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The Trading Robots Really Are Reading Twitter

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Let's call it the Twitter Skitter.

When the marketbriefly skidded after a hacked AP Twitter account reported explosions at the White House, we saw the first real-time demonstration of robo-trading riding on the back of social media.

The plunge in the market was so quick that it obviously was not the result of individuals reading the phony news and deciding what action to take. Computers were making the trades—or, more precisely, ending the trades.

"It's not so much that the computers initiated trades. What happened is that they canceled the orders, so the bids come out of the market. That causes a crash," a person at an algorithmic trading firm explained.

The Twitter data stream has been available to high frequency traders since at least 2009. That's when a company called StreamBase began to incorporate Twitter in the firm's "complex event processing" service, which is basically a platform that aggregates data from a vast array of sources for hedge funds and investment banks.

It's tempting to say that, in retrospect, that was when Skynet became self-aware.

At least since 2010, Bloomberg has been monitoring Twitter feeds and can send alerts to its customers when it detects that a lot of people are tweeting about an event or a company. An outfit called Lexalytics has developed algorithms that it says can read Twitter "sentiment."

None of the big algorithmic traders I called would explain how they use Twitter, which is not exactly surprising. The algorithmic guys never want to explain anything to anyone.

But one person inside an algorithmic trading operation at a major U.S. bank said that his unit's software is programmed to detect major events occurring on Twitter.

In some ways, this is a very old story. Traders have been scraping data from every imaginable source for as long as we've had trading. And tech-savvy traders have been scraping the internet for a long time.

What makes this new is that the world's fastest news delivery device—Twitter—is now mixing with ultra-fast trading, often without any human intermediary. But in order for this to work well, safeguards have to be put in place to guard against errant news on Twitter triggering trades.

"You have to be careful with Twitter because there is so much noise. So you build a system of weighting into the algorithms, giving more weight to more credible sources," the trader at the U.S. bank said.

The possibility of the account of a reliable news source being hacked can break theses checks, however.

"There's going to be a lot of rethinking in light of today," the trader said.

The sell-off on a false tweet should have triggered a buy signal instead of a sell order of cancellation, he said.

Even firms that do not monitor Twitter directly would have seen the selling pressure in the futures market, which sold off quicker than the cash equities market. High-frequency trading algorithms would have detected the divergence between the futures and stock markets, which then would have triggered selling in the stock market.

The market markers, however, would have hedged the selling in the stock by going long in the futures market until the divergence was arbitraged away.

I pointed out that a lot of people who read the AP tweet recognized it as a likely fake right away. Why didn't the computers?

"People are still better than the algos at a few things," the trader said. "For now."

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