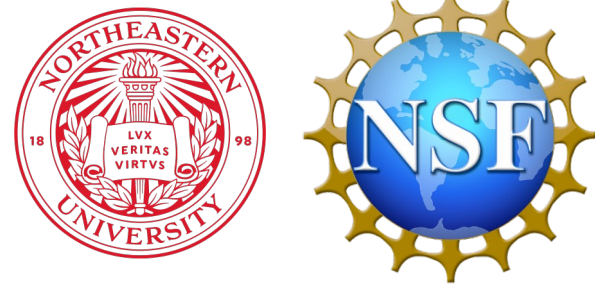


# All Things Considered: Detecting Partisan Events from News Media with Cross-Article Comparison

Yujian Liu<sup>1</sup>, Xinliang Frederick Zhang<sup>2</sup>, Kaijian Zou<sup>2</sup>, Ruihong Huang<sup>3</sup>, Nick Beauchamp<sup>4</sup>, and Lu Wang<sup>2</sup>



<sup>1</sup>University of California, Santa Barbara, <sup>2</sup>University of Michigan, <sup>3</sup>Texas A&M University, <sup>4</sup>Northeastern University

## Background

- How do even nonpartisan, fact-based news outlets unobtrusively bias their reporting?
- Partisan event coverage: choosing which events to include or exclude in news articles could sway public opinions and beliefs

News Story: *Biden pushes for gun legislation after visiting Uvalde.*

The Washington Post (left):

E1: [Jaydien]<sub>ARG0</sub>, . . . , [said]<sub>pred</sub> [he asked the president: “Could you please make our schools safer and send more police, please?”]<sub>ARG1</sub>

E2: [Biden]<sub>ARG0</sub> . . . [noting]<sub>pred</sub>: “[You couldn’t buy a cannon when the Second Amendment was passed]<sub>ARG1</sub>.”

New York Post (right):

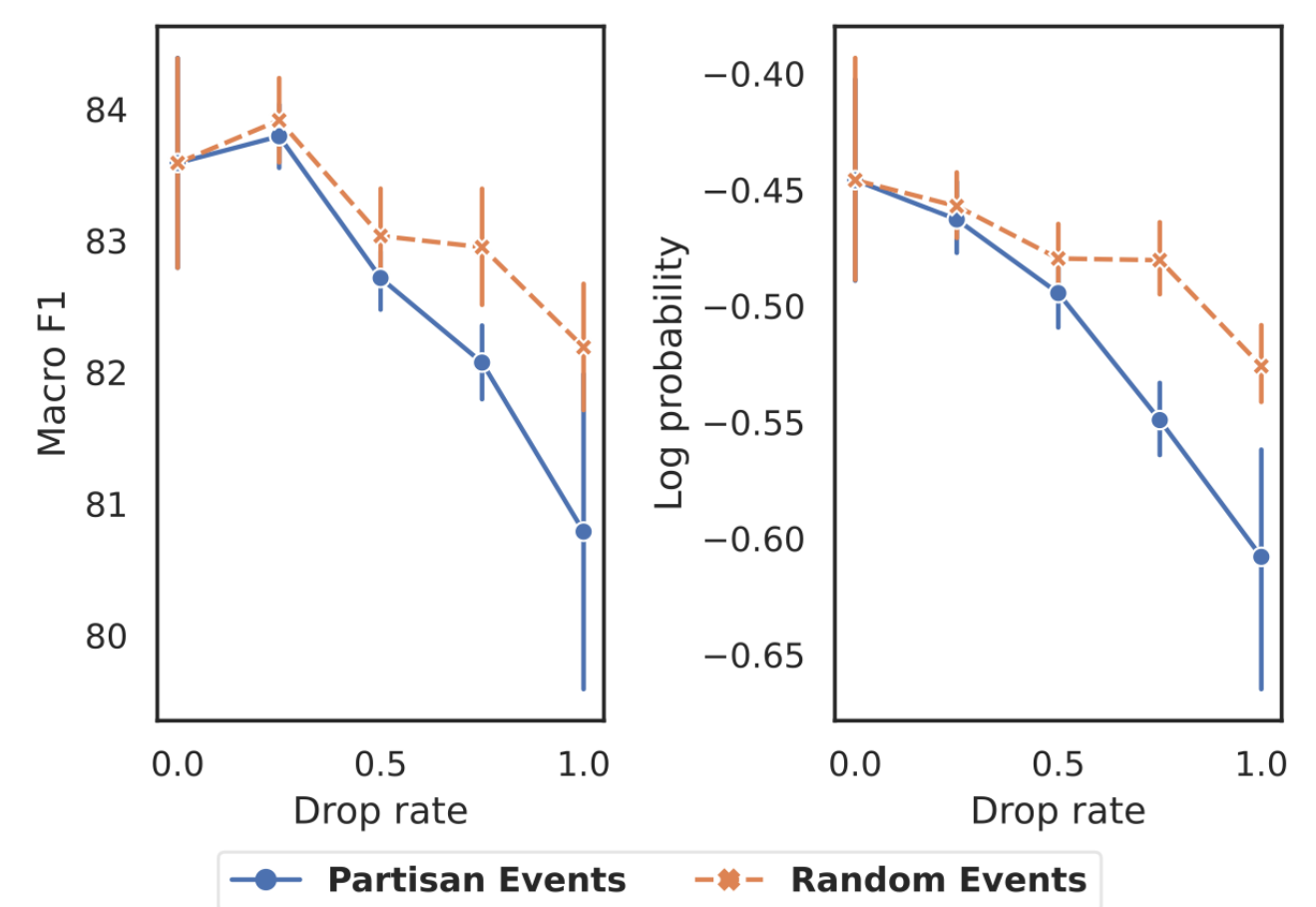
E1: [You]<sub>ARG0</sub> couldn’t [buy]<sub>pred</sub> [a cannon]<sub>ARG1</sub> when the Second Amendment was passed.

E2: Biden has made that claim before, . . . , and they have been repeatedly [declared]<sub>pred</sub> [false]<sub>ARG1</sub> [by fact-checkers]<sub>ARG0</sub>.

Blue: events favoring left Red: events favoring right

## Existence

- What is the relation between partisan event and ideology prediction?
- PEvent: 50 articles that cover
  - Mass shooting in Texas
  - Overturn of *Roe v. Wade*
- Event-based ideology prediction



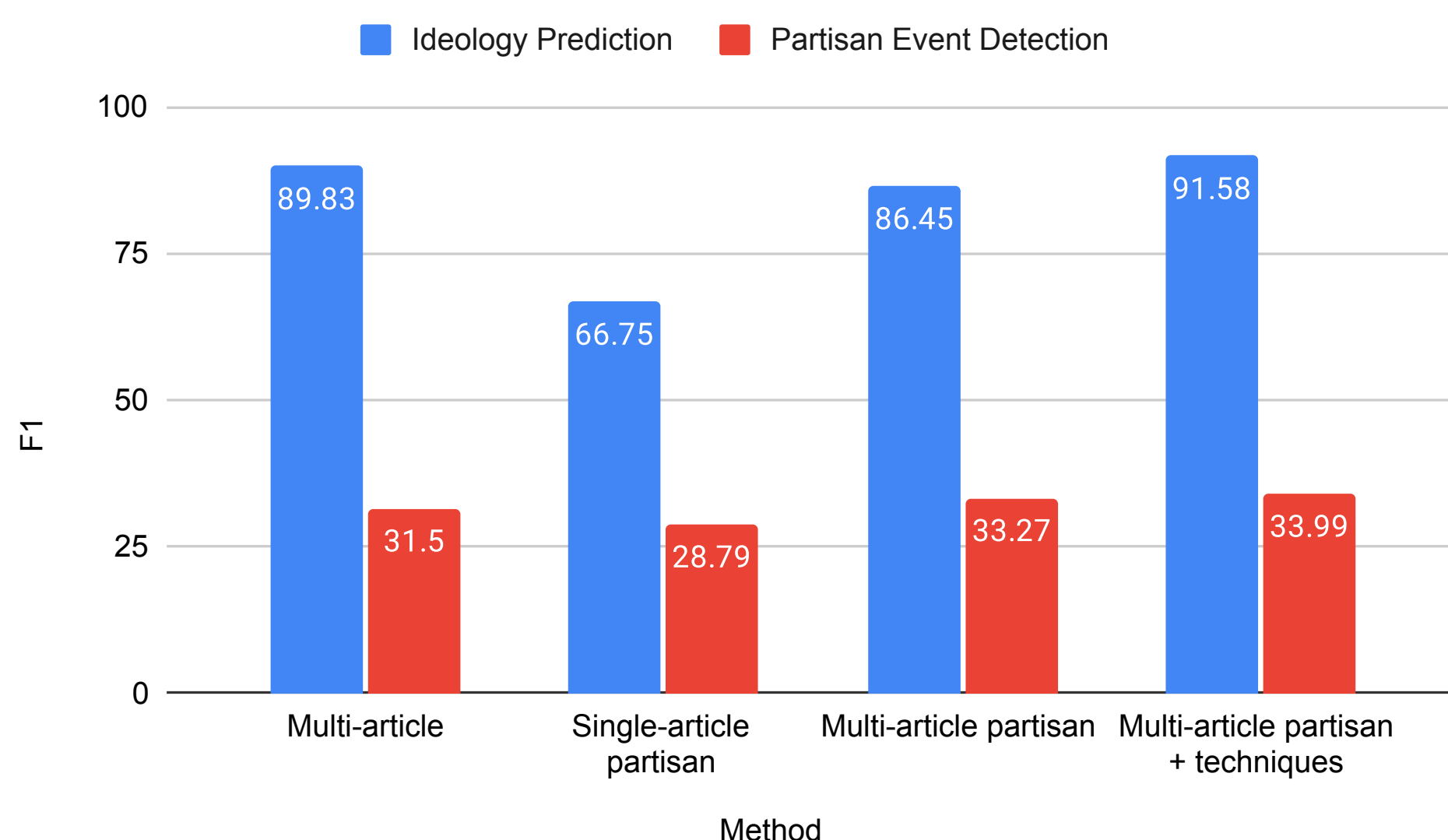
## Detection

- How can we automatically detect partisan events without relying on large-scale supervision data?
- Intuition from above: partisan events should aim ideology prediction

$$\max_{\mathcal{E}_\theta, q_\phi} \sum_{(\mathbf{x}, y) \in \mathcal{D}} \mathbb{E}_{\mathbf{m} \sim \mathcal{E}_\theta(\mathbf{x})} [\log q_\phi(y | \mathbf{m} \odot \mathbf{x})]$$

- Additional design:
  - Prevent model from identifying common events as partisan
  - Equip model with political knowledge through pre-training

## Results & Analysis



- Cross-article content comparison is important
- Common events are less likely to be partisan
- Good event modeling helps ideology prediction

Title: At the NRA Convention, People Blame Mass Shootings on Everything But Guns

The nation has been plunged into despair and mourning . . . in Houston, the National Rifle Association still threw a party . . . Two messages emerged from the assembled throngs and the dotting politicians in attendance, just 300 miles from Uvalde: 1) People must continue to enjoy the right to acquire any damn firearm they choose, without meddling from the state; and 2) the massacre had absolutely nothing—not a thing!—to do with the untrammelled commerce in guns . . .

Ideology label: left Prediction: left

Code: <https://github.com/launchnlp/ATC>

Contact: [yujianliu@ucsb.edu](mailto:yujianliu@ucsb.edu), [xlfzhang@umich.edu](mailto:xlfzhang@umich.edu)

