

**Unravelling the Ongoing Discord on
Climate Change – Social Media Analytics
on #COP26**

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Unravelling the Ongoing Discord on Climate Change – Social Media Analytics on #COP26

Overview:

Climate change is expected to affect every country in the world, but its impact will not be felt equally across all regions, and some will be worse hit than others because of a range of different threats. Developing countries, places with widespread poverty, and countries with ineffective governments sometimes face the gravest risks from the changing climate. The UN's recent Climate Change Conference, the 26th Conference of Parties (COP 26), was the biggest climate related event with over 40,000 delegates from observer states, NGOs, media groups and the UN. Held between Oct 31 and Nov 12, 2021, the conference was aimed at bringing together a diverse set of stakeholders to facilitate an agreement on key issues related to climate change.

However, by providing a detailed discourse and network analysis of the twitter conversations based around this event, our study shows that there exist broad ranging disparities and difference of opinions when it comes to tackling this important issue. This is largely due to the limited representation of developing countries in the conference as reflected in the online chatter the discussion was (a) mostly western centric and (b) limited to a specific online communities built around climate activism and global politics.

Methodology:

To gauge the online chatter around the Climate Change Conference, we looked at the Twitter hashtag #COP26 between 26th October to 14th November 2021. Since it was the official hashtag used by COP organizers it was used by all key stakeholders in their online conversations. Similarly, all the policy input and official announcements came through this hashtag, comprising a total of 495980 tweets posted by 147,500 users around the world.

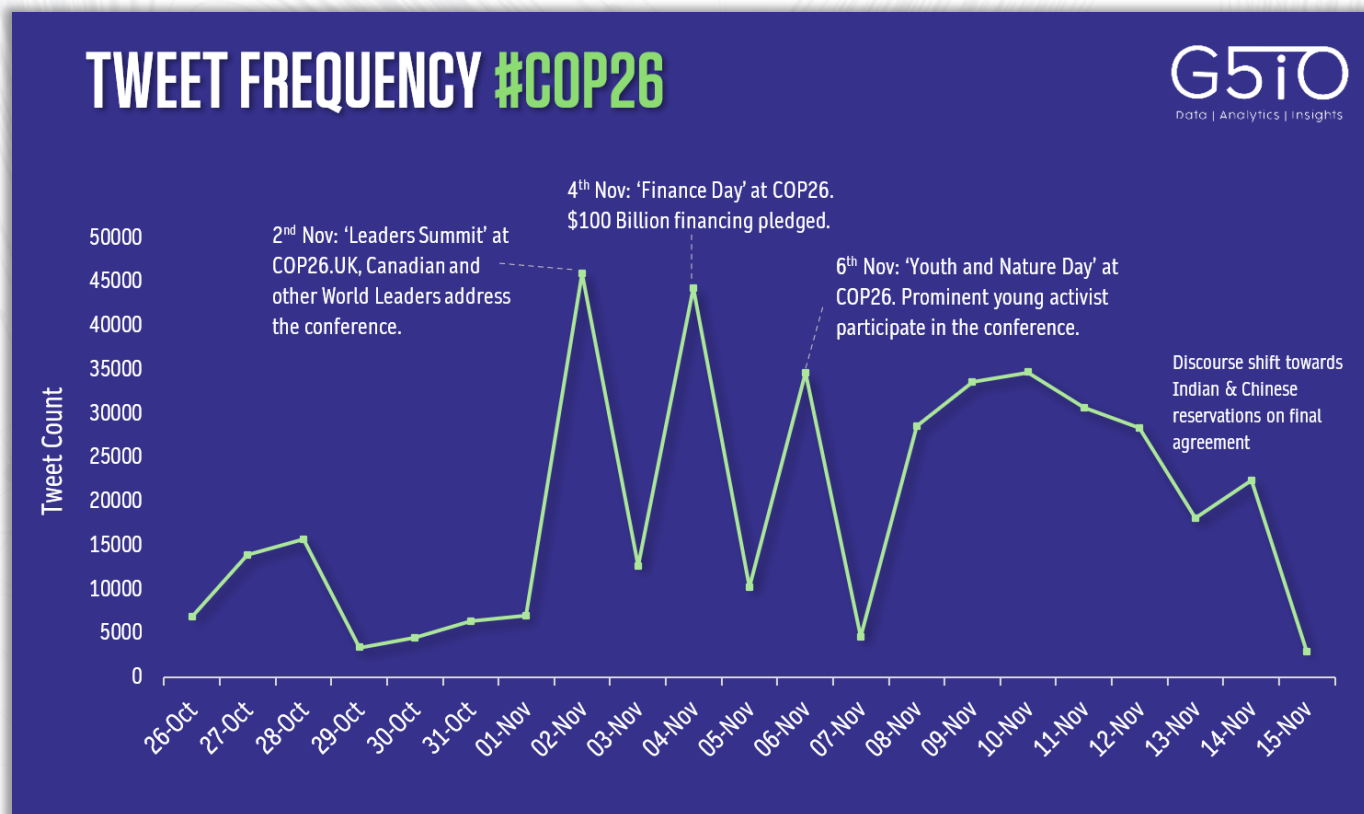
Tweet Frequency

The tweet Frequency of #COP26 shows which specific days and events in the Climate conference generated the most interest amongst social media users.

The world leaders' summit held on 2nd November was the most popular day out of the conference which generated over 46 thousand tweets worldwide. Boris Johnson, Justin Trudeau, Nicola Sturgeon, and others addressed the conference and pledged to end deforestation and fossil fuel production.

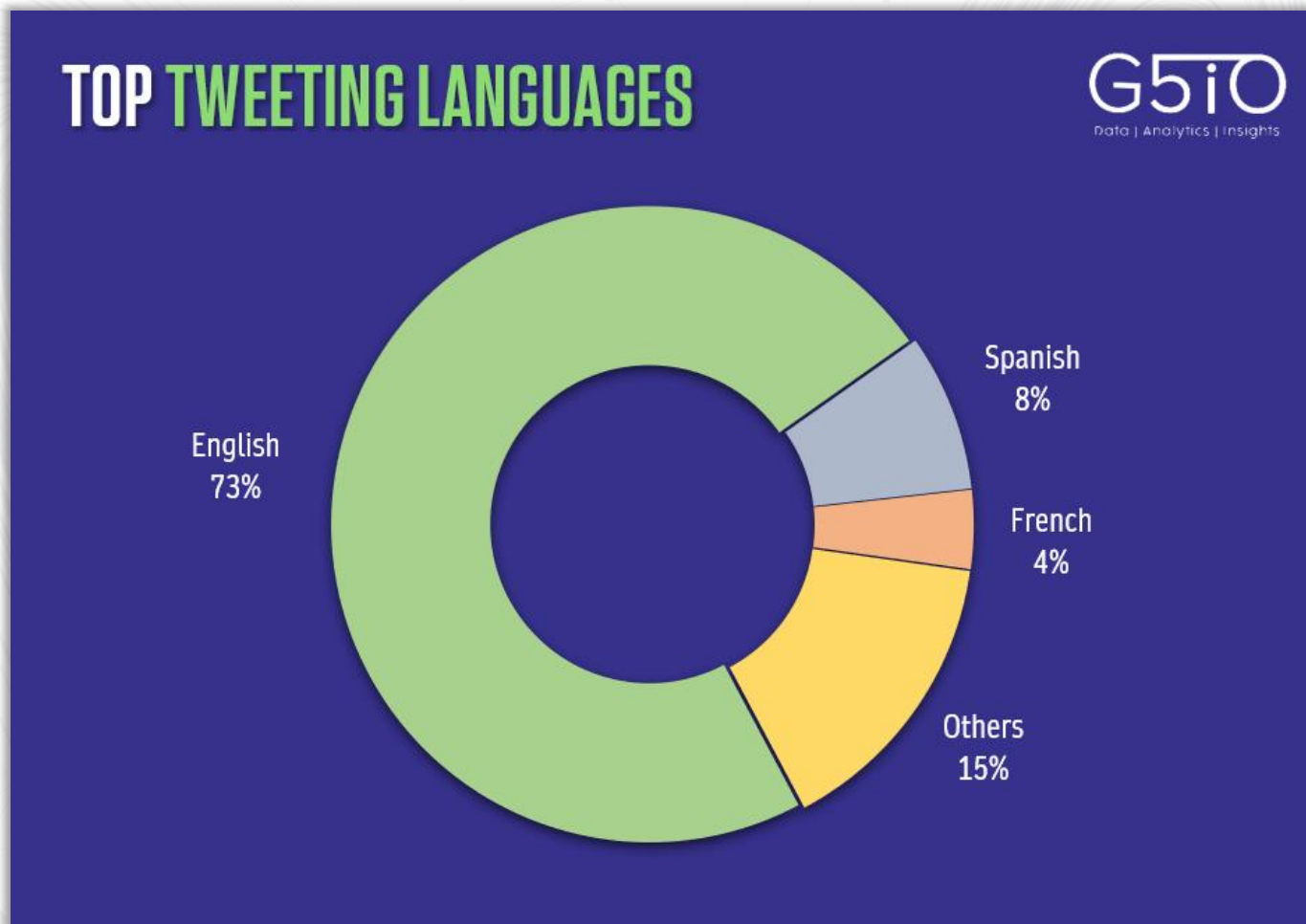
SM chatter again peaked when \$100 billion worth of financing was pledged on the fourth day of the conference (4th November). However, the online discourse related to the chatter focused instead on the failure of wealthy nations to meet their previous climate financing pledge of the same amount for 2020.

Near the end of the conference, related SM activity while declining, was centered on the last-minute watering down of the agreement's text due to pressure from India and China along with the limited progress made on key issues for developing nations (such as climate finance, adaptation and loss and damage).



Tweet Language

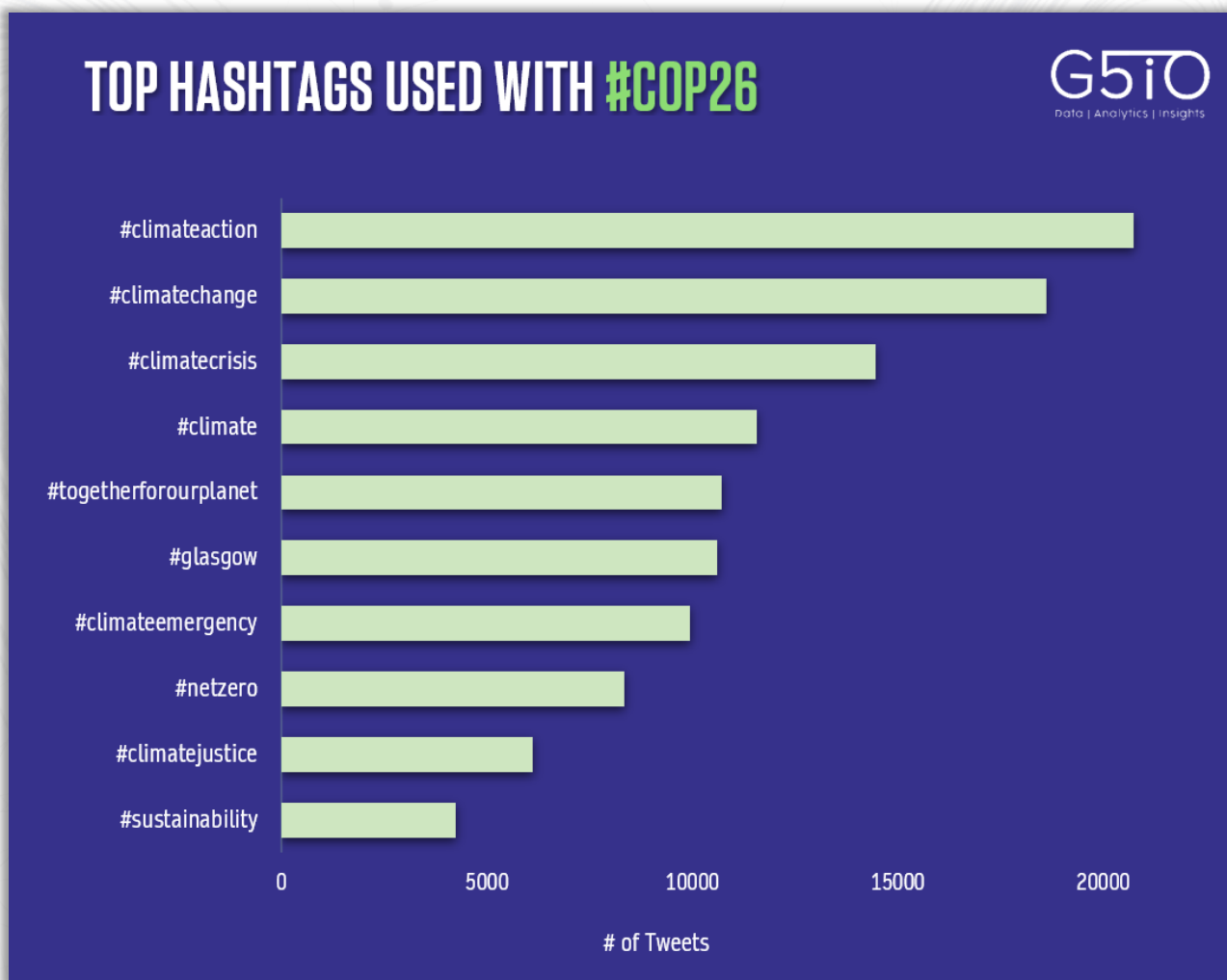
It is no surprise that English was the most used language throughout #COP26. 73% of the tweets were in English followed by Spanish (8%) and French (4%). Since most of the online discussion was in English, there was a strong inclination towards a more Western centric narrative on climate change.



Popular Hashtags

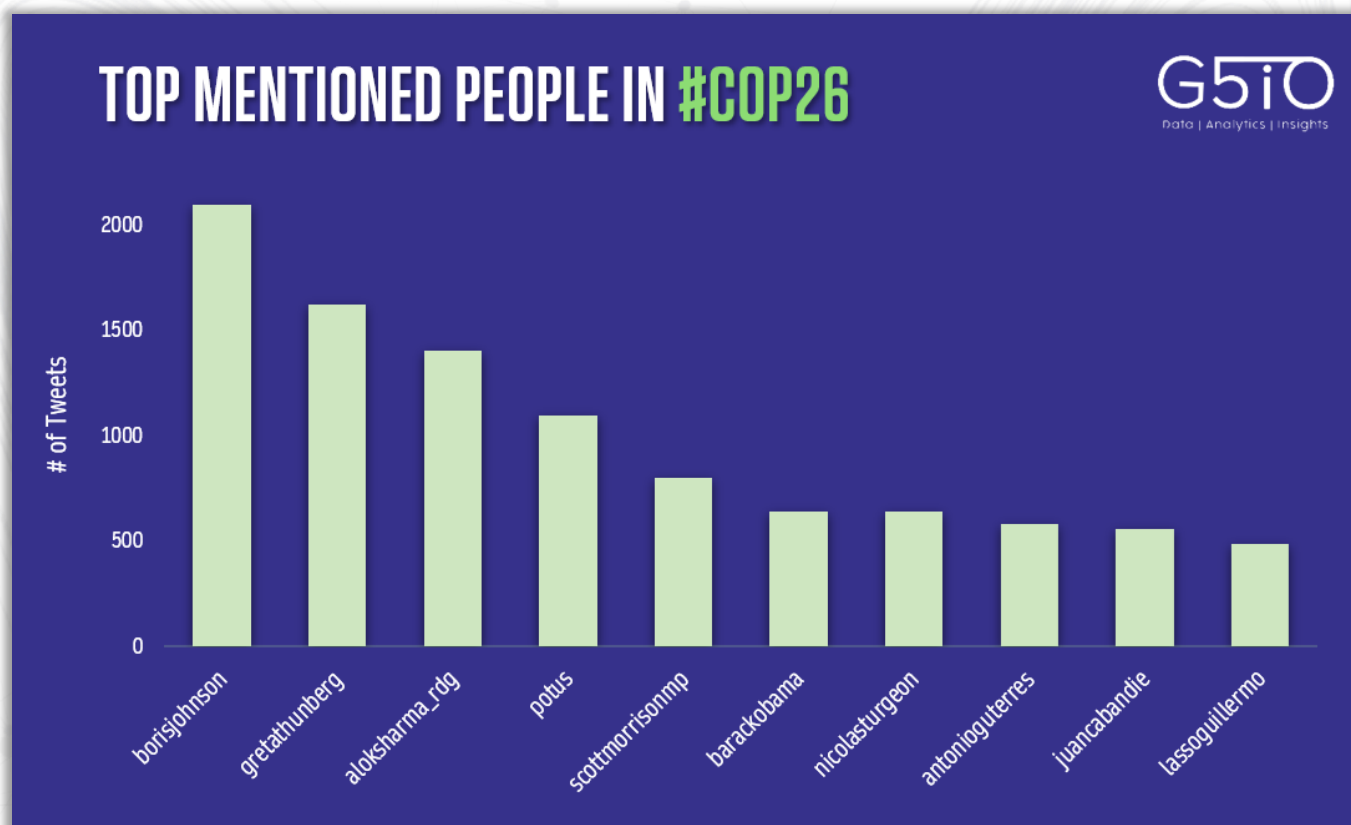
While analysing the twitter discourse on climate change, we wanted to look at what other hashtags were used alongside #COP26. This was done to gauge which key conversations and concerns were being prioritized while the conference was unfolding.

While most of the hashtags used along #COP26 were generic, the key hashtags that stood out were '#sustainability', '#climatejustice' and '#netzero'. Each of which was related to the UN's target to attain NetZero coal emissions by 2050.



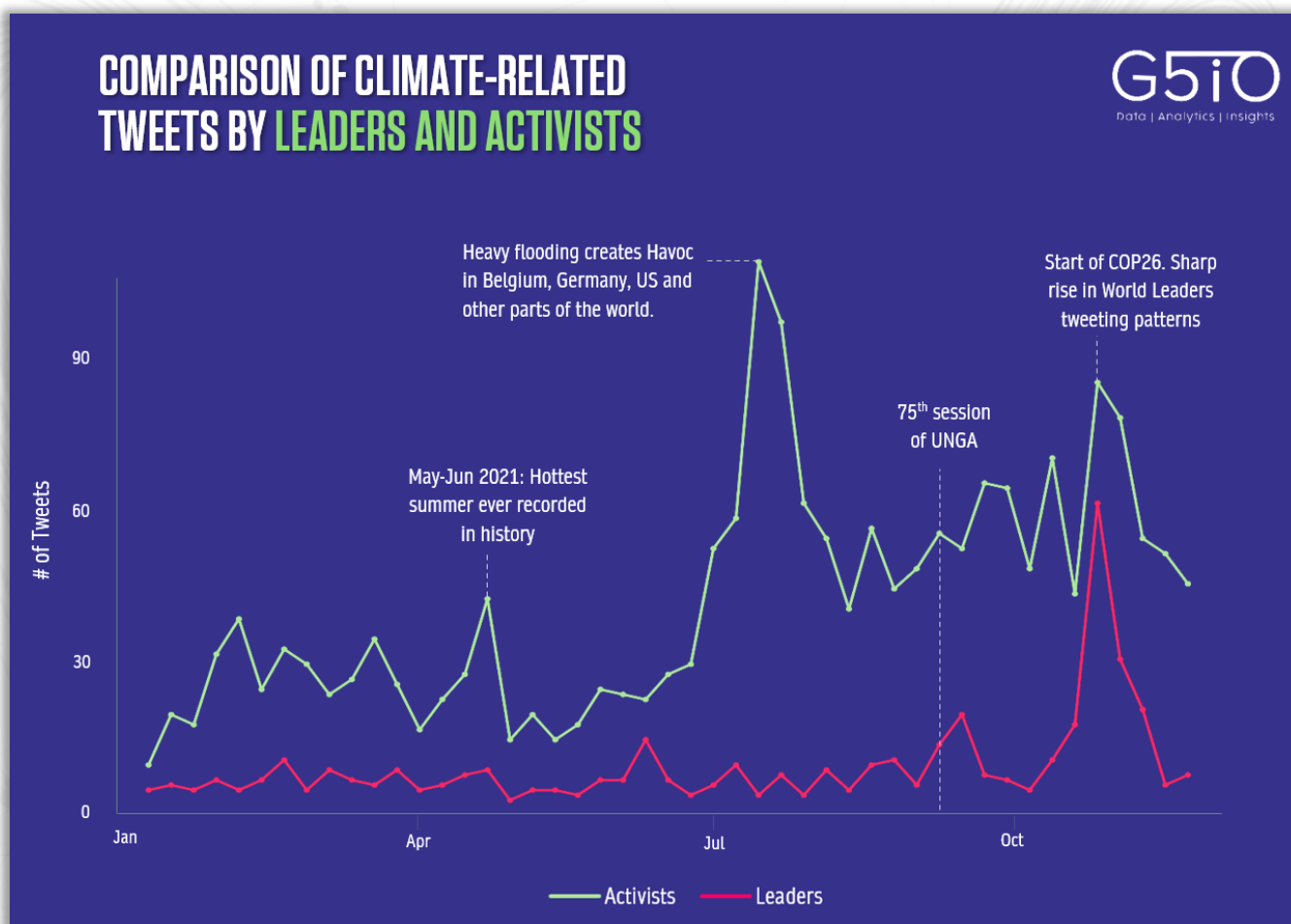
Top Mentioned People in #COP26

We also wanted to identify the most prominent public figures that had been associated with the climate change conference. The graph below shows the top 10 most tagged handles by social media users alongside #COP26. These included 7 world leaders, 2 UN officials and one climate change activist. Boris Johnson's was the most tagged twitter handle with over 2100 mentions followed by Greta Thunberg's.



Tweet Pattern of World Leaders and Climate Change Activists:

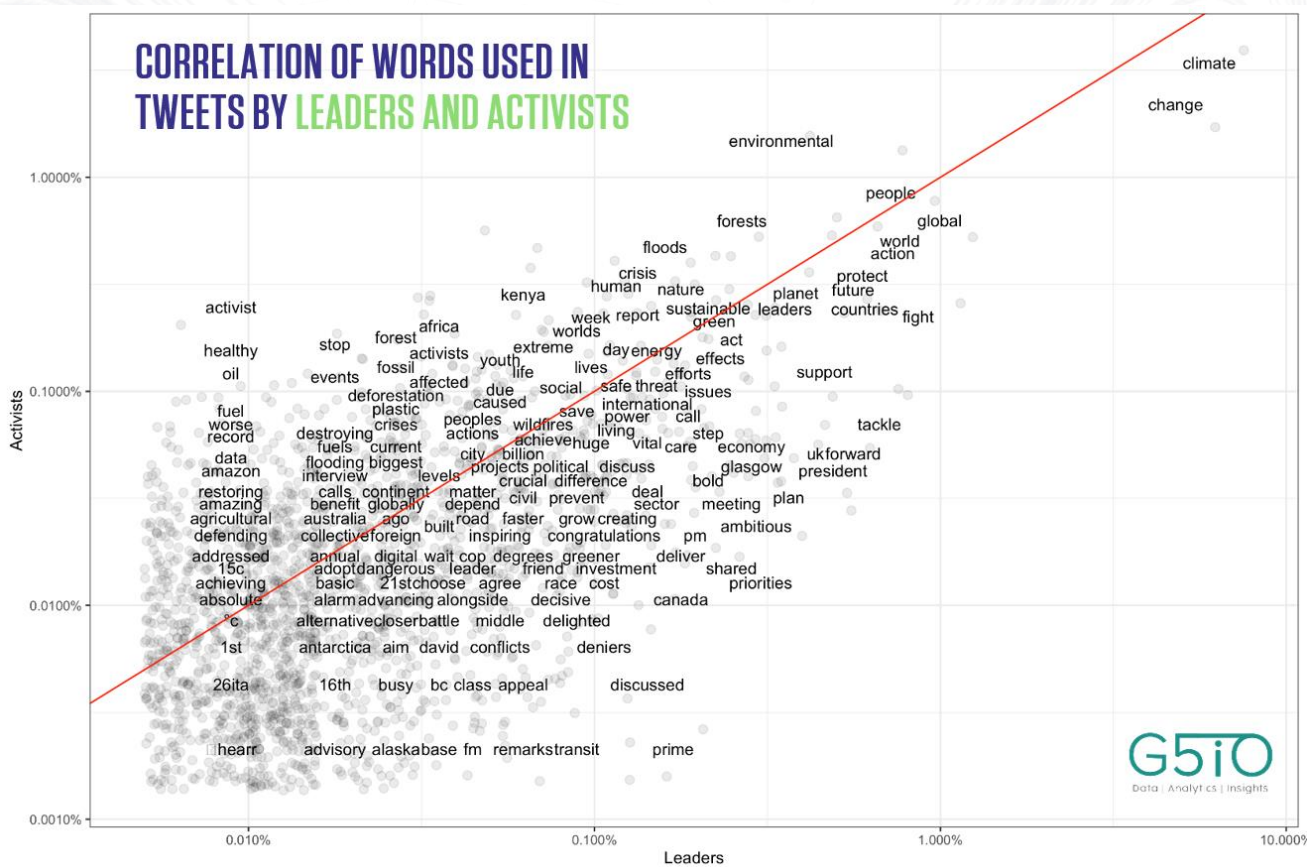
In addition to the online chatter around #COP26, we wanted to analyse how top mentioned world leaders and climate activists were talking about climate change before and during this important conference. For this purpose, we downloaded their twitter timelines from January 2021 leading up to COP26 and filtered out climate related tweets. Out of the 52703 tweets scraped from 20 accounts, a total of 3508 climate related tweets were found. Our results are depicted in the chart below which shows the frequency of tweets by world leaders and climate activists specifically on climate change during this period.



As expected our chart shows that climate activists tweet more often about climate change than world leaders. The tweet frequency of climate activists saw a sharp increase in July owing to the devastating floods in Germany, Belgium and the US which claimed hundreds of lives as an outcome of hottest summer recorded in history. Interestingly, world leaders only posted climate related tweets once the COP26 started which shows that their tweet pattern on climate change is more event based rather than a consistent priority.

Correlation of Words:

Diving deeper, we wanted to see which key issues world leaders and climate activists talk about the most while discussing climate change. Specifically, the similarities and differences in their approach towards this issue. The following graph shows that while both climate activists and world leaders talk about ‘people’, ‘climate change’ and a ‘sustainable future’, they diverge in their suggestions on how to tackle the issue as a whole.

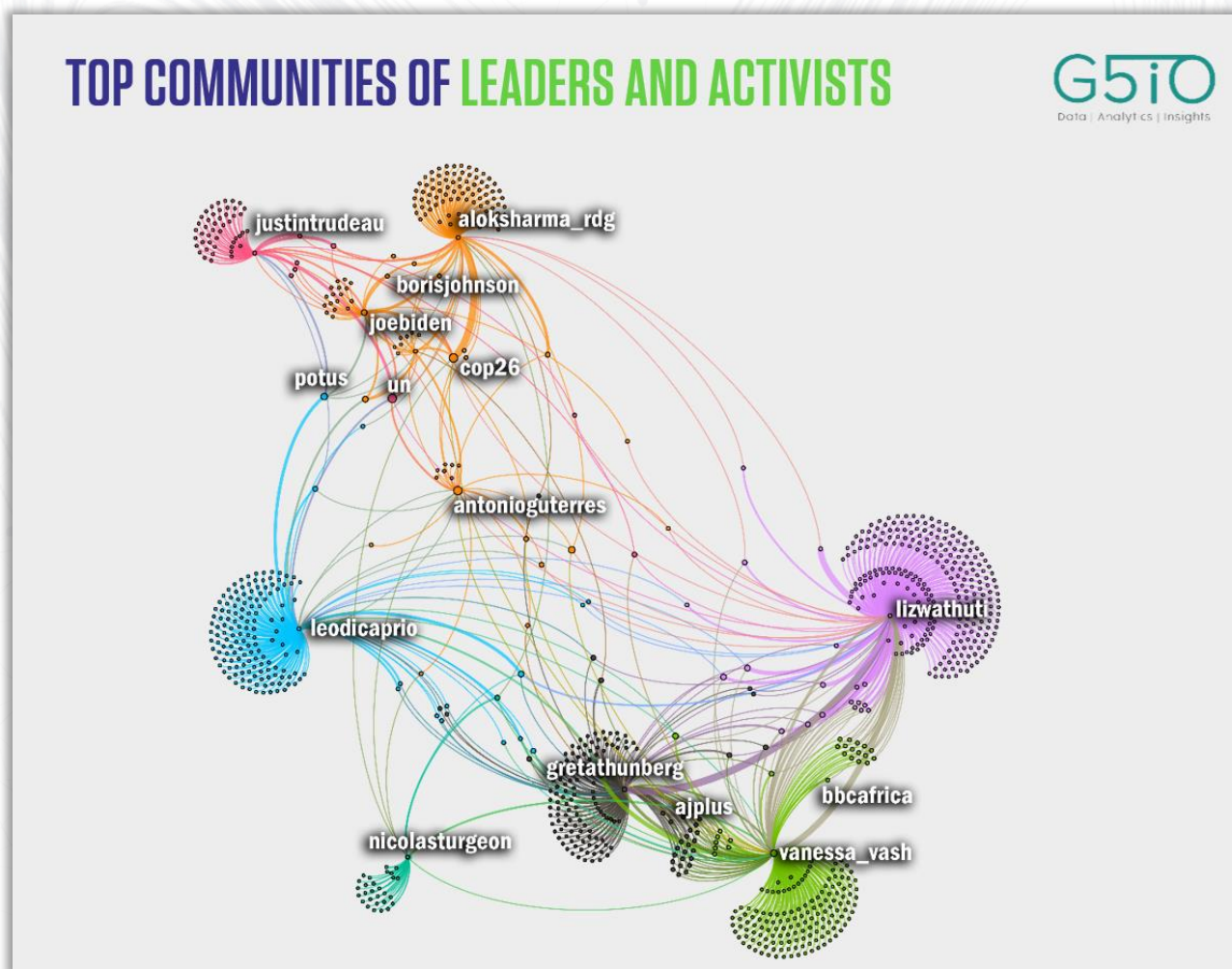


For example, climate activists more emphatically highlight issues related to ‘oil’, ‘fossil fuels’ and ‘deforestation.’ Whereas world leaders are more focused on highlighting ‘conflicts’, the ‘economy’, ‘investments’, and ‘differences’ when discussing climate change. Therefore, while both climate activists’ and world leaders’ statements may converge on the impact and detrimental effects of climate change, their statements diverge regarding the root causes and resulting policy interventions required to combat climate change.

Twitter Communities of World Leaders and Climate Activists

After analyzing the tweet patterns of world leaders and climate activists, we wanted to also see how these opinion makers on social media push content related to climate change. For this purpose, we looked at the unique communities of world leaders and activists that have formed online. This was based on their tweeting activities as well as the number of retweets and mentions they get on their posted tweets.

The following network graph shows that world leaders and climate activists barely interact with each other on climate related issues. Meaning that most world leaders are not directly linked with climate activism on social media. In contrast, the online network formed of climate activists is much more correlated, interactive, and reciprocated since they frequently share each other's tweets and ideas. Notable celebrities however maintain their own community such as the case of Leonardo DiCaprio. His community, based on both retweets and mentions, comprises largely of followers interacting with his climate related tweets. As such DiCaprio can be seen acting as an important bridge between the (follower) communities of activists and world leaders, thus showing considerable influence.



Conclusion

Platforms such as the COP26 are meant to bring together a diverse set of stakeholders comprising world leaders and activists to help foster a pragmatic approach to tackle climate change. However, our data shows that not only do climate activists and world leaders publicly diverge in their opinions as to the root causes of climate change, but also remain limited to their respective communities of followers – thus, constraining them from promoting their stances beyond their core audiences.

Authors



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