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Beyond Gilder

Energy has been around for as long as the sun has been shining (or longer). It was not enough for us to harness energy with the steam engine, we had to tame the steam engine with James Watt's governor to make it really useful. Domesticated energy gave birth to the Industrial Age.

Next we harnessed electricity but it was not until we domesticated low power electricity with the transistor that the Information Age came to pass.

With the Telecosm, we are now harnessing information but we have not yet learned how to tame it. I have often complained about noise information because it is not useful, on the contrary, it clogs up our decision making circuits with information overload. According to George Gilder. "The central event of the twentieth century is the overthrow of matter." I believe the next central achievement will be the overthrow of information --the domestication of information. Three things are converging to make this possible: the Telecosm to gather the information, faster than ever computers to process the information and the science of complexity to teach us how to process the information in an intelligent and useful way.

An individual investor can now receive price data from most stock exchanges at very high bit rates. In the third world country where I live I'm receiving this data at about 190 Kbps and I could buy a faster service if I wanted to, right now up to four times faster. Of course, I can also deliver my buy/sell decisions to my online broker at the same speed if I could only figure them out that fast. For under \$2,000 I can now have a supercomputer in laptop format on my desktop ([Macintosh PowerBook G-4 Titanium](#), a supercomputer by Seymour Cray standards). All I am missing is the software to make the system work.

The people working on the science of complexity have come up with some quite incredible software. Here is an example:

[Boids](#) (click to see a demo)

Boids are computer models of coordinated animal motion such as bird flocks and fish schools, first created by Craig Reynolds. Each "creature", or boid, has direct access to the whole scene's geometric description, but reacts only to flockmates within a certain small radius of itself. The basic flocking model consists of only three simple steering behaviors: separation, alignment and cohesion. This system is important and often cited example of principles of Artificial Life: flocking is a particularly evocative example of emergence, where complex global behavior arise from the interaction of simple local rules. There have been other applications of the Boids model in the realm of Behavioral Animation (used in movies Batman Returns and Cliffhanger). While we are at that topic, you may also visit Craig's excellent pages on [Evolutionary Computation and its application to art and design](#).

From [about.com](#)

In a discussion of the failure of central planning by Lenin's Supreme Soviet (or by Alan Greenspan's FED), Kevin Kelly says in [Out of Control](#): "Instead, Hayek and other Austrian economists of the 1920s argued that a single variable -- the price -- is used to regulate all the other variables of resource allotment. That way one doesn't care how many soap bars are needed per person, or whether trees should be cut for houses or for books. These calculations are done in parallel, on the fly, from the bottom up, out of human control, by the interconnected network itself. Spontaneous order."

Jesse Livermore was one of the most successful speculators at the start of the last century. As a lad, he got a job as a quotation-board boy in a stock-brokerage office. In his (auto) biography, [Reminiscences of a Stock Operator](#), he says:

"Those quotations did not represent prices of stocks to me, so many dollars per share. They were numbers. Of course, they meant something. They were always changing. It was all I had to be interested in -- the changes. Why did they change? I didn't know. I didn't care. I didn't think about that. I simply saw that they changed. That was all I had to think about five hours every day and two on Saturdays; that they were always changing."

"That is how I first came to be interested in the behaviour of prices. I had a very

good memory for figures. I could remember in detail how prices had acted on the previous day, just before they went up or down. My fondness for mental arithmetic came in very handy."

"I noticed that in advances as well as declines, stock prices were apt to show certain habits, so to speak. There were no end of parallel cases and these made the precedents to guide me."

Unfortunately, Livermore never revealed what those habits of stock prices were but he did spell out some rules for buying and selling based on the behavior of stock prices.

Technical Analysis is dedicated to finding the Holy Grail of stock price divination. I have often said that if computers could do technical analysis, they would be richer than Bill Gates or Warren Buffett and that there are no rich computers out there. I now believe, based on Microcosm, Telecosm and the new science of Complexity, that it is possible to program a computer to trade stocks successfully. The main block to successful Technical Analysis has been similar to the reasons why central planning fails: the rules are too complex. From Hayek we know that only one variable is of any importance: price. From Livermore we know that prices have habits, which, once understood, can be used to trade stocks. From the science of complexity we know that complex systems are driven by a few simple rules.

Imagine for a moment the impact on the world as we know it if it were in fact possible to have a computer manage your portfolio autonomously, without human intervention. Your computer would look only at prices. It would disregard analysts' upgrades, downgrades and earning estimates. It would not watch CNBC. It would not subscribe to the GTR, but if it did, it would be only for educational purposes, not to trade stocks. It would read this forum only for the jokes and the personal news about the members as no information on the forum can compete with realtime stock quotes. The whole of the financial news industry would go the way of the buggy whip industry. No longer would we be forced to act on speculation by insiders, pundits and colleagues. Our computer would simply read stock prices in real time and react accordingly, sending our broker the appropriate buy/sell orders without human assistance or interference.

Today we are the slaves of the information our civilization produces. We have to read it, process it and make decisions based on it. This is a heavy and time consuming burden. If we have machines to till the soil, to make products and to wash the dishes, why can't we have machines to do our intellectual work? Why can't our machines run our stock portfolios? No reason once we figure out the simple instructions we have to give them. After that they are on their own and we can have a really "[Worry Free Portfolio](#)."

Denny

"Demand creates queues. Supply gets rid of them."

[Software Times](#)