Future Freak
Techs Transforming Financial Services

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Agenda

• Freaking Here & Now
  • My 2 Young Freaks
  • The 3 M’s: MST, Myelin & Monty Hall

• Future Freaks
  • Loans; Mobile; Biometrics; Behavior; Web

• How to Get Your Freak On
  • 5 Steps Forward for Banks
New cardholders
New mobile bankers
New mobile wallet owners
Liam & Ethan Wetherington
...but their bank doesn’t offer any of that.
Here & Now
Samsung acquires Apple Pay competitor LoopPay

Samsung has made its move to counter Apple Pay by acquiring Boston-based mobile payment tech firm LoopPay.

The electronics giant acquired the mobile start-up for an undisclosed sum. LoopPay launched a fob-based payments solution that works with the existing magnetic stripe readers last year. However, LoopPay had been expected to have its next generation of digital wallet tech on board with the next Samsung Galaxy smartphone.

"Today is a great day for LoopPay and all those who have supported us over the last few years," said co-founder Will Graylin on the company's website Wednesday. "Our vision of inspiring consumers to transition from a physical wallet to a truly digital wallet
Magnetic Secure Transmission (MST)
Apple Pay vs. LoopPay: Merchant Acceptance

Merchant-ready in the US today

Apple Pay

Works at less than 5% of retail locations

< 5%

LoopPay

Works at around 90% of retail locations

Majority
Apple Pay vs. LoopPay: Card Eligibility

Types of cards that can be loaded and used at POS readers

Apple Pay supports just 70 issuers

LoopPay supports 10,000+ issuers, thousands of credit and debit cards along with most gift, loyalty, private label, prepaid, and campus cards
Apple Pay vs. LoopPay: Smartphone Coverage

Type of smartphones consumers can use

Apple Pay

- IPhone 6 and 6 Plus
- IPad Air 2
- IPad mini 3
- Apple Watch

LoopPay

- IPhone 6, 6 Plus, 5s, 5c, 5, 4s and 4
- IPad Air 2, IPad mini 3
- Google/LG Nexus 5; LG G2, G3, Nexus 4
- HTC One (M8), One (Max & Remix)
- Motorola Droid (Maxx & Turbo)
- Moto X, Moto X 2014, Moto G (2nd Gen), Nexus 6
- Samsung Galaxy S3, S4, S5
- Alpha, Note 2, 3 & 4, Mega 2, Sharp Aquos Crystal L, and more
Myelin
Neuro Science 101: 3 Questions

1. What organ in your body is the last to mature?
   - A: The brain

2. When does that organ fully mature?
   - A: Late 20’s, early 30’s

3. In what order does it mature?
   - A: From the back to the front
What does this mean for Gen Y?
Gen Y Woes

• First to have lower standard of living than their parents’ generation

• First to have higher student loan debt, poverty and unemployment than their two immediate predecessor generations had at the same age

• 60% of young Gen Yers (21-26), and 50% of older Gen Yers (27-34) say they have an “impulse purchase” problem

• Nearly half of all Gen Y consumers looking to switch FIs want their next FI to offer PFM tools

SOURCE: Pew Research; June 2014
Gen Y Surpasses Gen X in Income by 2020

Personal income by demographic segment (2010-2025)

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Motivational PFM for Gen Y

Better Choices, Fraud Protection

wisely

BILL$GUARD
SAFER TOGETHER
You're in the GREEN

You are below your average spend by $871

You're in the YELLOW

All Accounts
You've spent as of Tue May 28
$3,681
Your average to date is $3,971
You are below your typical $3,971
SHOULD YOU BUY IT?
ASK THE FORTUNE TELLER

FORTUNE TELLER

HMM. STICK TO WINDOW
SHOPPING TODAY.
The CABLE BILL IS DUE
TOMORROW.

PAYCHECK
$2,600.00

PAYCHECK
$5,000.00

$2,600.00

Sorry, you just don't have
enough cents for this to
make sense.
Gen Y Financial Goals

Top 3 Self-Selected Priorities

- Managing Cash Flow: 78%
- Getting Out of Debt: 59%
- Investing: 57%
Gen Y Financial Concerns

Top 3 Vulnerabilities

- Not saving enough for retirement: 64%
- Not having enough savings to cover emergencies: 52%
- Serious debt: 34%
Gen Y Churn Risk is High

Millennials

5X
More likely to close all accounts with primary bank

3X
More likely to open a new account with a primary bank

Why Millennials Leave Banks

34%
Account fees too high

27%
Negative experience with a representative of the bank

24%
There were too few ATM locations
Threat: Alternative Banking

Open to Alternatives: If these companies offered banking services, how likely would you be to bank with them?

- PayPal: 9% likely to bank with, 34% very likely, 46% overall
- Google: 5% likely to bank with, 23% very likely, 40% overall
- Amazon: 7% likely to bank with, 23% very likely, 37% overall
- Apple: 6% likely to bank with, 20% very likely, 34% overall
- Walmart: 7% likely to bank with, 24% very likely, 33% overall

Percentage answering likely or very likely. Source: Accenture

SOURCE: Accenture
iTunes Precursor to Prepaid Wallet?

iTunes Pass  NEW

Now you can add money directly to your iTunes or App Store account with iTunes Pass. To get iTunes Pass, go to the iTunes Store on your iOS device, scroll down, and tap the Redeem button. Then go in to any Apple Retail Store and let a Specialist know you want to add credit to your account. Open iTunes Pass in Passbook, and have the Specialist scan it and accept your payment. Your balance will be updated and can be used immediately.
Ethan and Liam now receive allowance on prepaid cards.
The Boys’ New Allowance Card
...also comes with a mobile app.
The Monty Hall Problem
The Latest News

Anthem Breach: Phishing Attack Cited
Phishing Campaigns Now Targeting Anthem Members

Anthem believes that the breach that has exposed up to 80 million individuals' information began after a handful of employees fell victim to a phishing attack. Other attackers appear to be using the breach as a lure for their own phishing campaigns. Read more.

Featured Interviews

Can PINs Reduce Online Fraud?
Merchant Association Executive Outlines Her Argument

PINs can effectively reduce card-not-present as well as card-present fraud, argues Liz Garner of the Merchant Advisory Group, who will be a featured speaker at Information Security Media Group's...
U.S. accounts for 25% of global card volume and 50% of card fraud… because we rely on magnetic stripes and signatures in cursive.
Signatures are worthless!
So, guess how we’re securing credit card payments this year?!
EMV Chip & Quill!!!
CNP Fraud Forecast: 2018

CNP fraud will have a consistent yet dramatic growth.

CNP fraud will be 4x POS card fraud by 2018.

Post-EMV Card-Not-Present (CNP) Fraud Explodes

U.S. CNP Credit Card Fraud Losses, 2011 to e2018 (In US$ Billions)

Source: Aite Group interviews with card executives from 18 of the top 40 U.S. issuers and payment networks, April and May 2014
Post-EMV Credit Card Fraud Projections

U.S. Credit Card Fraud Losses, 2011 to e2018
(In US$ millions)

Source: Aite Group interviews with card executives from 18 of the top 40 U.S. issuers and payment networks, April and May 2014
EMV: Transitional Fraud Targets

WHILE BIG MERCHANTS ARE WELL ON THEIR WAY, FRAUDSTERS WILL STILL HAVE TARGETS.

So, should you choose door #3?
During the EMV transition, the probability of fraud will concentrate among the last to migrate.
Counterfeit Card Fraud Probability

odds: 0

odds: 0

odds: 100%
Over Half of U.S. POS Terminals Will Be EMV Compliant by EOY 2015

Percentage and Number of Total U.S. EMV POS Terminals, 2014–2018

#3 TIE  

**Apple Pay**

28% of smart device owners likely to choose Apple

Tech: NFC/Tokenization/Touch ID

Card Networks: VISA, MasterCard, American Express

Banks/Issuers: Bank of America, CHASE, Citi, Wells Fargo, and more

Merchants: Walgreens, McDonald's, Macy's, Disney, and more

Why Apple Pay Matters…

*cards on file globally*
Apple Pay: Good News and Bad

• Good News
  • Reinforces issuer’s card franchises
  • **Apple not going after issuers’ payments data**
  • Adds security and reduces card fraud risk/liability

• Bad News
  • New fees that issuers must pay Apple
  • New player in already crowded field of card stakeholders (from 4-party to 5-party)
  • Increases urgency for financial institutions to remain relevant in the convergence of payments/banking/shopping
Apple Pay: Shift from Debit to Credit?

Accepting contactless would likely increase the number of credit card transactions, shifting the balance away from debit card transactions.

Debit Vs. Credit Card Transaction Mix in North America

Source: Celent's Payments Data Model

SOURCE: Celent: “Apple Enters Payments: Is Apple Pay the Answer for Mobile Payments?”
Celent Webinar; 20 October 2014
EMV Challenges

- Transitional concentrations of fraud on weakest links and last to the party
  - Debit Cards
  - Smaller Merchants

- Get ready: tokenization ain’t free (see MasterCard)

- Signatures are meaningless…and we’re transitioning to, you guessed it, Chip & Signature EMV

- The learning curve for consumers
  - Dip and leave vs. dip and yank (gas pump)
Si prega di lasciare la vostra carta nella macchina, stupido Americano!

--Cameriere Arrabbiato

Please leave your card in the machine, handsome man!

--Angry Italian Waiter
A Holistic Approach: Fighting CNP Fraud

DRIVING DOWN CNP FRAUD WILL REQUIRE A COMPREHENSIVE STRATEGY

CUSTOMER-DEFINED CONTROLS

AUTHENTICATION

BEHAVIORMETRICS

ANALYTICS

SOURCE: Javelin Strategy & Research; "Fixing CNP Fraud: Solutions for a Pre- and Post-EMV U.S. Market; October 2014
Customer-Defined Controls for Cards
Detect Breaches Early with Big Data
Loan Freaks
• IPO on 12/10/14 raised $834M
• P2P business model
• Loans range from $15k - $300k (majority of loans: $15k - $100k)
• Risk-based pricing, 10 grades
• Rates from 6% to 30%
• Terms range from 1 to 5 years
• Over $4B in loans to date
• Year over Year Q314 - 118%
• May 5, 2014…Lending Club Teams Up with Union Bank
  • Until LendingClub partnered with Union Bank, they have publicly worked with very small community banks.
The Skinny on Small-Biz Lending

• “$300 billion small-business lending market has an estimated unmet demand of around $80 billion to $120 billion because traditional lenders are ignoring the sector.”

• “Traditional lenders are reluctant to lend to small businesses because of the difficulty in assessing their credit worthiness in a uniform manner.”

• “50% of bank customers rejected for a loan never return to the bank.”
The Alternative Lending Threat

- Alternative lenders are eroding loan volume.
- Even quality borrowers are choosing alternative methods because they’re faster and easier.
- They’ll choose them even though they cost more.
- When turned down, if applicants come back to traditional financing, they’ll do it with another financial institution.
Alternative Lending

• SMB alternative lending is a $4B industry and growing 10–20% annually.

Source: National Federation for Independent Businesses (NFIB)
Small Biz Loan Approval Rates

Alternative Funding Providers
IPO on 12/16/15 raised $200M
• Provides SMBs working capital/loans
- **March 6, 2014** … OnDeck Raises $77M From Tiger Global To Loan SMBs Working Capital
  - This brings a total of $180 million in equity and over $300 million in debt financing, led by Goldman, Deutsche and Key Bank.

- Average loan size is $40K to $250K
- Short-term loans (3-24 months)
- Borrowers are acquired through many channels – direct acquisition (direct mail, TV, radio, online), brokers and strategic partners.

- Member, ProfitStars Lending Network
  - **May 6, 2014** … BBVA Compass Teams with OnDeck to Bolster Bank's Small Business Offerings
  - **May 8, 2014** … Why BBVA Compass Is Sending Customers to an Online Rival
• Offers merchants working capital
• Loans range from $500 to $100K
• 6 month terms
• Fees are 1% - 13.5% of loan amount the first 2 months and 1% for each of the remaining 4 months
• December 5, 2013…Kabbage Adds Square Transactional Data to its Credit Decisioning Process
• April 9, 2014…Kabbage Raises $270 Million Credit Line as Online Business Lending Grows
Offensive Strategies for Banks

• Allow businesses to get pre-approved online easily with multiple options.

• Promote a wide variety of financing solutions that can be found through the bank even if the bank turns down loan.

• Leverage creative alternative programs which cater to small business borrowing needs.
Harness the Alternative Lender Market?

LENDER

Loan Application

BUSINESS OWNER

BANK

ALTERNATIVE LOAN

LENDINGNETWORK
Mobile Freaks
Activity Based Marketing

Marketing within the context of an activity being performed by a customer or prospect.
Perpetual Loan Approval

1. Debt Consolidation
   - 7.99% APR - 60-month Term
   - $20,000 Available
   - New Auto
   - 5.99% APR - 60 Month Term
   - $45,000 Available
   - Used Auto
   - 3.99% APR - 72 Month Term
   - $35,000 Available
   - New RV or Boat
   - 4.79% APR - 120 Month Term
   - $45,000 Available
   - Higher Education
   - $20,000 Available

2. Requested Loan Amount: $20,000
   Payment Estimate: $653/mo

3. Accept Offer

Finish
Beacons will transform the in-store shopping experience and shake up the mobile payment tech wars.
Biometric Freaks
Biometrics are boosting perception of mobile security.
Fingerprint scan is 3-to-1 most preferred form of biometric authentication among consumers.
Sign In With A Sarcastic Gesture?
Behavior
Freaks
Keyboard Capture Intervals

Press

Flight

Sequence

Synthesize Timings

Press
Flight
Sequence

Score

Application Switching

Touch Motion

Mouse Motion

Continuous

Interval
Method (Keyboard, Mouse)
CPU/Memory usage

Interval

Seize Motion
Angle

Angle

Mouse Motion

Score

Keyboard
Mouse/Touch analysis
Application switching

Time

Time

Time

Time
Authentication Activity Scores

Mouse Dynamics
1000

Keyboard Dynamics
431

Typing Patterns
70

Login Rythmics
780

Access time
425

Intra Session
540
Wearable Freaks
Web Freaks
.bank Domains Available: Get Ready to Grab!

- ICANN opens “.bank” domains for registration
  - Plus 2000 more: directory at https://gtldresult.icann.org
- fTLD Registry Services, LLC
  - ICANN granted fTLD the right to operate .BANK on September 25, 2014 and facilitate secure/vetted registration of .bank domains
  - .bank domains will help prevent redirects to fake bank websites, make it more difficult to spoof emails from a .bank website, and provide a higher level of encryption
  - https://www.ftld.com/

What to Do When? .bank Domains

• May 2015 (Sunrise Period)
  • Banks that have registered trademarks should register with ICANN’s Trademark Clearinghouse prior to May 1, 2015.
  • If you own a registered trademark, you may register the trademark with ICANN’s Trademark Clearinghouse and apply for the .bank version of that domain name during the Sunrise Period before general availability.

• June 2015 (General Availability)
  • .bank domains will be available to the wider banking community on June 1, 2015, following the Sunrise Period.

• For more info: http://www.aba.com/dotbank
Other Domains On the Horizon

- .loan
- .loans
- .credit
- .pay
- .financial
- .creditcard
- .mortgage
- .insurance
- .money
- .cash
- .finance
- .banque

So, how should you get your freak on?
5 Steps Forward: Banks Must…

1. **Master** their data, so that they can use it to...

2. **Serve** personalized, relevant ads for the bank’s products and services across all channels consistently and in context.

3. **Expedite** customer’s acquisition of bank’s products and services when they choose (without data re-entry).

4. **Curate** “partners” who may use bank’s ad engines to serve customers with relevant ads that can be one-clicked to acquire.

5. **Earn ad fee income** wearing a white hat.
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