

CSE 490D, Winter 2016 Readings in Digital Financial Services

Richard Anderson
Ruth Anderson

Topic Overview

Improved access to financial services is recognized as an important mechanism for raising people out of poverty

- Financial Services for the Poor
 - Remittances
 - Savings accounts
 - Government payments
 - Digital payments

Computing and FSP

- Mobile Computing
 - Smartphone applications
 - GSM Applications: SMS/USSD
- Security
 - Design of secure applications
 - Development of robust systems
- Human computer interaction
 - Usability

Why this might be interesting

- New technical domain
- Start of new research effort
- Combination of technology and development
- “Full stack” problem
 - From clients to telcos

ictd.cs.washington.edu

ICTD @ UW

- Long running research effort in computing for the developing world
 - Open Data Kit
 - Projecting Health
 - Community Cellular
- Change seminar - Tuesdays

490 D Administration

- One credit, graded CR/NC
- Weekly readings and discussion
 - Short answer quiz on reading due Tuesday night
- Required
 - Lead one presentation (as part of a group)
 - Submit seven of nine quizzes

Readings

| Week/Date | Discussion Leaders | Topic | Paper |
|------------------|--------------------|------------------------|--|
| 1 January 6 | Richard Anderson | Course Introduction | |
| 2 January 13 | | mPesa | Designing Mobile Money Services: Lessons from M-PESA (pdf) |
| 3 January 20 | | Cellular Communication | Digital inclusion and the role of mobile in Nigeria (GSMA) (pdf) |
| 4 January 27 | | Customers | Doing Digital Finance Right: The Case for Stronger Mitigation of Customer Risks (CGAP) (pdf) |
| 5 February 3 | | Technology (USSD) | Promoting Competition in Mobile Payments: The Rule of USSD (CGAP) (pdf) |
| 6 February 10 | | Rural Agents | Spotlight on Rural Supply: Critical factors to create successful mobile money agents (GSMA) (pdf) |
| 7 February 17 | | Government Payments | Electronic G2P Payments: Evidence from Four Lower-Income Countries (CDF) |
| 8 February 24 | | Risk Analysis | Proportional risk-based AML/CFT regimes for mobile money: A framework for assessing risk factors and mitigation measures (CDF) |
| 9 March 2 | | Payment Platforms | The Level One Project: Guide Designing a New System for Financial Inclusion (CDF) |
| 10 March 9 | | Application security | Mo(bile) Money, Mo(bile) Problems: Analysis of Branchless Banking Applications in the Developing world (SYSTEM Security) (pdf) |

Leading a presentation

- Presentation of about 10 minutes, and about four slides based on a template
 - Moderate discussion
 - Group of three students – all should participate in the planning, although not all need to present
 - Meet with instructors prior to presentation
 - Submit preferences for week/topic in catalyst survey
 - Need volunteers for January 13 now

Basic Financial Services

- Mobile Money
 - Send money to remote location
 - No bank accounts, but mobile phones
 - Rely on basic mobile phones



DFS Challenges

1. Fraud and cyberattacks
2. Proximity payments user experience
3. Mobile phone infrastructure
4. Extending beyond established networks
5. Identity and on-boarding
6. Analytics for product development, risk scoring, and fraud detection
7. Cash-in/Cash-out (CICO) agent recruitment, training, and management
8. Financial management for end users