Social bots and the spread of fake news

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Observatory on Social Media

Indiana University Network Science Institute
Bossy Cracka @Junebug1952 · Sep 25
Obama Forbids FBI to use Religion in Identifying Terror Threats as ISIS OPENLY recruits in Mosques in.is/www.breitbart.... Obama IS a MUSLIM

Tara McClintick @BooksByTara · 6h
Thank GOD for "internet information" bc mainstream media hides what thousands know: Vaccines CAUSE autism #CDCwhistleblower

Sandy Hook Hoax @Sandy_Hook_Hoax · 18 Nov 2016
Sandy Hook was FAKE NEWS !!!

Alex Jones @RealAlexJones · Jan 25
Flashback Report: Three Million Votes in Presidential Election Cast by Illegal Aliens - infowars.com/report-three-m... @realDonaldTrump

David Seaman @d_seaman · Feb 2
Comet Pizza is a front group for child trafficking, according to sources. Jones is a good man trying to avoid a lawsuit- I don't have to.
twitter.com/HomeboyChr1s/s...

Maggie Hittle @MHittie · Nov 12
WE PAY 4 THIS! @SteveWorks4You: More targeting: Obama spent $1M 4 project 2 suspend conservatives' TwitterAccounts washingtonexaminer.com/rep.-lamar-smi......
Bots
The Curious Case of Cynk, an Abandoned Tech Company Now Worth $5 Billion

3.6k

PRO-GOVERNMENT TWITTER BOTS TRY TO HUSH MEXICAN ACTIVISTS

How Twitter bots played a role in electing Donald Trump

At least four million election-related tweets were sent during the campaign, posted by more than 400,000 social bots

The Fembots of Ashley Madison
<table>
<thead>
<tr>
<th>fact-checking</th>
<th>low-credibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>15,053 articles</td>
<td>389,569 claims</td>
</tr>
<tr>
<td>1,133,674 tweets</td>
<td>13,617,425 tweets</td>
</tr>
</tbody>
</table>

*PLoS ONE 2018*

\( k_{\text{min}} = 5, \ N = 52,452 \)
Humans retweet bots as often as they retweet humans.

Humans do most of the retweeting.
breaking up the botnet
Tools (beta)
The who, what, where, when, and how of social media data

Hoaxy
Visualize the spread of claims and fact checking.

Botometer
Check how bot-like a Twitter user behaves.

Fakey
Play this game to learn to recognize fake news on your social feed.

BotSlayer
Detect bot-amplification on Twitter

EchoDemo
Simulation demonstrating how two basic mechanisms of social media can lead to polarized social networks.

Trends
Compare when memes gain and lose popularity.

Networks
Explore who is discussing a meme and what memes are related.

Maps
Examine where people are talking about a meme over time.

Movies
Generate movies of how conversations about a meme evolve over time.

Bot Electioneering Volume
Visualize the activity of likely bots on Twitter around the 2018 US

API
Query our data for your own analysis.

Enhanced Data
Over 20B public tweets since 2016 available to all IU students and faculty.
Botometer (formerly BotOrNot) checks the activity of a Twitter account and gives it a score based on how likely the account is to be a bot. Higher scores are more bot-like.

Note the following:

- Use of this service requires authenticating with Twitter. For more, see this FAQ.
- Botometer often categorizes "organizational accounts", like @BarackObama, as bot accounts.
- If something's not working, please let us know.

Botometer is a joint project of the Indiana University Network Science Institute (IUNI) and the Center for Complex Networks and Systems Research (CNetS).

Interested in using Botometer in your application? Check out our API.

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**@clauwa**

Score: 0.4 / 5

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**@JusBieberPhotos**

Score: 4.4 / 5

### English-specific features

- **Content**: 2.5
- **Sentiment**: 2.5

### Language-independent features

- **Friend**: 4.5
- **Network**: 1.1
- **Temporal**: 2.8
- **User**: 4.8

### Bot score based on

- **All features**: 4.6
- **Language-independent**: 4.4
- **User profile language**: da
- **Complete Automation Probability**: 66%

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Sune's student bot
Account: @NJMike319

Botometer Score (details):

4.6 / 5

Last calculated: May 19 2018 3:33 pm

Update Feedback

has quoted: nobody
was quoted by: nobody
has mentioned: nobody
was mentioned by: nobody
has retweeted:

Account: petefrt

Report: Three Million Votes in Presidential Election Cast by Illegal Aliens
See tweet or article

Report: Three Million Votes in Presidential Election Cast by Illegal Aliens
See tweet or article

Close
Introducing BotSlayer

Docker image running on AWS

- Entity extractor
- Database
- Client API
- Anomaly detector

Coordinated trend event reports

Real-time statistics dashboard

Research data collection API

osome.iuni.iu.edu/tools/botslayer/

Journal of Open Source Software 2019
# Examples

2019-07-10 11AM, attack on Bill Browder and Kamala Harris
Attack on Bill Browder

Visualization by Hoaxy
Framework applications

Hashtag coordination

Image coordination
osome.iuni.iu.edu

Thanks!

Craig Newmark Philanthropies