

Study: Bots on Twitter have less influence than celebrities

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Messages posted by bots on divisive issues such as Brexit, immigration or climate have far less impact on users' views than those from famous people and influencers, researchers say.

Their findings show that Twitter posts shared by people with more than 10,000 followers have the greatest influence on the opinions of other users.

Previous research has shown that [social media bots](#)—automated accounts designed to mimic human behavior—are involved in spreading misinformation and harmful content. Few studies, however, have explored if posts shared by bots have any real impacts on other users' perspectives.

Bot effects

The new study by Edinburgh researchers analyzed how bots affect users' views on seven contentious topics. Data from more than 4,000 Twitter users, expressing views on each topic, was used to study direct and indirect interactions with more than 19 million other accounts, including bots.

The effect bots have on behaviors that shape users' views—such as likes, retweets or comments on posts—was compared with other [account](#) types, such as held by influencers and [famous people](#).

Bots were found to have very limited relation to users' stance on different topics. On average, they made up less than 10 percent of the accounts that had direct or indirect impacts on users' opinions.

Big influence

By contrast, people with 10,000-plus followers, on average, made up more than half of accounts affecting users' views. This rose to more than 70 percent when people's views were shaped by exposure to negative messages on topics by influencers on social media.

The study is published in the journal *Social Network Analysis and Mining*.

"Millions of people rely on social media as their main news source, which means that information they see there can have a major bearing on the views they hold. Our study suggests that fears of bots spreading harmful messages on [social media](#) might be overrated. Our findings show that influencers and celebrities have the most impact on opinions, not bots. This is the case for various topics, and may also apply to current concerns about bots that spread COVID-19 conspiracy theories and views opposing vaccines," says Dr. Walid Magdy.

More information: Abeer Aldayel et al, Characterizing the role of bots' in polarized stance on social media, *Social Network Analysis and Mining* (2022). [DOI: 10.1007/s13278-022-00858-z](https://doi.org/10.1007/s13278-022-00858-z)

Provided by University of Edinburgh

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