India Stack: Driving Transformation In Financial Inclusion Through Digital Public Goods

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The three challenges of financial inclusion

1. **Access**
   Bring population in the financial system

2. **Retention**
   Keep them in the system

3. **Data Empowerment**
   Data sharing without compromising privacy
Part 1: Solving The Access Challenge

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Access
Bring population in the financial system
In India, back in 2008...

17% had bank accounts

Financial exclusion was rampant

By 2018 India had massively jumped ahead in financial inclusion

This acceleration was due to 3 things

Political Will + Proactive Central Bank + India Stack
India Stack is a set of technologies ...

**Identity Layer**
Giving every resident a unique id and enabling them to prove “I am who I claim to be”

**Payments Layer**
Allowing anyone to pay anyone else! interoperable, fast and cheap - not just smartphones

**Data Empowerment**
To enable secure sharing of data

- Aadhaar
- eKYC
- eSign
- Unified Payments Interface
- Aadhaar Payments Bridge
- Aadhaar Enabled Payment Service
- Consent Artefact
- DigiLocker
- Account Aggregator
... built over time

Identity Layer

Payments Layer

Data Layer

Aadhaar  eKYC  eSign
IMPS: Instant Remittance  APB: Cash Transfers  AEPS: Biometric Payments  UPI
DigiLocker: Document Repository  Consent Artefact  AA: Data Fiduciary

India started by addressing identity

1 in 25 had unique identification in 2008

Source: 40 million Indians had passport, which was the only unique identity at the time.
Aadhaar: Inclusive by Design, GSMA, March 2017
A unique identity - Aadhaar

4 Data Points

- Name
- Gender
- Date of Birth
- Email

Biometric

Unique identification features

123456789012
12 digit Aadhaar number
Aadhaar Adoption - 1 Billion in 5½ years

Data Source - Aadhaar Dashboard (https://uidai.gov.in/aadhaar_dashboard)
Identity Aadhaar - Impact

1.2 Bn
Aadhaar IDs issued

33 Bn
Aadhaar based authentications

7.5 Bn
e-KYC transactions

$32.4 Bn
Direct Benefit Transfer to beneficiaries

647 M
Aadhaar enabled accounts

Data Source - Aadhaar Dashboard
(https://uidai.gov.in/aadhaar_dashboard)
NP CI Statistics (https://www.npci.org.in/statistics)
Part 2: Addressing the payments challenge
People are seeking digital ways to transact

Users are looking for a MAGICAL payment experience.

Mobile-First, Anytime, Global, Instant, Convenient, Assured Safe, Low-cost
How UPI Works

- Consumers
- Business
- Mobile Internet
- Digital Wallet
- 3rd Party Apps
- Open, Contestable Entry

Unregulated Fintechs

Interoperable between sources of funds

Bank A

Bank B

Regulated Banks (payment service providers)

Unified Payment Interface

Payment Rail

B2B Payments

C2C Payments

Instant Remittances

C2B Payments

Interoperable between recipients of funds

Instant
24/7
Low-cost
Interoperable
Fintech/ Bigtech Friendly
Settled in fiat money
Inside the banking system
Fully interoperable payment systems

Customers can conduct transactions on their State Bank of India account from inside their Citibank mobile banking app.

- Instant
- 24/7
- Low-cost
UPI transactions have overtaken credit and debit card payments

Source: Retail Payment Statistics on NPCI Platforms https://www.npci.org.in/statistics
Part 3: Addressing Data sharing & privacy challenges

Data Empowerment
Data sharing without compromising privacy
User Data is being appropriated

Internet Platforms gather and retain user data in proprietary silos.

The problem is not simply that companies are benefiting from this data.

The problem is that the people aren’t Account Aggregators rebalance that equation.
The Account Aggregator
will facilitate consented sharing of financial information in real-time

1. Consent to share data
2. Request Data through Open APIs
3. Data Flows to FIUs End-to-End Encrypted

Financial Information Providers
- Bank
- Mutual Fund House
- Insurance Provider
- Tax / GST Platform

Financial Information Users
- Flow-Based Credit
- Personal Finance Management
- Wealth Management
- Robo Advisors
Small Business Owners can get credit using data

With the Account Aggregator,

Rajni can demand

- Her **Tax returns**
- Her **Bank & Account Data**
- Her Home **Loan repayment record**

be shared with Lenders

Thus, **securing a loan** with her richer digital footprint.
With the Account Aggregator, Rajni’s lender can view her data

- Directly from Source
- Tamper-proof
- At a low-cost
- In real-time

Using data, Lenders can better monitor cash flows and anticipate default before it happens!

**Digital Systems enable early-warning systems & more precise regulatory intervention**
India is leapfrogging to a Data Democracy

Account Aggregators keep consumer financial data safe & make its usage auditable

But they also make it useful for consumers

This inverts usage of Data!
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Creating a flywheel for financial inclusion

- **Access**: Open Bank Accounts
- **Retention**: Offer MAGICAL Payments
- **Data**: Use Data to give credit
- **Empowerment**: Share Data Securely
- **Build Trust & Encourage More Users in System**: Incoming Payments e.g. DBT
- **Share Data Securely**: Build Trust & Encourage More Users in System

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Building a culture of Innovation...

through regulated and unregulated private players

on top of public infrastructure of India Stack
Unregulated Fintechs

Development Friendly, Layered Innovation

Central Bank

Banks

Clearing Houses

Regulated Players

Crypto Wallets

Stablecoins

Blockchain

Analog Way

Closed System, Slow Innovation

India Stack Way

India Stack Way

Big Tech Way

Walled Garden, Layered Innovation

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THANK YOU

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