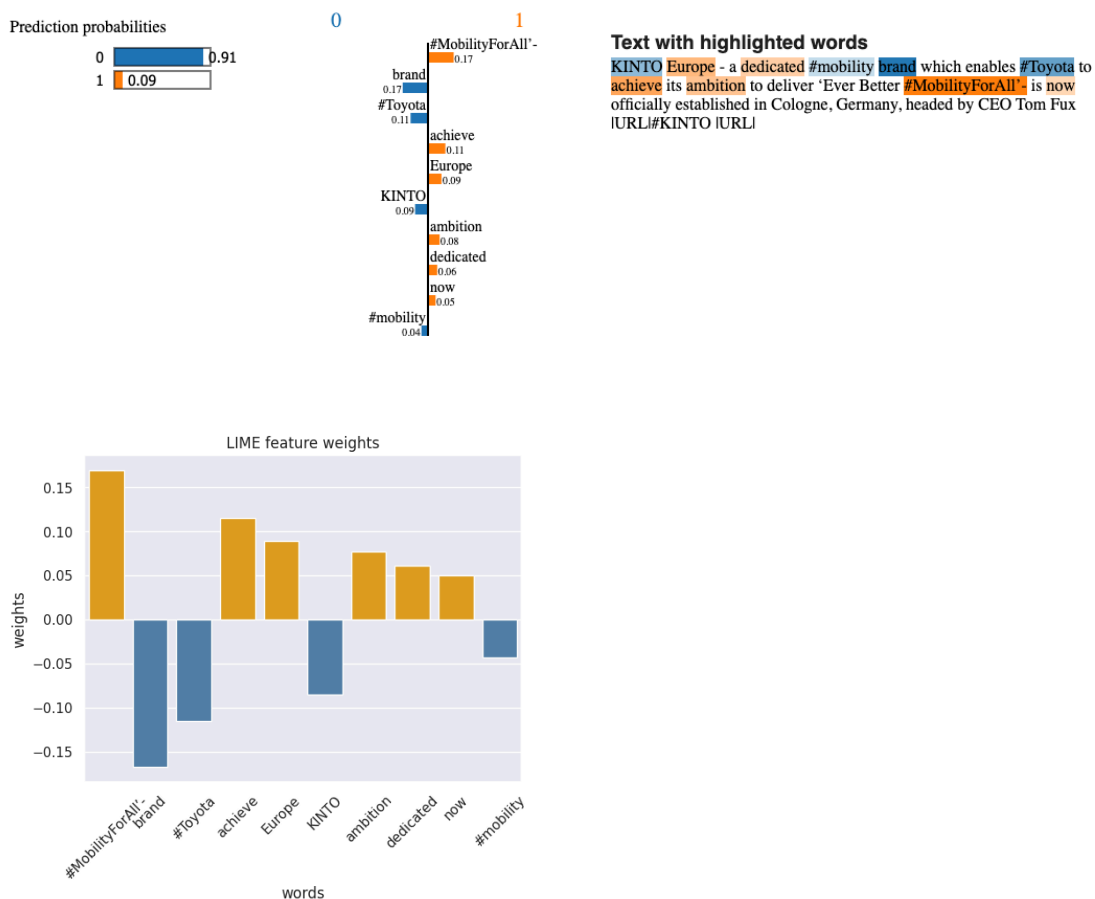
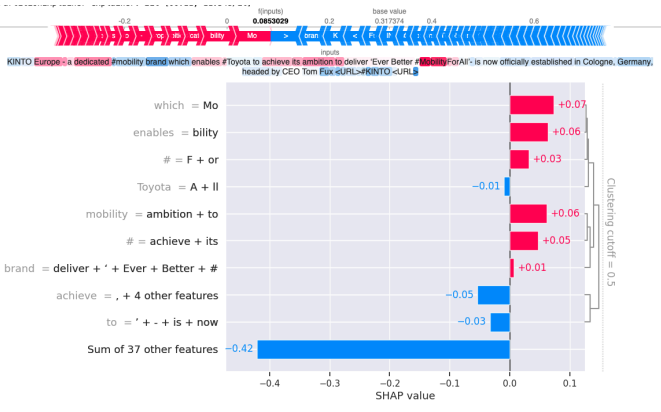


# LIME and SHAP plots of select BERT classifications

Note to reader: below you'll find 21 LIME & SHAP plots with decisions (0 = non-political, 1 = political) including human annotated ground truth. The sampling method here was selective: we chose 21 representative tweets manually out of 321 to illustrate key patterns that may appear when conducting a joint LIME and SHAP analysis.

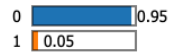
Tweet 0, non-political, ground-truth = non-political





Tweet 1, non-political, ground truth = political

Prediction probabilities



0

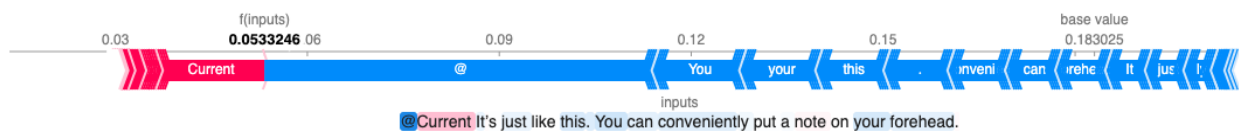
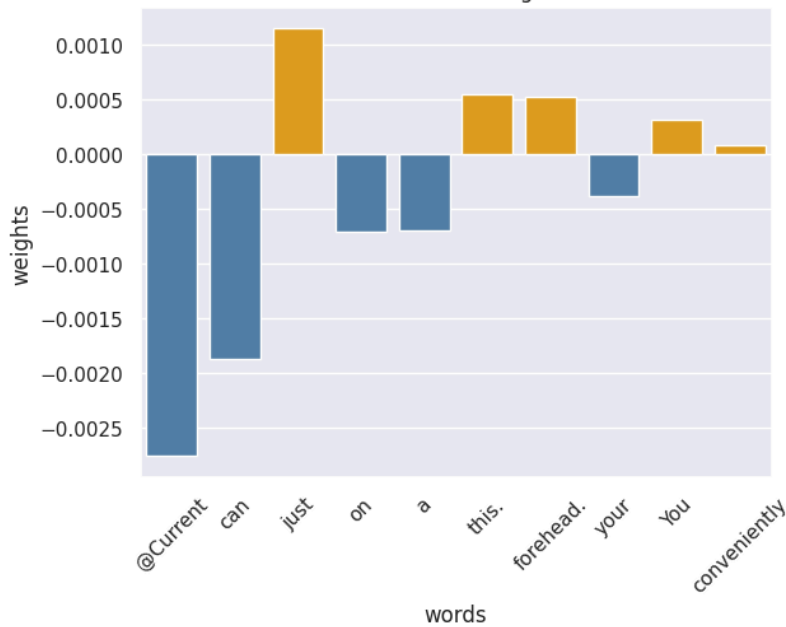
1

@Current  
can  
just  
on  
a  
this.  
forehead.  
your  
You  
conveniently

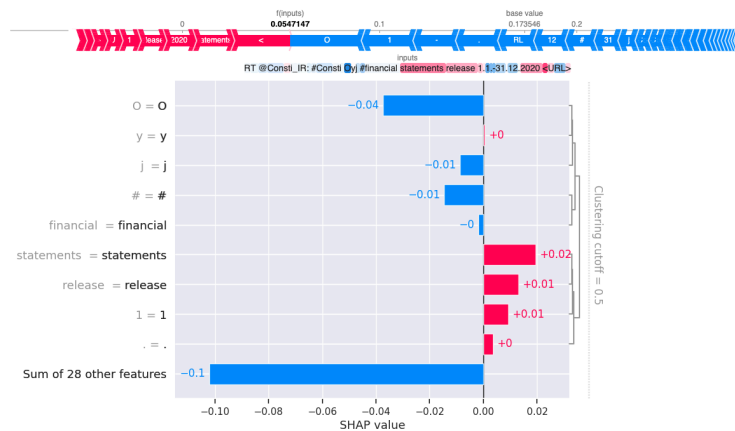
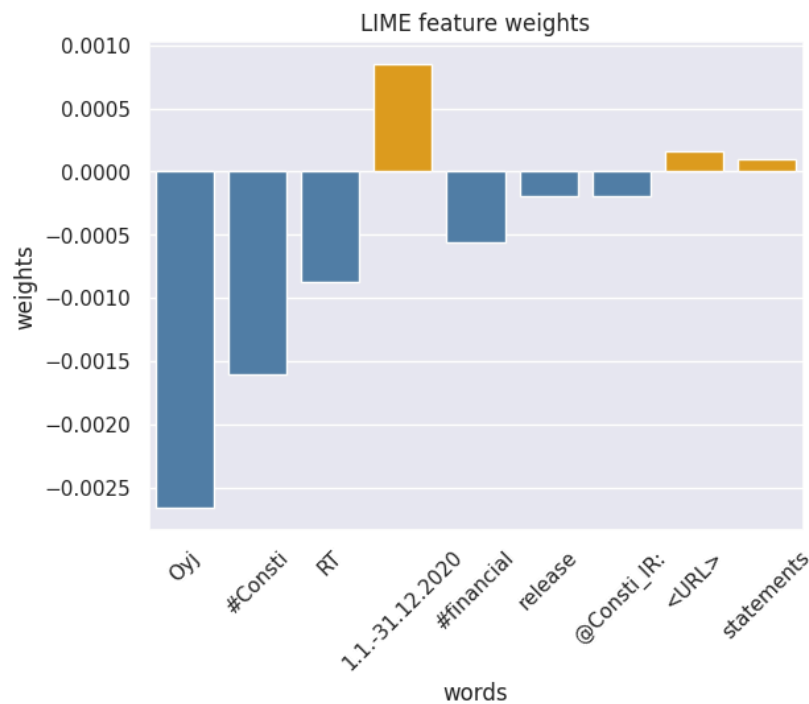
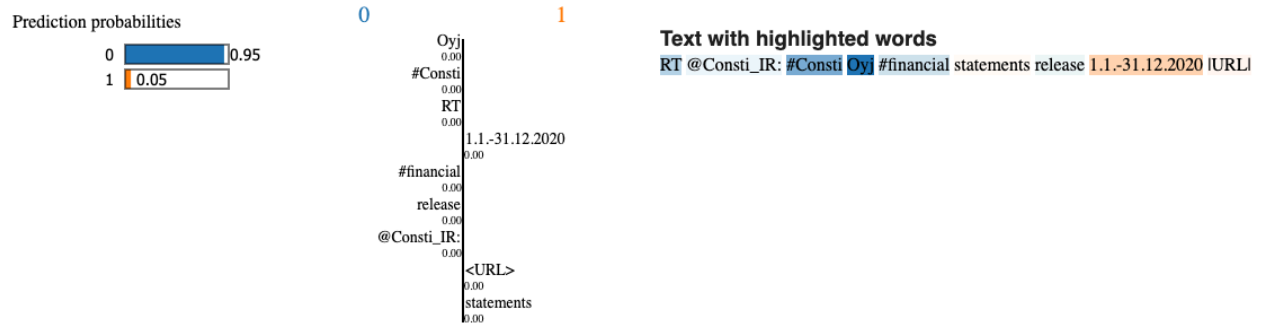
Text with highlighted words

@Current It's just like this. You can conveniently put a note on your forehead.

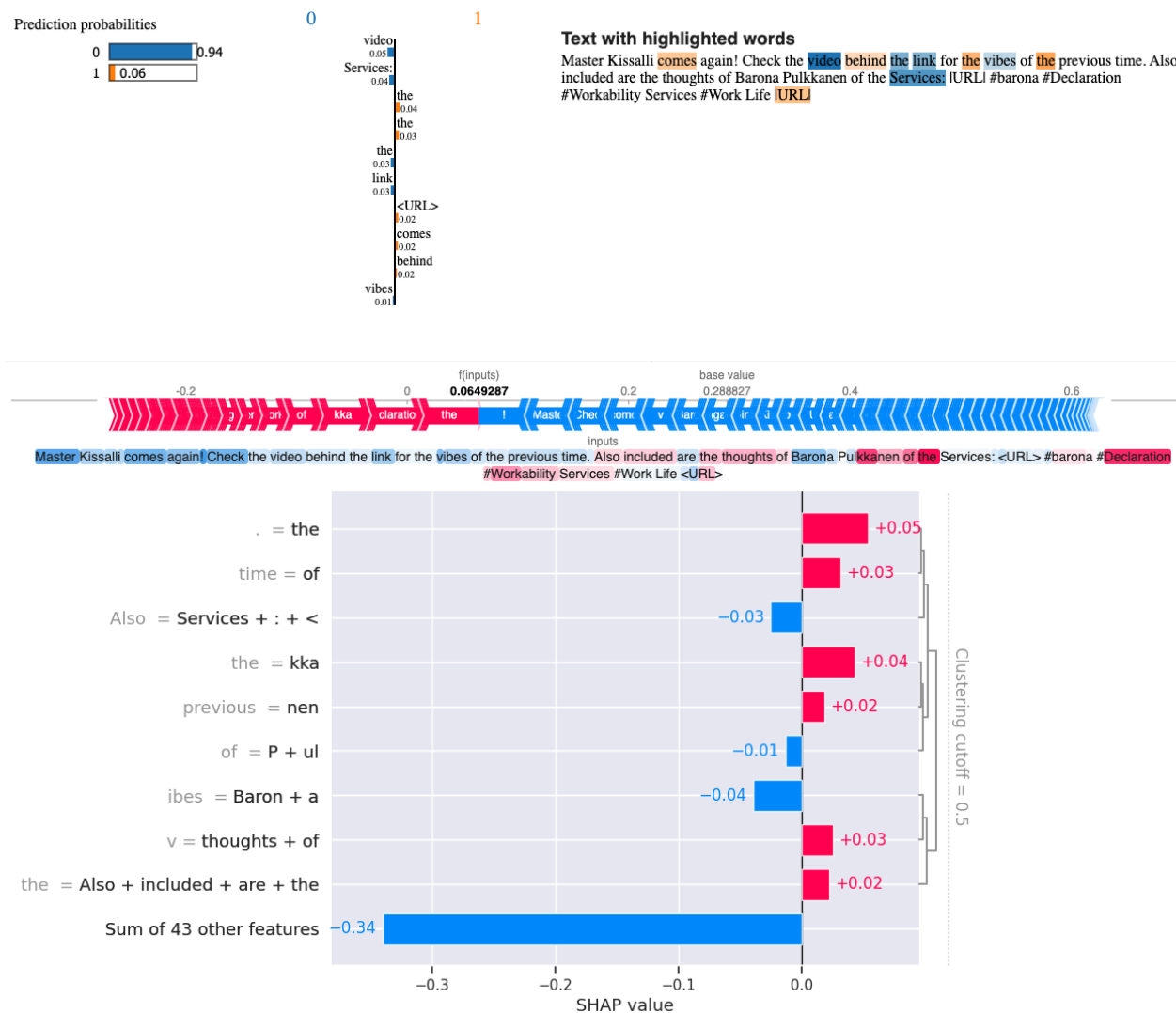
LIME feature weights



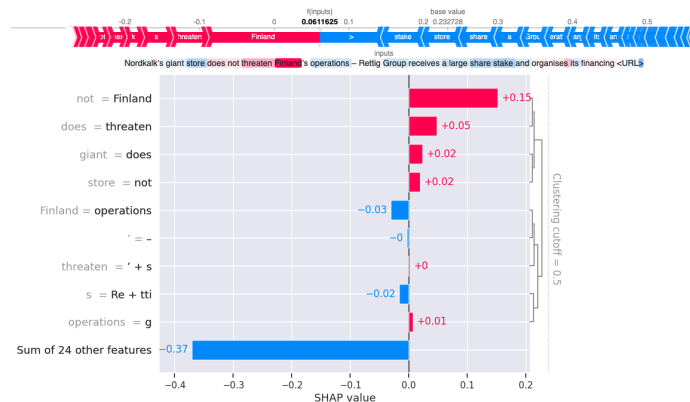
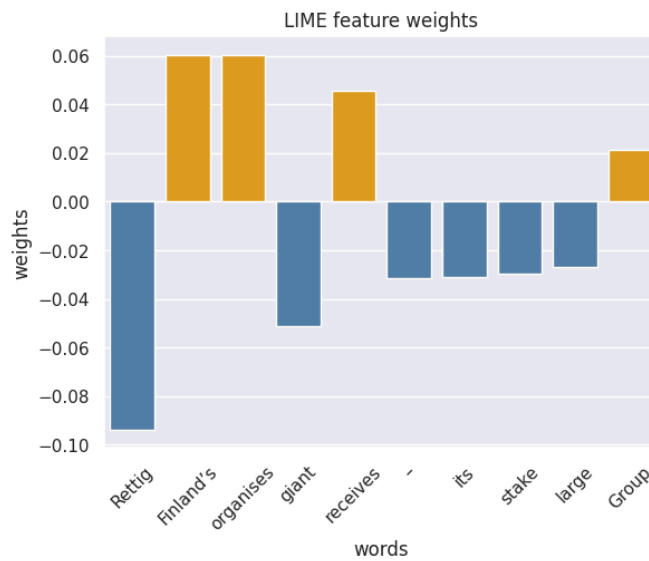
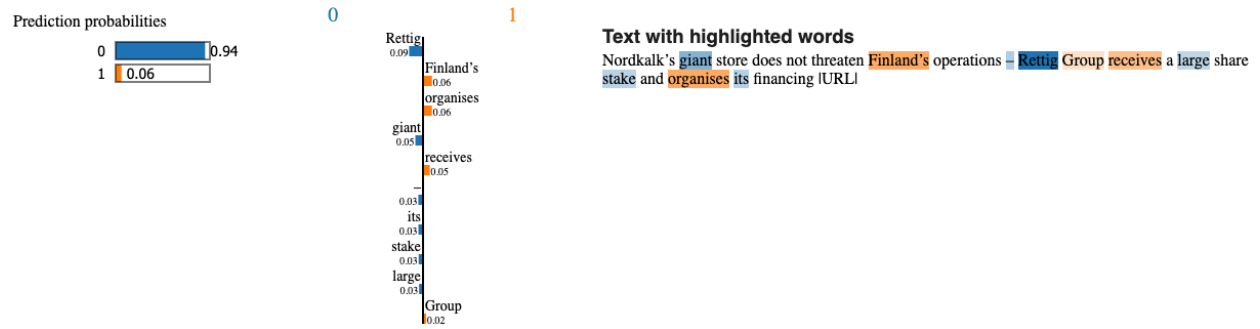
## Tweet 2, non-political, ground-truth = non-political



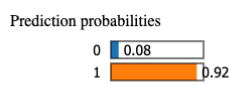
Tweet 3, non-political, ground-truth = non-political



## Tweet 4, non-political, ground truth = non-political



## Tweet 5, political, ground-truth = political

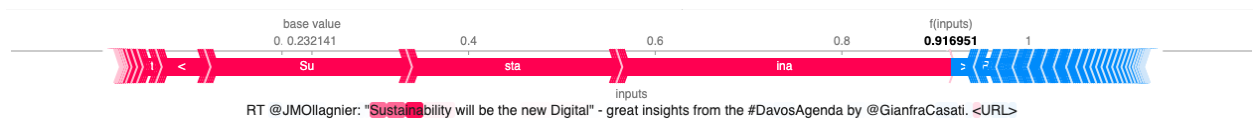


0

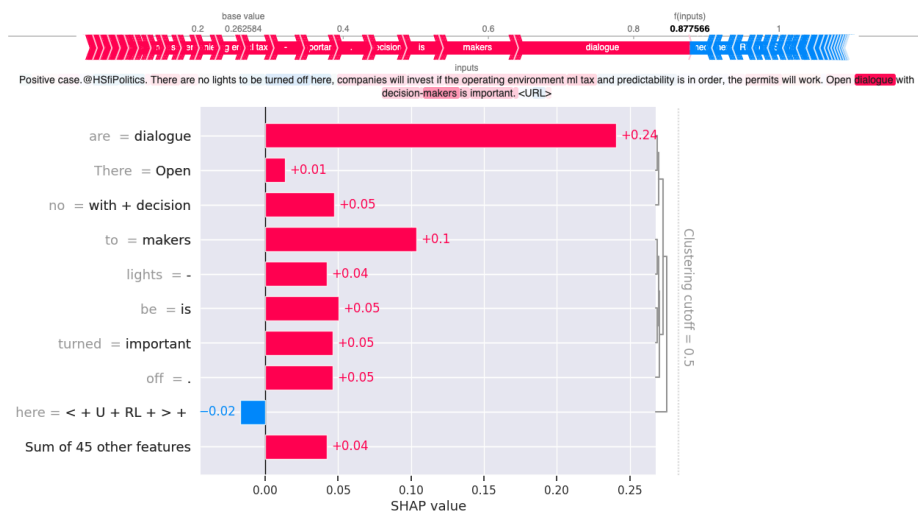
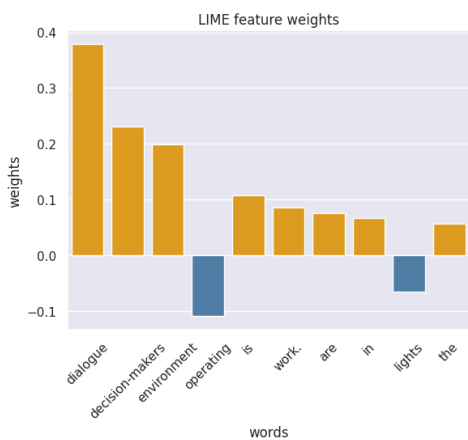
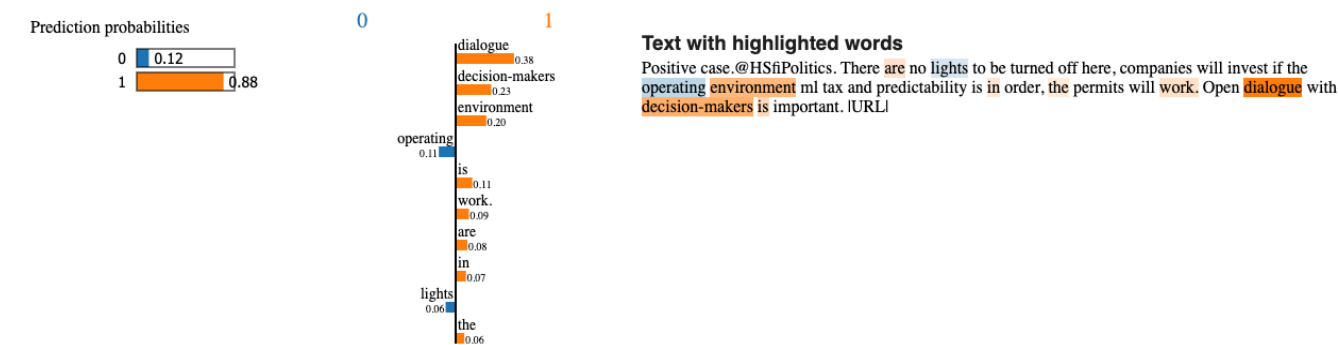


### Text with highlighted words

RT @JMollagnier: **Sustainability** will be the new Digital" - great insights from the #DavosAgenda by @GianfraCasati. [URL]

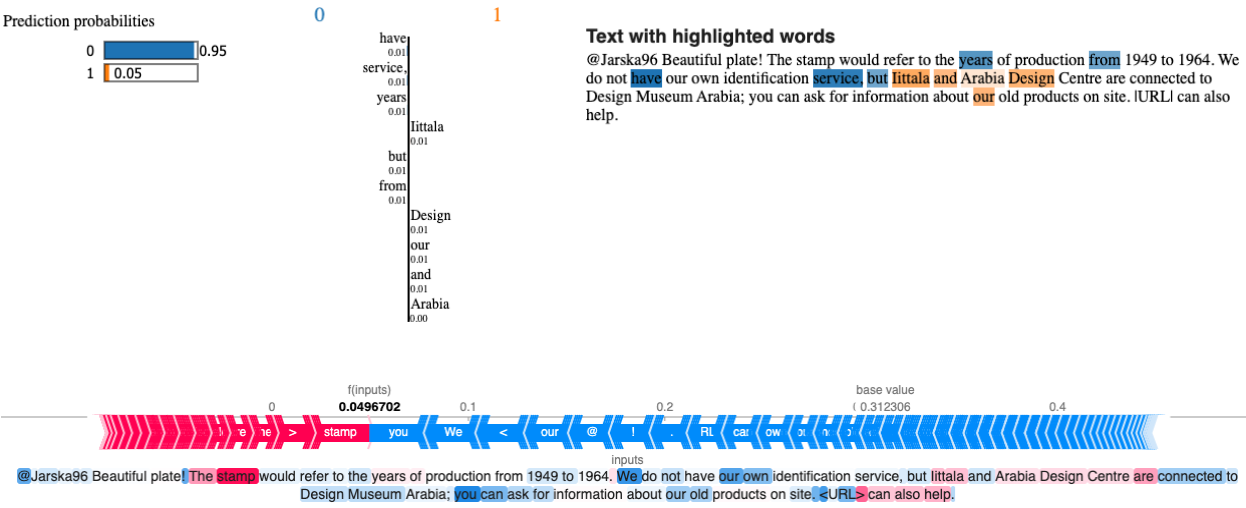


# Tweet 6, political, ground-truth = political

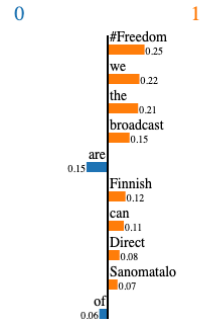
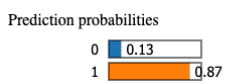




# Tweet #7, non-political, ground-truth = non-political

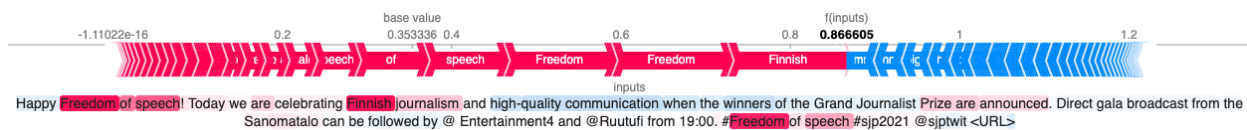
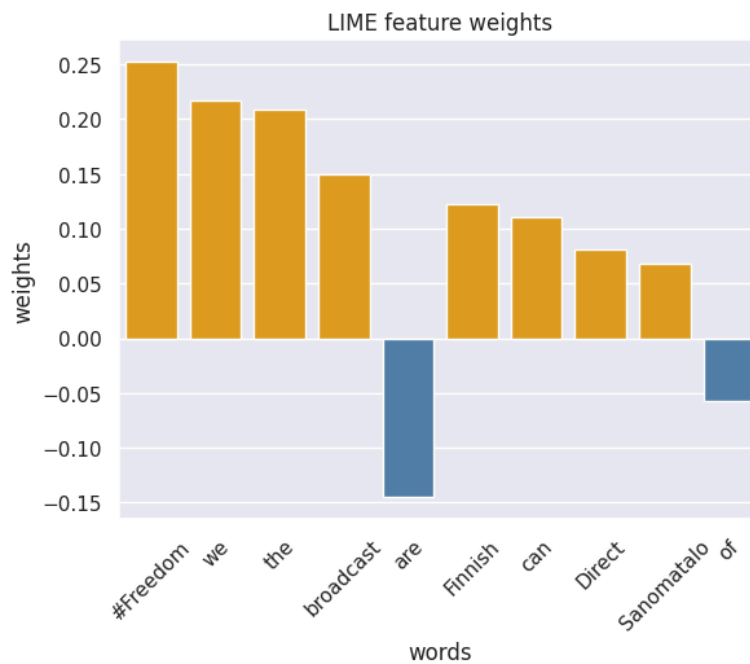


## Tweet 16, political, ground-truth = political

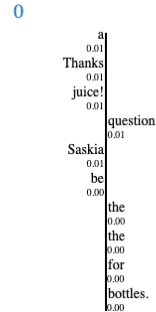
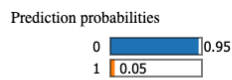


### Text with highlighted words

Happy Freedom of speech! Today we are celebrating Finnish journalism and high-quality communication when the winners of the Grand Journalist Prize are announced. Direct gala broadcast from the Sanomatalo can be followed by @ Entertainment4 and @Ruutufi from 19:00. #Freedom of speech #sjp2021 @sjptwit |URL|

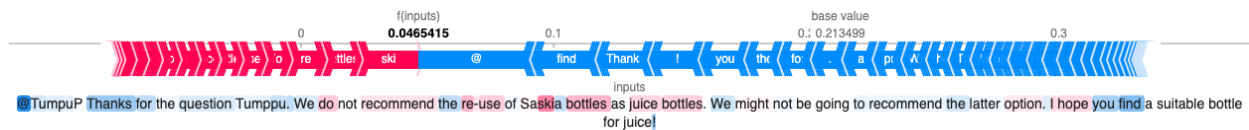
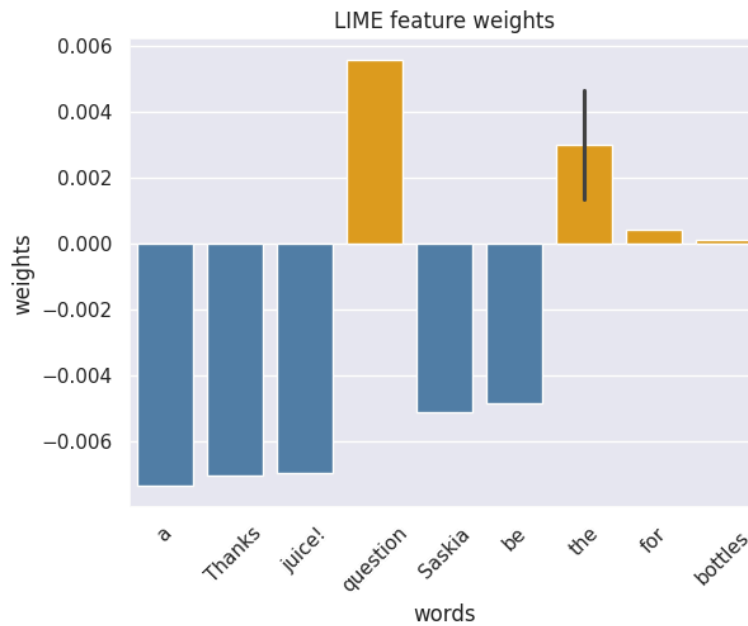


## Tweet 13, Non-political – customer service, ground-truth = non-political

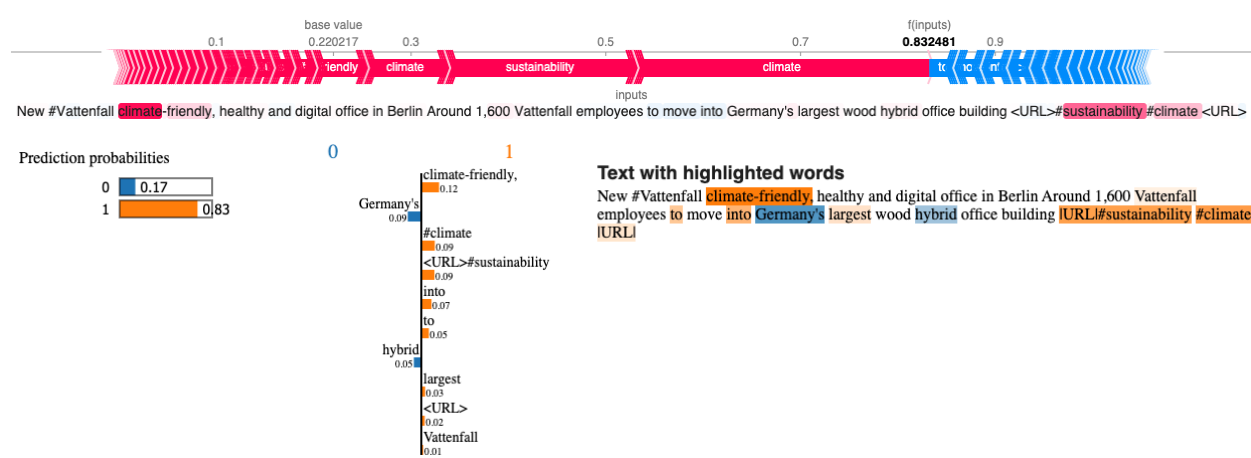


### Text with highlighted words

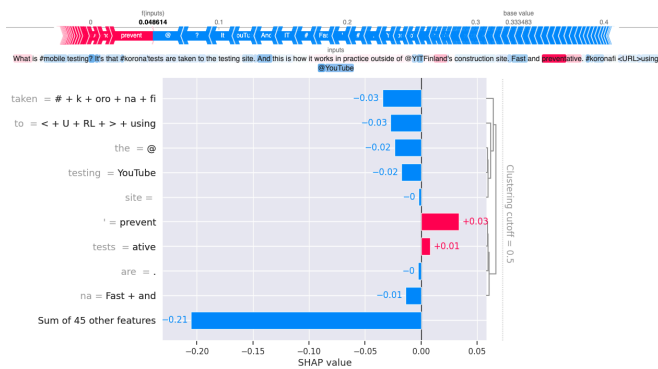
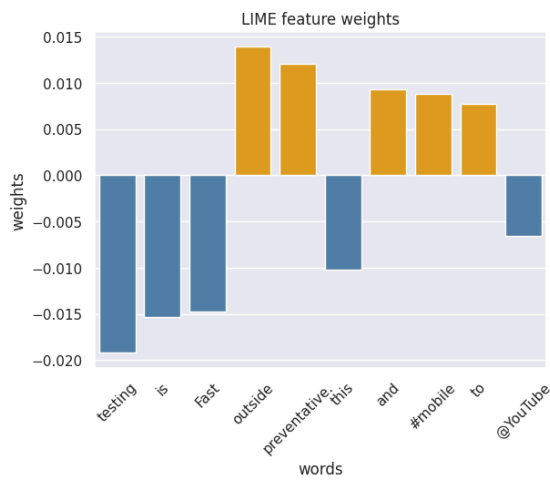
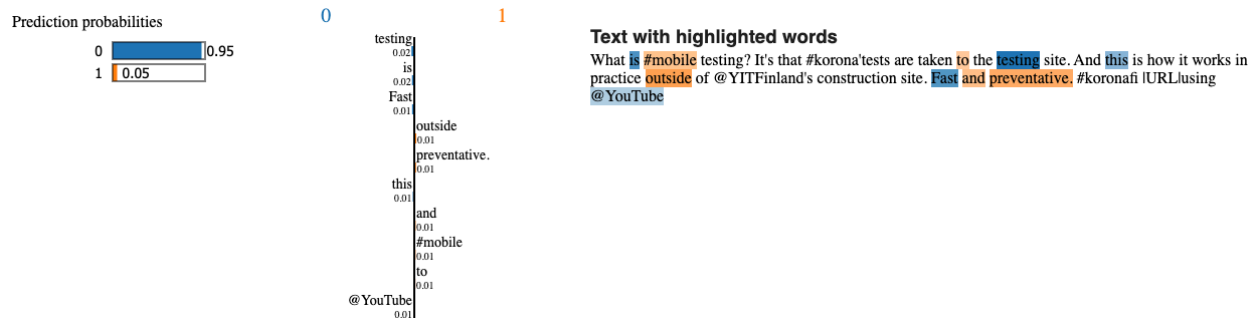
@TumpuP Thanks for the question Tumppu. We do not recommend the re-use of Saskia bottles as juice bottles. We might not be going to recommend the latter option. I hope you find a suitable bottle for juice!



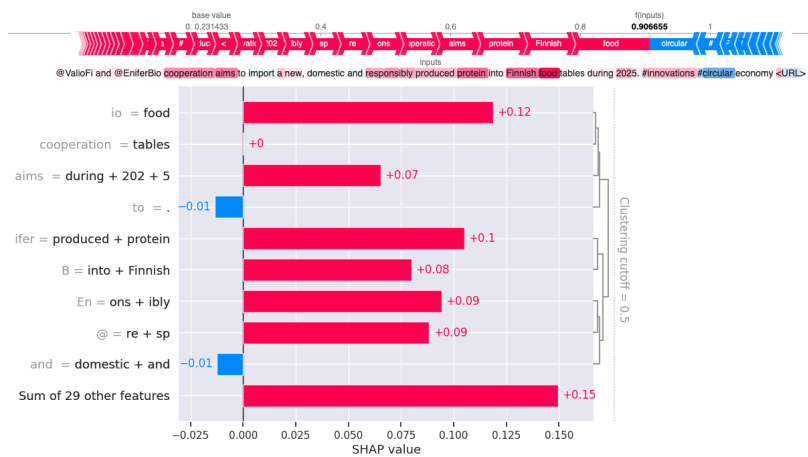
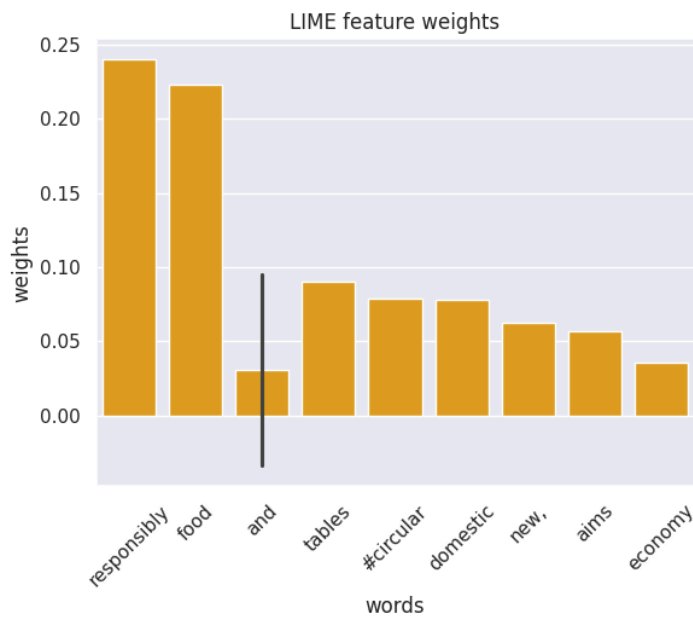
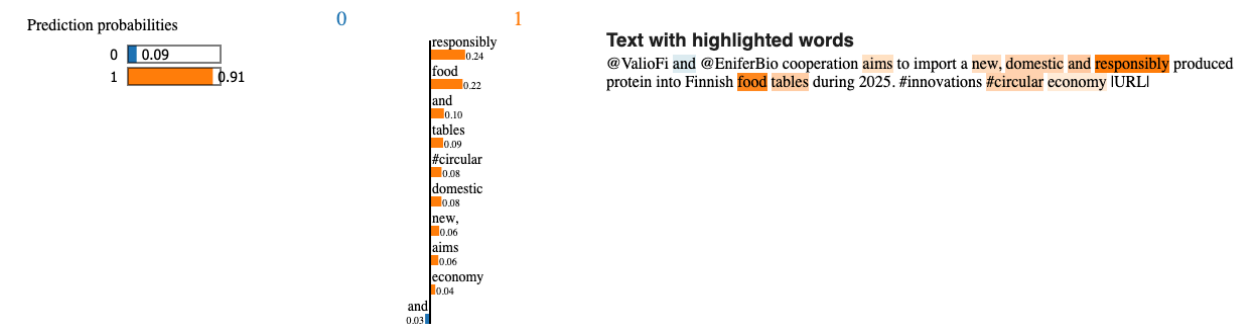
# Tweet 27 – political, ground truth = political



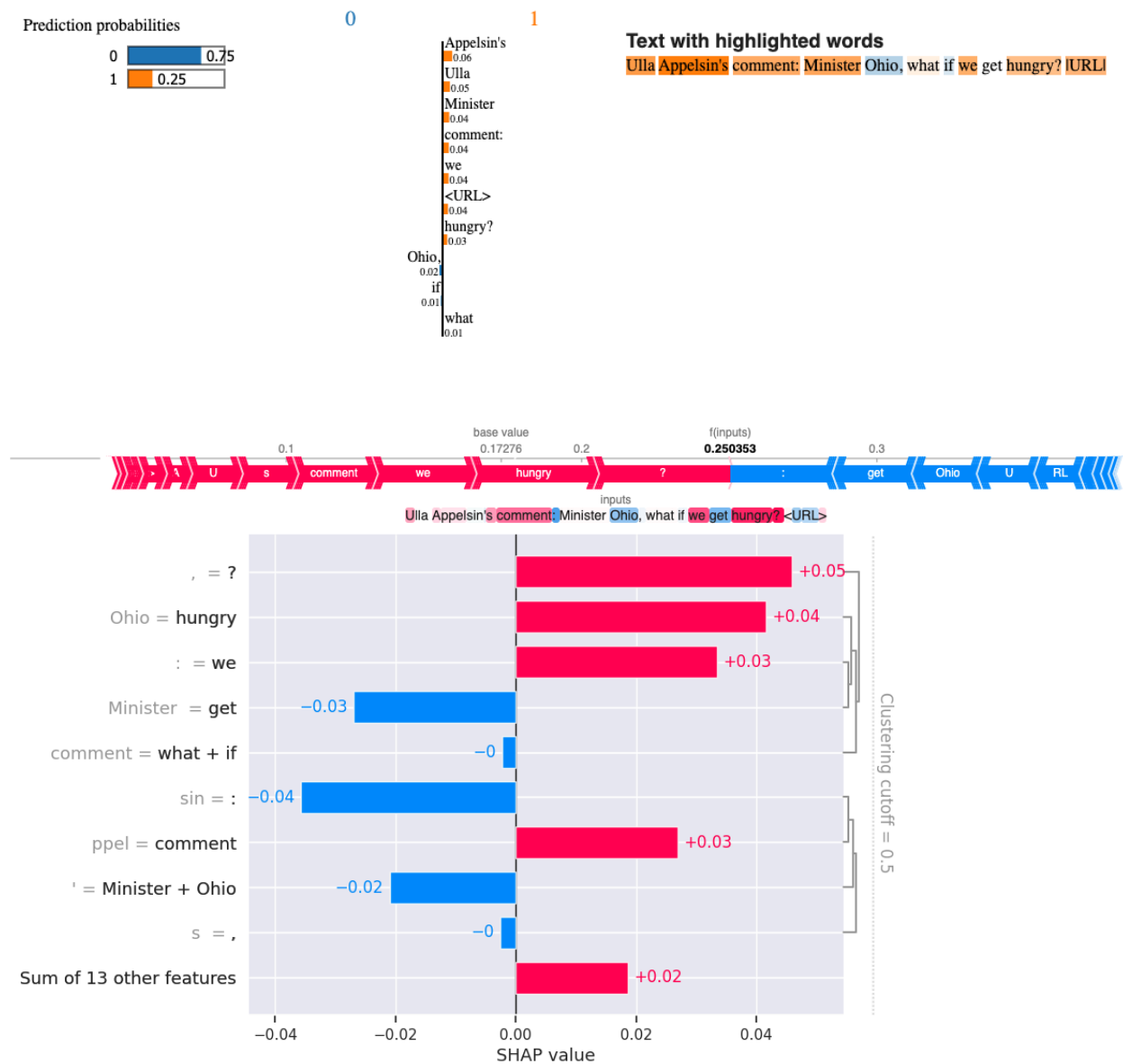
# Tweet 51 – disagreement, human labeled it has political, classifier as non-political



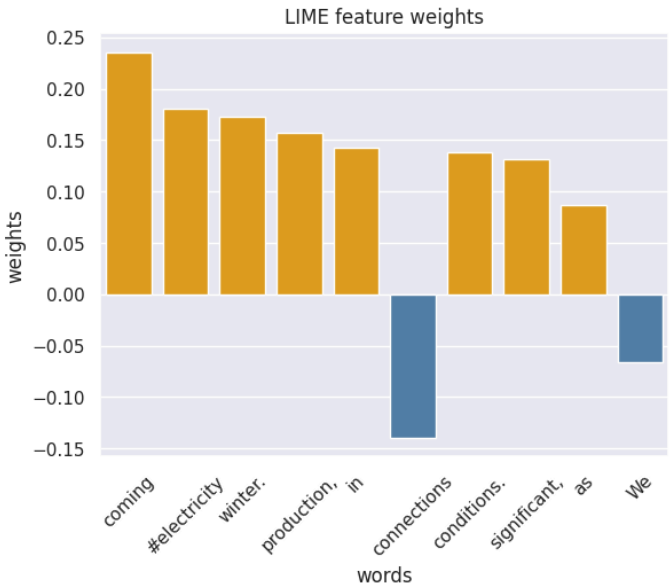
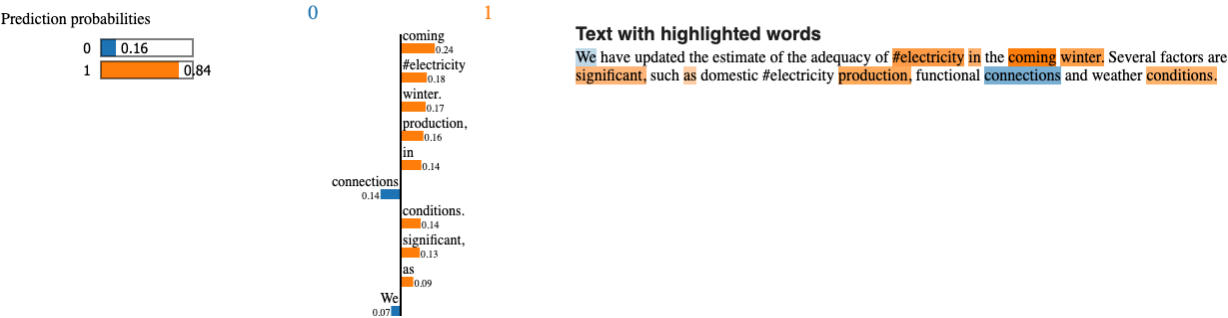
# Tweet 52 – political, agreement



Tweet 57 disagreement, human label political classifier political

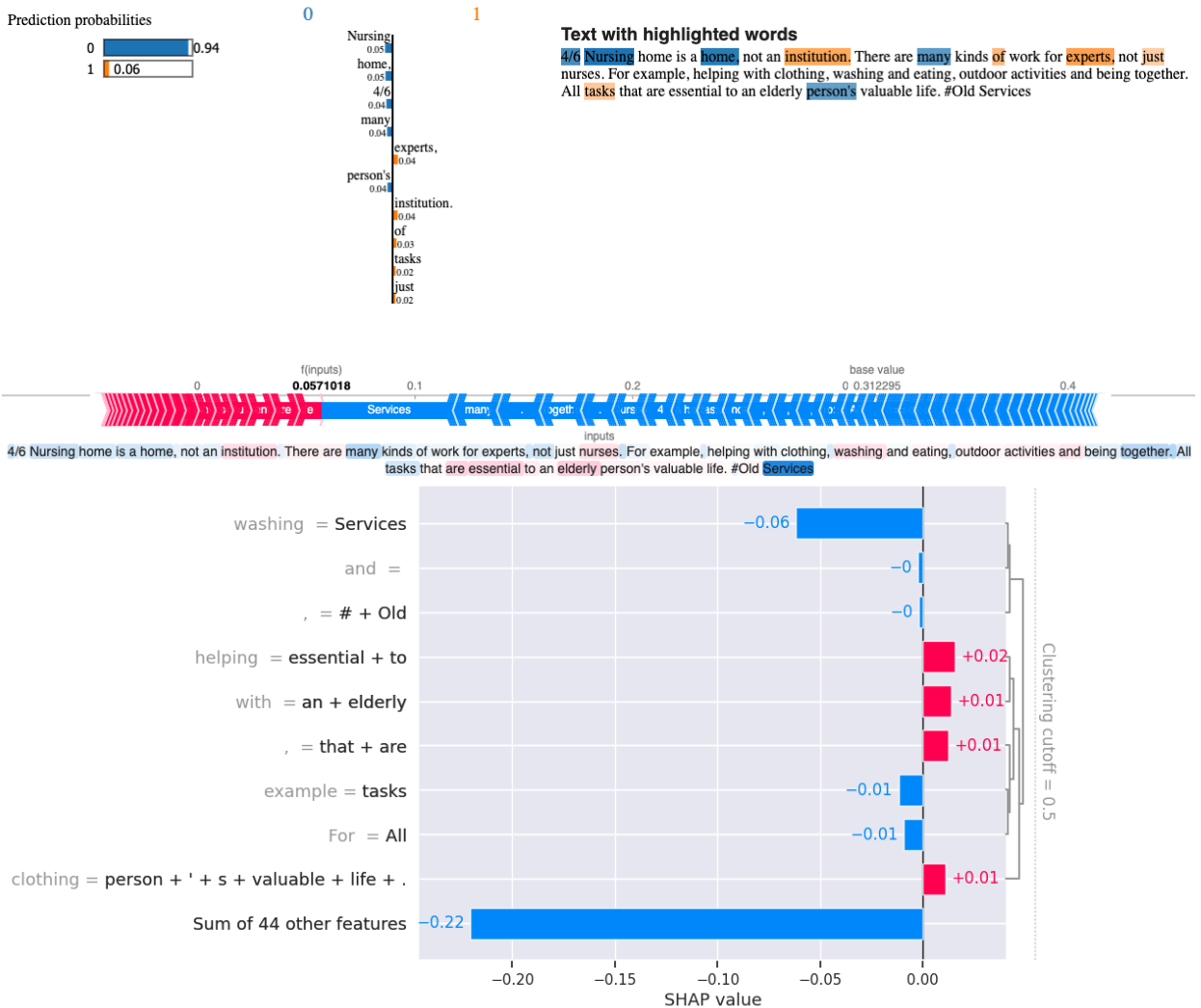


Tweet 73 disagreement, ground-truth = non-pol, classifier = pol

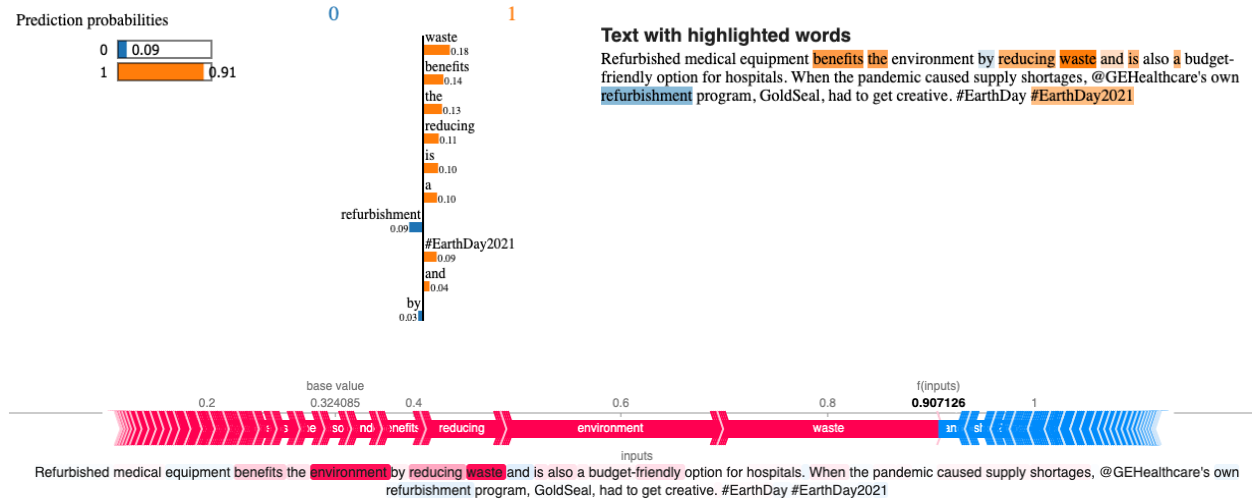




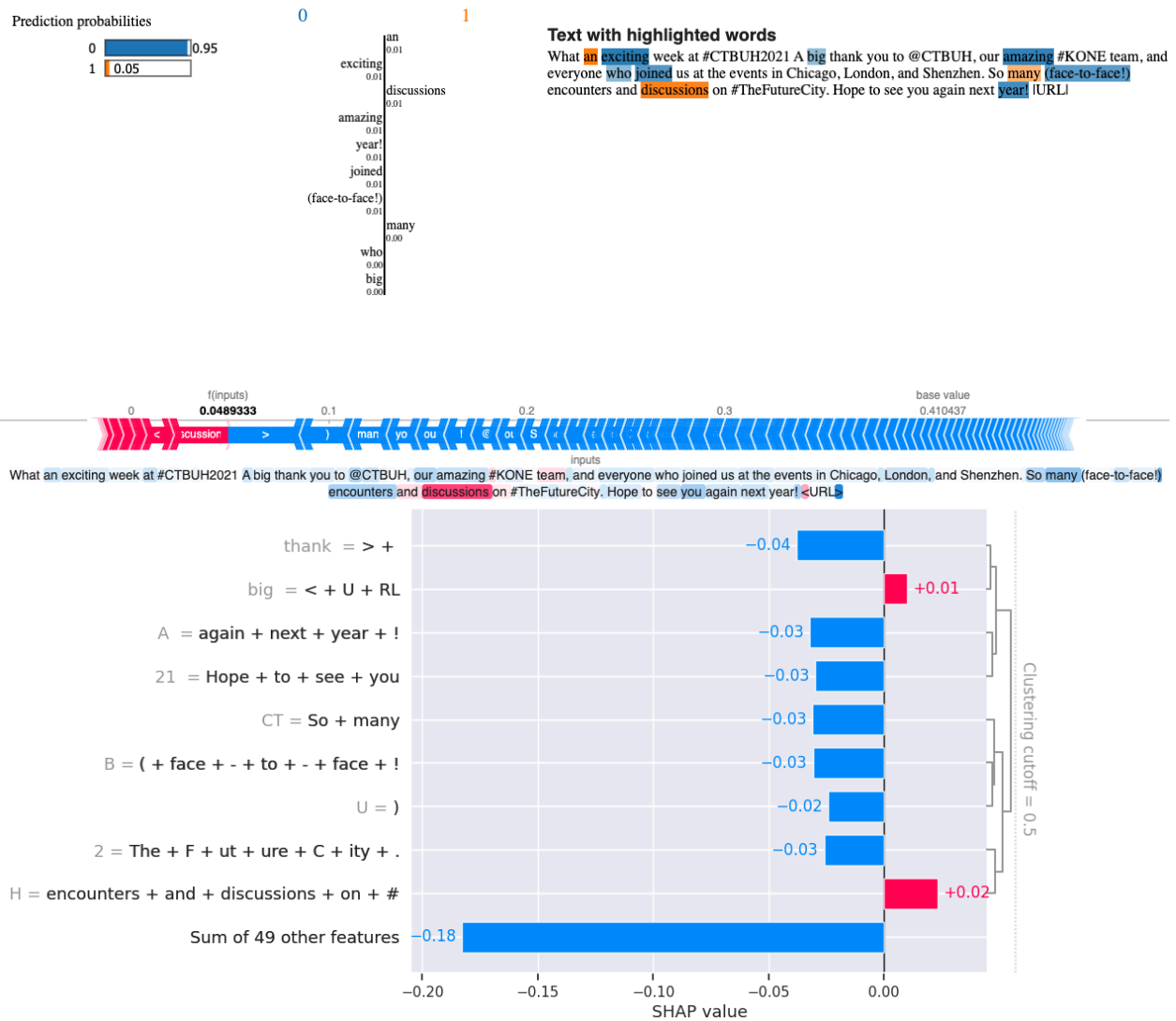
Tweet 78 disagreement, ground-truth = pol, classifier = non-pol



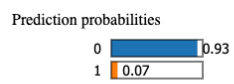
Tweet 101 political agreement, ground-truth = pol



Tweet 110 disagreement, ground-truth = political, classifier = non-pol



Tweet 126, disagreement, ground-truth = pol,l classifier non-pol



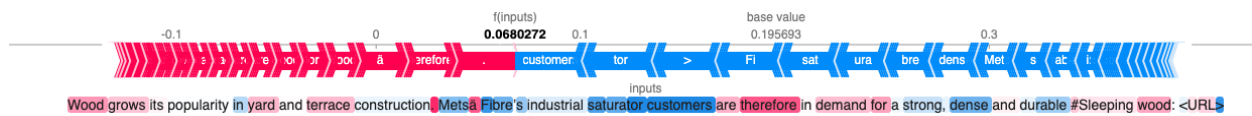
0

1

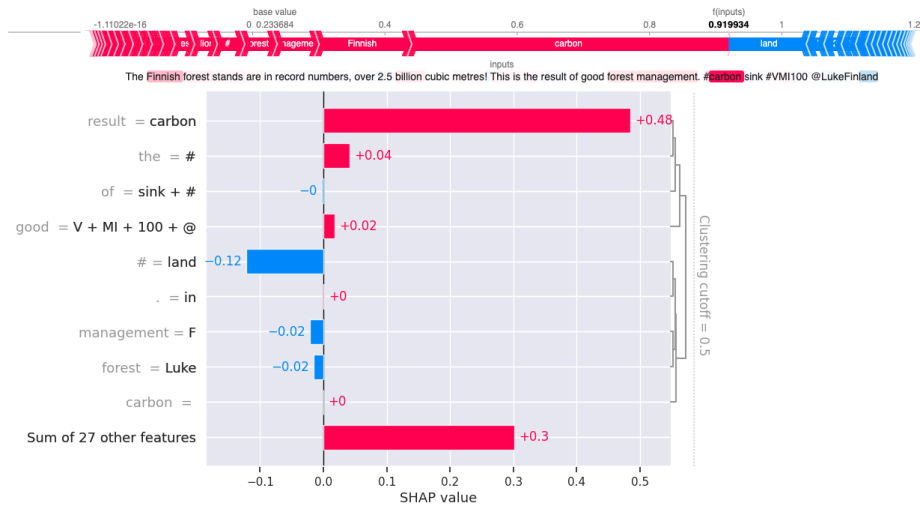
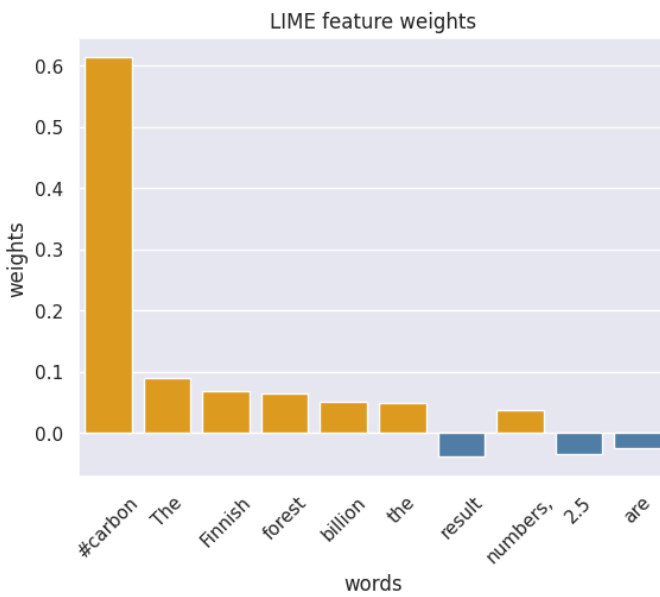
customers  
0.00  
wood:  
0.00  
dense  
0.00  
Fibre's  
0.00  
in  
0.00  
and  
0.00  
Metsä  
0.00  
a  
0.00  
saturator  
0.00  
grows  
0.00

#### Text with highlighted words

Wood grows its popularity in yard and terrace construction. Metsä Fibre's industrial saturator customers are therefore in demand for a strong, dense and durable #Sleeping wood: [URL]



# Tweet 142, political, ground truth = political



Tweet 156, ground-truth = political, classifier = non-political

