CS 6474/CS 4803 Social Computing:
Credibility II

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Week 10 | October 25, 2017

Examining the Alternative Media Ecosystem Through the Production of Alternative Narratives of Mass Shooting Events on Twitter
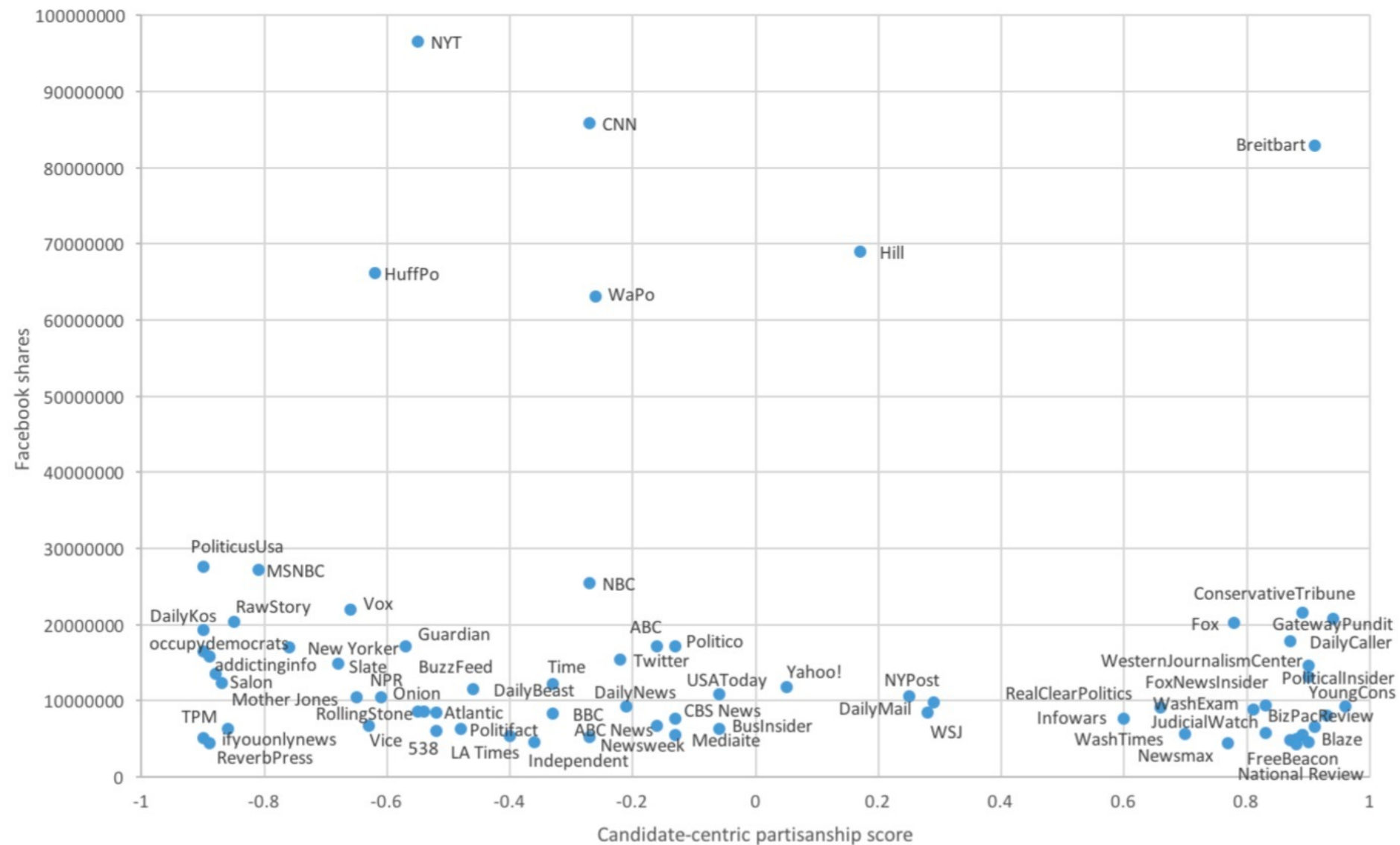
Summary (1)

- The paper presents the first study of "fake news"

- The context: in recent years, alternative media outlets have appropriated social media platforms for their perceived economic and political reach and for hosting inaccurate or under-sourced content

- Goals:
  - Provide a systematic lens for exploring the production of a certain type of "fake news"—alternative narratives of man-made crisis events
  - Examine the production of alternate narratives (rumors, conspiracy theories) through Twitter and across the external websites that Twitter users reference as they engage in these narratives
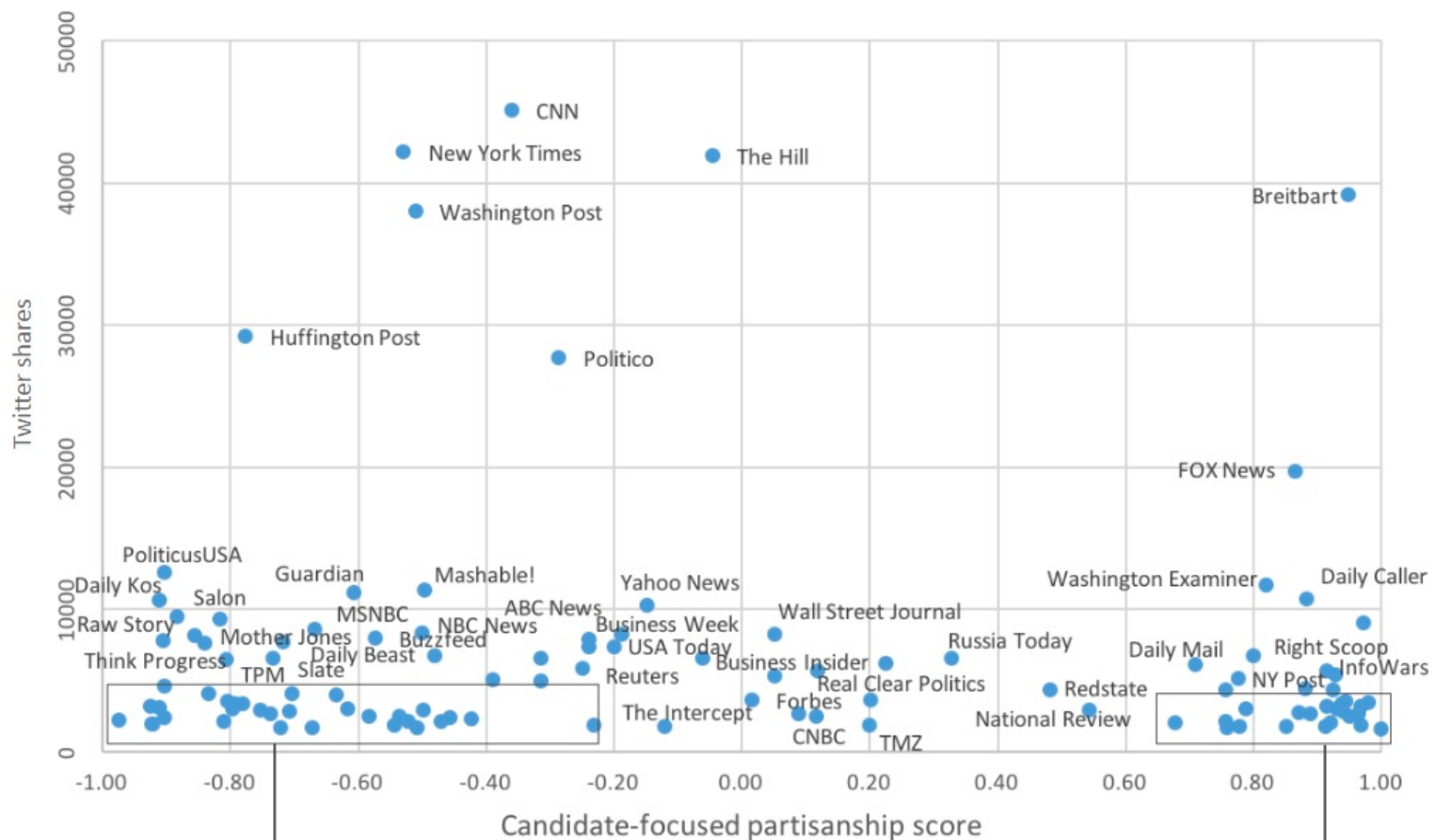
Summary (2)
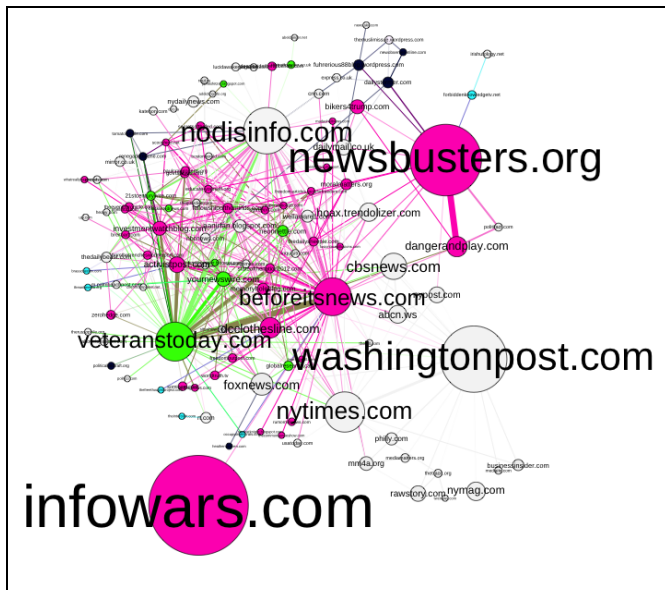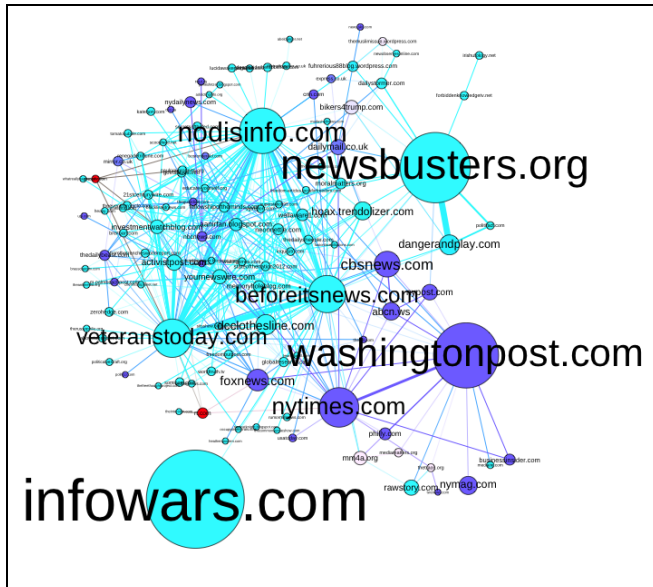
Leaning	Description
U.S. Alt Right	U.S. focused, anti-mainstream media, pro-Christian, anti-LGBT, anti-feminist, anti-globalist, climate change denying
U.S. Alt Left	U.S. focused, anti-mainstream media, anti-corporatist, critical of police, pro-prison reform, pro-BlackLivesMatter
International Anti-Globalist	Internationally focused, anti-globalist or anti-New World Order/Cabal, anti-corporatist, conspiracy-focused
White Nationalist and/or Anti-Semitic	primarily white-nationalist or anti-Semitic positions
Muslim Defense	primarily challenges mainstream narratives of terrorist attacks by Muslims
Russian Propaganda	primarily supports Russian interests, anti-globalist

- Strong political agendas underlying many of alternative narratives and the domains that hosted them
- More than half of the alternative media sites were coded as primarily motivated by a political agenda—with the conspiracy theories serving a secondary purpose of attracting an audience and reflecting or forwarding that agenda

Sites by partisan attention (Yochai Benkler, Robert Faris, Hal Roberts, and Ethan Zuckerman)

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Role of social media in supporting conspiracy theories

Understanding Anti-Vaccination Attitudes in Social Media

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Abstract

The anti-vaccination movement threatens public health by reducing the likelihood of disease eradication. With social media's purported role in disseminating anti-vaccine information, it is imperative to understand the drivers of attitudes among participants involved in the vaccination debate on a communication channel critical to the movement: Twitter. Using four years of longitudinal data capturing vaccine discussions on Twitter, we identify users who persistently hold pro and anti attitudes, and those who newly adopt anti attitudes towards vaccination. After gathering each user's entire Twitter timeline, totaling to over 3 million tweets, we explore differences in the individual narratives across the user cohorts. We find that those with long-term anti-vaccination attitudes manifest conspiratorial thinking, mistrust in government, and are resolute and in-group focused in language. New adoptees appear to be predisposed to form anti-vaccination attitudes via similar government distrust and general paranoia, but are more social and less certain than their long-term counterparts. We discuss how this apparent predisposition can interact with social media-fueled events to bring newcomers into the anti-vaccination movement. Given the strong base of conspiratorial thinking underlying anti-vaccination attitudes, we conclude by highlighting the need for alternatives to traditional methods of using authoritative sources such as the government when correcting misleading vaccination claims.

persistent vaccine criticism movement has spread rapidly through social media, a channel often used to disseminate medical information without verification by the expert medical co mmunity (Keelan et al. 2010).

Given the increasing reliance on online media for accurate health information and the general growth of social media sites, the attitudes of anti-vaccination advocates risk becoming a global phenomenon that could impact immunization behavior at significant scale (Kata 2010). In fact a controlled study showed that parents opting to exempt children from vaccination are more likely to have received the information online compared to those vaccinating their kids (Salmon et al. 2005). These parents benefit from "herd immunity" in which eradication is achieved by immunizing a critical proportion of the population. However, as internet-fueled misbeliefs drive people to opt out of vaccination, herd immunity is weakened, increasing the chances of a disease outbreak. Thus it is important to understand the underlying characteristics of individuals with anti-vaccination attitudes. What drives people to develop and perpetuate the anti-vaccination movement?

In this paper we explore this question by examining individuals' overt expressions towards vaccination in a social

MEDIA 09/27/2017 08:53 pm ET

Mark Zuckerberg: 'I Regret' Rejecting Idea That Facebook Fake News Altered Election

He admitted this after Donald Trump claimed that Facebook was "always anti-Trump."

By Carla Herreria

Facebook CEO Mark Zuckerberg admitted on Wednesday that he was wrong to dismiss the idea that fake news shared on the giant social network affected last year's presidential election.

Zuckerberg's statement came in response to a tweeted attack from President Donald Trump hours earlier. Trump claimed that Facebook was "always anti-Trump" and accused it of colluding with news outlets that the president has deemed to be "fake news."

Class Exercise I

Assume you work at Facebook. Design a study to measure if consumption of fake news impacted the 2016 Presidential elections.
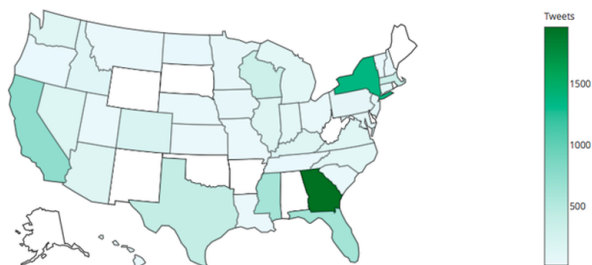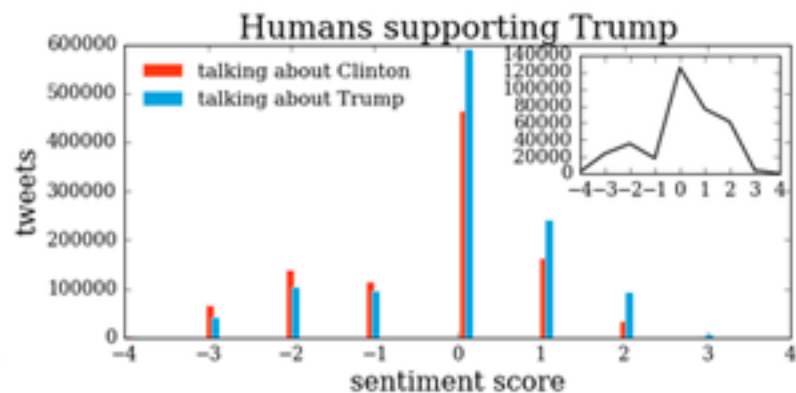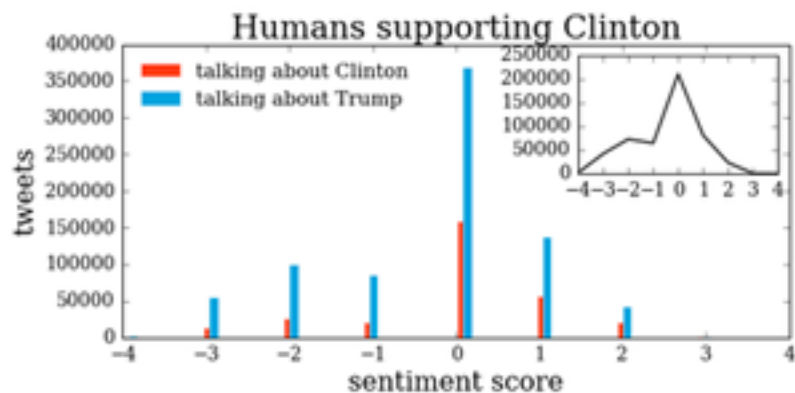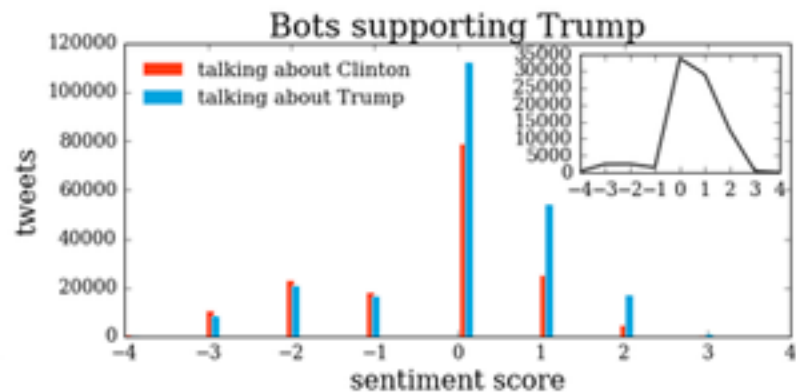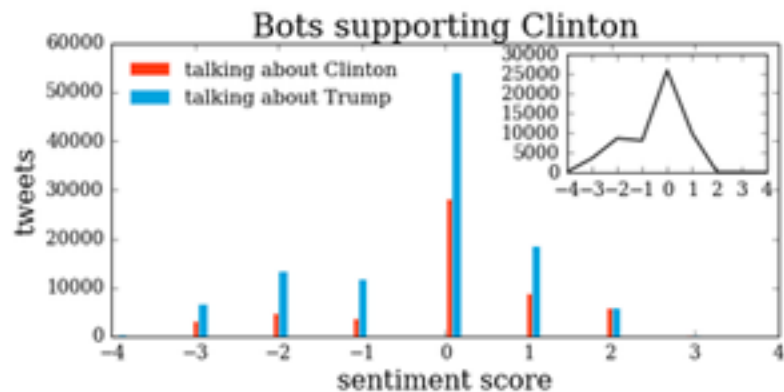
Class Exercise II

Starbird found that alternative media sits may give the false perception of being exposed to a diverse information diet. Most of them, seemingly different on the surface, harp on the same political (e.g., anti-globalist) agenda.

How can social media platforms ensure information diversity while curbing the negative impact of fake news?
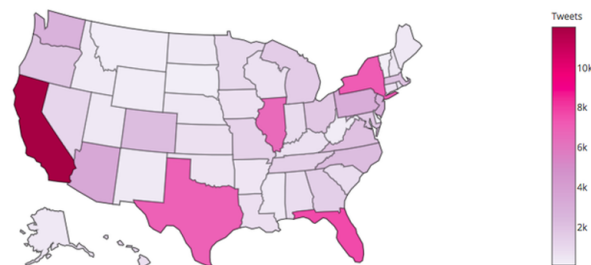
Social bots distort the 2016 US Presidential election online discussion

Summary

- The article studies the presence and activity of social bots involved in the 2016 U.S. Presidential election conversation ongoing on social media

- Data – Twitter data for an extensive period prior to the election that includes all three Presidential debates – 20M tweets

- Employ machine learning techniques to identify social bots
  - Over one thousand features were used, spanning content and network structure, temporal activity, user profile data, and sentiment analysis
  - These produced a score that suggests the likelihood that the inspected account is indeed a social bot

- As many 400K Twitter accounts were social bots

Bots supporting Clinton

Bots supporting Trump

Humans supporting Clinton

Humans supporting Trump

bots

humans

Class Exercise III

https://twitter.com/amrightnow

What do social bots mean for shaping political opinion in a democracy?

Impact of social bots (1)

- Bots are easily programmable through the Twitter API and can be deployed by just about anyone with preliminary coding knowledge.

- Marginal populations use bots to create an illusion of popularity around fringe issues or political candidates.
  - For instance, the alt-right and white nationalists have used these automated proxies to artificially project hate speech and xenophobia on social-media platforms.

- Hoaxers from 4chan have been accused of using bots to game online polls in favor of Trump.
  - Politicians often refers to online polls as evidence of support.

Impact of social bots (2)

- Politicians, government agencies, hacking collectives, and militaries can use bots to disseminate lies, attack people, and cloud conversation.

- The widespread use of political bots can solidify polarization among citizens.

- Bots can also silence people and groups who might otherwise have a stake in a conversation.

- At the same time they can make some users seem more popular, they make others less likely to speak. This spiral of silence can result in less discussion and diversity in politics.

- Moreover, bots used to attack journalists might cause them to stop reporting on important issues because they fear retribution and harassment.

The challenges

- Currently, there is almost no regulation on the use of bots in politics.

- The Federal Elections Commission has shown no evidence of even recognizing that bots exist.

- The layer of anonymity of social bots challenges the ability to hold people legally responsible.

- Do bots challenge the notion of free speech? What happens when a bot, which might do things unforeseen by its maker, is the entity committing malicious acts?

Should social media platforms censor the "free speech" of harmful bots?

Class Exercise IV

What can social media platform owners and designers do to curb the proliferation of social bots? Suggest some design/data-driven approaches.

Class Exercise V

Can social bots be useful after all? Cite some examples. Describe the design of a social bot to tackle the challenge of political misinformation

Social Justice Bots

Social/Digital Assistant Bots

Andrew Ng [Follow]

AI, Machine Learning, Deep learning, Online Education.

Oct 18 · 3 min read

Woebot: AI for mental health

Dear friends,

I'm thrilled to announce I am joining Woebot's board of directors as its Chairman. I will be assisting its CEO, Alison Darcy, and the company in its mission to build a chatbot that will help the millions of people who struggle with their mental health.
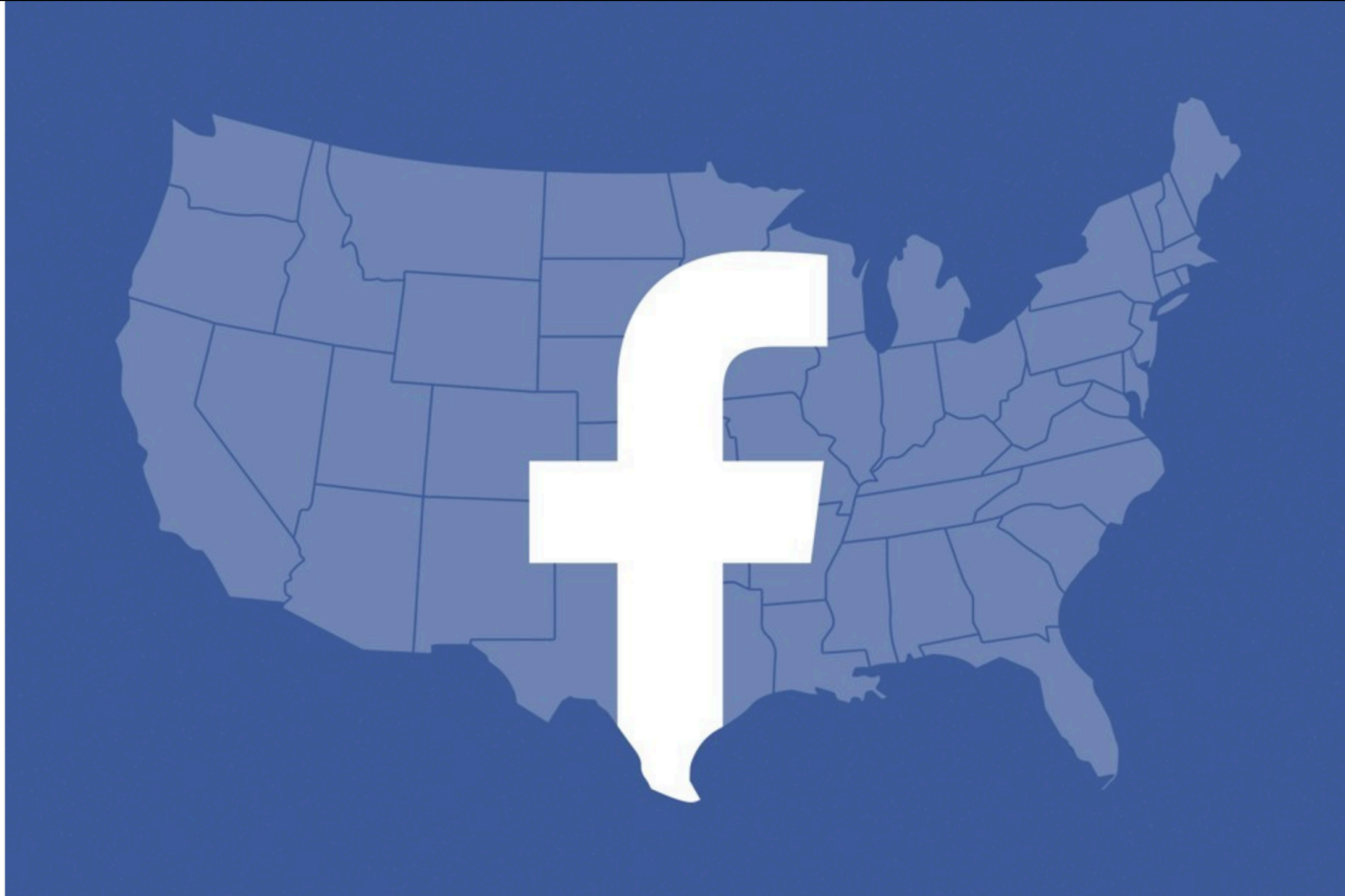
Luchenko Yana / Shutterstock / Zak Bickel / The Atlantic

What Facebook Did to American Democracy

And why it was so hard to see it coming

ALEXIS C. MADRIGAL | **OCT 12, 2017** | **TECHNOLOGY**

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