

Antisemitic Hate Groups: Associated Narratives, Entities, Infrastructures, Sentiments, and Emotions

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Abstract. Antisemitic incidents are on the rise in the United States. Some academic studies suggest it may be fueled in part by hate-filled rhetoric on social media [1] [2]. To examine this hypothesis, we conducted analysis on two extremist groups, which we anonymize as hate group 1 (HG1) and hate group 2 (HG2). Using social media data, we analyzed content around keywords frequently used by both hate groups to identify narratives, entities, and enabling technical infrastructure. We also leveraged advanced sentiment and emotion detection language models to identify extreme posters and key influencers. Emotions in the keyword content were compared to prior lone-actor terrorist manifestos to identify emotional patterns and commonalities. Our advanced sentiment analysis model and emotion analytics model found at least one match – an individual / moniker who conveyed both extreme negative sentiment and an emotional signature found in prior lone actor terrorist manifestos. This paper introduces a methodology (combining both enhanced sentiment and emotion detection language models) that, with further research, may potentially assist law enforcement in identifying potential online threat actors before they commit offline violent acts.

Keywords: antisemitism, social media, sentiment, emotion, manifesto, mass-shooting, artificial intelligence

1. Introduction

Antisemitism is becoming more prevalent in American society according to several US government agencies and nonprofits that track incidents [1] [2] [3]. Since the 2018 mass shooting at the Tree of Life Synagogue in Pittsburgh, there have been at least four other violent attacks at Jewish gathering places in the United States [1]. Federal Bureau of Investigation Director Wray remarked in 2022 that 63% of religious hate crimes are motivated by antisemitism [3]. The Anti-Defamation League (ADL) identified 3,697 antisemitic incidents in 2022, a 36% increase from 2021 [1]. Additionally, several recent mass shootings were committed by individuals who conveyed antisemitic rhetoric

online prior to their violent acts —such as the shooting at an Allen, Texas outlet mall (2023) and the massacre at a Buffalo, New York supermarket (2022) [3] [4] [5]. In response to this growing scourge, in May 2023, the Biden Administration issued the first-ever National Security Strategy to Counter Antisemitism [6].

Today’s digital information environment, specifically social media platforms, blogs, forums, podcasts, and encrypted channels, has exacerbated antisemitism and associated misinformation and disinformation [2]. Some research suggests hateful ideas expressed online, particularly from extremists, may lead to harmful offline actions [7]. We researched publicly-available data from 2022 to identify antisemitic narratives (topic bundles across social media platforms), entities (people, places, things mentioned, initiating, or amplifying narratives) and enabling technical infrastructure (URLs and domains) using queries developed to collect content surrounding keywords frequently used by two hate groups. Our team leveraged advanced sentiment and emotion detection models to identify extreme posters and key influencers. Lastly, we compared emotions in our queries against emotional signatures found in lone actor terrorist manifestos. This study provides insights into antisemitic behavior online and recommends more research applying both sentiment and emotion analytic models together to aid law enforcement’s ability to detect potential online antisemitic hate groups as well as other non-antisemitic hate groups and, more broadly, other online extremist threat actors.

1.1 Key Definitions

We adopt these terms and definitions: **Antisemitism:** “...a certain perception of Jews, which may be expressed as hatred toward Jews. Rhetorical and physical manifestations of antisemitism are directed toward Jewish or non-Jewish individuals and/or their property, toward Jewish community institutions and religious facilities” [8]. **Emotionality:** Volume of emotional conversation in written or spoken word, scored from 0-100%. **Hate Group 1 (HG1):** Represents an actual hate group that we have anonymized for the purposes of this paper. HG1 is a loose network of individuals connected by their virulent antisemitism. HG1 attracts antisemites and white supremacists [9]. **Great Replacement Theory:** Theory that immigrants and non-white people are replacing white people and that the elite or Jews organize and lead the effort [10]. **Intent:** Emotional activation and motivation toward action, scored from 0-100. **Moniker:** A name used online. **Hate Group 2 (HG2):** Represents an actual hate group that we have anonymized for the purposes of this paper. HG2 appropriates biblical Jewish heritage to claim an exclusive identity as the true chosen people of God and decry Jews as the impostors and thieves [11]. **Sentiment:** Structured or deliberate thought, opinion, or expression. **Synagogue of Satan:** Biblical term often mis-used by hate groups to associate Jews with the devil, that they are not real Jews, but instead liars and conspirators that control the world [12].

2. Methodology and Acknowledgement

Our mixed-methods research began with a contemporary literature review, online research, and subject matter expert interviews. Initial research activities, as well as anti-semitism's online pervasiveness, led us to scope research to two specific antisemitic hate groups. Information gleaned was converted into advanced contextual queries around keywords frequently used by the hate groups. Queries were ingested into technologies that illuminated online conversations across social media platforms, news, blogs, and forums, between January 1 and December 31, 2022. Data was extracted via social listening software, analyzed, and then run through enhanced sentiment and emotion analytics models. We compared emotion analytics for both hate groups against emotional signatures found within lone actor terrorist manifestos to identify commonalities that might indicate a propensity for offline violence. For brevity purposes, we are not including the contemporary literature view in this version of the paper. Lastly, for the safety of the authors, we do not disclose monikers, groups, and individuals in the paper.

2.1. Acknowledgement

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3. HG1 and HG2 Analysis

For brevity, we share only analysis of the top two narratives in 2022 based on engagement: HG1's top two narratives were: (1) *Social media users and news outlets amplified a prominent musician's claims on 16 October 2022 that "Jewish Zionists" control media and entertainment*. Interview clips spread across news and social media garnering both criticism and support from social media users. The narrative received 10,000+ interactions per post, cross-platform spread, and news media amplification. (2) *Social media users defend "Great Replacement" conspiracy theory after Buffalo*. In the wake of the Buffalo mass shooting, social media users amplified the "Great Replacement" conspiracy featured in the shooter's manifesto. The conspiracy became the focus of news and social media, many aimed at explaining its antisemitic roots. Great Replacement theory received over 420k mentions three days following the shooting. Posts defending the theory received 1,000+ interactions. These mentions increased 835% in 2022 as compared to the previous one-year period. For HG2, the top two narratives were: (1) *A social media platform representative made comments in February 2022 suggesting that God admonishes the Synagogue of Satan at the 2022 America First Political Action Conference*: The term "Synagogue of Satan" received over 1,000 mentions three days following the speech. Posts applauding the term received fewer than

1,000 interactions. (2) *In response to social media posts with direct threats made toward Jewish people, social media users amplified the term “Synagogue of Satan.”* A columnist with over 700k followers posted the Bible verse in which the “Synagogue of Satan” appears. After three days, “Synagogue of Satan” received nearly 2,000 mentions. Extremist group mentions increased 1,761% in 2022, compared to the previous one-year period.

3.1. Extremist Entities and Infrastructures

Three of the top five most frequent posters for our general “hate” query posted antisemitic content and terms such as “Jew criminals” and “Jew mafia.” One moniker sarcastically parroted antisemitic language and another posted legitimate content about the Rothschild family’s history. Of the more than 17,000 top web URLs identified, 9,079 linked to 4Chan. Four of the top five monikers for our HG2 query posted antisemitic content and frequently Bible verses with the phrase “Synagogue of Satan.” All 10,000 top web URLs identified from our HG2 query linked to 4Chan. While 4Chan has not historically been used by the HG2, overlap exists between language espoused by antisemitic users of 4Chan and the HG2 group.

3.2. Enhanced Sentiment Analysis

Our sentiment analysis algorithm uses multiple sentiment dictionaries, with the standardized result for each dictionary aggregated to a final categorization. By implementing data cleansing—noise removed includes reposted or quoted social content, punctuation, numbers, URLs, tabs, hashtags, extra spaces, and emojis—we have achieved higher fidelity on actual sentiment across a larger sentiment extremity continuum. In a corpus of 250,686 HG1-related social media posts, we identified sentiment as 0.41% to be extreme negative, 1.62% to be strong negative, 13.6% to be moderate negative, 64% neutral, 17.64% to be moderately positive, 1.79% strong positive, 0.12% to be extreme positive. In a corpus of 41,438 HG2-related social media posts, we identified sentiment as 0.39% extreme negative, 4.58% to be strong negative, 6.38% moderate negative, 70% to be neutral, 17.10% moderately positive, 1.16% to be strong positive, 0.10% to be extreme positive. Comparatively, HG2 had more sentiment variability and less negative sentiment scores. Our team observed intersections between monikers for both groups in April, August, and December 2022.

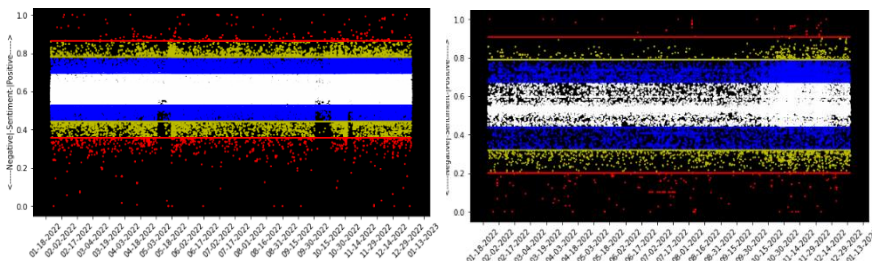


Fig. 1 Enhanced Sentiment Analysis results for HG1 (left) and HG2 (right)

3.3. Enhanced Emotion Analysis

We leveraged a deep learning algorithm trained on millions of social media posts to identify ten key emotions in 20 different languages. When applied to our HG1 query, the algorithm returned an *Emotionality* score of 45% and an *Intent* score of 63. The top emotions present were Contempt, Surprise, Sadness, and Fear, and the greatest emotionality increases occurred in May and October of 2022, corresponding with the Buffalo shooting and a public figure's antisemitic comments. When applied to our HG2 query, the algorithm returned an *Emotionality* score of 42% and 68 for *Intent*. Surprise and Sadness were the top emotions; and the greatest emotionality increase occurred in February 2022, corresponding to an identified hate group's narrative. Emotion analytics include a classification model that identified emotional differences between lone actor terrorist communications and non-terrorist communications. Designed to flag online activity that mirrors underlying emotions of previous terrorist manifestos, our queries when run through the classification model identified a match – a moniker present in both HG1 and HG2 queries that had also displayed extreme negative sentiment.

4.0 Results and Findings

We observed that the top two narratives for both hate groups, based on engagement and identified in our queries, occurred during or shortly after prominent figure antisemitic statements and mass shootings. While both hate groups frequently posted URLs to a non-mainstream social media platform, narratives, entities and enabling infrastructure were not exclusively relegated to such fringe platforms. Finally, our extreme sentiment analysis model identified a moniker with extreme negative sentiment. This same moniker was later identified in our emotion analytics as someone whose emotional signatures matched prior lone actor terrorist manifestos. Results suggest further research using sentiment and emotion analytic models together to help law enforcement identify potential online threat actors before violent acts are committed.

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References

1. Anti-Defamation League, "Audit of Antisemitic Incidents 2022," <https://www.adl.org/resources/report/audit-antisemitic-incidents-2022>, last accessed 2023/05/22.

2. Network Contagion Research Institute, "Antisemitic Disinformation: A Study of Online Dissemination of Anti-Jewish Conspiracy Theories," <https://networkcontagion.us/wp-content/uploads/NCRI%E2%80%9393AntisemiticDisinformation-FINAL.pdf>, last accessed 2023/05/25
3. Federal Bureau of Investigation, "Director Wray Addresses ADL at Never is Now Summit," <https://www.fbi.gov/news/speeches/director-wray-addresses-adl-never-is-now-summit-111022>, last accessed 2023/05/25.
4. Anti-Defamation League Center on Extremism, "Shooter in Allen, Texas, Embraced Antisemitism, Misogyny and White Supremacy," <https://www.adl.org/resources/blog/shooter-allen-texas-embraced-antisemitism-misogyny-and-white-supremacy>, last accessed 2023/05/25.
5. Haaretz, "Buffalo Mass Shooter Was Motivated by Antisemitic Conspiracy Theories," <https://www.haaretz.com/us-news/2022-05-15/ty-article/shooter-who-killed-10-in-buffalo-was-motivated-by-antisemitic-conspiracy-theories/00000180-d62c-d572-aba5-debc6e8f0000>, last accessed 2023/05/25.
6. The White House. U.S. National Security Strategy to Counter Antisemitism. U.S.-National-Strategy-to-Counter-Antisemitism.pdf (whitehouse.gov); last accessed 2023/05/22
7. Karell, D.: "Online Extremism and Offline Harm," Social Science Research Council, <https://items.ssrc.org/extremism-online/online-extremism-and-offline-harm/>, last accessed 2023/05/25.
8. International Holocaust Remembrance Alliance, "A world that remembers the Holocaust," holocaustremembrance.com, last accessed 2023/05/25.
9. Anti-Defamation League, Homepage: [https://extremismterms.adl.org/glossary/\[anonymized\]](https://extremismterms.adl.org/glossary/[anonymized]), last accessed 2023/05/22.
10. William J., Flanagan A., "The Racist 'Great Replacement' Conspiracy Theory Explained," Southern Poverty Law Center, <https://www.splcenter.org/hate-watch/2022/05/17/racist-great-replacement-conspiracy-theory-explained>, last accessed 2023/05/25
11. Southern Poverty Law Center, [https://www.splcenter.org/fighting-hate/extremist-files/group/\[anonymized\]](https://www.splcenter.org/fighting-hate/extremist-files/group/[anonymized]), last accessed 2023/05/22
12. Network Contagion Research Institute, "Combat Antisemitism Movement: "The Synagogue of Satan: Uniting Extremist groups in the Revival of an Antisemitic Libel Online," <https://combatantisemitism.org/wp-content/uploads/2023/05/SynagougeOfSatanReport.pdf>, last accessed 2023/05/25