

Inside Silicon Alley

Innovation News from New York City's Tech Scene

Finance & Technology

FINANCE & TECHNOLOGY: DISRUPTIVE INNOVATION IN THE FINANCE INDUSTRY

Over the past few decades, innovation in the financial industry generated a large scope of benefits for different shareholders. Some breakthrough innovations, such as credit/debit cards, online payment systems (PayPal e.g.) and the digitalization of trading, deeply revolutionized the industry and the interface between the financial firms and their customers.

In 2014, what are the current and upcoming innovation trends in financial technologies (FinTech) and how can financial firms benefit from them? With its predominant position in market finance and trading and its rising digital media and information technologies ecosystem, New York City has become the innovation lab of financial services.

The innovation in Financial Technologies, also known as FinTech, generally focuses on **five fields**: capital markets technology (facilitating the buying and selling of financial securities for professionals); payments (payments process, cutting processing costs, enabling digital currencies to become reliable and mobile phone payment); data analytics (leverage big data for financial matters as risk management; fraud detection and credit monitoring); banking & corporate finance (complement or disrupt traditional banking and corporate finance practices such as loan origination, mobile banking and corporate accounting); and personal finance management (manage stock portfolios, personal budgets and taxes through technology). Payments, banking and corporate finance currently represent the fields with the higher investments in FinTech.

This report gives an overview of the current technological trends that are reshaping the relations between the financial firms and its customers, through examples of initiatives and start-ups.

MOBILE & ONLINE BANKING

With the rapid growth of smartphones/tablets markets and the high-speed 4G infrastructure, some predict that mobile users will soon exceed online users. The access of mobile financial services becomes a must for more demanding customers. If mobile services become the norm, the substantial loss of income from credit card transaction fees will be a major issue for traditional banking firms. [Simple](#) is not a bank, but replaces a bank. This startup, founded in 2008, provides a financial experience through its mobile app and website. The partner bank hold the money and Simple cares the customers. The result is an easy-to-use and friendly platform, which was [recently acquired](#) by the 150-year old financial services BBVA for \$117M. Founded with about \$15M, Simple proved to be a profitable deal for its investors.



Supported by the rise of cloud computing, developers from Silicon Valley provide new ways to bank on your computer, tablet and smartphone. [Malauzai](#) makes payment via smartphone possible by snapping a picture of the bill. With a high quality smartphone camera, the payment is faster and easier.



Commonly used in the USA, mobile check deposit is now possible via a snapshot from a smartphone camera and directly linking to a bank account. Initiated by innovative startups as [Mitek](#), major banks, such as [Chase](#), [CitiBank](#) and [Bank of America](#), integrated the technology to its financial services.

Already popular in Japan, digital wallets allow users to make electronic commerce transactions via an electronic device, like a smartphone. Through this, we can imagine that all debit/credit cards, ID, driving licenses, loyalty cards will eventually be electronically integrated to our phones. [Google Wallet](#) allows the users to store the traditional cards in the digital wallet – a phone or a tablet – and to use it for payments. In 2013, the integration of Gmail to Google Wallet made money transfers possible through a Gmail attachment. However, the application does not yet support devices bought outside of the USA.



SOCIAL MEDIA AND FINANCIAL SERVICES

Some startups try to make financial services more interactive, intuitive and social by analyzing and using social data to build new market and trading opportunities.

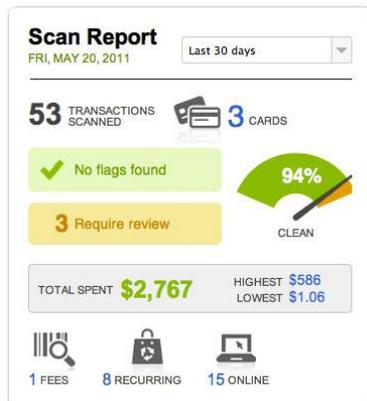
[Lenddo](#) is a startup that was incubated by the [FinTech Innovation Lab NYC](#) in 2011. The startup measures your credit worthiness through your social network. It aims to help middle-class in the emerging markets to access credit, usually inaccessible due to the lack of financial securities. In order to receive a loan for a “life improving project,” your “Trusted Network” (friends and family) has to demonstrate they believe in you, your project and in your ability to reimburse the loan. Lenddo has already raised \$14M and the reimbursement rate is roughly the same as other microfinance systems – 95%. Banks are carefully observing the profitability of this method, conscious that this innovation could open new markets.



Moreover, many crowdfunding websites successfully appeared and supported the creation of new businesses. If compared to B2C, this new model of collaborative business is sometimes called H2H – Human to Human.

BIG DATA

According Silicon Valley Bank, 90% of the world's data was created in the last two years and there will be 30x data volume in 2020 than 2012. The challenge for corporations is to manage the huge amount of data, make a powerful management tool of it and transform this intelligence into a business advantage. Having a high volume of data is not sufficient. The challenge is how to go beyond big data and create knowledge, not only by explaining what happened, but by being able to predict what will happen and finally by figuring out how we could make it happen. Extracting value from uncertain data is a key issue that the financial industry is currently facing. The room for



innovative solutions and new business opportunities is huge. Let's take the example of [BillGuard](#).

The start-up provides an innovative and intelligent solution through an app that helps card holders to prevent frauds and errors. It compiles a big data base from crowdsourcing (tweets, online discussions, complaint boards) to identify repetitive deceptive practices. The system uses data available in order to predict what will happen and anticipate potential frauds.

VIRTUAL CURRENCIES: [BITCOIN](#)

A digital currency is a medium of exchange like traditional currencies, but intangible - without a centralized control and created by an algorithm. Some digital currencies, such as the [Bitcoin](#), allow users to buy services, goods and even plane tickets via websites or brick and mortar shops. Highly discussed, nobody can agree and be sure of its future or potential outcomes. Some people consider it as the next safe haven - the "gold 2.0." François R. Velde, Senior Economist at the Federal Reserve Bank of Chicago says Bitcoins "represent a remarkable conceptual and technical achievement, which may well be used by existing financial institutions (which could issue their own Bitcoins) or even by governments themselves."



Conversely, experts say Bitcoin is too young, too volatile and not secure enough to become a regulated currency. Moreover, with almost a "free transaction cost," Bitcoin could potentially compete with State currencies, attesting why governments would never be willing to regulate it.

INSURANCE SECTOR

Insurance firms are seemingly unwilling to bring disruptive or innovative solutions in their business system. However, smartphone applications, aggregated data bureaus and the use of telematics by smaller carriers are new technologies that will enter the industry in 2014 and will be more commonly used, according to two insurance-focused 2014 outlook reports released today by the Deloitte Center for Financial Services. Insurances should behave more proactively in order to engage the policyholders through digital strategies. Mobile-driven culture and strategies will be implemented in order to engage them and improve the customers' experience.

Hello New York, We're Oscar,
A new kind of health insurance company that is using technology to make insurance simple, intuitive, and human. In other words, the kind of healthcare we want for ourselves.

For instance, [Oscar](#), a New York based company founded by young entrepreneurs' aims to take on the traditional health care insurers through including technological interfaces, telemedicine and real transparency in their services. Oscar wants to create an experience for its customers, be part of the health care system as the family doctor would be, "a consumer experience, not a processor of claims," explained Nazemi, co-founder. Concretely, in addition of the traditional covers, Oscar will provide innovative elements like free telemedicine, free generic drugs and online price comparisons.

NEW YORK, INCUBATOR FOR FINANCIAL INNOVATION

Wall Street is the world's financial epicenter. The high concentration of highly skilled financial professionals and the predominance of [NASDAQ](#) and [New York Stock Exchange](#) (NYSE) testify to its leadership. New York leadership in finance and banking has enabled the emergence of new ventures in information technology and led New York-based firms to be early-adopters of innovative solutions in FinTech.

Even though complementary, financial firms and start-ups are two different worlds with different management structure and communication codes. Several initiatives in NYC have been launched in order to help them communicate, benefit from each other and create synergies.



The **FinTech Innovation Lab** is an example of initiative born in NYC to gap the differences and foster the FinTech ecosystem. This annual program run by Partnership Fund for New York City and the consulting firm Accenture incubates the most promising start-ups offering innovative financial products or services. Each year, the six companies selected have the opportunity to receive training, mentoring, workshops and access to networking events through a 3-month acceleration camp. The programs ends with a pitch in front of bank executives, investors and press. Partnered by major corporations of the financial industry, such as American Express, Bank of America, Barclays, Citigroup, Credit Suisse, or UBS, So far, the companies that graduated from the program have raised \$47M and created 150 jobs since 2010. This incubator is the bridge between the startups, the major players of the banking industry and the end customers.

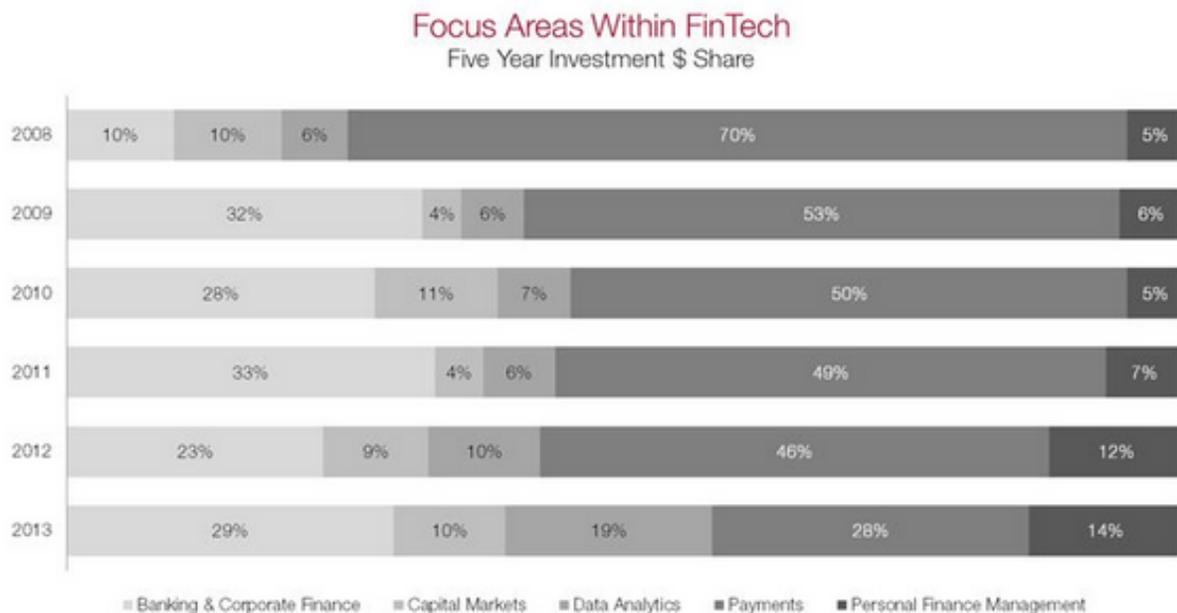
Expert Interview: *Maria Gotsch*, CEO at FinTech Innovation Lab, tell us more about the Fintech program and the needs to bridge finance and innovation.



MORE INVESTMENT IN FINTECH STARTUPS

The emerging trends we described above have increased the interest of venture capitalists for customer-oriented products and services in financial technologies. According to the [CB Insights report](#), FinTech startups in New York have raised around \$800M since 2008, with \$450M only for the 2013 period.

Since 2008, the FinTech landscape significantly grew and the areas of focus evolved. As detailed in the chart below, payment solutions still represent a major part of FinTech investments, but the rise of cloud computing and big data management reshaped the landscape with a more harmonious allocation of overall investments. The rise of new technologies has enabled new business opportunities in the financial field know to be conservative. The upward trend of mobile devices and cloud computing suggests that data analytics and personal finance management will keep growing and attract investors.



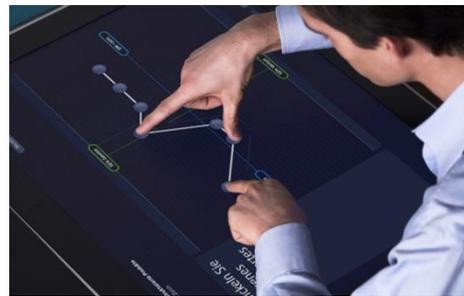
SOURCES: CB INSIGHTS

FINTECH IN SWITZERLAND

Representing 10% of the GDP, the finance industry is a pillar of the Swiss economy. Most global commercial and private banks and insurances are headquartered or have subsidiaries in Switzerland. The country being ranked first in many global rankings on innovation and competitiveness, what are the connections between the historically-strong finance industry and the Swiss start-up scene?

The following examples illustrate the recent Swiss initiatives in finance technology:

- swiss design institute for finance & banking:** in collaboration with higher education institutes and private industry partners, its aim is to be a platform between the academic communities and the business industry. SDFB conducts applied research related to the interface between the financial industry and its customers. It has initiated and supported R&D projects, master thesis and different events promoting the innovation in finance and banking. In cooperation with the University of Zurich and the Zurich University of the Arts, SDFB has for example developed the **EDIT project**. EDIT is a collaborative editor for structured product. Via a multi-touch screen on an interactive desk, the customer and his advisor can design his own financial product adapted to his personal needs, without requiring mathematical or financial knowledge.



- Banking IT-Innovation Award:** In partnership with St. Gallen University, Zurich University and Leipzig University, this award rewards the most innovative IT-based solutions for the customer-bank interface in the German speaking zone (D-A-CH). With positive outcomes after three years of (37 innovators enrolled in 2013 against 19 in 2011)

- Groosker**, based at the EPFL, uses the QR codes as a digital wallet. Via his phone, the user has just to scan the code, verify the payment and accept it, skipping the process of entering the credit card information.



- An awarded Swiss startup from Banking IT – Innovation Award, **MydepotCheck**, provides neutral and online advices portal for the customers' depot based and his investment's profile with additional suggestions.

- **Eny Finance**, provides only online financial services for the Swiss market with banking and insurance products via an innovative web and mobile applications. The interactive and easily manageable products allow the customers to have a simple and fast overview of his portfolio wherever located.

- **Squirro**, Swiss start-up based in Zurich has been selected by the **FinTech Innovation Lab London 2014**. It provides real-time and accurate context intelligence with a combination of structured and unstructured data for a better decision-making. Squirro helps to get the “why” behind big data and reduce the research time by up to 90%.



- **PayPoints** is the subsidiary of the Swiss-based company Loylogic Holdings. It allows you to turn your fidelity points and miles into instant cash and get special offers when using the PayPoints card. In 2013, it has won the “Contactless & Mobile Award 2013” sponsored by Visa, the award for the “Best Loyalty Industry Innovation” at the Loyalty Awards in London and has received the “Banking IT Innovation Award 2013”.

- **DealMarket** is a platform providing access, choice and control for private equity buyers, sellers and advisors. Through the platform, investors and capital seekers have a better and simpler access to investment opportunities around the world. The Swiss-based start-up was part of the 2013 **NYC Venture Fellows** class, a one-year long fellowship program helping promising entrepreneurs to scale their business in New York.



- **Bitcoin ATM** launched in Zurich: The Zurich Markethalle temporarily hosted the first Bitcoin ATM of Switzerland for one week. The “ATM” was placed in order to increase the visibility of the Bitcoin and test the potential interest from the mass market. Currently not a worldwide standard, this ATM test proves of a certain dynamism and interest for FinTech in Switzerland.

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