

NYT - Envisioning Stock Trading Where the Brokers Are 'Bots'

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By Carol Alvarez Troy

During the severe plunge on Wall Street last month, some big brokers couldn't get order confirmations for over two hours. Some agitated customers couldn't even get their brokers on the telephone. And the country's largest securities firms whittled away at small-customer good will while the sinking market whittled away at their money.

James Canton served notice that new technologies sweeping the financial services sector will "rock your world" in the next three to five years.

But if you listen to one futurist, the days of the middleman broker are numbered. In his view, Wall Street's huge army of stock brokers is marching into a technological battle that could break their hold on the little guy, because the small retail customer is no longer a sure bet in the Internet era.

Last month, brokers were cautioned sharply by James Canton, a San Francisco futurist, in a speech before the Investment Management Consultants Association convention in Dallas.

Canton, head of the Institute for Global Futures and managing director of a high-tech consulting firm, Praxis, served notice that new technologies sweeping the financial services sector will "rock your world" in the next three to five years.

"We're not far from the idea of a broker in a box," he said.

Online applications – like Datek’s \$9.99 online electronic trading, analyst ratings and trading software – are revolutionizing the small customer’s power and access on Wall Street. Some Wall Street observers even credited the small investor’s new habit of “buying on the dip” with the market’s initial recovery from the 450-point drop in the Dow Jones average earlier this month.

But according to Canton, 1997’s tantalizing online peek into behind-the-scenes market operations is only the opening wedge of a power shift on Wall Street.

Within three to five years, Canton projects deployment of “stock bots” – a sort of trading Deep Blue supercomputer – available on call to individuals. These technologies will help make the current advisory role of stock broker obsolete, he believes.

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Today, sophisticated computer programs help manage multibillion-dollar portfolios for Wall Street brokerage houses and investment banks. Tomorrow, Canton says, customers themselves will access such expert programs directly rather than ask for help from a salesman-broker trying to increase brokerage commissions. Further, he says, software makers exporting a “market in a box” will enable small markets like Jakarta to go digital, along the lines of Nasdaq, for quick electronic buying and selling.

The small investor will then claim a lucrative front-row seat in a new cyberspace game played out across worldwide financial markets. Canton sketches out a futuristic business trip five years hence: “Flying from Jakarta to San Francisco, I configure my goals on my laptop and make an instantaneous buy.”

“In a five-minute window, I go between markets in Chile, London, Hong Kong,” he said. “The technology is opening tremendous opportunities for dealing in a global digital economy.”

Of course, the laptop stock bots of Canton's imagined business trip bear little resemblance to today's versions.

Various programs now search out news and information on the Internet. But smarter bots are being developed. Cambridge, England's CyberLife Technology Ltd. supports engaging "bot" personalities that are multiplying rapidly, driven by genetic algorithms.

Some experts in the software field maintain that Canton's scenario is simply not possible in that time frame.

Pattie Maes, known as Queen of the Bots among the international techno-elite, founded and directs the Software Agents Group at the MIT Media Lab. Maes lights up at the idea of a personal stock bot: "The London market is all electronic," she said. Maes has already developed a new shopping, negotiating bot marketed as Kasbah. But Canton's three-to-five year scenario calls for a true super-bot – not just a Kasbah shopper – that can hook into global data flows to optimize the small guy's investment goals. Ideally, Canton said, these personable stock bots will help consumers make decisions, trade, negotiate, invest, and pile up profits.

While acknowledging that financial services companies will have to step lively to stay in the running for the small customers' business, some experts in the software field maintain that Canton's scenario is simply not possible in that time frame.

"The software is not anywhere near that level of sophistication," said Tandy Trower, who works with Web site builders using Microsoft's software and runs Microsoft Agent development for the software giant. "But," Trower said, "there is room for agents (bots) to assist both (broker and client) in finding ways to analyze the data."

While stressing the highly theoretical nature of such artificial intelligence work, Eric Horvitz, who works in Microsoft Research's AI group, agreed that stock brokers are already threatened.

Citing online brokers, the high price of telephone trades with a broker, and online financial research, Horvitz said “these better and better tools continuously lower the differential between Joe Consumer and the Smith Barney consumer (a brokerage firm with no online trading).” (Horvitz noted that he often comes home from work to find his wife, an accountant, on the computer, getting quotes from the Microsoft Investor site.)

But is the death of the broker simply a figment of the futurist’s imagination? Not according to Canton. Data mining technology is currently so sophisticated that a firm like Merrill Lynch could electronically search through all their brokers’ personal customer portfolios today to create a fine-tuned investment strategy for each customer. But will they?

Why should a retail brokerage house theoretically pay a “\$100,000 salary to a stock broker,” Canton asked, “when for under \$50,000 they could create a minimal human interface for their customers?” But even Canton hasn’t stamped and mailed out invitations to the brokers’ funeral.

“Smart financial services companies are reinventing the mission of the broker – NOW,” according to the consultant. “Traditionalists denying these changes are going to miss the boat on the 21st century.”