The Spatiotemporal Reach of Hate Narratives

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Motivation

- Extremist groups tend to swirl around distinctive concepts that may find roots in conspiracy theories or prey on social fears.
- The endurance and reach of radical ideologies is ensured through repeating weaved narratives that echo their core.
- How do ideologies spread geographically? How often do they repeat and for how long?
- What type of hate propaganda spread the farthest and last the longest?
- Can studying spatial and temporal reach of propaganda help mitigate their disruption?

Data

- ADL (Anti-Defamation League) collected a H.E.A.T map[1] that registers reported incidents of hate, extremism, and antisemitism nationwide.
- This work focuses on recent events, starting from Jan-2020, until Mar-2022.
- Incidents were filtered based on type and description to include only the ones promoting quoted messages (hate narrative).
- The filtered events then processed to extract messages, which represent transcribed quotes from event observations by ADL

Methodology

Spatial Coverage: From the location of events we measure the center point around which the propaganda is geographically distributed. It is done by utilizing the "radius of gyration"[2], a quantity often used to calculate mass distribution using root mean square distances of incident locations.

Temporal Coverage: Each event is labeled with a timestamp, which was used to calculate the lifespan (in days) of propagandas from the first appearance in the dataset until the last.

Persistent Measurement: Same propaganda repeats across events. In the filtered dataset; there are **1029** unique messages mentioned **33980** times. The frequency is used to quantify message endurance.

Examples

Event Description: *Patriot Front, a white supremacist group, distributed propaganda at Northwest Arkansas Community College that read: "America is not for sale", "Reclaim America", and "One nation, against invasion".*
Message: "One nation, against invasion"
Frequency: 942 **Gyradius:** 17.22 **Lifespan:** 820 (days)

Event Description: *Folkish Resistance Movement (formerly Folksfront), a neo-Nazi group, distributed propaganda at Texas Woman's University featured a Star of David that read: "Resist Zionism" and "Break debt slavery."*
Message: "Resist Zionism"
Frequency: 64 **Gyradius:** 9.8 **Lifespan:** 177 (days)

The geographical distribution of repetitious propaganda indicates a **wide coverage** across the US which **peaks in the northeast** of population's centroid
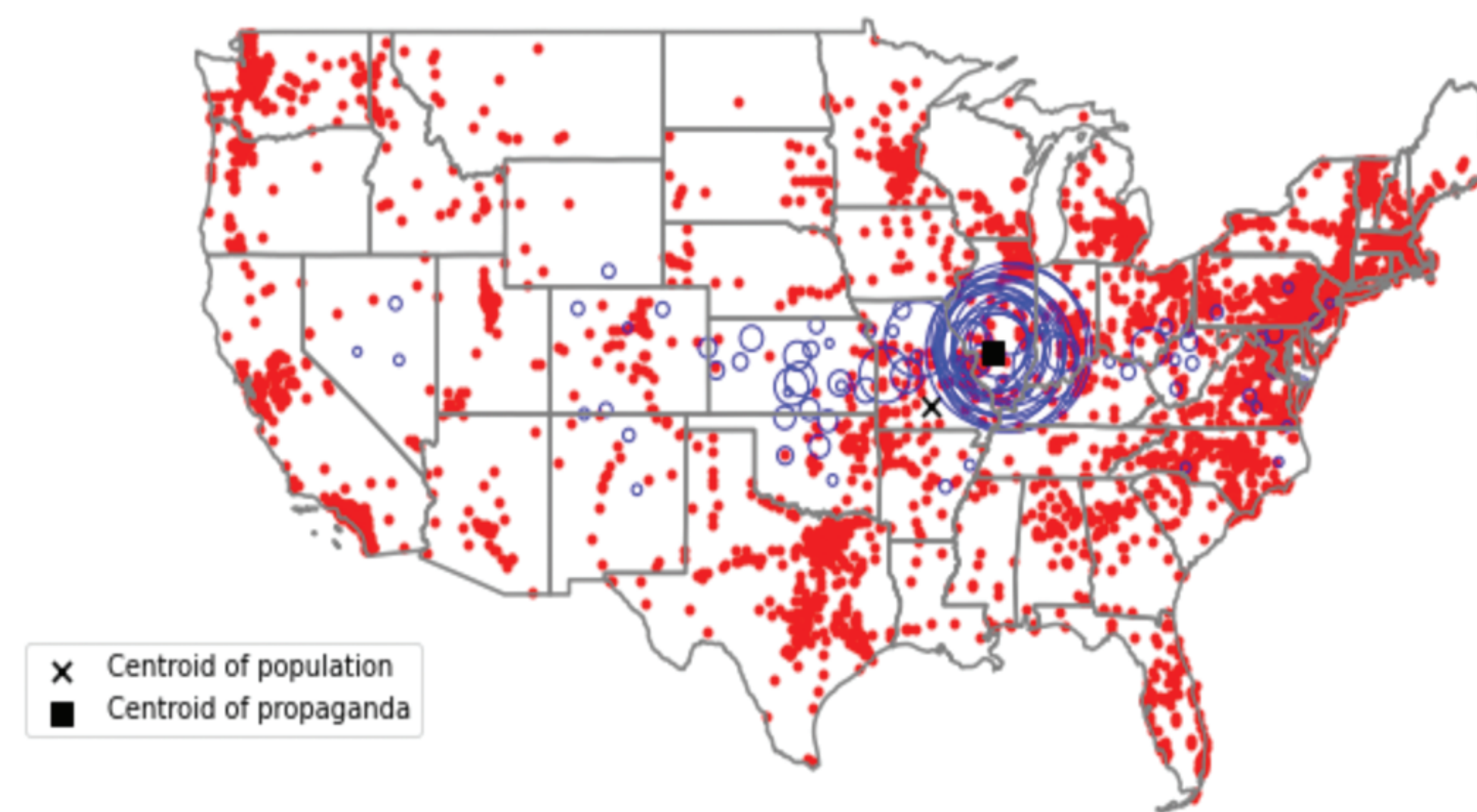

Figure 1: The geographical representation of propagandas. The red dots show the exact locations, where the blue circles reflect frequency (in size) centered at the centroid of each propaganda. The black (x) marks the centroid of american population, and the black (square) marks the centroid of all propagandas.

Messages with **high spatiotemporal** reach are *quotable, recognizable, repeatable, and memorable.*
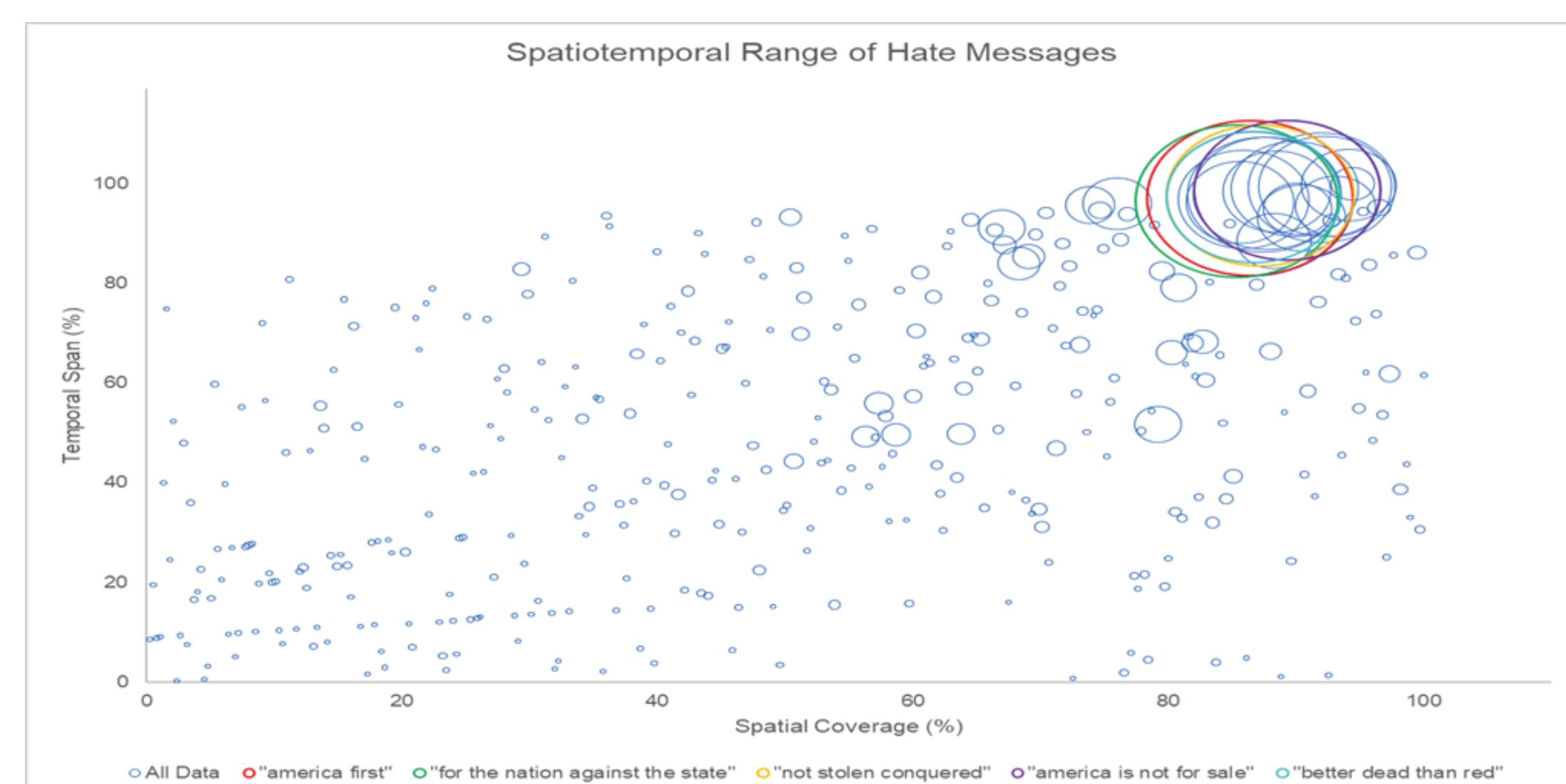

Figure 2: Distribution of messages. The x-axis represents the spatial coverage percentile, the y-axis represents the temporal coverage percentile, the size reflects frequency. The five colored circles are the most frequent messages.

Current Findings

- Hate propagandas (Figure 1) are distributed over the United States, where their mean location is close to the center of population, the centralized point closest to all residents. It denotes the effort to reach all population.
- The centers of narratives (blue circles) is inclined towards the east coast, as some of the active groups, like Patriot Front, target the area due to its historical importance and desire to form an entho-state.
- Some messages are associated with a specific location. For example, "which way western man", a catchphrase misquoted from the 1978 book by William Simson, has one of the smallest spatial coverage (gyradius of 2.6) and centered in Philadelphia, PA, it is mostly used by the European Heritage Association around that region. Another message, "Justice for Cannon Hinnant", has a small gyradius centered in Richmond, VA, close to where the shooting[4] took place in Wilson, NC.
- Other narratives appear at certain times. "stop coronavirus, deport illegal aliens, close borders, stop immigration" was first recorded in 3/21/2020 until 5/17/2020, around the beginning of the pandemic. Another narrative that is rooted in conspiracy theories, "every single aspect of the covid agenda is jewish" arised in 9/18/2021 and persisted until the end of the studied period, 3/31/2022.
- Messages with high spatiotemporal reach (Figure 2) tend to be quotable, repeatable, recognizable, and memorable. This aligns with Jhon Oddo's findings[5] regarding discourse of propaganda.
- Understanding when and where hate messages spread is critical for an effective and knowledgeable response; one that is content-aware, time-sensitive, and function where needed.

Future Work

- Apply topic-modeling techniques to identify distinctive groups of narratives and their distribution over time.
- Examine the relationships (textual similarity, spatiotemporal proximity, etc) between offline events registered in the dataset and online activities from social media (Twitter, Reddit, etc).

Acknowledgment

References

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5. Oddo, John. The Discourse of Propaganda: Case Studies from the Persian Gulf War and the War on Terror, University Park, USA: P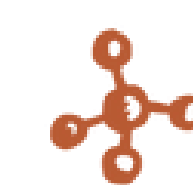enn State University Press, 2021. https://doi.org/10.1515/9780271082752