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Hoax Shows Growth in Algorithmic Trading

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AFP

Last month's hoax-driven "tweet crash" could actually have been driven by a relatively small outfit, say programmers and traders. But if it wasn't a major high-speed trading outfit, who was it?

So far, regulators have failed to identify the firm or firms whose responses to the fake tweet from a hacked Associated Press account sent the Dow Jones Industrial Average into a short-lived 145-point plunge.

What we know is that the swift selloff was set in motion by an algorithmic program that responds to keyword searches, in this case to combinations of words like "explosion" and "White House" from supposedly legitimate news sources. Such a program, say technology trading experts in both London and New York, could be commandeered by almost anyone. And so long as the firm has just enough order volume behind it, that selling could easily send regular momentum-driven high-speed firms into action, thus exacerbating and accelerating the decline.

In fact, the algorithm that was likely used had probably been around for almost a decade. As one senior programmer at a New Jersey high-speed trading program said, "given what you can find online and in text books, any computer science major in the country could have done this in less than a day."

In this sense, the hoax-driven "tweet crash" could go down as a turning point in the power dynamics of trading. It was perhaps a sign that technology has now handed to smaller trading shops the kind of capacity to unleash market moves that previously belonged solely to high-powered hedge funds and other hefty institutions.

"Technology in trading has developed to a state where experimenting is very cheap. It used to be the case that a new way of analyzing your portfolio was a year-long project and you had to commit to writing some big checks before you bought anything," said Alexei Miller, executive vice president of DataArt, a custom software development company. "But now, you have an idea, and for $10,000 you can see if it works out…That used to cost a million bucks."

The falling cost of artificial intelligence technology has in this way combined with the expansion of fast and free information sources such as Twitter to empower the little guy.

But before cheering over a leveling in the playing field, consider the dangers this poses. It seems, for example, that whoever sent the market into a tailspin last week wouldn't have wanted to sell had they known the AP tweet was a hoax. And those that placed orders on the market's momentum didn't have safeguards in place to cancel orders on a fake move. We know this because other traders missed out on the crash completely because they also examine dozens of other variables to confirm information on Twitter, such as market moves broadly, the geo-location of tweets, confirmation from other verified sources and the clustering of tweets. When none of these confirmed the AP tweet, it triggered their automatic kill switches.

"You need to have proper controls in place, you can't treat [Twitter] like a news source," said Oli Freeling-Wilkinson, the founder of Knowsis, a London-based firm that helps quantitative trading firms trade using social media.