were not created equal: automated sociality and the spread of political information in the 2016 U.S. election

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Standardized online interactions make the online public sphere vulnerable to intervention by automated nonhuman accounts, or bots. In the aftermath of the 2016 U.S. Presidential election, studies found evidence of such intervention on Twitter. In light of their potential implications on electoral outcomes, automated nonhuman accounts merit a critical inquiry. In this study, we foreground the distinct roles played by Twitter bots by analyzing their impact on diffusion of political information online.

[exploratory analysis]



[questions]

1. What role did automated accounts play in diffusing political information on Twitter in the 2016 U.S. Presidential Election?

2. Did any automated accounts have an effect on candidates' followership on Twitter?

3. Can we use RTE signatures to identify differences in bot influence in retweet events?



High tweet rate Low Model 3: RTE estimator tweet rate





[method]

Peak Rate

RTE signatures show the changing rates of users retweeting a message over time. The shape of the signature reflects both how fast the message spreads, and the extent to which the information flow is "socially driven".

yt = rate of tweets at time t

> Estimated shape parameter (alpha) of fitted power law: $1/t^{\alpha}$

> > volume under curve is total size of event

Peak time

Ramp-up

- 0.8

- 0.4

L 0.0



Donald Trump

[analysis]





RTE size = 4,065



Controls: number of users who tweeted more than once, number of users who deleted their tweets after the RTE

[findings and future work]

Categorizing automated accounts as 'bots' blurs the role different types of bots play in the spread of political information. While some accounts serve as overt information aggregators and facilitate information diffusion, others act as false amplifiers, mimicking the social spread of information. RTE signatures are a useful tool for detecting automated interference in election campaigns, and our future work will be focused on finding similar patterns in other election campaigns, which may implicate the same actors across different political contexts.

Tluminating 2016

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