Fintech:
How To Make Sense Of All The Hype

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What we’ll talk about today

• Make a few observations about technological change, trends and hype

• Analyze three “big” trends and discuss their impacts

• Leave you with some tips
Broadly: “An economic industry composed of companies that use technology to make financial systems, transactions and decisions more efficient and effective”

**Fintech**

/ˈfɪntek/ noun

computer programs and other technology used to support or enable banking and financial services. "fintech is one of the fastest-growing areas for venture capitalists"
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Real People, Real Savings.
“Disruption”
1. Paradigm shifts do not happen over night
Figure 5. Four important technologies of the past century took similar amounts of time to mature.
Explore these clubs
Meet people who share your interests.
Debate, flirt, ask questions, get support, speak your mind.

- Join or Start a globeclub
- Connect with friends and family
- Meet people with similar interests
- E-mail lists
- Build your homepage
Connect with friends and the world around you on Facebook.

See photos and updates from friends in News Feed.

Share what’s new in your life on your Timeline.

Find more of what you’re looking for with Facebook Search.

Sign Up
It’s free and always will be.

First name

Last name

Mobile number or email

New password

Birthday

Why do I need to provide my birthday?

Female

Male

Create a Page for a celebrity, band or business.
hello!
where do you want your delivery?

new users:
  delivery zip: [ ] GO!

members:
  user name: [ ] password: [ ] delivery zip: [ ] GO!

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- Chicago, IL
- Sacramento, CA
- San Diego, CA
- SF Bay Area, CA
- Greater Los Angeles, CA
- Orange County/Inland Empire, CA
- Portland, OR
- Seattle, WA

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Customer service for above: 1-800-688-0201

New Customers: Click on city for FREE grocery offer.

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  - Groceries, drugstore & pet items, books, CDs & more
- Quality
  - Farm-fresh produce
  - Superb meat & seafood
- Value
  - Competitive prices, weekly sale items, value packs
- Convenience
  - Shop from home or work
  - Choice of delivery window

If we don't currently serve your area, feel free to browse in any of our locations.
Frequently Asked Questions

How does Prime Now work?
Enter your ZIP code, shop Prime Now, a local store, or restaurant, and add items to your cart. Check out using your existing Amazon Prime account and our local couriers will deliver to you in the delivery window you choose. Restaurants orders are delivered after you place your order and you can track the driver in real time.

Where will Prime Now deliver?
See the Prime Now cities we deliver to today. Enter your zip code and we will deliver to your home, work, or hotel. Check back as we expand to more cities worldwide.
Bitcoin P2P Digital Currency

Bitcoin is an experimental new digital currency that enables instant payments to anyone, anywhere in the world. Bitcoin uses peer-to-peer technology to operate with no central authority: managing transactions and issuing money are carried out collectively by the network. Bitcoin is also the name of the open source software which enables the use of this currency.

The software is a community-driven open source project, released under the MIT license.

Learn how to use Bitcoin  
Learn more about Bitcoin

Download

Latest Bitcoin-Qt version: 0.7.1
(see all Bitcoin clients)

- Windows (zip) - 11MB
- Windows (exe) - 90MB
- Ubuntu PPA
- Linux (tar, 32/64-bit) - 12MB
- Mac OS X - 11MB
- Source code (GitHub)

- Home
- News
- About
- Clients

Resources

- We Use Coins. Start here!
- Bitcoin clients
- Bitcoin Wiki
  - FAQ
  - Sites That Accept Bitcoin
  - Merchant Howto
- Bitcoin Charts / Markets

Developers

- Satoshi Nakamoto
- Gavin Andresen - envinandresen@gmail.com (PGP)
- Pieter Wuille - pieter.wuille@gmail.com (PGP)
- Nils Schneider - nils.schneider@gmail.com (PGP)
- Jeff Garzik - jgarzik@exmuli.com (PGP)
- Wladimir J. van der Laan - wladimir@email.com (PGP)
- Gregory Maxwell - gmaxwell@gmail.com (PGP)

Press mailing list for presentation and interview requests: bitcoin-pr@lists.sourceforge.net

Community
# Top 100 Cryptocurrencies by Market Capitalization

<table>
<thead>
<tr>
<th>#</th>
<th>Name</th>
<th>Market Cap</th>
<th>Price</th>
<th>Volume (24h)</th>
<th>Circulating Supply</th>
<th>Change (24h)</th>
<th>Price Graph (7d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bitcoin</td>
<td>$105,244,836,298</td>
<td>$5,950.31</td>
<td>$17,427,412,514</td>
<td>17,687,287 BTC</td>
<td>4.38%</td>
<td><img src="https://via.placeholder.com/150" alt="Graph" /></td>
</tr>
<tr>
<td>2</td>
<td>Ethereum</td>
<td>$18,778,033,083</td>
<td>$177.20</td>
<td>$8,905,897,044</td>
<td>105,968,626 ETH</td>
<td>7.89%</td>
<td><img src="https://via.placeholder.com/150" alt="Graph" /></td>
</tr>
<tr>
<td>3</td>
<td>XRP</td>
<td>$12,788,095,703</td>
<td>$0.303849</td>
<td>$1,107,881,352</td>
<td>42,087,046,846 XRP</td>
<td>1.40%</td>
<td><img src="https://via.placeholder.com/150" alt="Graph" /></td>
</tr>
</tbody>
</table>
2. Humans are weird and poor predictors of change or success
The novelty preference
Social contagion

I’m going VIRAL!
Decision heuristics

• **Availability bias** - we overestimate the value of that which is top of mind

• **Confirmation bias** - we seek out and collect evidence which confirms our existing view

• **“macromyopia”** - We overestimate short term benefits while underestimating long term value
3. (Long term) success happens for a reason
• A technology without a revolutionary product is not revolutionary

• A revolutionary product must offer a significantly improvement or new value (usually in customer convenience)

• A technology which requires infrastructure is less likely to be revolutionary

Bob Seidensticker, Future Hype: The Myths of Technology Change
• **Performance** - it works reliably

• **Integration** - it fits with existing systems with little friction

• **Penetration** - users have adopted the innovation

• **Payback** - there are **sustainable** benefits

https://www.gartner.com/books/hype-cycle/
Take aways

• **Realize** that paradigm change takes time.
• **Resist** the hype. Look for human biases.
• **Understand** the tech and its history. Does it have the criteria for success?
INTERNATIONAL BESTSELLER

“Rolf Dobelli is endowed with both imagination and realism, a combination hard to find since the sixteenth-century Renaissance.”
—Nassim Nicholas Taleb, author of the New York Times bestseller The Black Swan

The Art of Thinking Clearly

ROLF DOBELLI
Trend 1
Artificial Intelligence
One Dollar's Worth of Computer Power, 1980–2010


Note: Nordhaus (2007) defines computer power as the rate at which computers and calculators can execute certain standard mathematical tasks, measured in computations per second. The data have been adjusted for purchasing power to year 2006 dollars.
How does it work?
An example: machine learning

• Use math/stats to “learn” information directly from data without relying on a predetermined equation.

• Think “learning from experience” or “developing intuition”
• 3 turns into 9
• 4 turns into 16
• 5 turns into 25
• 6 turns into ?
Hardness

-50

50

Diamond

Pillow

Banana

Apple
Label many of them
## Make a training data table

<table>
<thead>
<tr>
<th>Item</th>
<th>Colour</th>
<th>Globeness</th>
<th>Hardness</th>
<th>Type of fruit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-45</td>
<td>-20</td>
<td>44</td>
<td>Apple</td>
</tr>
<tr>
<td>2</td>
<td>-23</td>
<td>-33</td>
<td>41</td>
<td>Apple</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>36</td>
<td>-33</td>
<td>Banana</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
<td>33</td>
<td>-31</td>
<td>Banana</td>
</tr>
</tbody>
</table>
Training

• Pick a learning algorithm suitable for the type of question you want to answer

• Algorithm goes through the table and tries to find the weight to give to each feature in order to correctly identify all the fruit in the table
Prediction

• Show a new fruit to the machine

• The machine measures its features and calculates the weights based on the model

• Makes a prediction
Take aways

• AI is an important technology with paradigm change potential.

• Understanding AI is accessible for middle and high school students.

• We need to keep an eye on the societal issues: privacy, automated bias, etc.
Trend 2
Digital assets
What is a “digital asset”?

• A digital representation of something of value

• Can be anything from “in game” credits to an interest in a venture or its revenues

• Ownership (usually) tracked in a blockchain

• Also described as “crypto”, “coins” or ”tokens”
Blockchain*

• An “append only” transaction log

• Copies of this log are maintained on many connected computers

• Blocks of transactions are linked together with digital signatures

• Deriving the signature for each block takes a lot of computing power and time and thus prevents someone from re-doing the blockchain

*more on this in August!
Who does not own crypto

The proportion of Americans who don't own cryptocurrency

92.05%

And those that do, by generation

Some areas of proposed utilization

The roots of cryptocurrencies

“Cypherpunk” community - reaction to GFC 2008

Desire to:

• Remove government/establishment involvement and control

• Enable anonymous banking

• Reduce or eliminate fees
Your life in your pocket

The ultimate digital device
Take aways

• A severely over hyped and immature technology. No revolutionary product (yet).

• The core concept of digitally storing value will mature and evolve.

• Rampant abuse and fraud.
Trend 3
Mobile computing
(“digital centralization”)
Number of smartphone users in the U.S.
• Buying
• Banking
• Saving
• Talking
• Sharing
• Reading
• Remembering
• Relaxing
How important is your smartphone?

According to the participants who took part in this survey conducted by the Bank of America, they couldn’t last a day without their smartphones.

91% say that their smartphone is very important and for 60% it is even more important than coffee.

For 96% of Millennials (people aged 18-24) the smartphone is very important and for 93% it is definitely more important than deodorant and for 93% more then the toothbrush.

We check our mobile devices every 6.5 minutes.

So what is the best way to reach people? Through their mobile devices.
Why Your Smartphone Is Destroying Your Life
And what you can do about it.
Posted Jan 30, 2018

Today I’m psyched to address an issue that plagues us all. It excites me so much, it even rivals karaoke on my personal passion scale.

But first, a question for you: **Would you like to be smarter, more empathetic, and have better relationships?** The majority of you would probably say yes. What if I told you you could improve all those things for free, with just one simple change?
In a growing text message con, scammers are claiming to offer a reimbursement from NB Power and other companies in an effort to get fast cash. Please don’t click on the link; report it to the Canada Anti Fraud Centre bit.ly/2y1a98n
Android malware
Take aways

• Social media now mediated primarily via mobile devices.

• Share-ability is currency. “Follow” and “like” curation drive an echo chamber effect.

• Mobile is increasingly the platform for opinion and consumer decision making inputs (rather than person to person contact).
Action items

• Question and research. A healthy skepticism is a good thing!

• Develop a “deep” skill (sports, music, physical hobby).

• Read real books.
Thank you!

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