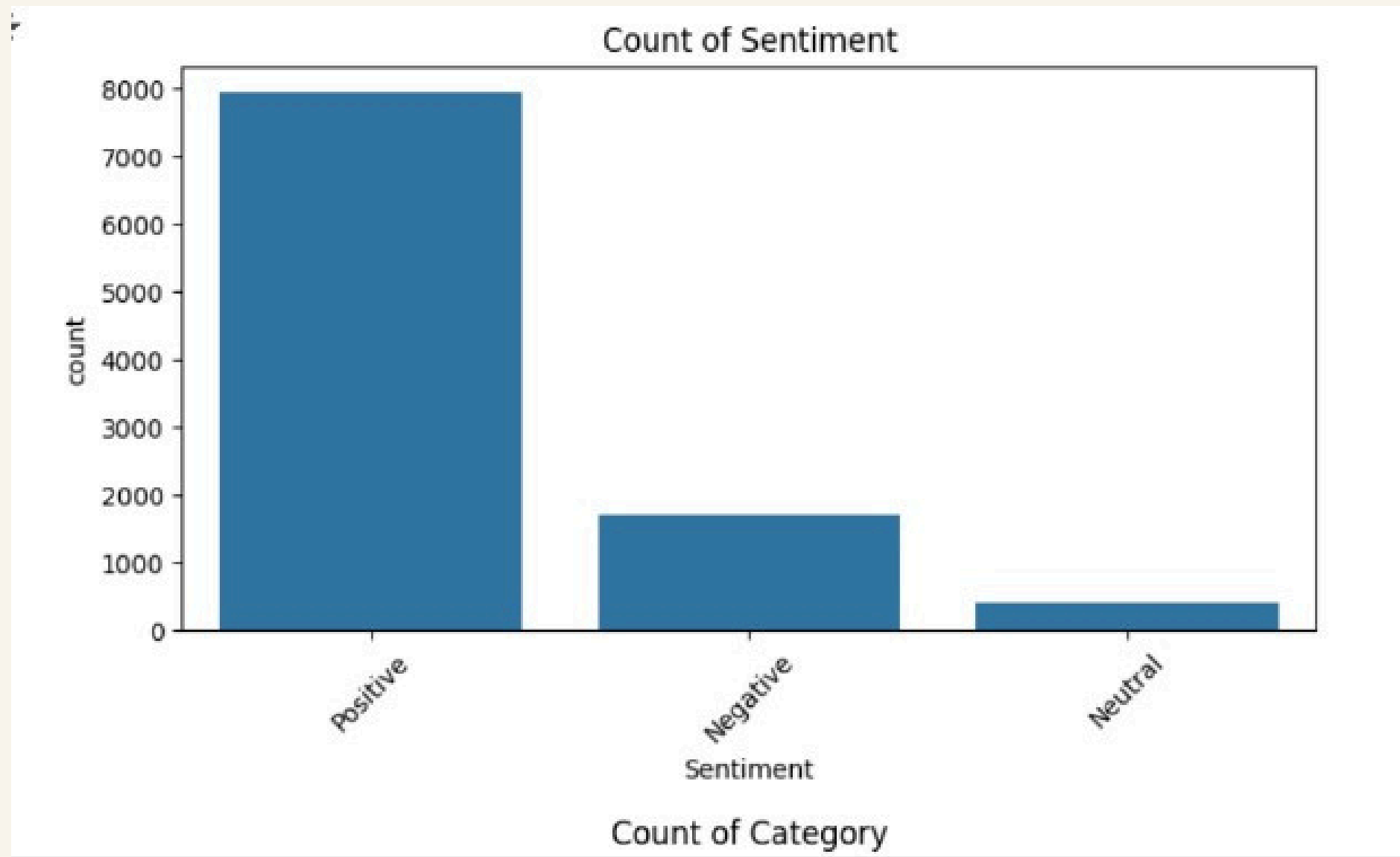




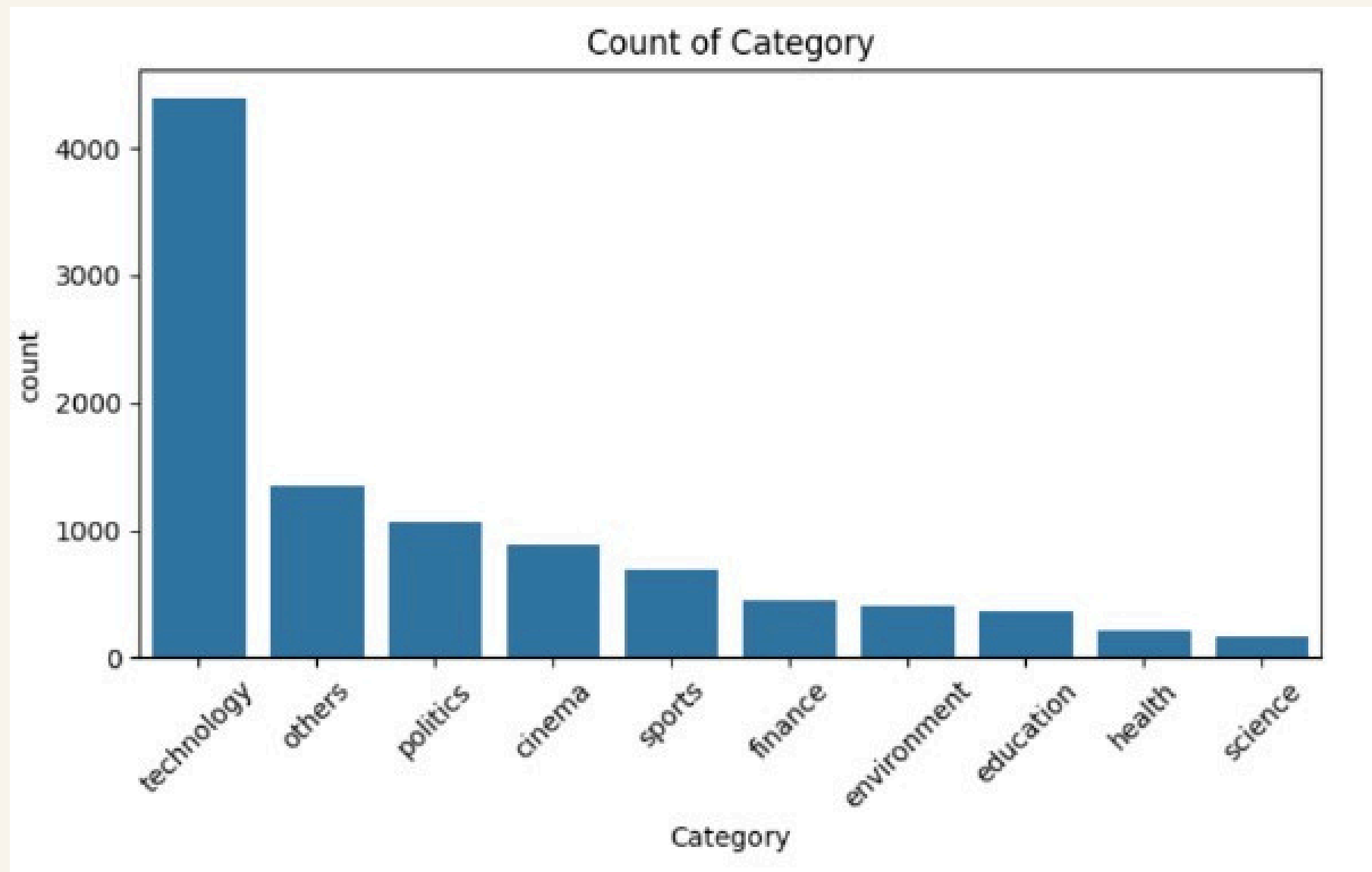
TREND ANALYSIS

by : Jasvant Panigrahi



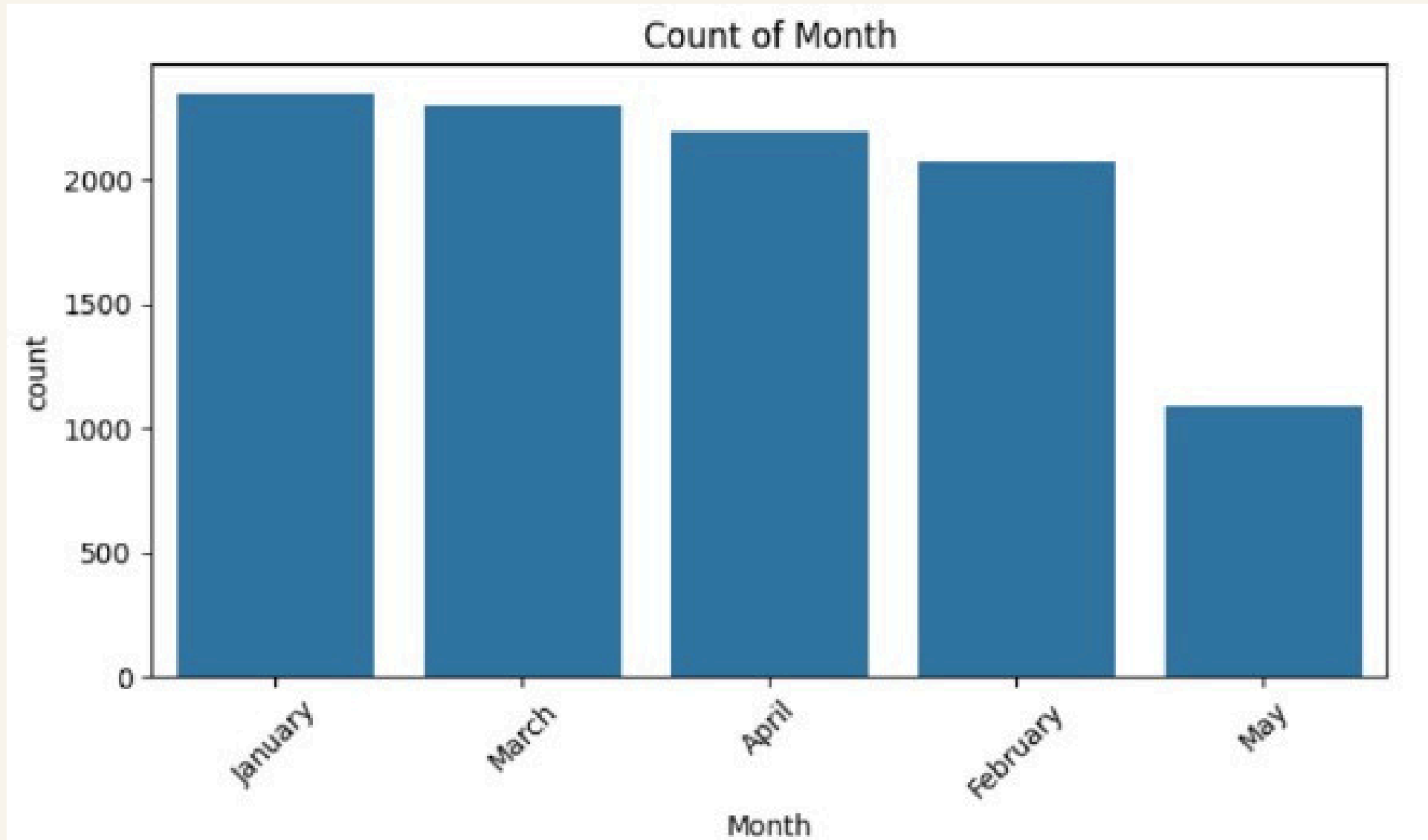
1. What causes the number of positive tweets to be higher than negative or neutral ones, and how does this reflect on human social behavior?

Most tweets are positive because users often prefer to share achievements, celebrations, and happy moments on social media. Positivity tends to attract more likes, retweets, and engagement. Brands and influencers also focus on positive messaging to maintain a strong public image and build trust. Additionally, social media algorithms favor positive content, helping it reach wider audiences. As a result, users are more encouraged to post positive updates.



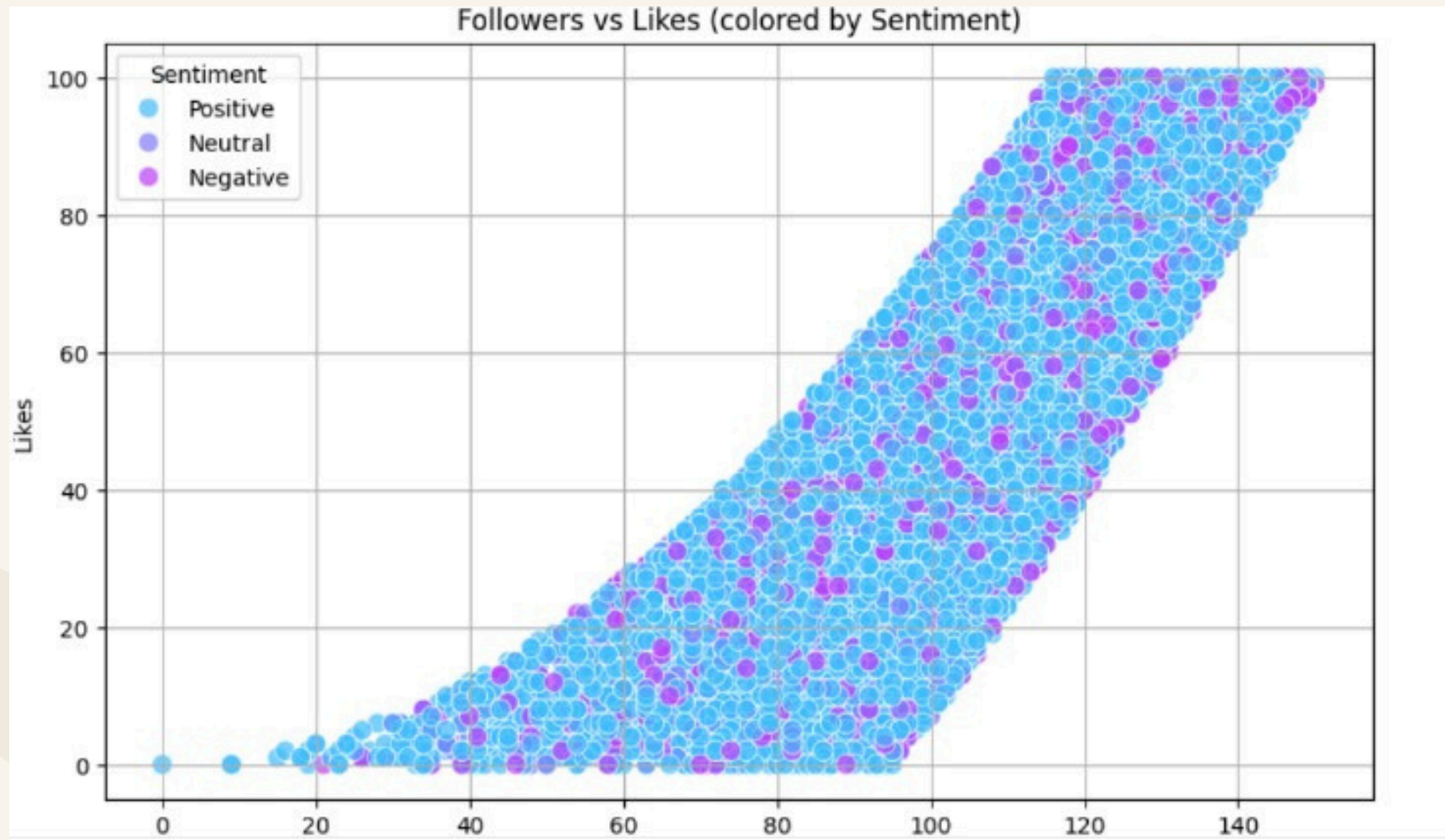
2. What could be the reasons behind the technology category having a higher volume of tweets compared to politics, cinema, health, sports, finance, education, and environment?

Negative tweets often express strong emotions like frustration, outrage, or criticism, which capture attention quickly. These tweets may resonate with more users, leading to higher engagement in the form of likes, comments, or retweets. They can also provoke discussions or spark debates. In some cases, negativity reflects social issues or concerns that users feel compelled to support or react to, making them more interactive.



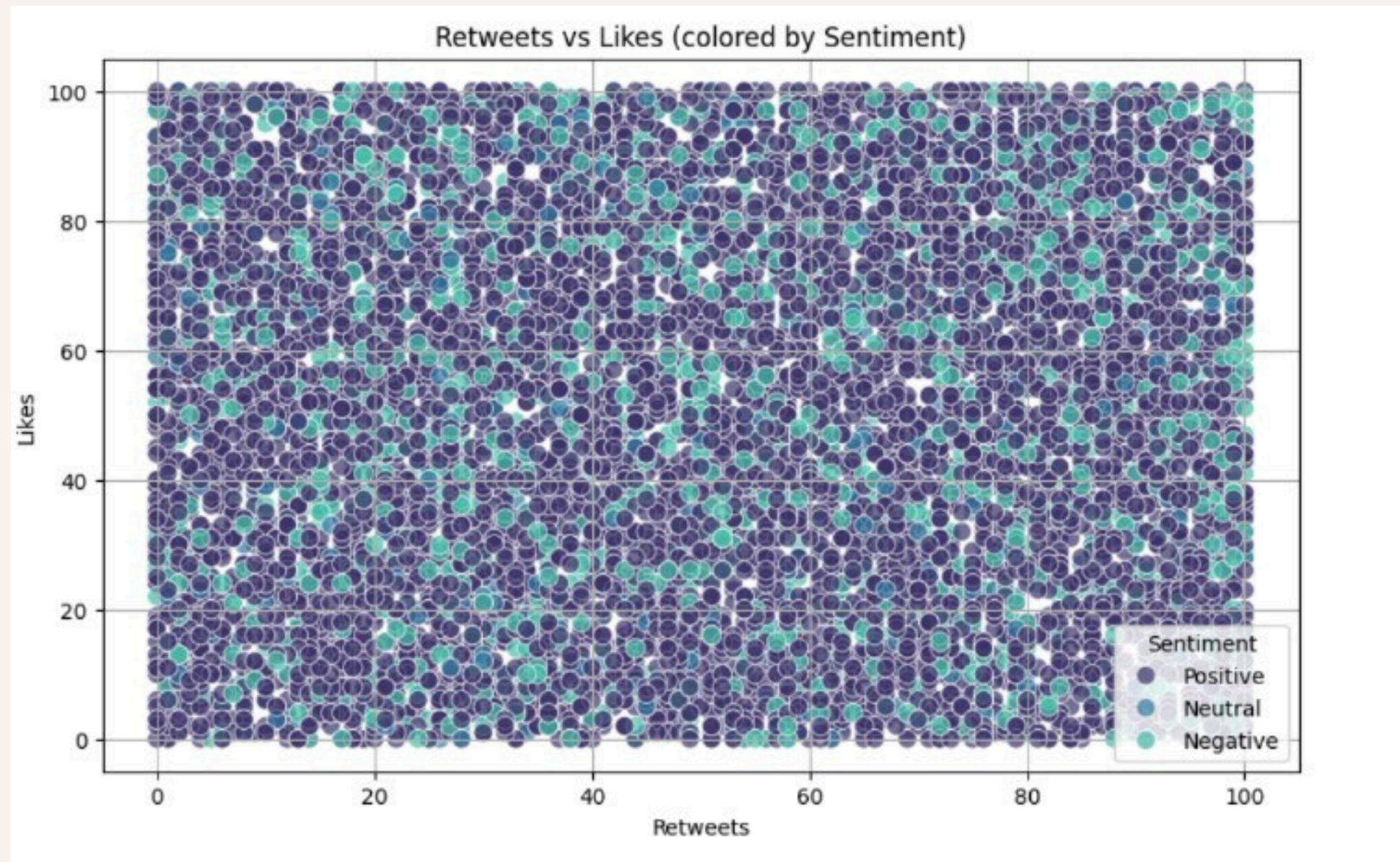
3. Why are there more tweets in the month of January compared to other months?

Hashtags like #help often involve community support, social causes, or acts of kindness, which naturally generate positive responses and sentiments. Similarly, #scene may be used in contexts like movies, music, or fun moments that carry joyful or entertaining content. The purpose and emotional tone behind a hashtag play a major role in how it is perceived, and positive intent generally results in higher sentiment scores.



4. Does popularity(followers/likes) shape the emotional tone of tweets for example, do highly followed accounts avoid negativity?

Technology-related tweets often focus on new innovations, product launches, tech tips, or success stories. These are usually shared with enthusiasm and optimism. Moreover, tech influencers and companies actively share curated content that reflects a positive brand image. Since the audience for technology is often future-focused and inspired by progress, the overall sentiment in this category stays highly positive.



Politics is a highly opinionated and polarizing topic, often involving criticism, protests, and controversial debates. Similarly, health-related tweets may talk about diseases, healthcare issues, or personal struggles. Both categories deal with real-world challenges that evoke strong emotions. As a result, the tone of conversation is more serious or negative compared to lighter categories like entertainment or sports.

5. Why are negative tweets retweeted more than positive or neutral ones?

| Likes | |
|-----------|-----------|
| Sentiment | |
| Negative | 51.246730 |
| Neutral | 49.096354 |
| Positive | 49.690320 |

6. Why negative tweets have more likes than neutral or positive ?

What the Table Shows:

Average Likes per Sentiment:

Negative: 51.25

Positive: 49.69

Neutral: 49.09

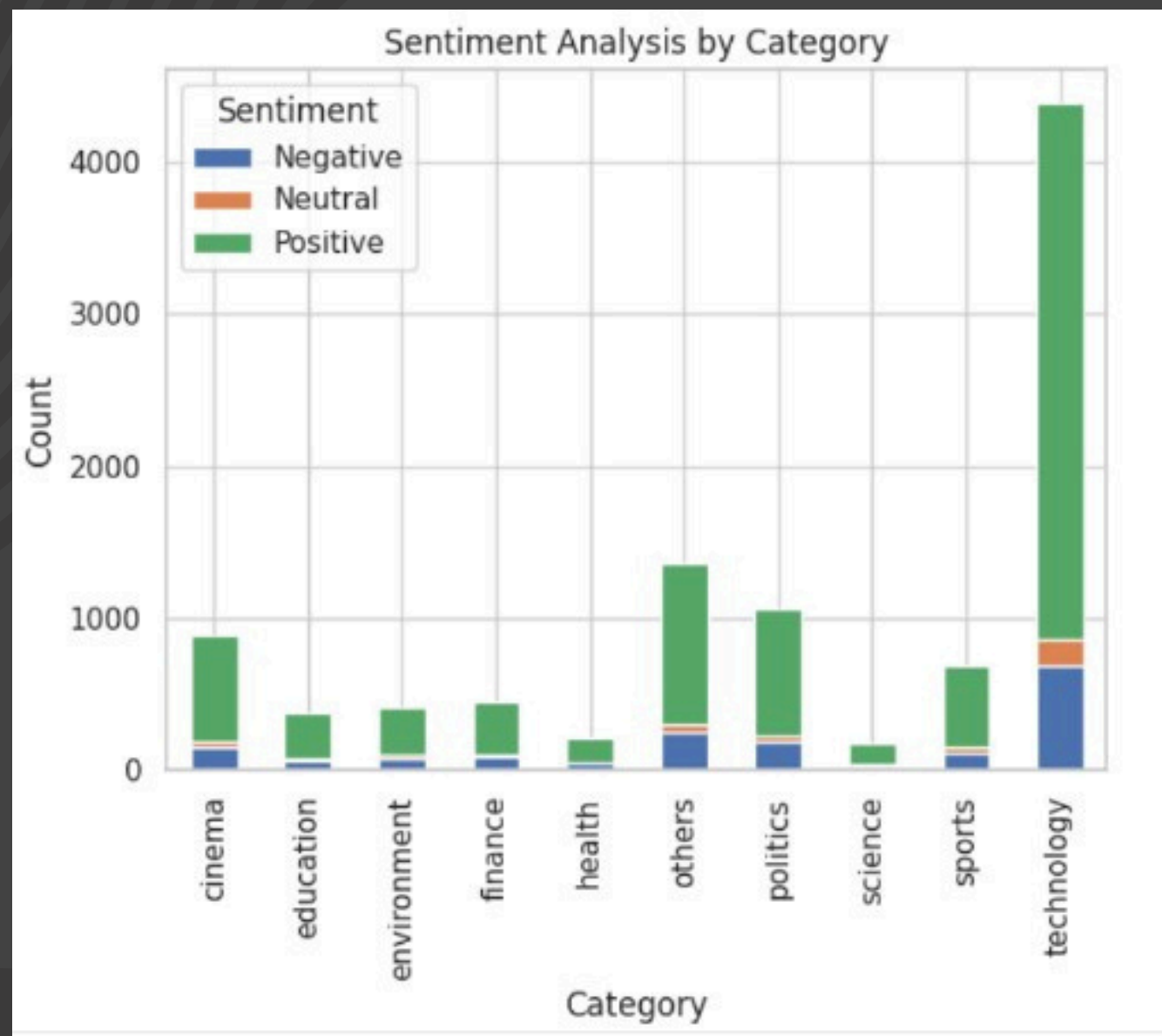
Despite being fewer in number, negative tweets receive the highest average likes, slightly more than positive or neutral ones.

The high positivity in the technology category likely reflects a mix of genuine optimism and strategically curated online behavior. On one hand, innovation in tech excites people and brings hope, which is reflected in the tweets. On the other hand, tech companies and influencers carefully design their posts to maintain a positive reputation, boost engagement, and attract customers or followers. So, while optimism is real, it's also partly shaped by marketing strategies.

Insight:

Although positive tweets are more frequent, negative tweets leave a stronger emotional impression.

This leads to higher average likes, even if the tweet volume is lower.

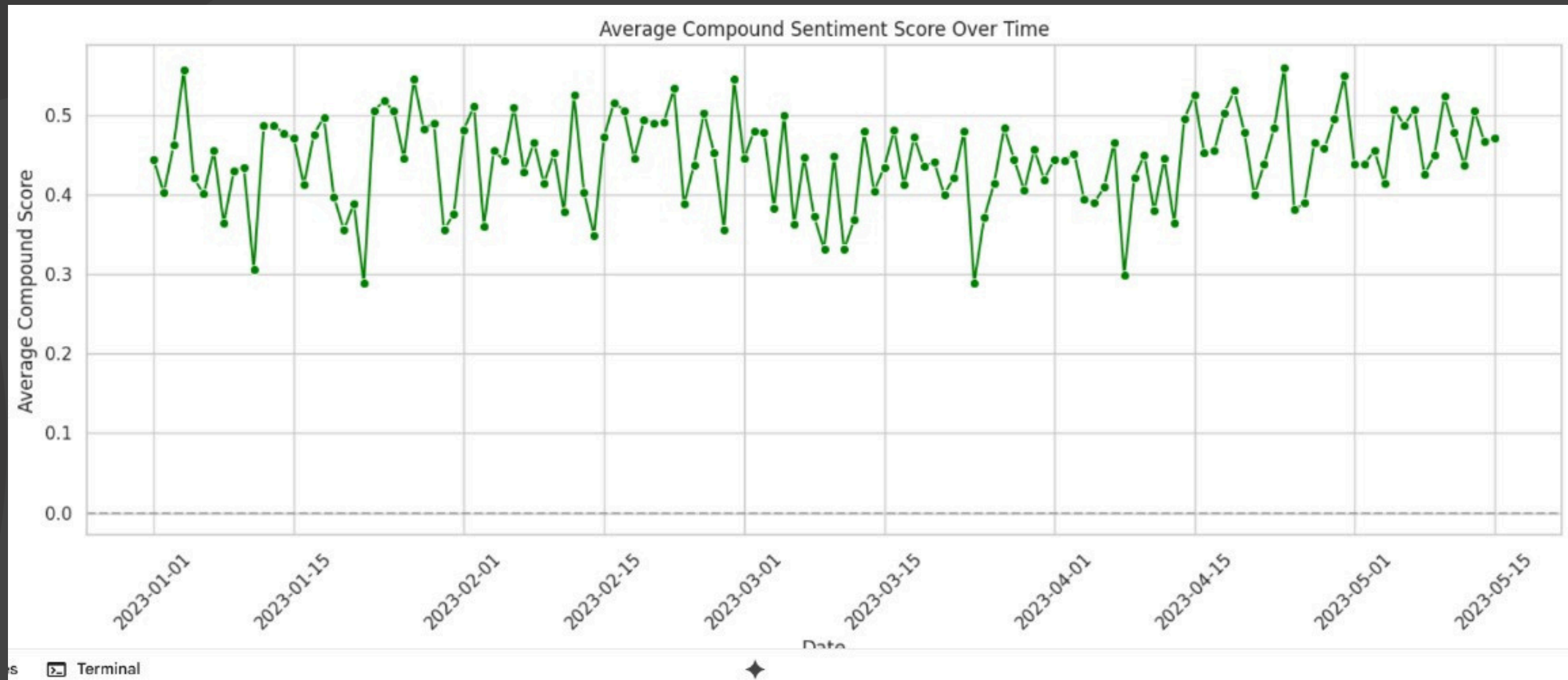


Fluctuations in average sentiment happen due to real-time events, trending topics, or breaking news. For instance, a political controversy, celebrity incident, or health crisis can trigger sudden emotional shifts online. These events temporarily affect user mood and sentiment, even if the long-term average stays stable. The chart reflects how Twitter reacts dynamically to what's happening in the world, while still maintaining an overall positive tone.

Insight : -

The high positivity in the technology category likely reflects a mix of genuine innovation enthusiasm and intentional reputation management by tech stakeholders.

7. Does the high positivity in technology reflect real innovation optimism or curated online behavior by tech influencers and brands?

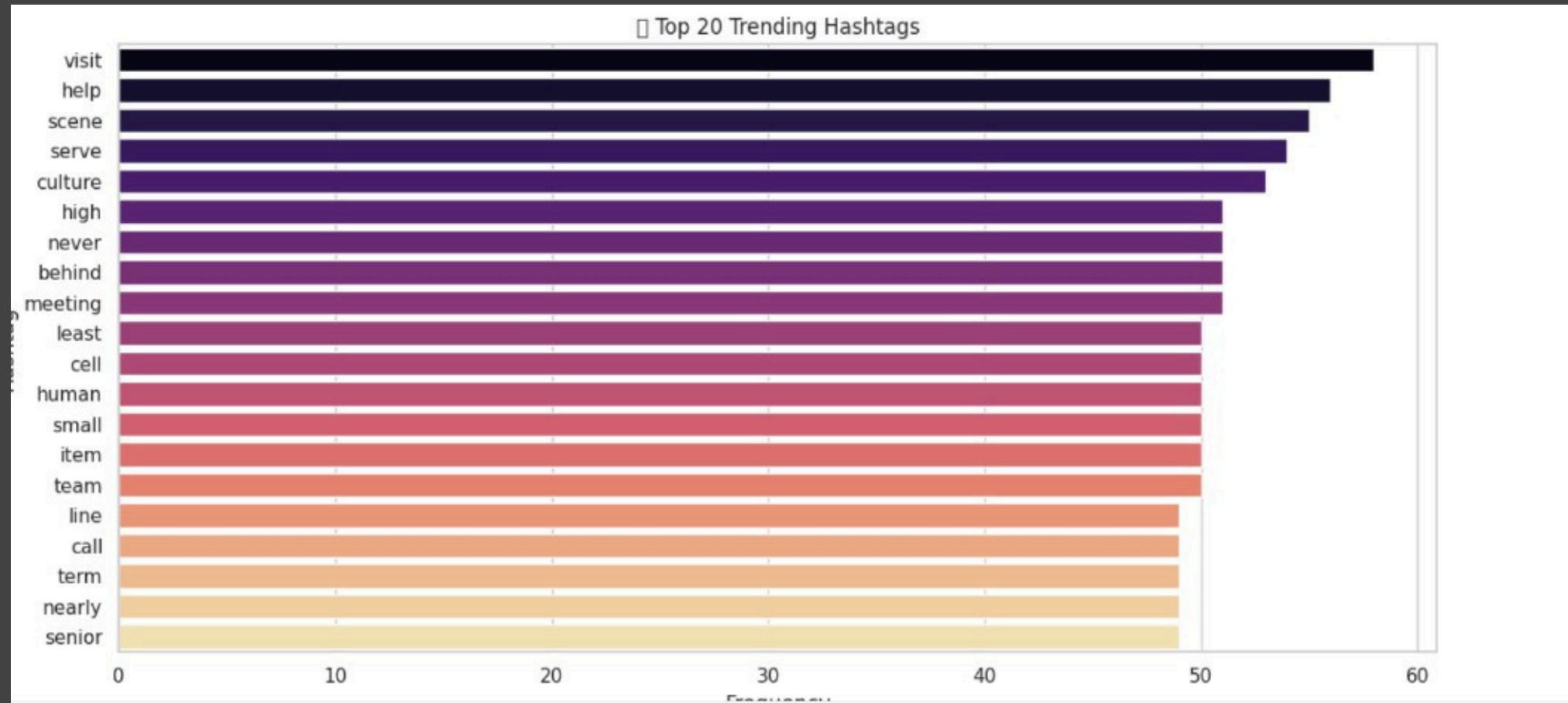


8. What causes fluctuations in average sentiment over time, despite the overall score staying mostly positive?

Yes, sentiment score plays a significant role in the trend of a hashtag. Hashtags associated with strong positive or negative emotions tend to attract more engagement, making them more likely to trend. Positive sentiments encourage users to join the trend by sharing or celebrating, while negative sentiments spark discussions and awareness. Emotionally charged hashtags – whether happy, supportive, or critical – usually gain more traction than neutral ones.

Insight : –

Even if the overall mood is positive, user sentiment naturally fluctuates due to timely triggers, emotional intensity, or public discourse on current issues.



9. Does sentiment score affect the trend of a hashtag?

Sentiment adds depth to trend analysis by revealing public emotions behind what's trending. It's not just about what is being talked about, but how people feel about it. Whether it's excitement for a tech product or frustration over a political issue, sentiment helps analysts, brands, and policymakers understand audience reactions. This insight is useful for shaping marketing strategies, product feedback, public opinion tracking, or crisis management.

Insight : –

Yes, sentiment score strongly influences hashtag trends.

Hashtags that evoke emotion, drive advocacy, or trigger community reactions are more likely to gain momentum and trend.

THANK YOU