

How social media's powerful 'silent majority' moves Bitcoin prices

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In the past four years, the value of a single bitcoin has soared from

approximately \$500 in 2014 to a current value of \$6,000 and has worked its way into every type of financial transaction, from buying phone credits to shopping for clothes online. Now, researchers led by Stevens Institute of Technology show that Bitcoin's value can be manipulated by public sentiment, verifying, for the first time, that social media and Bitcoin prices are linked—but not without a surprise.

The work, led by Feng Mai, a professor at Stevens School of Business, shows that periods of increasingly positive [social media](#) commentary do, in fact, significantly influence the rising price of Bitcoin, but the surprise? It's the silent majority, not the vocal minority, who move these [prices](#).

In other words: comments and tweets from very active users did not move Bitcoin's price much at all. Rather, the silent majority—infrequent users who took the time to comment on the cryptocurrency's prospects—moved prices more, as much as ten times more, when they posted positive comments.

"They are the ones investors watch," says Mai, whose work appears in the *Journal of Management Information Systems*.

Mai, working with the University of Cincinnati, Dickinson College and Ivey Business School, collected and analyzed two years' worth of forum posts on the world's most popular public Bitcoin forum, Bitcointalk.

The team classified comments into positive, negative and other sentiment categories using natural-language processing techniques. They also collected two months' worth of Twitter data, including more than 3.4 million tweets about Bitcoin.

Mai's team then compared changes in Bitcoin's price with the chatter around the cryptocurrency. But just as chatter can affect the price,

Bitcoin's value can affect the sentiment around it, so the team also factored in daily rises and falls in indicators such as the S&P 500 stock index, gold prices and volatility indexes to better understand the two-way relationship.

"This was the first robust statistical finding to verify that social media and Bitcoin prices are actually linked," Mai says. "It may be intuitive, but positive sentiment moves Bitcoin prices."

But the Stevens-led team didn't stop there. They went a step further by dividing Bitcoin tweeters and posters into two groups: those who were posting very frequently and those who were not in order to see what kinds of commenters affect prices most.

They found that rather than the vocal users driving changes in Bitcoin price, the price instead changed in proportion to the comments made by users who were infrequent posters. "Vocal users of social media may sometimes have a certain agenda, in this case hyping or boosting the price of Bitcoin because they themselves have invested in it," says Mai. "So, if most of the social messages around Bitcoin are generated by people who are biased, the sentiments on social [media](#) may not accurately reflect the currency's actual value."

Mai and his colleagues suggest that Bitcoin investors recognize these potential conflicts of interest and discount them.

"The silent majority are the real influencers in driving the value of Bitcoin," says Mai. "It seems like investors get that."

More information: Feng Mai et al, How Does Social Media Impact Bitcoin Value? A Test of the Silent Majority Hypothesis, *Journal of Management Information Systems* (2018). [DOI: 10.1080/07421222.2018.1440774](https://doi.org/10.1080/07421222.2018.1440774)

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