

# The Evolution of Climate Scepticism on Twitter: Polarization, Hypocrisy, and the Musk Takeover

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Climate change and political polarization are two of the twenty-first century's critical socio-political issues. The scientific case for climate action is clear, but the political will to act remains limited. Many politicians are unconvinced that their electorates will accept radical climate interventions, and pro-climate voters are unimpressed by the political 'all-talk-but-no-action' approach to the climate crisis. Consequently, understanding the discussion around climate policy between politicians and the public is important for overcoming the climate communication barrier.

In this talk, we will discuss three aspects of climate communication on Twitter from 2014 to early 2023. First, we discuss the increase in political polarization around the COP climate conferences, highlighting the role that politicians play in the debate. This is shown in figure 1 where we observe how the Twitter conversation around the COP26 climate summit has polarized into a large pro-climate majority and a smaller climate sceptic minority (1/6th of tracked accounts) with significant political support from the far-right. This is in contrast to COP21 in 2015 where only 1% of tracked accounts expressed climate sceptic views. Second, we look at climate scepticism more generally and show how the spread of climate sceptic language on Twitter peaked in 2022, more than doubling its reach from previous years. As part of this discussion, we comment on the role of the Elon Musk takeover of Twitter, noting how his amnesty on banned accounts has facilitated renewed online climate scepticism. Finally, we zoom in on the conversation at the intersection between the pro-climate majority and the climate sceptic minority to reveal how accusations of political hypocrisy aimed at politicians and elites – for example related to their use of private jets – have become the key unifying issue between groups with opposed climate ideologies. Tracking accusations of hypocrisy and greenwashing over time, we see that such accusations have grown rapidly since 2019: during the Paris climate summit in 2015, pro-climate groups were generally positive in their response to the summit. However, during COP26 in Glasgow, negative sentiment towards the conference from pro-climate groups increased by a factor of four relative to previous conferences. We discuss the possible impact of accusations of hypocrisy and note that if politicians do not address these concerns, polarization around climate change may continue to worsen.

How increasing polarization will affect the political climate discourse remains to be seen; future climate summits will be a good first test of this. It is not clear whether growing perceptions of hypocrisy are having an impact on growing polarization. However, any topic that unites pro-climate and climate-sceptic groups might act as a gateway into the sceptic community. This should give policymakers pause for thought: social media platforms are increasingly encouraged to act against climate misinformation, but the actions of individual politicians might be just as great a risk to the public view of the climate crisis.

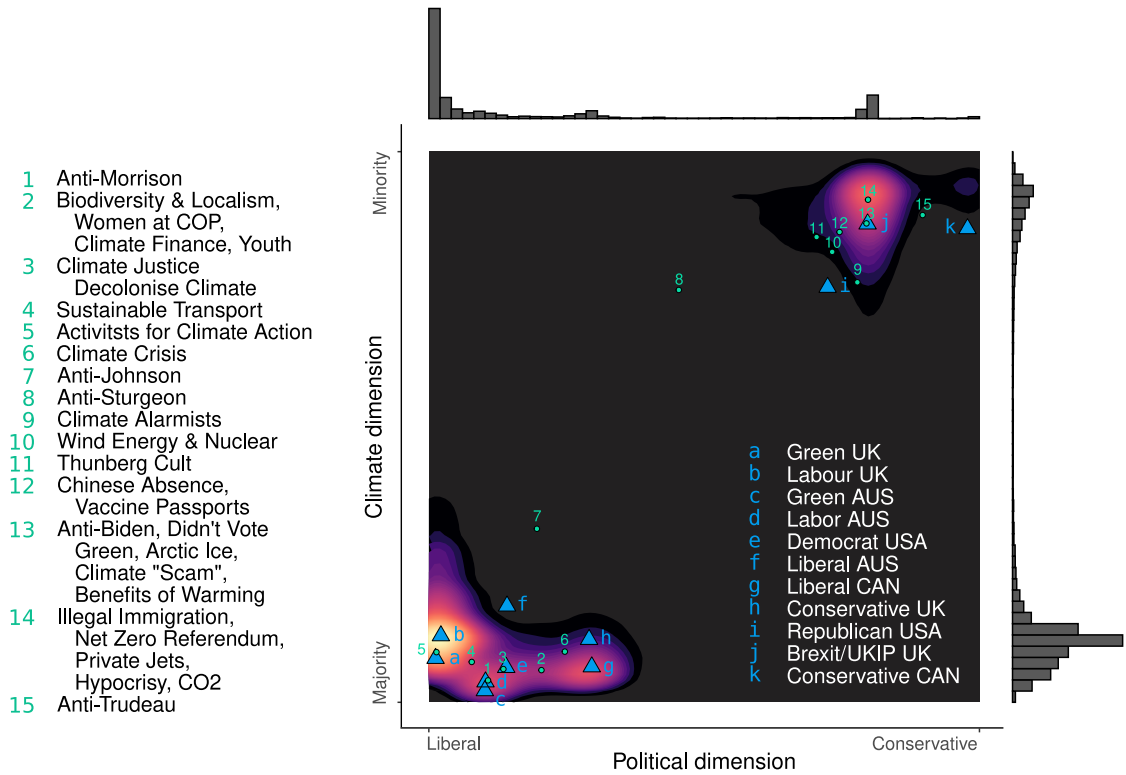


Figure 1: **The two-dimensional representation of climate polarization, split along political and non-political axes.** Triangular points label the median ideological position of accounts affiliated with specific political parties. Circular points indicate the median position of users who tweeted a particular topic, as derived using BERTopic. We calculate the latent ideology twice using (1) the top 300 most retweeted accounts affiliated with individual elected politicians (horizontal axis; political dimension), and (2) using the top 300 most retweeted accounts excluding politicians (vertical axis; climate dimension). The non-political axis can be thought of as the general climate dimension, whereas the political axis can be thought of as capturing the specific political groupings of the COP discussion. Some topics are merged into a single point for visual clarity.