11-2022

Hate Speech Spikes on Twitter After Elon Musk Acquires the Platform

Bond Benton
Montclair State University, bentonb@mail.montclair.edu

Jin-A Choi
Montclair State University, choij@mail.montclair.edu

Yi Luo
Montclair State University, luoy@mail.montclair.edu

Keith Green
Montclair State University, greenk@mail.montclair.edu

Hate Speech Spikes on Twitter After Elon Musk Acquires the Platform

Researchers

Dr. Bond Benton

Dr. Jin- A Choi

Dr. Yi Luo

Keith Green

Overview and Research Focus

Unmoderated social media platforms frequently become a haven for misinformation, extremism, and hate. There are challenges unique to unmoderated social media platforms that make the removal of such content and the users who spread it particularly difficult (Artime et al., 2020). When a platform's focus is unrestricted expression from users, those looking to share and spread antisocial content will presumably use such spaces to share perspectives that would likely be restricted on other platforms. Historically, examples of such "free speech absolutist" spaces suggest that this threat is very real. Specifically, 4chan serves as a space where online anonymity coupled with limited restrictions on speech has allowed virulent hate content to be shared without fear of platform response (Tuters & Hagen, 2020). 4chan has hosted a range of antisocial content including the call for the abuse of women (Milanović, 2021), hostility towards the trans community (Sparby, 2017), aggressive antisemitism (Tuters & Hagen 2020), and white nationalism (Thorleifsson, 2022). Other less moderated online spaces emphasizing open exchange have produced similar results (Urman & Katz, 2022).

When Billionaire Elon Musk indicated an interest in purchasing Twitter, a primary rationale was the reduction in moderation on the platform (Reuters, 2022).

School of Communication and Media

Overview and Research Focus

Researchers

This sentiment towards a broader acceptance of content proved appealing to a range of constituencies, including those who had been banned or sanctioned by the platform for COVID misinformation, deniers of the 2020 election outcome, QAnon believers, white nationalists, and others supporting extremist stances.

Musk's acquisition of the platform was viewed as an opportunity for reintegration into the dominant discussions on Twitter and as a chance to share less stringently moderated content without fear of platform restrictions (Mason, 2022). While Musk taking over as owner and CEO of Twitter went over a fairly circuitous and uncertain path, his position was formalized on October 28, 2022. Notably, Musk has removed key employees from the organization promising to remove more with an eye towards prevention of the platform becoming "too woke" (Warzel, 2022).

The character of what Twitter will look like with Musk as the head remains speculative, despite his stated intentions. What is not speculative, however, is the extent to which his date of formal acquisition was celebrated by racist and extremist users on the platform. With that in mind, this research examines two key questions.

Dr. Bond Benton

Dr. Jin- A Choi

Dr. Yi Luo

Keith Green

School of Communication and Media

Overview and Research Focus

RQ1: Did Musk's acquisition of Twitter correlate to an immediate spike in the use of identified epithets directed at marginalized groups?

RQ2: How many posted items on Twitter made use of these terms in the period after Musk's acquisition?

Researchers

Dr. Bond Benton

Dr. Jin- A Choi

Dr. Yi Luo

Keith Green

School of Communication and Media

Hate Speech Spikes on Twitter After Elon Musk Acquires the Platform

Method

To answer these questions, this research aggregated seven-day (i.e., October 22 - October 28, 2022) Twitter data collected from the Tweetbinder analytics program. Specifically, a range of terms (e.g., "n-word," "k-word," "f-word," etc.) were examined to see if frequency of use increased in correlation to the change in ownership and stated platform focus. These terms included are vulgar and hostile towards individuals based on race, religion, ethnicity, and orientation. Collection of the totality of Tweets using these words in the period immediately before and after Musk's acquisition was done to assess both frequency and the rate with which this content was posted. Tweetbinder's sentiment analysis tool, which measures positive or negative tone in Tweets, was utilized to assess potential hostility in the collected data.
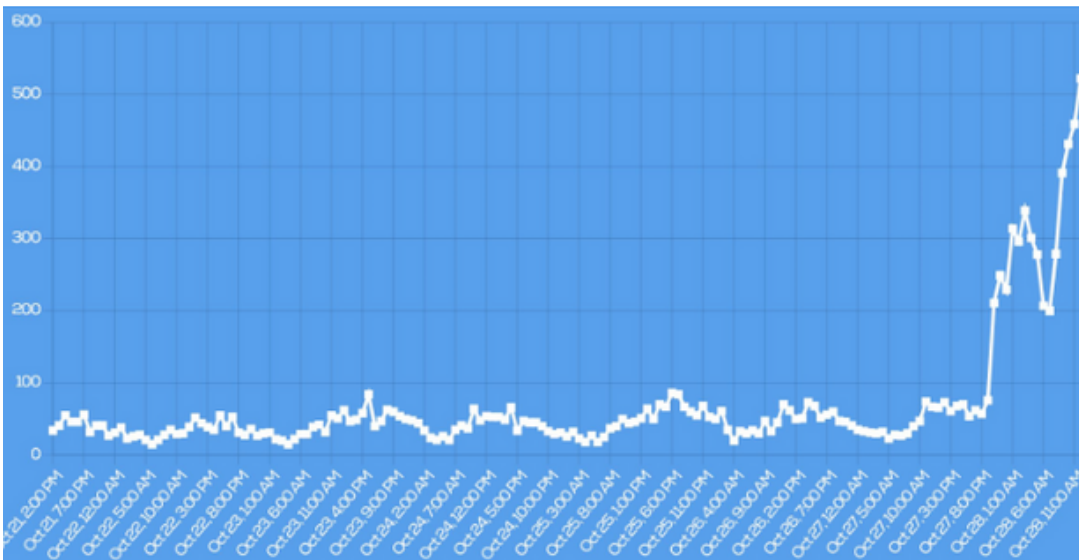
Researchers

Dr. Bond Benton

Dr. Jin- A Choi

Dr. Yi Luo

Keith Green

School of Communication and Media

Results

Results conclusively showed that there was an immediate spike in Tweets using one or more of the analyzed hate terms in the period leading up to Musk taking over the company.

Specifically, the seven-day average of Tweets using a specific hate term prior to Musk's acquisition was never higher than 84 times per hour. From midnight on October 28 to 12 noon, however, the number Tweeted jumped to some 4,778 times. Calculation of potential reach (i.e., the potential number of times a term posted in Twitter could have been viewed) was in excess of three million. As such, this research suggests that there was an immediate, visible, and measurable spike on Twitter after Musk took over as CEO.

Researchers

Dr. Bond Benton

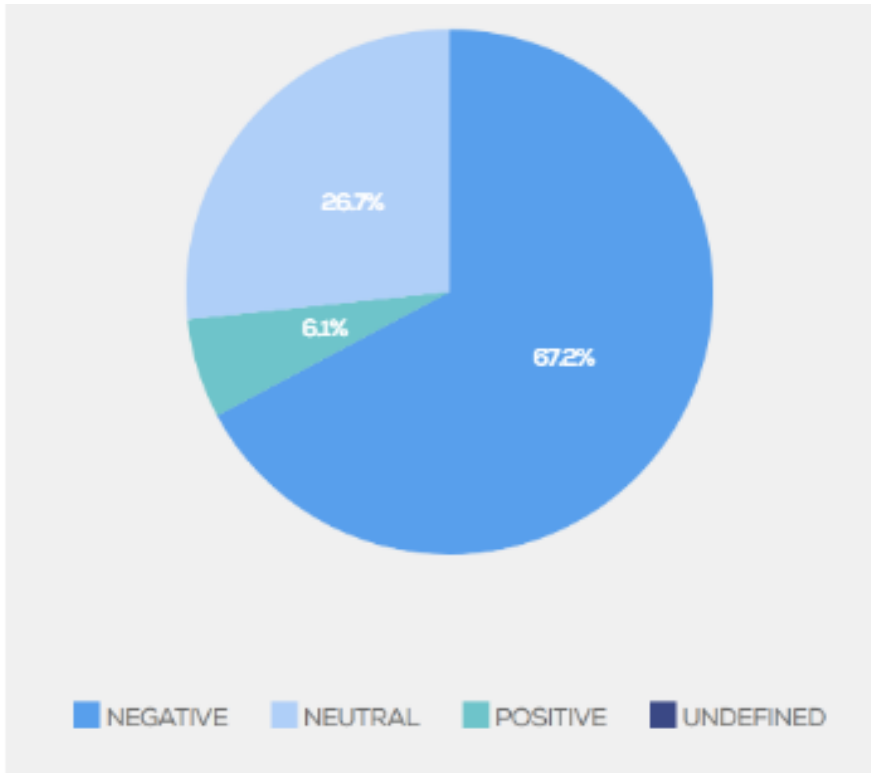

Dr. Jin- A Choi

Dr. Yi Luo

Keith Green

School of Communication and Media

Results

Sentiment analysis validated numeric assessment, with 67.2 percent of tweets using these terms found to have a negative tone surrounding the use of hate terms.

The trendline on sentiment analysis also spiked for all hate terms studied, with negative sentiment increasing almost immediately on October 28.
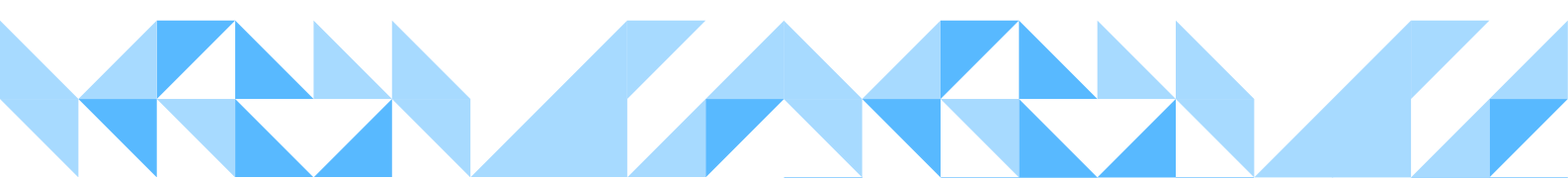
Researchers

Dr. Bond Benton

Dr. Jin- A Choi

Dr. Yi Luo

Keith Green

School of Communication and Media

Results
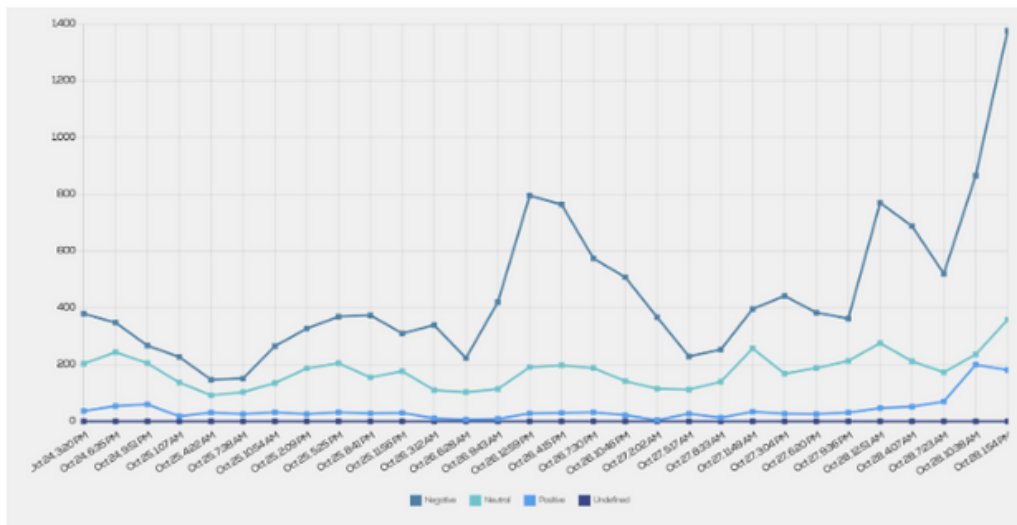
In sum, the content and tone of Twitter posts became measurably more oriented towards hate speech on the day Elon Musk became CEO of the company with significant reach attained for this hate content.
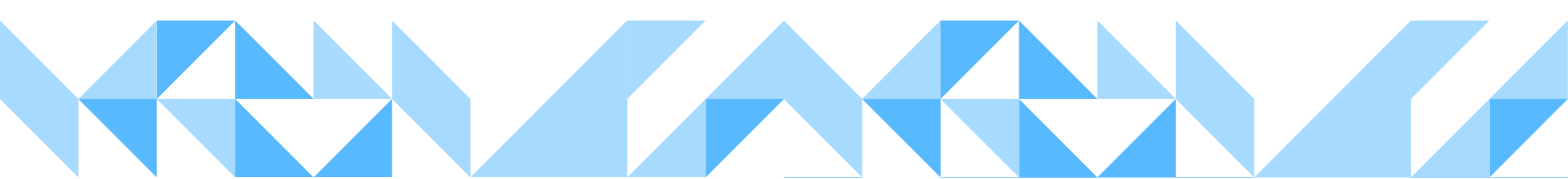
Researchers

Dr. Bond Benton

Dr. Jin- A Choi

Dr. Yi Luo

Keith Green

School of Communication and Media

Discussion

It would be speculative to assess whether there were policy or potential policy changes related to Musk that may have caused this spike in use of the studied hateful terms. It is possible that users assumed that language use that could potentially cause a ban or suspension on the platform in the past was no longer a concern. Additionally, anticipation of an unmoderated platform was potentially a source of excitement for certain Twitter users. By sharing epithets, it suggests that certain users were celebrating a reduction in perceived speech constraints on the platform. Regardless, the data conclusively shows that there is correlation between Musk's arrival and a broader perceived acceptability to posted hostile content on Twitter.

Future research should continue to monitor Twitter to see if reduced moderation was actually a policy focus of Musk or, rather, a branding attempt to appeal to users who want to participate in a more rebellious social media space. Should moderation reduction actually be a focus of "new" Twitter? It is also important to assess the extent to which other forms of misinformation spread more readily across the platform. For instance, when COVID-19 misinformation was found to be widespread on Twitter, the platform took steps to address the dissemination of such content (Broniatowski et al., 2022).

Researchers

Dr. Bond Benton

Dr. Jin- A Choi

Dr. Yi Luo

Keith Green

School of Communication and Media

Discussion

Ongoing evaluation of Twitter's response (or lack of response) to health related misinformation should remain an important research focus for practitioners, advocates, and academics. Most importantly, however, research should focus on continued evaluation of unmoderated social media on young people. The rebellious nature of social media that enables "free" sharing of ideas may prove appealing to youth. The dangers of such an appeal in radicalizing children and spreading misinformation to an audience still learning key critical thinking skills remain acute. The role Twitter will play in this crucial element of society requires vigilance.

Researchers

Dr. Bond Benton

Dr. Jin- A Choi

Dr. Yi Luo

Keith Green

School of Communication and Media

Works Cited

Artime, Oriol, Valeria d'Andrea, Riccardo Gallotti, Pier Luigi Sacco, and Manlio De Domenico. 2020. "Effectiveness of Dismantling Strategies on Moderated vs. Unmoderated Online Social Platforms." Scientific Reports 10 (1): 14392.

Broniatowski, David A., Daniel Kerchner, Fouzia Farooq, Xiaolei Huang, Amelia M. Jamison, Mark Dredze, Sandra Crouse Quinn, and John W. Ayers. 2022. "Twitter and Facebook Posts about COVID-19 Are Less Likely to Spread Misinformation Compared to Other Health Topics." PloS One 17 (1): e0261768.

Grieser, Jessica A. 2019. "Toward Understanding The N-Words." American Speech 94 (4): 409–19.

Mason, Melanie. 2022. "Conservatives Are Ecstatic about Elon Musk's Twitter Deal." Los Angeles Times, April 26, 2022. https://www.latimes.com/politics/story/2022-04-25/conservatives-elon-musk-twitter.

Milanović, Boris. 2021. "'To Conclude, Women Are a Mistake'1—A Study of Serbian User Discourse on 4Chan's /Pol/ Board on Women within Political Ideology." Nationalism & Ethnic Politics 27 (2): 193–212.

Researchers

Dr. Bond Benton

Dr. Jin- A Choi

Dr. Yi Luo

Keith Green

School of Communication and Media

Hate Speech Spikes on Twitter After Elon Musk Acquires the Platform

Researchers

Works Cited

Reuters. 2022. "As Elon Musk Takes over Twitter, Free Speech Limits Tested,"

October 28, 2022. https://www.reuters.com/technology/elon-musk-takes-over-

twitter-free-speech-limits-tested-2022-10-28/.

Sparby, Erika M. 2017. "Digital Social Media and Aggression: Memetic Rhetoric

in 4chan's Collective Identity." Computers and Composition 45 (September): 85–

97.

Thorleifsson, Cathrine. 2022. "From Cyberfascism to Terrorism: On 4chan/Pol/

Culture and the Transnational Production of Memetic Violence." Nations and

Nationalism 28 (1): 286–301.

Tuters, Marc, and Sal Hagen. 2020. "(((They))) Rule: Memetic Antagonism and

Nebulous Othering on 4chan." New Media & Society 22 (12): 2218–37.

Urman, Aleksandra, and Stefan Katz. 2022. "What They Do in the Shadows:

Examining the Far-Right Networks on Telegram." Information, Communication

and Society 25 (7): 904–23.

Warzel, Charlie. 2022. "How Elon Musk Could Actually Kill Twitter." The Atlantic,

October 27, 2022.

https://www.theatlantic.com/technology/archive/2022/10/elon-musk-twitter-

nightmare-scenarios/671906/.

Dr. Bond Benton

Dr. Jin- A Choi

Dr. Yi Luo

Keith Green

School of Communication and Media