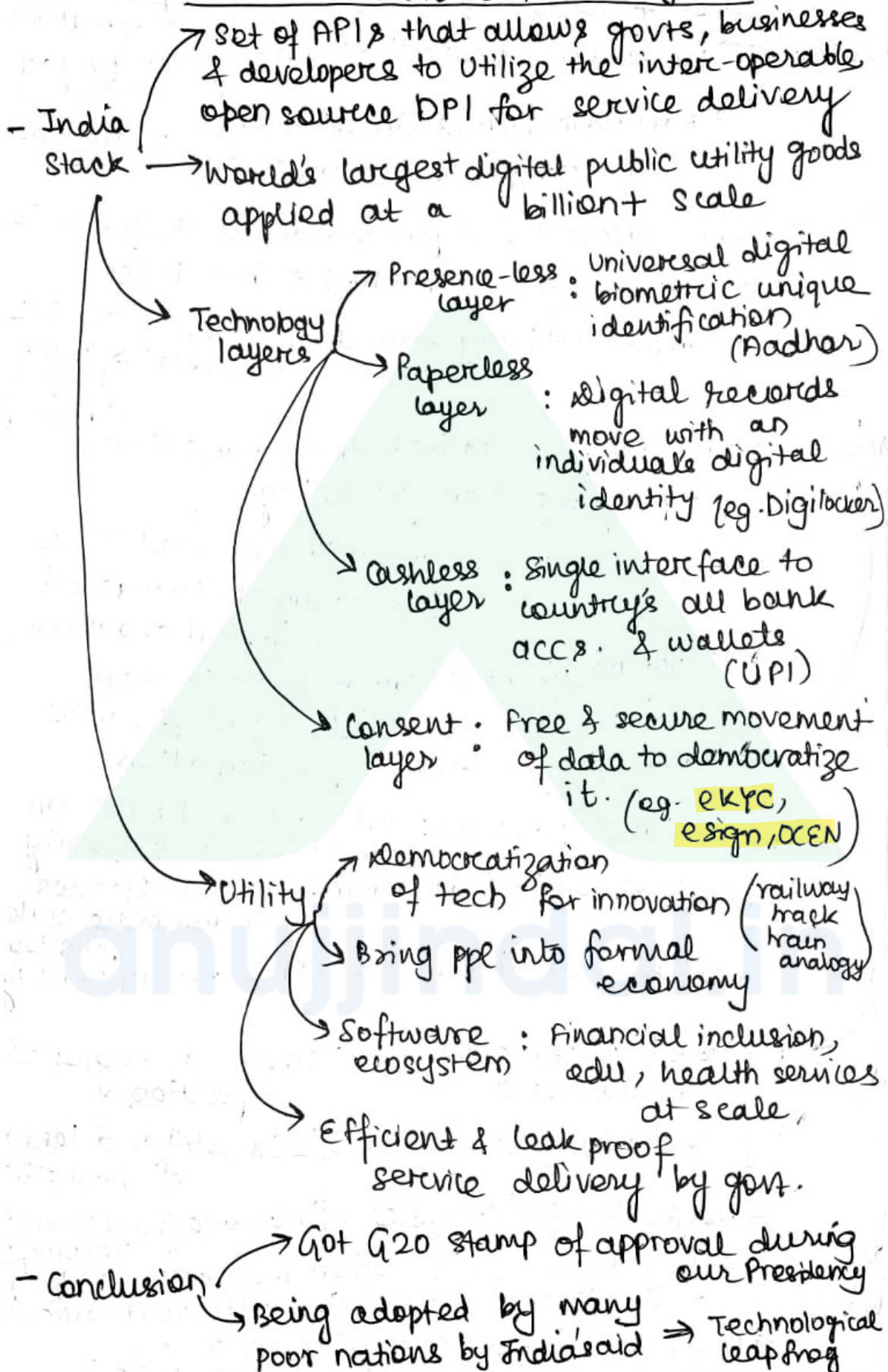


India stack & India's digital revolution

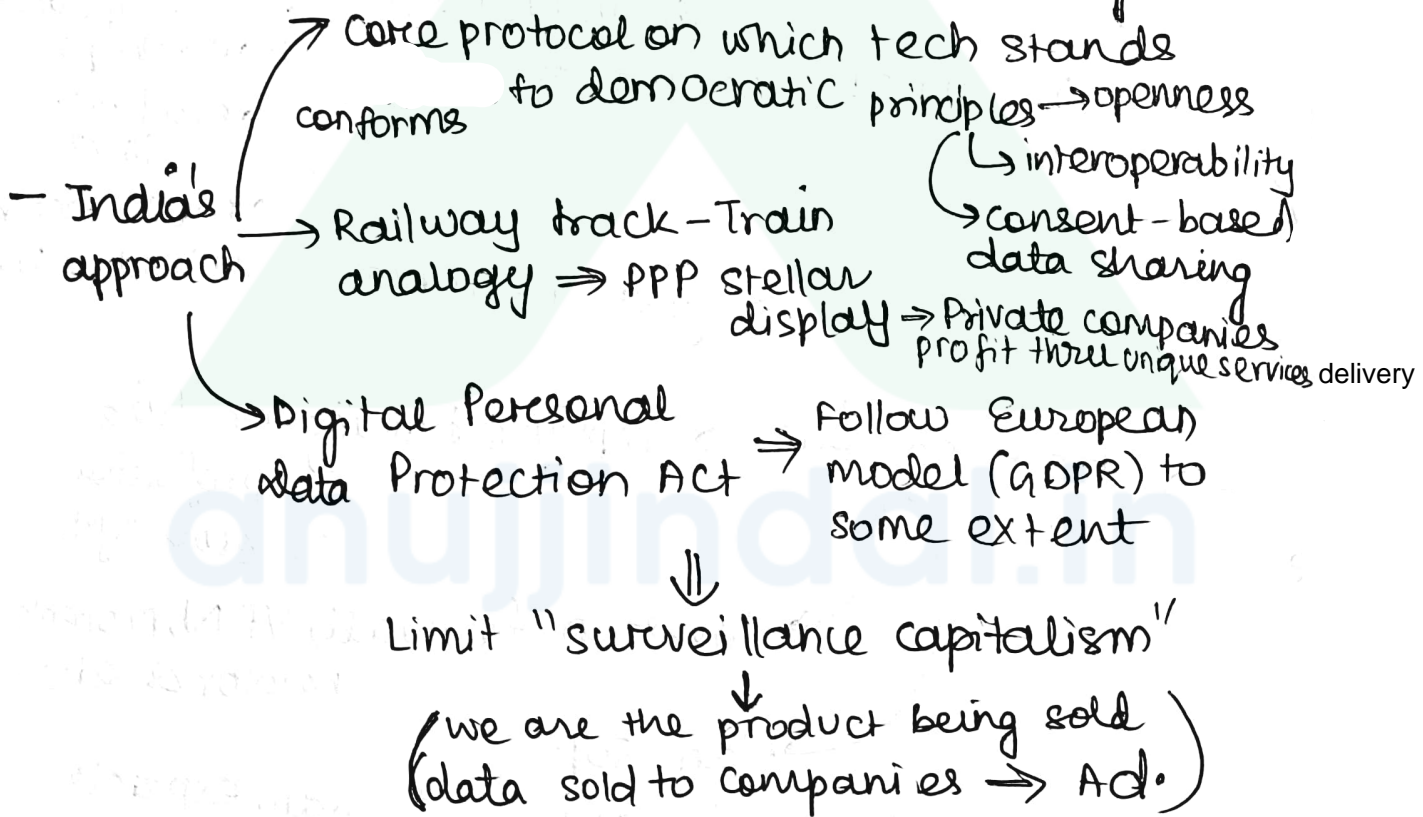


India stack:

- Aadhar
 - UPI
 - DigiLocker
 - ONDC
 - OCEN
 - DigiYatra
 - BBPS
 - GeM
 - Ayushman Bharat Digital Mission
 - UMANG
 - Diksha
 - E-Sanjeevani
- e-KYC also*
GSTN too

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Competing Models of Digital Ecosystem



So, India's model = Digital commons (IMP keyword) + Data protection framework

shared as 'citizen stack' with developing & LDCs. ⇒ successfully demonstrated at population scale of India

Benefits of Digital Payment Ecosystem

1. Hassles related to obtaining cash vs instant cashless transactions for people.
2. Inefficiencies of handling cash & costs involved in cash flow itself.
3. Creation of a digital data record/trail that can be used for law enforcement as well as positive aspects like getting easy credit based on reproducible digital transaction history.
4. Easy interconnection between consumers, MSMEs and big firms cutting beyond regions, borders and scale.
5. Real-time data on liquidity & monetary data to policymakers for instant response.
6. Gender financial inclusion, women microentrepreneurs etc. leading to gender financial empowerment as women need not rely on male members to deposit/withdraw/handle cash or access banking services in far off areas.

Women in rural areas have limited mobility and limited networks outside their villages, so financing becomes a challenge. This is where the digital finance ecosystem can aid in building women-led MSMEs and startups.

6. Efficient Govt. delivery like DBT without leakage, esp. helpful during crisis like Covid or a geographically diverse country like India.

All this need not be done by evaporating cash but supplementing cash with cashless infra.

Splinternet

27 April 2022 15:26

- The **splinternet** (also referred to as **cyber-balkanization** or **internet balkanization**) is a characterization of the Internet as splintering and dividing due to various factors, such as technology, commerce, politics, nationalism, religion, and divergent national interests.
- Examples range from as big as the Chinese government erecting the "Great Firewall" for political reasons, and Russia enacting the Sovereign Internet Law that allows it to partition itself from the rest of the Internet to small examples such as echo chambers created by ideological groups or e-commerce companies for sustaining the cycle of self-validation among their followers.
- Researcher Clyde Wayne Crews first used the term in 2001 to describe his concept of "parallel Internets that would be run as distinct, private, and autonomous universes." Modern manifestations of this is seen as countries trying to secure their digital sovereignty over their cyberspaces.



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Recent UPI innovations

- ① UPI 123PAY
 - Feature phones
 - USSD enabled (full form)
 - Interactive voice Response
 - Missed call based payments
 - Proximity sound-based payments
- ② UPI - Lite & UPI-LiteX
 - on-device wallet (Max ₹500 per transaction)
 - No pin + works when bank server congested (Max ₹2000 in wallet)
- ③ UPI Tap & Pay
 - NFC enabled offline Retail Payment
 - Touch phone with POS device (Integration with smart wearables like ring, watch)
- ④ Hello UPI!
 - conversational payment
 - Text/Voice command ⇒ payment
- ⑤ Pre-sanctioned Credit line (overdraft facility)
 - No need of lengthy paperwork to apply for short-term loan
 - predetermined amt.
 - eg. Buy Now Pay Later format

↓
financial inclusion for poor
- ⑥ Money withdrawal
 - UPI Interoperable card less Cash withdrawal in ATM (no physical card ⇒ cloning risk X)
 - UPI QR code based coin vending machine
- ⑦ UPI Circle
 - Delegated payments
 - secondary users, family, joint Acc. holders etc.

⑧ Bill Pay Connect → Conversational Bill Payment
→ voice assistance & confirmation

⑨ Interoperable QR codes for CBDE

⑩ Global UPI Acceptance → Tourism → Indian tourists abroad due to interconnectedness
→ Remittances → Foreigners allowed to operate UPI in India; UPI One World PPI wallet or NRIs from specific countries using overseas phone no, NRE/NRO Acc.
Better write globalisation of UPI since it cuts both ways eg. Singapore, UAE

List of countries with which India has signed UPI agreements:

- Bhutan
- Nepal
- UAE
- Singapore
- France
- SL
- Mauritius
- Oman
- Qatar
- Namibia
- Peru
- UK
- Malaysia

4th IR components:

- Automation
- Data exchange
- Cyber-physical systems
- The Internet of Things
- Cloud computing
- Cognitive computing
- Advanced robotics to create smart factories