Fintech Innovation: A Digital Opportunity Beyond Finance

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Agenda

▷ Fintech Globally
▷ Fintech in Canada
▷ Blockchain: Challenges & Opportunities
▷ Policy Recommendation
▷ Q & A
Fintech Globally


▷ London, UK – Fintech industry as global standard

▷ China as world’s largest Fintech market

▷ Central banks in England, US, Canada, China, Sweden, Singapore experimenting with Central Bank Digital Currencies (CBCDs)

▷ Paris, Frankfurt, Berlin → Next Fintech Hub in EU?
Global FinTech VC deal value 2016

The map below shows the 2016 global FinTech deal values for countries covered by this interim report. Note that Bahrain, Hungary, Kenya and UAE had deal values less than $1 million and therefore were not included in the map below.

All figures below are in US Dollars.

Globally, $17.4 billion invested over 1,436 deals in 2016

Source: Pitchbook
Compiled by Deloitte
“To its advocates, Fintech will democratise financial services. Consumers will get more choice and keener pricing. SMEs will get access to new credit. Banks will become more productive, with lower transaction costs, greater capital efficiency and stronger operational resilience. Financial services will be more inclusive; with people better connected, more informed and increasingly empowered. And tantalisingly, Fintech could help make the system itself more resilient with greater diversity, redundancy and depth.”

-Mark Carney - Governor, Bank of England
Fintech in Canada
Fintech in Canada

▷ Heavy P2P focus in Canada to date
▷ Bank of Canada’s *Project Jasper*
▷ CSA “Regulatory Sandbox Initiative”
▷ IBM & SecureKey Technologies
▷ MaRS, Ryerson DMZ, One Eleven, DFI
▷ Blockchain Canada Meetups
“While the GTA has all the necessary components for a dynamic and thriving Fintech ecosystem, they are weakly linked. The consequence is that the parts do not currently add up to an effective ecosystem. In short: we have many of the essential parts, but are missing the system.”

– IPL Report, November 2015
“It’s hard not to be fascinated by something so transformative. This technology is being used in ways that have implications for central banking that span all the functions that we have.” – Carolyn Wilkins, Senior Deputy Governor of the Bank of Canada

“We believe that the economy works best when it works for everyone, and this new platform (blockchain) is an engine of inclusion.” – Don & Alex Tapscott, Blockchain Revolution (2016)
Understanding Blockchain

How a blockchain works:

1. A wants to send money to B
2. The transaction is represented online as a 'block'
3. The block is broadcast to every party in the network
4. Those in the network approve the transaction is valid
5. The block then can be added to the chain, which provides an indelible and transparent record of transactions
6. The money moves from A to B
## Blockchain use cases list by industry

### Financial
- Trading
- Deal origination
- POs for new securities
- Equities
- Fixed income
- Derivatives trading
- Total Return Swaps (TRS)
- 2nd generation derivatives
- The race to a zero middle office
- Collateral management
- Settlements
- Payments
- Transferring of value
- Know your client (KYC)
- Anti money laundering
- Client and product reference data
- Crowd Funding
- Peer-to-peer lending
- Compliance reporting
- Trade reporting & risk visualizations
- Betting & prediction markets

### Media
- Digital rights mgmt
- Game monetization
- Art authentication
- Purchase & usage monitoring
- Ticket purchases
- Fan tracking
- Ad click fraud reduction
- Resell of authentic assets
- Real time auction & ad placements

### Computer Science
- Micronization of work (pay for algorithms, tweets, ad clicks, etc.)
- Expanse of marketplace
- Disbursement of work
- Direct to developer payments
- API platform plays
- Notarization & certification
- P2P storage & compute sharing
- DNS

### Medical
- Records sharing
- Prescription sharing
- Compliance
- Personalized medicine
- DNA sequencing

### Asset Titles
- Diamonds
- Designer brands
- Car leasing & sales
- Home Mortgages & payments
- Land title ownership
- Digital asset records

### Government
- Voting
- Vehicle registration
- WIC, Vet, SS, benefits, distribution
- Licensing & identification
- Copyrights

### Identity
- Personal
- Objects
- Families of objects
- Digital assets
- Multifactor Auth
- Refugee tracking
- Education & badging
- Purchase & review tracking
- Employer & Employee reviews

### IoT
- Device to Device payments
- Device directories
- Operations (e.g. water flow)
- Grid monitoring
- Smart home & office management
- Cross-company maintenance markets

### Payments
- Micropayments (apps, 402)
- B2B international remittance
- Tax filing & collection
- Rethinking wallets & banks

### Consumer
- Digital rewards
- Uber, AirBNB, Apple Pay
- P2P selling, craigslist
- Cross company, brand, loyalty tracking

### Supply Chain
- Dynamic ag commodities pricing
- Real time auction for supply delivery
- Pharmaceutical tracking & purity
- Agricultural food authentication
- Shipping & logistics management
Regulatory Challenges

▷ Regulation must remain relevant so as to not stifle innovation
▷ Wide agreement on fragmented regulatory environment and government policies as barriers impeding Canada’s leadership
The “Second Digital Age”

- Blockchain is for the transfer of value what the internet has been for the transfer of information
- Blockchain and DLT still nascent technology; innovators are constantly improving it
- Applications of blockchain beyond bitcoin and financial services is significant
- Ability of governments to control and regulate financial transactions is shifting; regulators, governments, policy makers, innovators and financial institutions must work closely to shape the regulatory environment moving forward

- Canada has many of the right ingredients to emerge as a global leader in fintech, but we need to create an effective policy framework to realize this potential.
Policy Recommendation

▷ Canadian Fintech industry needs a unified, convening voice to bridge the gap between traditional financial institutions, regulators and innovators and act as a single point of access
▷ Policy makers, financial institutions, regulators, startups & innovators, incubators & accelerators, academia
▷ E.g. UK’s Innovate Finance
Next Steps

▷ Interview Canadian fintech innovators
▷ Conduct regulatory analysis
Thank you!

Q & A

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Additional Resources

Understanding blockchain:

▷ https://www.youtube.com/watch?v=r43LhSUUGTQ
▷ https://www.youtube.com/watch?v=YIVAluSL9SU
▷ https://bitcoin.org/bitcoin.pdf

Interesting Case Studies:

▷ Estonian Gov’t – Citizen ID
▷ Brazil & Sweden – Land Registry
▷ Lebanon – Syrian Refugee ID