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Here's why finance is about to be disrupted

O'Reilly's Next:Money event helps business leaders understand the fundamental shifts reshaping finance.

by [Paul Kedrosky](#) | [@pkedrosky](#) | [Comments: 3](#) | May 28, 2015



Request an invitation to Next:Money, O'Reilly's conference focused on the fundamental transformation taking place in the finance industry.

*Editor's note: We're approaching an inflection point in all things "money" — currency, transactions, markets, and capitalism itself. Fundamental changes in the financial industry, driven by technology but with implications for every business and government, are beginning to manifest, bringing both disruption and opportunity. We created O'Reilly's new conference, **Next:Money** (September 9-10 in San Francisco), to help business leaders understand and act on this shift. Below, Next:Money program chair **Paul Kedrosky** lays out the forces and patterns that are reshaping the financial industry.*

Finance has the three main characteristics of an industry likely to be transformed by technology:

1. It traffics in bits, not atoms.
2. Its services are often delivered remotely.
3. There is little need for human contact.

Unlike other sectors with these characteristics — e.g., media, advertising, and travel services — finance hasn't been disrupted. Despite huge technological change and a series of financial crises, the league table of the largest financial firms today, both in the U.S. and around the world, remains much the same as it has always been.

Granted, the \$1.2-trillion U.S. financial services industry isn't homogenous. Its main components — banks, brokers, asset managers, markets, payment networks, insurers, and credit card companies — are very different, and have seen widely varying degrees of technology-induced change. In no sense, however, is this industry as transformed by new companies and new business models as one would expect, given its disruption-ready characteristics.

So, why haven't entrepreneurs transformed finance? There are (at least) five reasons:

1. **Regulation.** Financial services is the most regulated industry on the planet. From the provision of money, to the certification of banks, brokers, and insurers, (risk-averse) regulation limits the velocity and types of change. Further, regulated incumbents have become adept at bending the rules in their own favor, making it difficult for new entrants.
2. **Scale.** Natural oligopoly pressures have existed in finance, with large pools of capital seen as safer than smaller ones, leading to pressure for mergers and acquisitions. This has led to the "too big to fail" phenomenon in most developed countries, with a few large banks so big that their survival becomes important to the economy.
3. **Demographics.** Financial services consumers are generally conservative, with most of the assets controlled by older population cohorts, all worried about losses. These groups are less prone to trying out new services, and so less comfortable with new technologies. As a result, it has been difficult for innovative, technology-driven services to gain a foothold.
4. **Proprietary transaction** The industry is built around expensive proprietary and quasiproprietary networks. These networks are costly to join, expensive to use, and generally highly complex and slow to change. They are similar to computer networks prior to the emergence of HTML, TCP/IP, and open protocols.
5. **Complexity.** Most industries aren't rocket science. The financial industry *is* rocket science. Like rocketry, finance is complex, arcane, and math-centric. A narrow financial error's consequences can be calamitous, as we most recently re-discovered in 2007/08 when mistakes in pricing mortgage risk nearly induced a second Great Depression.

These are major obstacles to change in financial services. All of them, however, are now falling away:

Barrier	Breaker
Regulators	Post-crisis willingness to experiment
Scale	The network is the bank
Demographics	Boomers and millennials
Proprietary networks	Bitcoin and open protocols
Complexity	Edge-first innovation

Postcrisis, regulators have shown a new willingness to experiment. Fearful of another crisis and “too bigger to fail” institutions crashing the economy, they are more open to new technologies and startups than ever before. Even incumbents recognize this, with JP Morgan's CEO Jamie Dimon saying recently that [Silicon Valley startups are coming to challenge Wall Street](#).

Technology and finance have long co-evolved. Faxes and real-time news feeds first emerged to service the financial industry's voracious appetite for timely information. Similarly, exchange traded funds (ETFs), among the industry's most successful products are really just traded software applications. They are exchange-listed algorithms. As technology and finance continue to co-evolve, there will be many more examples.

Technology is changing how we think about scale in finance. There is a growing recognition that scale can come from the network, not just from a single large firm. It is increasingly true that “the network is the bank.” The notion that security comes from a large institution seems increasingly dated, especially when one “too big to fail” bank can be replaced by a network of “so small no-one cares” innovators.

Similarly, mobile is changing the way people think about storing money and paying for things. Money itself is disappearing. For many people, money is now waving a watch, or a phone, at a point-of-sale device — if the transaction happens in a store at all, or even uses government-backed currency rather than Starbucks points. Money is increasingly whatever we call money that week, which is a throwback to the early days of currency in the U.S., when there were hundreds of different kinds of money, not just the U.S. dollar.

Entrepreneurs are realizing they need not replicate the existing financial system, with its complexities and arcana. Some are already routing around it. An increasing number of startups are picking off bits and pieces of finance, not replicating banks, brokers insurers, or asset managers from the ground up. This is edge-first innovation, a way to end-run the complexities of the existing system.

The financial industry is on the cusp of being transformed in a way that may make it unrecognizable. Changing demographics, changing technology, regulatory flexibility, and new open payment protocols are transforming the very idea of money and finance. Opportunities are legion to rethink old business models based on dated assumptions about costs, scarcities, time, and even the nature of money. The unbundling of financial services is ahead, and it looks transformative, with huge opportunities for startups and for incumbents.