The Evolution of Trading:

From Chalkboards to Code

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If you walked onto the floor of the New York Stock Exchange in the early 1900s, you wouldn't see traders staring at multiple monitors with Bloomberg glowing in the background. You would see paper. You'd hear shouting. You'd smell ink and sweat. And you'd quickly realize that trading has always been about one thing: connecting buyers and sellers. The tools, however, have changed dramatically.

The story of trading is the story of technology racing to keep up with human ambition.

From Chalkboards to Pneumatic Tubes

In the beginning, markets ran on handwritten ledgers. Clerks recorded every transaction line by line in bound books. Errors weren't fixed with a backspace — they were crossed out and manually reconciled.
Quotes were written on chalkboards. Runners carried updated prices across the trading floor as clerks erased and rewrote numbers in a race against the market. Trading quite literally moved at the speed of footsteps. Years ago, I had a client whose first job in the business was updating those chalkboard quotes.

Then came paper tickets. Each trade generated a physical slip that traveled from broker to clerk to clearing firm. Desks overflowed. Mistakes were common. Settlement took days. It was organized chaos—and it worked.
By the early 20th century, rising trade volumes strained communication systems. Enter pneumatic tubes: air-propelled canisters shooting trade tickets across buildings in seconds. Replacing runners with near-instant internal delivery was revolutionary. For the first time, firms could scale operations beyond human legwork.

Precision and the Cost of Trading

As markets expanded globally, synchronization became critical. Atomic clocks—precise timekeeping devices—became foundational to market infrastructure. Orders now must be stamped within fractions of a second to ensure fairness. Today, systems synchronize to nanoseconds.

Prior to 2001, U.S. stocks traded in fractions — ¼, ⅛, later 1/16 (the "teenie"). Minimum price movements were 25 cents, 12.5 cents, or 6.25 cents. Bid-ask spreads were wide, favoring intermediaries and keeping trading costs relatively high. Decimalization in 2001 changed that. One-cent increments compressed spreads, increased competition, and lowered costs. It sounds minor, but it fundamentally reshaped market economics and accelerated the shift toward modern electronic markets.



"Markets once moved at the speed of footsteps. Today they move in microseconds."

From Open Outcry to Algorithms

For decades, open outcry defined trading—traders shouting bids and flashing hand signals In crowded pits. It was intensely human and theatrical.

By the late 20th century, electronic communication networks began replacing physical presence. Screens took over. Orders could be entered, routed, matched, and confirmed digitally.

Execution management systems (EMS) streamlined institutional trading—aggregating data, routing orders across venues, monitoring fills, and providing analytics in a single interface.

Then came algorithms. These programs execute trades based on predefined rules to minimize market impact or track benchmarks. High-frequency trading pushed speed even further, with firms investing in optimized code and proximity hosting to shave microseconds off execution. The race that began with pneumatic tubes now revolves around fiber-optic cables and microwave towers.

What Hasn't Changed

Despite leaps from ledgers to algorithms, the core function of trading remains the same: matching buyers and sellers. What has changed is scale and speed. Trades that once took minutes now execute in microseconds. Warehouses of paper have become distributed data centers. Spreads once measured in fractions are now pennies—or less.

But the evolution isn't just about speed. It's about efficiency and access. Decimalization lowered costs. Electronic platforms broadened participation. Algorithms refined execution. Each innovation reshaped how markets function—and who benefits.

From Chalk Dust to Code

The clerk erasing a chalkboard quote feels nostalgic today. But that chalkboard was once cutting-edge. So were pneumatic tubes. So were fractional spreads.

Markets are living systems. They adapt, compete, and absorb new technologies. If history is any guide, today's systems will one day look quaint. Somewhere, engineers are already building the next leap—whether through artificial intelligence, quantum computing, or something not yet imagined.

And through it all, one constant endures: the relentless drive to connect buyers and sellers more efficiently than ever before.



Final Thoughts

After a career in the markets, one thing is clear: the tools change, but the purpose never does. *I've watched trading evolve from chalkboards and paper tickets to algorithms and nanoseconds. The technology is extraordinary, but markets are still driven by people making decisions, managing risk, and seeking opportunity. Witnessing that transformation firsthand has been one of the great privileges of my career.*

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