

Fake News: Lies spread faster on social media than truth does

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If it seems like fake news is everywhere, that may be because it is.

Falsehoods spread like wildfire on social media, getting quicker and longer-lasting pickup than the truth, researchers reported on Thursday.

A deep dive into Twitter shows that false news was re-tweeted more often than true news was, and carried further.

"Falsehood diffused significantly farther, faster, deeper, and more broadly than the truth in all categories of information, and the effects were more pronounced for false political news than for false news about terrorism, natural disasters, science, urban legends, or financial information," the team, led by Sinan Aral of the Massachusetts Institute of Technology, wrote in the journal *Science*.

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And it wasn't bots spreading most of the falsehoods, they found. It was real people doing most of it. Usually ordinary people, too, they found: so-called 'verified' users and those with many followers were not usually the source of some of the most popular untrue viral posts.

It might be because false statements sound more surprising, they said.

"We found that false news was more novel than true news, which suggests that people were more likely to share novel information," they wrote.

It should come as no surprise that the internet has spawned a resurgence of fake news. Congress and the FBI are investigating evidence that Russian and other foreign users deliberately flooded social media with untrue reports and posts intended to mislead people about political candidates.

And the term "fake news" has taken on its own life, referring not only to untrue reports but being increasingly used to dismiss reports that the user does not wish to agree with.

So Aral's team decided to use the term "false news" instead. They also used a broad definition of "news". "We refer to any asserted claim made on Twitter as news," they said.

The study started with PhD research by MIT's Soroush Vosoughi, who was struck by the false reports that spread rapidly after the 2013 Boston Marathon bombings, in which three people were killed and 264 injured.

"Twitter became our main source of news," Vosoughi said in a statement. "I realized that ... a good chunk of what I was reading on social media was rumors," he added.

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To objectively separate truth from lies or mistakes, Vosoughi and colleagues used sites devoted to fact-checking: factcheck.org, hoax-slayer.com, politifact.com, snopes.org, truthorfiction.com, and urbanlegends.about.com. The six sites agreed on which reports were true about 95 percent of the time, they said.

For the report, they examined 126,000 stories tweeted by about 3 million people more than 4.5 million times.

They found that false news stories were 70 percent more likely to be retweeted than true stories were.

Untrue stories also had more staying power, carrying onto more "cascades," or unbroken re-tweet chains, they found.

When they looked at who was spreading the wrong stuff, they found it was ordinary users of social media.

"We conclude that human behavior contributes more to the differential spread of falsity and truth than automated robots do," they wrote.

Why retweet that post before you know whether it's actually true?

Status, Aral said. "People who share novel information are seen as being in the know," he said.

But don't forget about the bots, argue Filippo Menczer of Indiana University and colleagues. They estimate that 60 million "bots" post automatic updates on Facebook and up to 48 million are on Twitter.

"The spreaders of fake news are using increasingly sophisticated methods," Menczer said in a statement.

Why do people fall for it, whether it's from a bot or a real friend?

"False news is more novel, and people are more likely to share novel information," Aral said. Plus, people like to repeat information that seems to affirm their beliefs.

"People prefer information that confirms their preexisting attitudes, view information consistent with their preexisting beliefs as more persuasive than dissonant information (confirmation bias), and are inclined to accept information that pleases them," David Lazer of Northeastern University and colleagues wrote in an editorial.

And fact-checking can backfire, they noted. "Fact-checking might even be counterproductive under certain circumstances," they wrote. "There is thus a risk that repeating false information, even in a fact-checking context, may increase an individual's likelihood of accepting it as true."

They call for more high-quality research into the false news problem and what can be done about it, pointing to reforms in the early 20th century that gave rise to legitimate newspapers with ethics promoting objectivity and credibility out of the ashes of a boisterous yellow press.