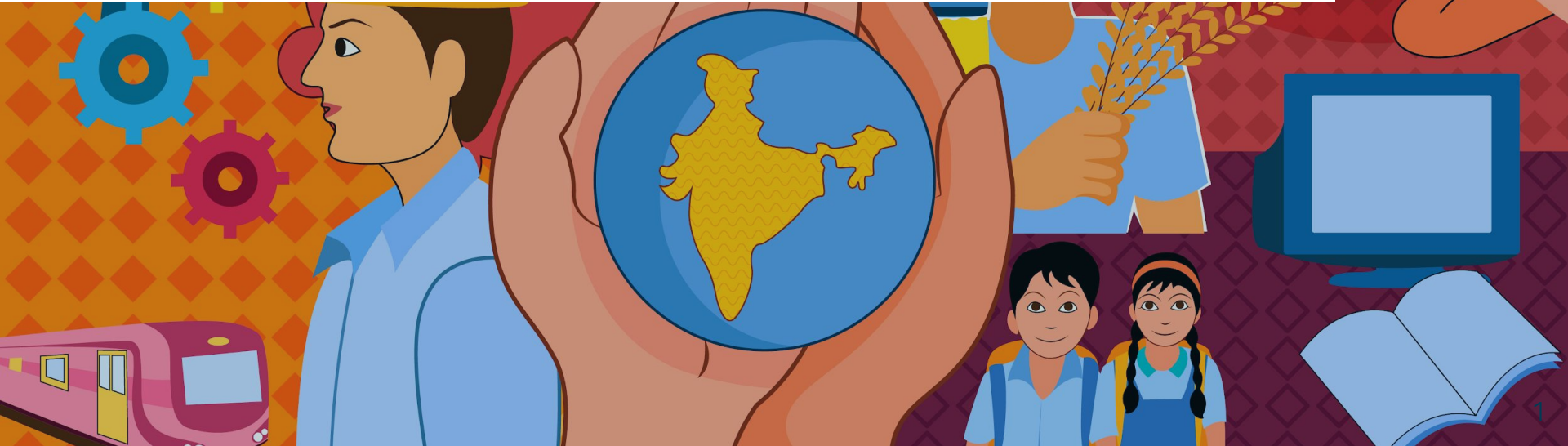




India Stack: What it is? Its relevance to Digital Economy?

Sharad Sharma, iSPIRT Foundation



India Stack and Digital Public Infra (DPI) is in the news!



 **Ministry of External Affairs**
Government of India

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India's forthcoming G20 Presidency

September 13, 2022

India will assume the Presidency of the G20 for one year from 01 December 2022 to 30 November 2023.

2. Under its Presidency, India is expected to host over 200 G20 meetings across the country, beginning December 2022. The G20 Leaders' Summit at the level of Heads of State / Government is scheduled to be held on 09 and 10 September 2023 in New Delhi.

6. Whilst our G20 priorities are in the process of being firmed up, ongoing conversations inter alia revolve around inclusive, equitable and sustainable growth; LIFE (Lifestyle For Environment); women's empowerment; **digital public infrastructure** and tech-enabled development in areas ranging from health, agriculture and education to commerce, skill-mapping, culture and tourism; climate financing; circular economy; global food security; energy security; green hydrogen; disaster risk reduction and resilience; developmental cooperation; fight against economic crime; and multilateral reforms.

New Delhi
September 13, 2022

UNGA77

THE FUTURE OF DIGITAL COOPERATION

Building resilience through safe, trusted, and inclusive digital public infrastructure

Wednesday, September 21, 2022

#DPGs4DPI



84 Million IDs 10 Countries

TECH & INTERNET

Economic Survey 2023: digital public infrastructure can add up to 100 bps to GDP growth rate, says CEA V Anantha Nageswaran

By
Dr. V. Anantha Nageswaran
Chief Economic Advisor
on
Economic Survey 2022-23
31st January 2023.



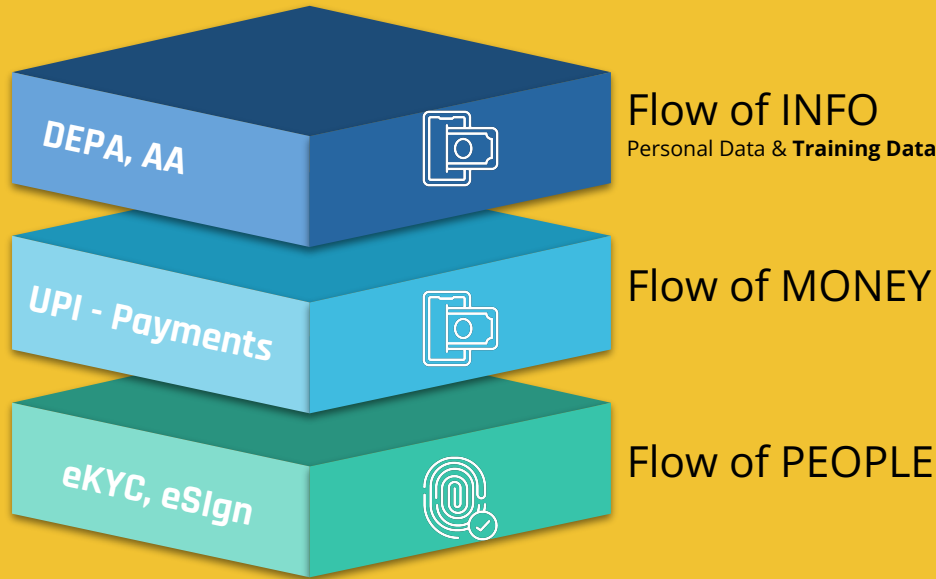
Chief Economic Advisor V. Anantha Nageswaran speaks after presenting the Economic Survey 2022-23 during a press conference, in New Delhi.

Synopsis

The untapped potential in India's digital public infrastructure (DPI) is huge and the country needs to continue to innovate to ensure the reach of the network is extended to more people, the Economic Survey has suggested.

READ ON APP

What is DPI? What is India Stack & Open Networks?




Societal Benefits

Delivers Inclusion

- e.g., Jan Dhan

Reform of Social Services

- e.g., Direct Benefits Transfer, CoWIN

Creation of New Market Ecosystems aka Open Networks:

- Open **Credit** Enablement Network (OCEN)
- Open **Health** Services Network (OHSN) aka UHI
- Open Network for Digital **Commerce** (ONDC)

Explaining Open Networks

Simplest definition: A network which doesn't have “rogue intermediaries”



Fighting Free Basics in 2014-15 (aka “Save the Internet” campaign) educated us about the importance of Open Networks!

Soft implementation of Open Network principle in Telecom, Online Travel Agents and Mutual Fund Intermediaries happened before OCEN (Open Credit Enablement Network) was started in July 2020

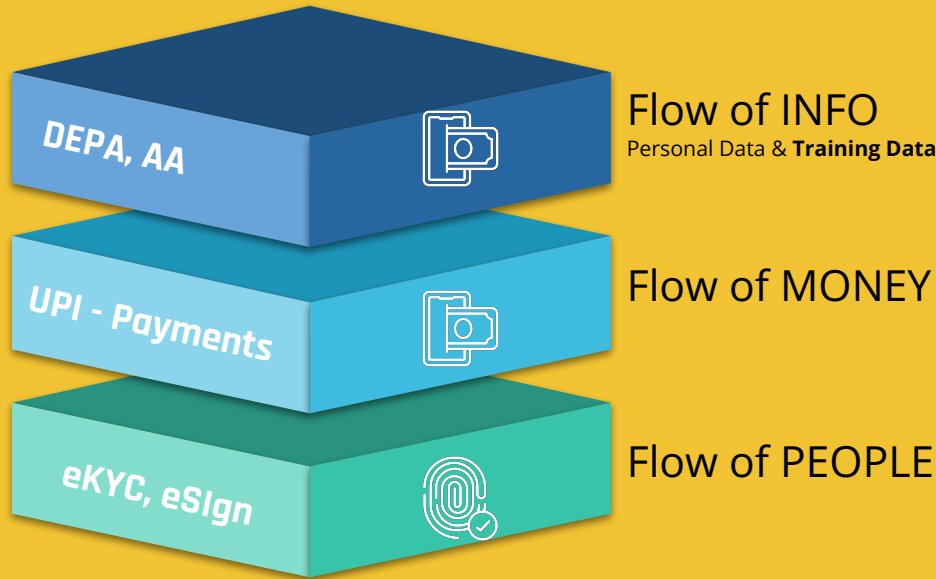
Open Networks not yet proven, but many **Pilots** Underway



Internal iSPIRT Dashboard

	GeM & Airline OTA Historical	OCEN Open Credit Enablement Network	OHSN Open health Services Network	Digital Sky Drones	LiveStack (WeSPIRT)	ONDC (iSPIRT Supported)	SEBI Bonds (tbd)
Formal Conceptual Model	N	Y	Y	Y	N	N	Y
India Stack (flow of people, money, data)	N	Y	Y	Y	Y	N	Y
Open Protocol (for m/l party collaboration and interoperability)	N	Y	Y	Y	Y	Y	Y
Techno-legal regulation	Y	Y	Y	Y	Y	N	Y
Open Network Design Elements							
Incentive Alignment	Y	Y	Y	Y	Y	N	Y
Match Supply-Demand	N	Y	Y	N	N	N	Y
Manage Market Power	N	Y	Y	N	N	N	Y
Dispute Resolution	N	Y	Y	N	N	Y	Y
Network Settlements	N	Y	Y	N	Y	N	Y
Closed Pilot before Scale	Y	Y	Y	Y	Y	N	-

Digital Public Infra (DPI) = India Stack + Open Networks



Societal Benefits

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IndiaStack

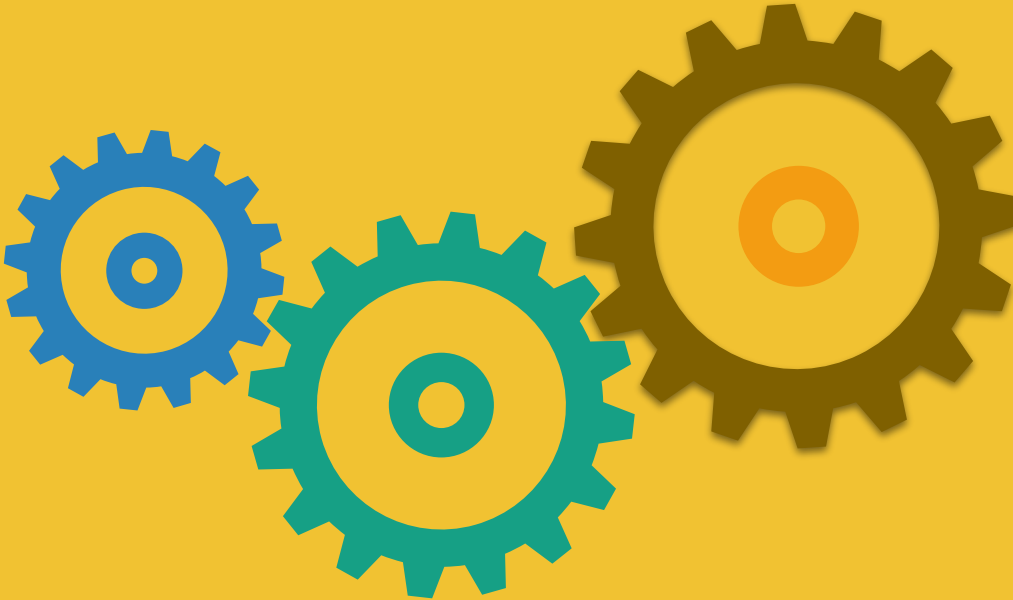
Historical context: DPI is **3rd Wave** of Public Infra

Includes Privately-Provisioned Public-Infrastructure

Transportation Infrastructure:

Roads, Ports,
Railways and
Airports

Low logistics cost
(1950s)



Telecom Infrastructure:

Fixed Telephony
Mobile Telephony

Low telecom cost
(1980s)

India Stack aka Foundational Digital Public Infrastructure:

- Flow of people
- Flow of money
- Flow of information

Low digital transaction cost
(2010s)

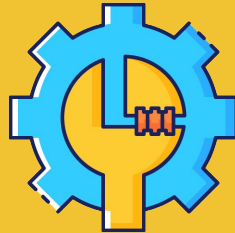
*India Stack approach
prevents:*

- *Monopolization*
- *Authoritarianism*
- *Weaponization or Digital
Colonisation*

Embrace public-tech to improve social-sector outcomes!



OLD Problems
(e.g. Bank Account Penetration)



NEW Public Technology
(e.g. India Stack)



Population Scale
(17% to 81% Bank Account Penetration in 7 years)

DPI can be **built quickly!**

With Countries coming together:

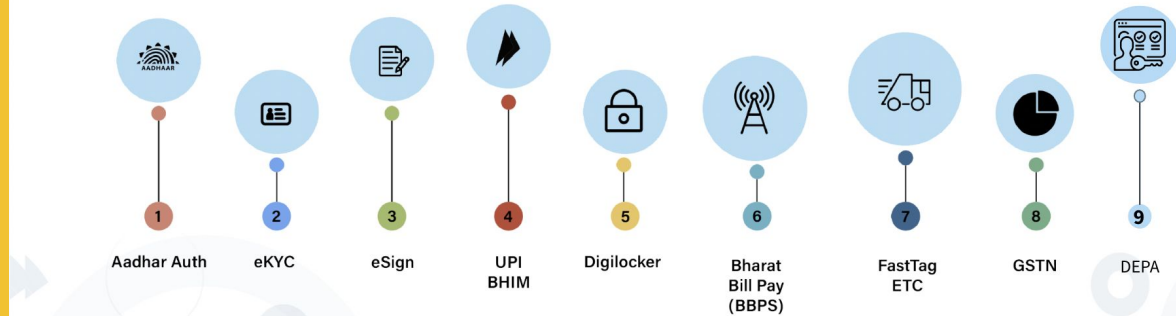
We can build the unseen

We can build it quickly

We can break the jinx of dependence

Leveraging the Unseen to quickly build the Seen

Building Seen and Unseen Markets gave rise to our unique Digital Playbook



Thank You!

iSPIRT: Rewriting the Script of the Nation

We are a group of **no-greed, no glory volunteers**

We focus on **30 year orbital shifts**

We made DPI come alive as a **Sutradhar** and are now crafting/driving many more Bets to make India a Product Nation!



*iSPIRT Foundation is a non-profit
Tech Think-and-Do Tank*

Further Reading

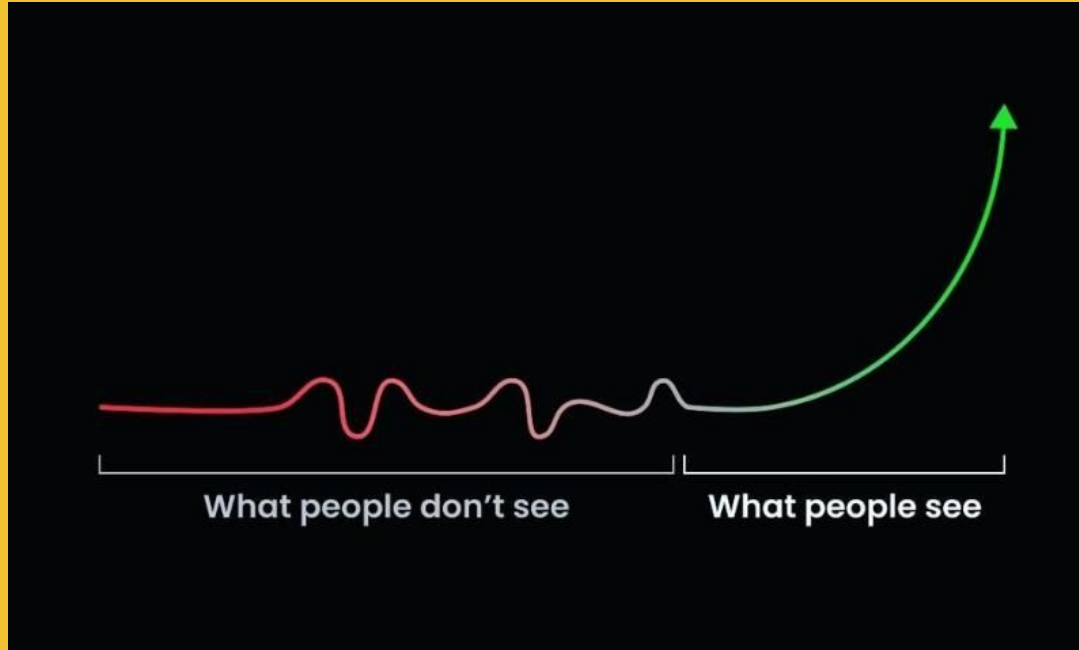
- India Stack - The Internet Country: How India created a digital blueprint for the economies of the future: <https://tigerfeathers.substack.com/p/the-internet-country>
- Data Empowerment & Protection Architecture by NITI Aayog: <https://niti.gov.in/node/1299>
- Design of a Data Governance System by BIS: <https://www.bis.org/publ/bppdf/bispap124.htm>
- India's Data Empowerment & Protection Architecture by iSPIRT: https://youtu.be/mW_azl8_ow
- OCEN Open House Sessions by iSPIRT: <https://youtu.be/rcMx9UVERYWg>
- OCEN - A Conversation: <https://tigerfeathers.substack.com/p/ocen-a-conversation>
- Design of India's Digital Financial Infrastructure & its Global Relevance: <https://www.bis.org/publ/bppdf/bispap106.htm>
- MSME Cmte 2019 Report: <https://www.rbi.org.in/Scripts/PublicationReportDetails.aspx?UrlPage=&ID=924>
- Health Stack Open House Sessions by iSPIRT: https://www.youtube.com/watch?v=kW3Y_mj_yGw&list=PL9dBcOUIsjz8KO7p4GFIMqJ7Mkv8rcZUb
- Joint OPED with Henri Verdier on “India building the future it desires with its own digital infrastructure” <https://theprint.in/opinion/india-building-the-future-it-desires-with-its-own-digital-infrastructure-eu-can-learn/1005272/>
- Raisina Dialogue: From Budapest to Bangalore: Creating a Global Response to Digital Bads <https://youtu.be/QH3I3zUvxxv0>
- Public Policy and Public Technology by National Australian University <https://podcasts.apple.com/au/podcast/public-technology-and-public-policy/id1598491978?i=1000582494418>
- Digital Public Infrastructure – lessons from India by ORF <https://www.orfonline.org/research/digital-public-infrastructure-lessons-from-india/>
- Stacking up the Benefits: Lessons from India's Digital Journey by IMF <https://www.imf.org/en/Publications/WP/Issues/2023/03/31/Stacking-up-the-Benefits-Lessons-from-Indias-Digital-Journey-531692>



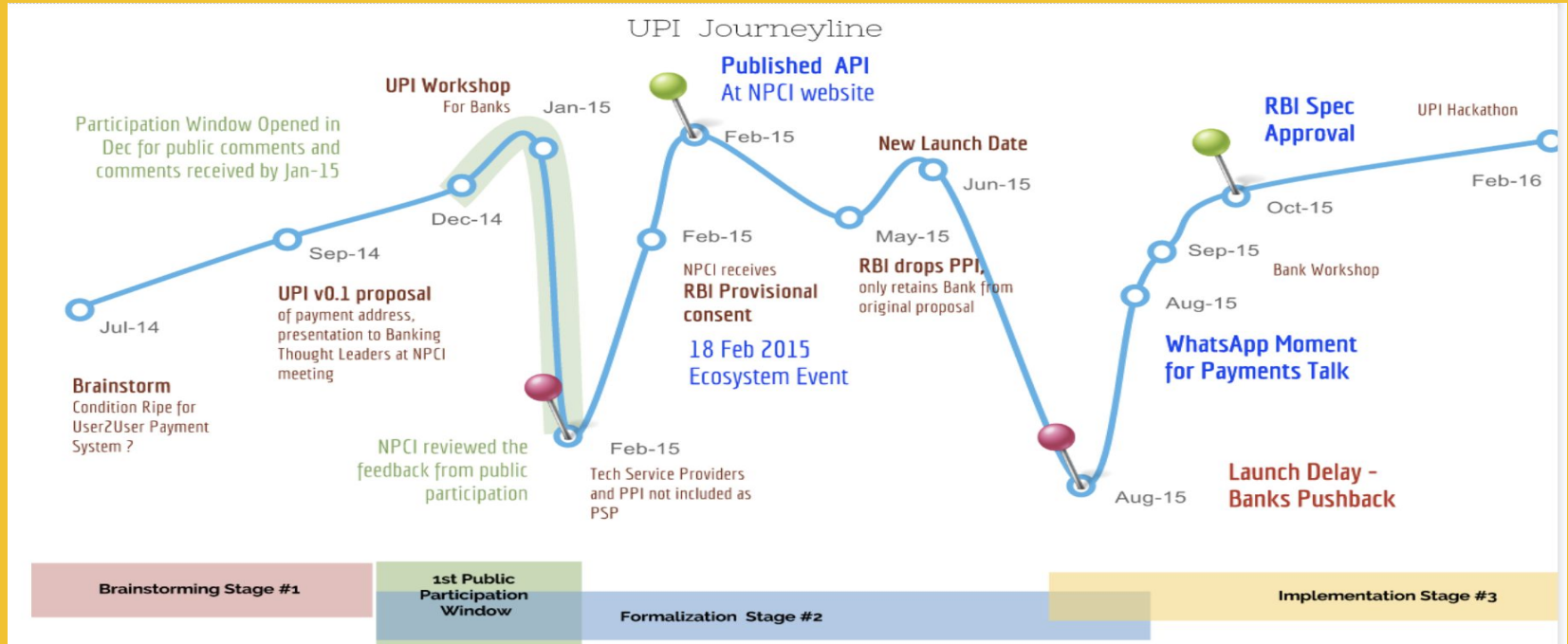
Appendix



Journeyline of Success



UPI Journeyline 1 of 2



UPI Journeyline 2 of 2

