

FINRA is to be commended for the idea of bringing algorithms and their use under regulatory supervision.

Registering algorithm designers as associated persons is equivalent to licensing car manufacturers instead of drivers, or gun manufacturers instead of gun users.

Some algorithms are fully automated while some are semi-automated. Most algorithms allow traders to set parameters on how to trade. But all are ultimately controlled by the trader or portfolio manager initiating its use. Yes, education in particulars of any algorithm is important. Yes, algorithms, whether new or modified, should be rigorously tested and documented. But algorithm designers, especially consultants like me, cannot prevent a trading firm from changing the algorithm logic or from misusing the algorithm.

One anecdote will illustrate the problem.

A semaphore is a software construct to prevent a procedure from using data which has not yet been updated. It's an idea drawn from railroads where a single track is used both directions. When the semaphore is set, a train must wait before proceeding. Similarly in software an algorithm may set a semaphore to prevent a "Sorcerer's Apprentice" scenario, where the algorithm keeps on flooding the market with repeated orders.

A US based software vendor provided a pairs trading algorithm to a bank outside the US. The algorithm made use of a semaphore to prevent trading on not-yet-processed information regarding the shares bought so far. A trader at the bank decided to speed up the algorithm on their production system by removing the semaphore - without first testing or consulting with the software vendor - resulting in a flood of orders and disaster. The bank subsequently shut down the trading desk. How would have registering the algorithm designer prevented the incident?

Another issue is the economic impact on independent algorithm designers which would create economic barriers to entry and limit innovation.

Hence I recommend a major emphasis on education and registering algorithm USERS. This would include a trading entity's traders, quants, programmers, managers and support people. These users are more likely to have direct control of the algorithm, than an outside designer, since they can (1) modify code, (2) set parameters, (3) test in a QA environment, and (4) deploy in production.

Respectfully,

Abe Kohen

President

AK FE Consultants, LLC

twitter: @abekohen

skype: abekohen

www.linkedin.com/in/abekohen

abe@kohen-consultants.com

abekohen@gmail.com

akohen@cs.stanford.edu

New York, NY 10128