Current debates in technology policy

Smriti Parsheera

Technology Policy Team, NIPFP

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Four themes:

1. Technology and **Access**
2. Technology and **Privacy**
3. Technology and **Disruption**
4. Innovations in **RegTech**

Part I

Technology and Access

Current state of access

- Telecom data reveals that India's access is dominated by **wireless services**:
    - 94% of 431 million Internet users
    - 94% of 324 million broadband users
- **Data usage** - from **154 MB to 1,248 MB** per user per month
- **Rural** (32%) vs **Urban** (68%) penetration
- Penetration across **regions**
- Inclusion of particular user groups - *women, elderly, disabled*.

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  - Spectrum sharing and trading

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- **Rethinking wireless access**
  - Unlicensed spectrum
  - Public Wi-Fi
  - Spectrum sharing and trading
- New telecom policy in the pipeline

Economic benefits of releasing V and E bands

Authors: Suyash Rai, Dhiraj Muttreja, Sudipto Banerjee, Mayank Mishra

- V-band (57-64 GHz) and E-band (71-76; 81-86 GHz) - high capacity transmission over short distances
- Less prone to interference
- Many countries have adopted a license-free/ light licensing framework
- Potential uses in India:
    - Proliferation of commercial hotspots
    - Last mile fixed broadband access in dense urban locations
    - Backhaul for mobile broadband
- *We quantify the potential scale of usage of these bands to conclude that releasing them can accrue tremendous economic benefits*.

Part II

Technology and privacy

Privacy in India

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Current state of the debate

- Sec 43A and 72A of IT Act are not enough
- Supreme Court's landmark verdict in the *Puttaswamy case*
- Justice Srikrishna committee's white paper
- TRAI's consultation on privacy and security

Beyond a data protection law

- Challenges to **Aadhaar** are still pending
- Changing nature of **surveillance**
- **Old crimes in new bottles**
  - Cyber stalking
  - Voyeurism
- Is the Internet redefining our *conceptions of privacy*?

Privacy and open data

Authors: Amba Kak, Smriti Parsheera and Vinod Kotwal

- What is open data?
- A public good - tool for accountability, research, business decisions
- Possible tension with privacy goals
- Why is Aadhaar an appropriate case study?
- Some potential applications:
  - Authentication failure rates
  - Hospital registration data
- The paper contains our proposed implementation framework

Part III

Technology and disruption

New questions for regulation

- **When new economy disrupts the old**
  - Taxi aggregators
  - E-commerce services
  - Over-the-top communication services

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- **When technology creates new markets**
  - Blockchain technology
  - Unmanned aerial vehicles

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- *Specialised regulation vs. General law vs. Competition enforcement*

Challenges of market power

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  - Global developments

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  - State of the debate in India
  - Global developments
- **Market power in the online economy**
  - Multi-sided platforms with network effects
  - Data network effects
  - Are competition authorities geared for it?
  - *Looking beyond economic impacts*

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- **McKinsey Global Institute** - *Jobs lost, jobs gained*
  - 50% of current activities are **"technically automatable"**. Less than 5% jobs fully automatable
  - About 15% hours worked globally could be automated by 2030.
  - India - 9% displacement. Which sectors? - *Legal support, equipment operators, agri field workers*

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- New challenges for **cyber security**
- Deeper **moral and philosophical debates**

Part IV

Innovations in RegTech

Understanding RegTech

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Understanding RegTech

- What is RegTech?
- *"Adoption of new technologies to facilitate the delivery of regulatory requirements"* - UK Financial Conduct Authority
- Some emerging applications
  - Regulatory compliance and reporting tools
  - Improved accuracy of reporting
  - Risk monitoring, AML compliance, customer diligence, fraud prevention

A role for regulators - SupTech

- Improvements in regulatory data collection and management
- Monitoring and risk-based supervision
- Development of shared standards and best practices
- Addressing barriers to innovation and adoption

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- Some examples
  - RegTech for Regulators Accelerator - Philippines, Ghana, Mexico
  - UK, Hong Kong, Singapore, Australia - Regulatory sandboxes
  - Austrian central bank - data collection and reporting for banks

RegTech in India

- Financial Data Management Center
- TRAI quality of service analytics
- RBI Household Finance Committee - blueprint for a regulatory sandbox
  - *Success of sandboxes hinges on agile and malleable regulators*
- SEBI committee on financial and regulatory technologies

Thank you