

Exposure to Radicalization on YouTube: Algorithmic Recommendations or Off-platform Factors?

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Motivation




YouTube is the most popular social media platform in the US, there are conflicting evidence that users are being radicalized on YouTube.

We aim to answer whether radicalization is occurring on YouTube, and if so, is it caused by the **algorithm** or the external website which was selected by **users themselves?**

Contribution

- We introduced a method to measure the political leaning of YouTube videos based on its audience.
- We introduced metrics to capture and characterize radicalization in browsing history.
- We answered the question of whether the exposure to radicalization is caused by the recommendation system of YouTube or the users
- We conduct geographic analysis to find out if certain group of users were impacted the most. And we analyze the external website.

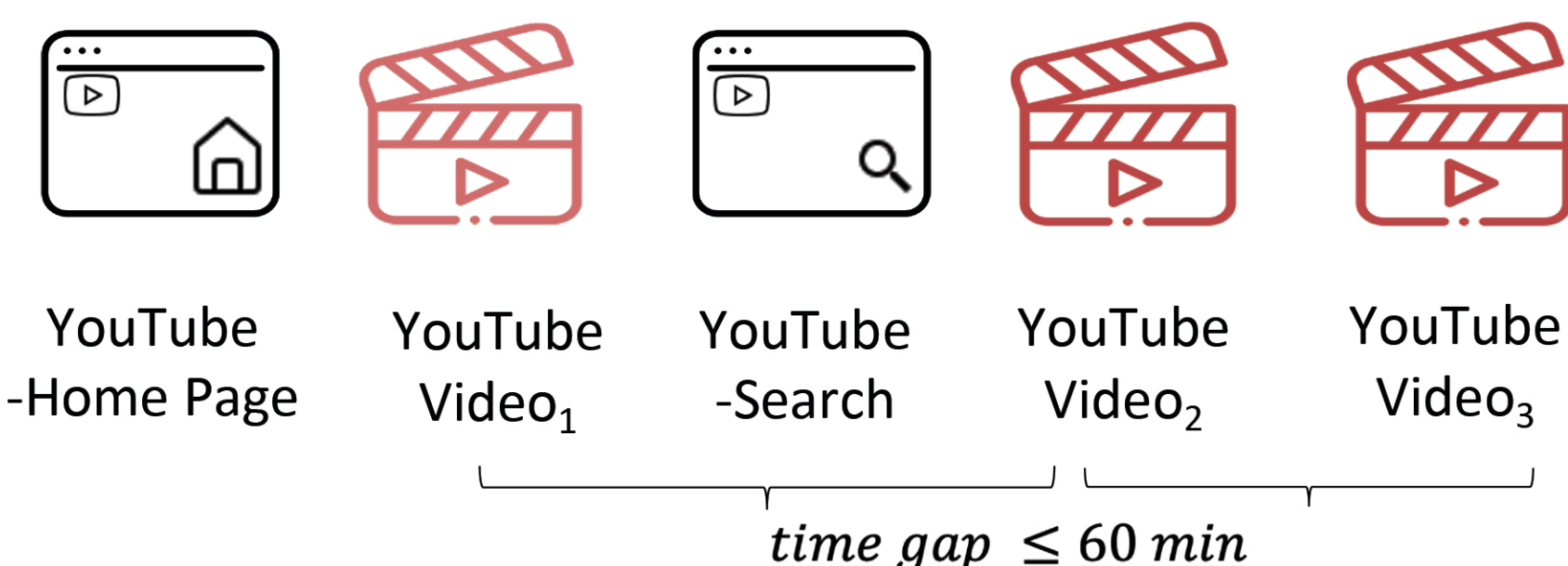
Data

-  2,058 users
-  Browsing history for 9 month
-  1,176,469 Total number of YouTube video visits

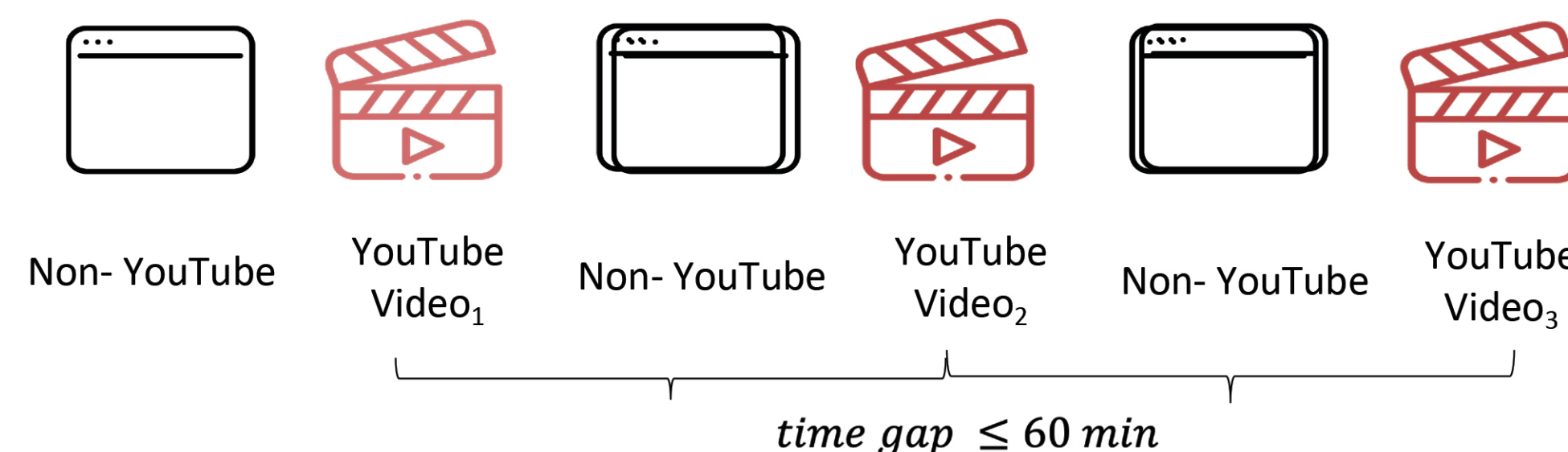
Methods

Session construction:

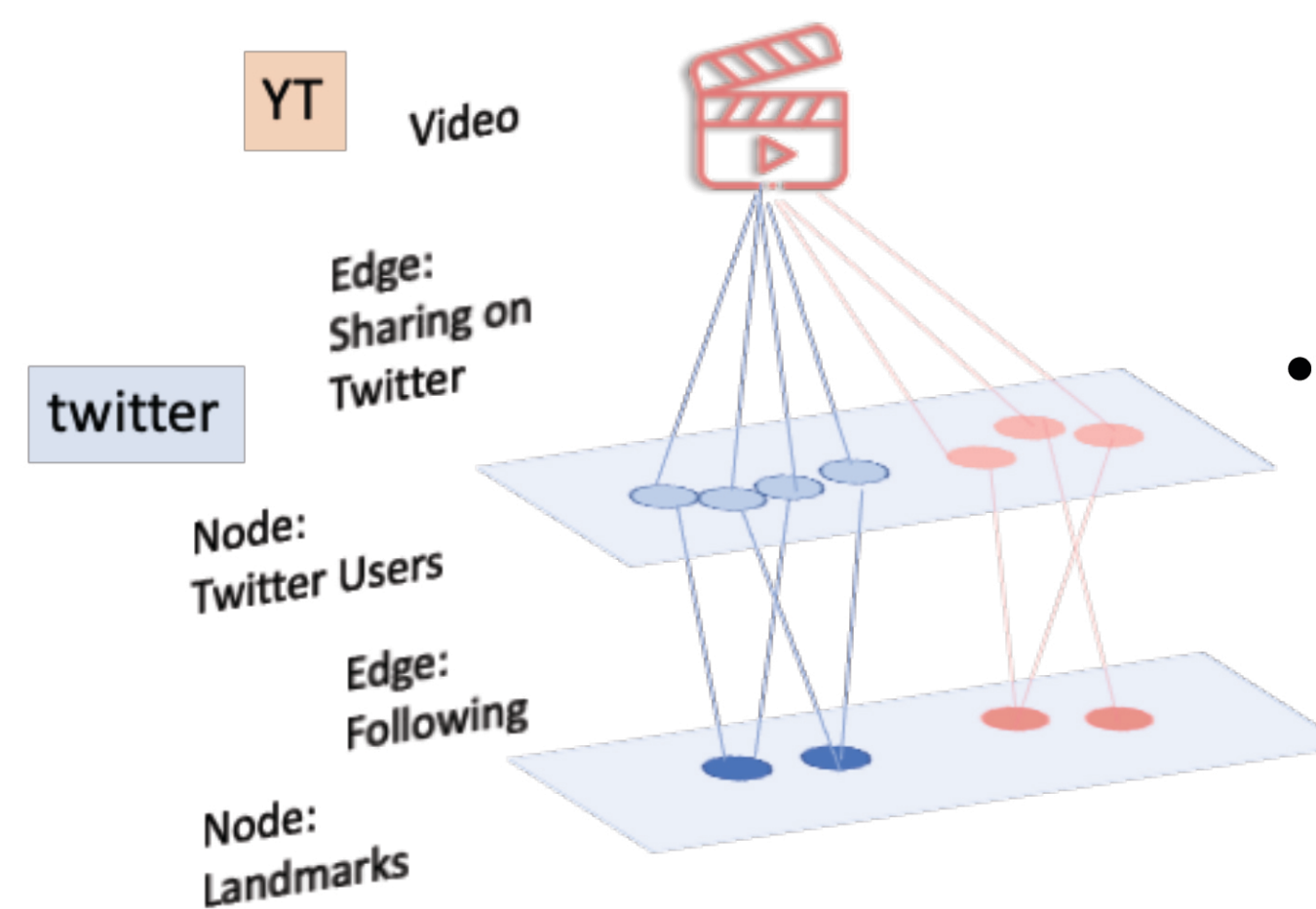
Type I: videos browsed within YouTube



Type II: YouTube videos subsequent to a visit to an external website



Video ideology:



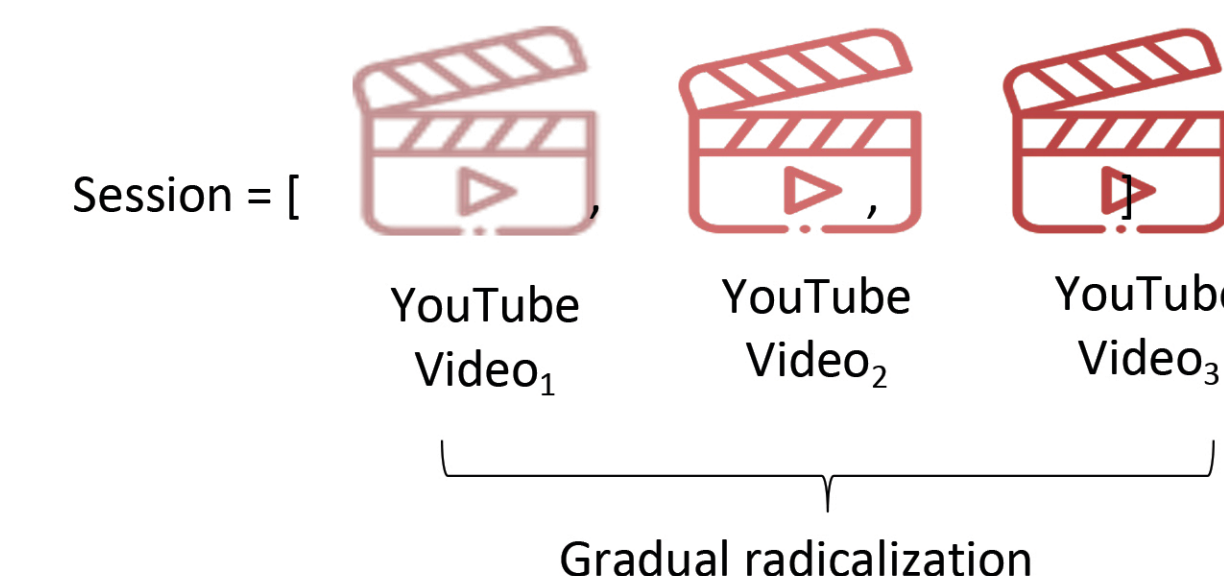
- Given 1,604 Twitter Landmarks¹ with their ideology score = [-1,1], we collected the following relationship of over 20 million users on Twitter
- We use the Twitter users who share the YouTube video and their Landmark following to evaluate the video's ideology score

Ref: ¹ Stefan McCabe, et al. 2022. "NewTweetScores: Or, Did Donald Trump Break Tweet Scores?" <https://osf.io/29he3>

Quantifying Radicalization:

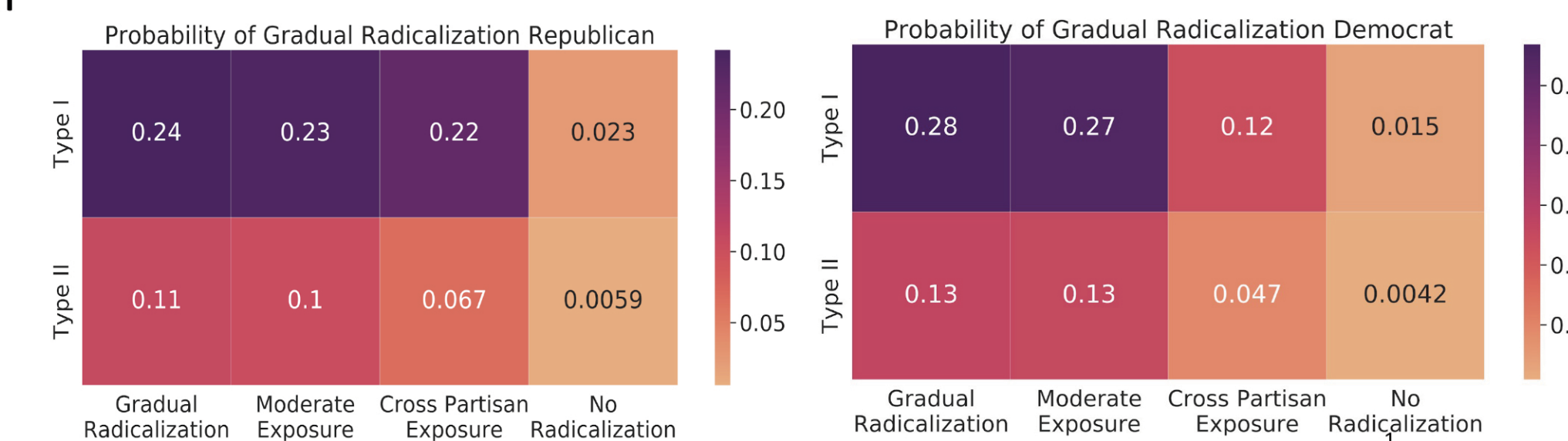
Gradual Radicalization:

- Assumption: Radicalization is a gradual process
- Last video – first video in the session if on the same side of the political spectrum



Results

- We observe differences in the radicalization, and cross partisan exposure from users with different political leaning



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