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# Historically and conceptually situating India's Information Economy

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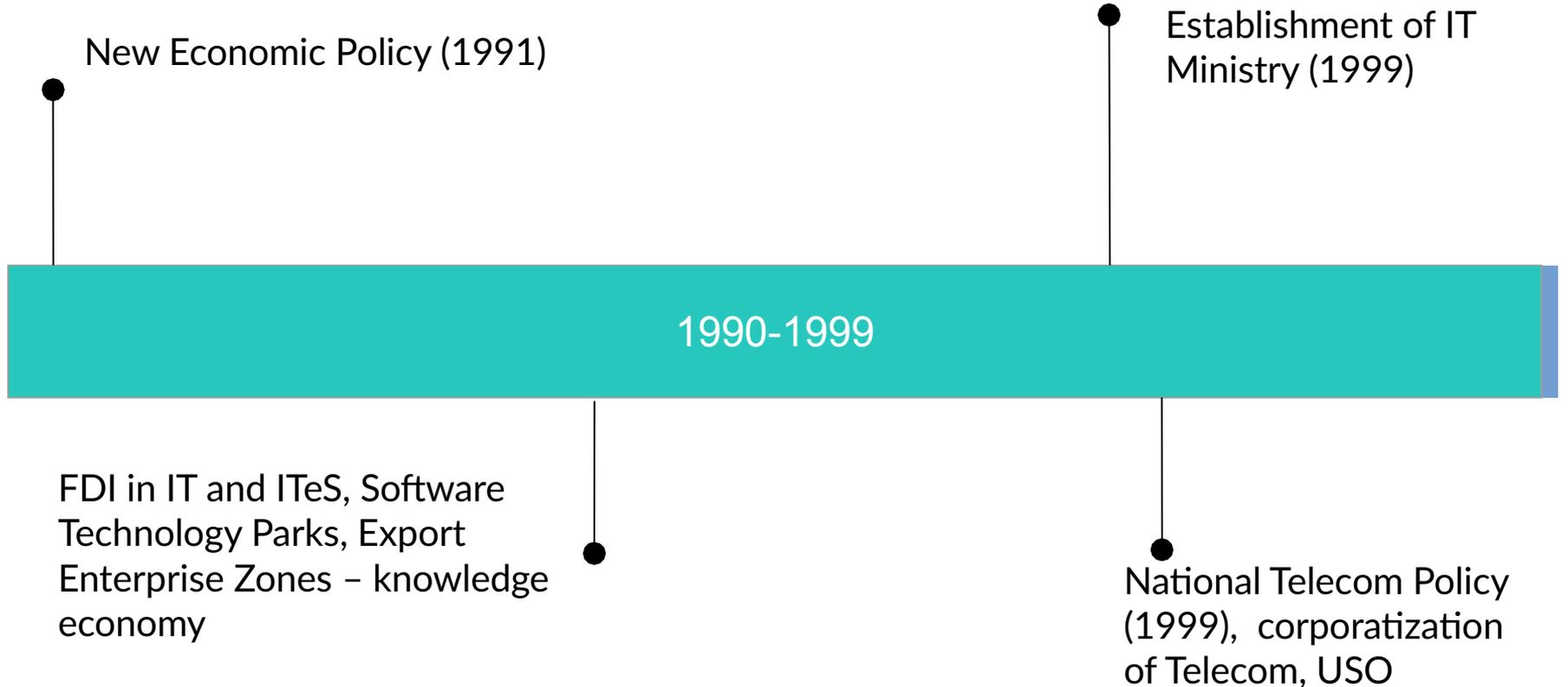
# **Part 1. India's Information Economy: An overview**

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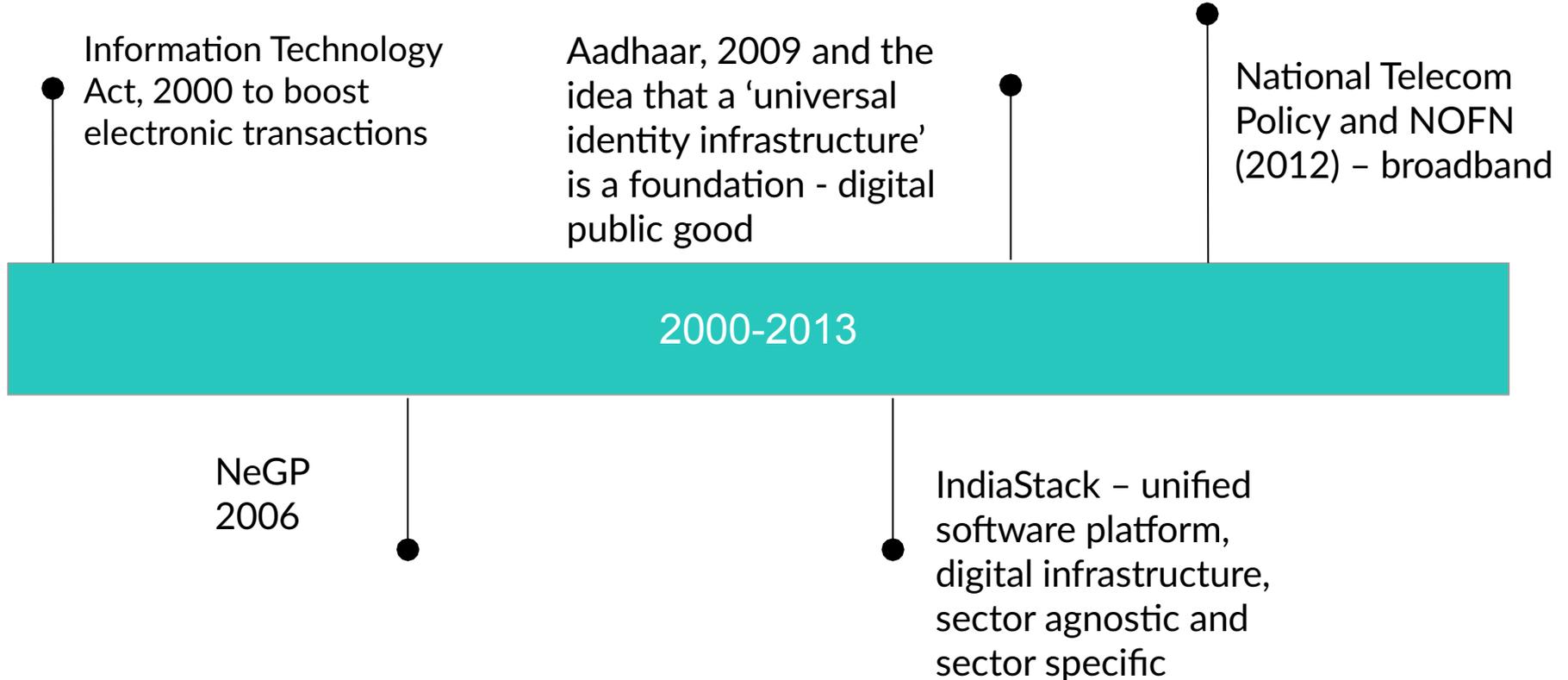
# Information Economy: Information to Intelligence

- An economy that is based primarily in knowledge, communication and information rather than in manufacturing and industry (Porat 1977)
- OECD's idea that information is a good/ service concerning all sectors, not just science and tech
- Economic impacts of IT-isation of key sectors in the 1970s and 80s emerged only in the 1990s – the 50% penetration rate (Economist 2000)
- New Digital Economy – social and economic consequences of ICT use (mobile technology, Internet and cloud) as Information Economy 2.0 (UNCTAD 2017, van Ark 2016)
- Still in installation phase

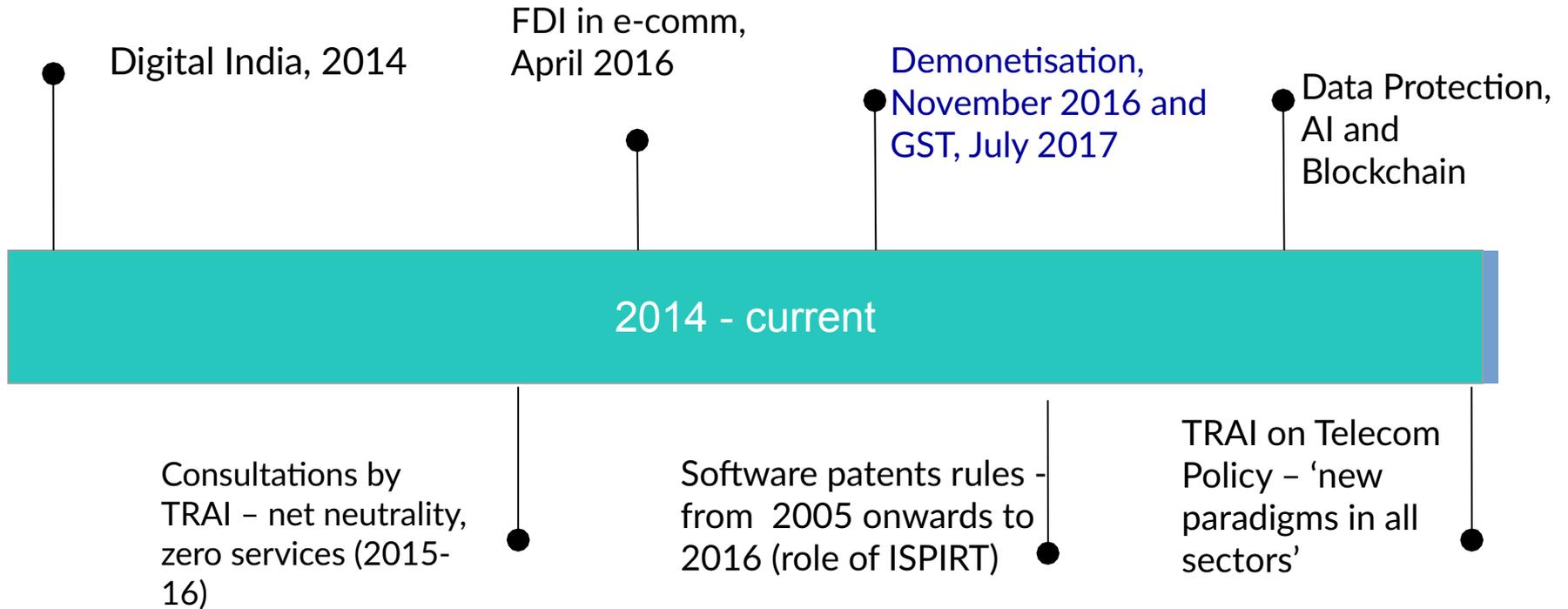
## Policy frameworks for the information economy: Key milestones in the Indian context (1990-99)



## Policy frameworks for the information economy: Key milestones in the Indian context (2000-2013)



# Policy frameworks for the information economy: Key milestones in the Indian context (current)



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# The policy vision these strands lead up to

- Transform India into a 1 trillion dollar digital economy by 2020 and open up 30 million employment opportunities by 2025 – through the push for digitisation and formalisation of economic activities.
- Create digital public goods for the new digital economy, at a time when India's competitive advantage in computer services exports seem to be declining. (China, Brazil, Russia, Philippines)

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# **Part 2.**

# **Evaluating policy**

# **frameworks for**

# **the information**

# **economy**

# — Two axes of analysis

**Economic  
productivity**

**Equality and  
Well-being**

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# Economic productivity

- Clouded economic growth horizon (Mohan 2017) – facts not fully confronted by Economic Survey 2017-18 (Patnaik 2018)
- Hints of a long term slowdown, and not just a temporary shock because of demonetisation and GST (Mohan 2017) – slowdown in manufacturing, decline in export growth, falling investment to GDP ratio, agricultural sectoral setback
- Digitalisation of manufacturing by increasing capital to labour ratio may exacerbate jobless growth (Mohan 2017)

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# Economic productivity

- Need to improve slippage in GVA of agriculture from 4.9% in 2016-17 to 2.1% in 2017-18
- Need for industrial activity with greater labour intensity

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# Equality and Well-being

- Impacts on labour
- Implications for agriculture
- Implications for MSMEs
- Changes to Social Safety Nets

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# Labour

- Inability to create new jobs – of the million new workers that join the country's workforce each month, less than 0.01 percent are able to find jobs (Bhattacharya 2017) & 550 jobs are being lost every day in the Indian economy (Saxer 2017)
- Automation and pressures of re-shoring, in the long term, may lead to premature de-industrialisation, exacerbating jobless growth (Saxer 2017)
- Automation but no respite from drudgery (Turner 2017)

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# Labour

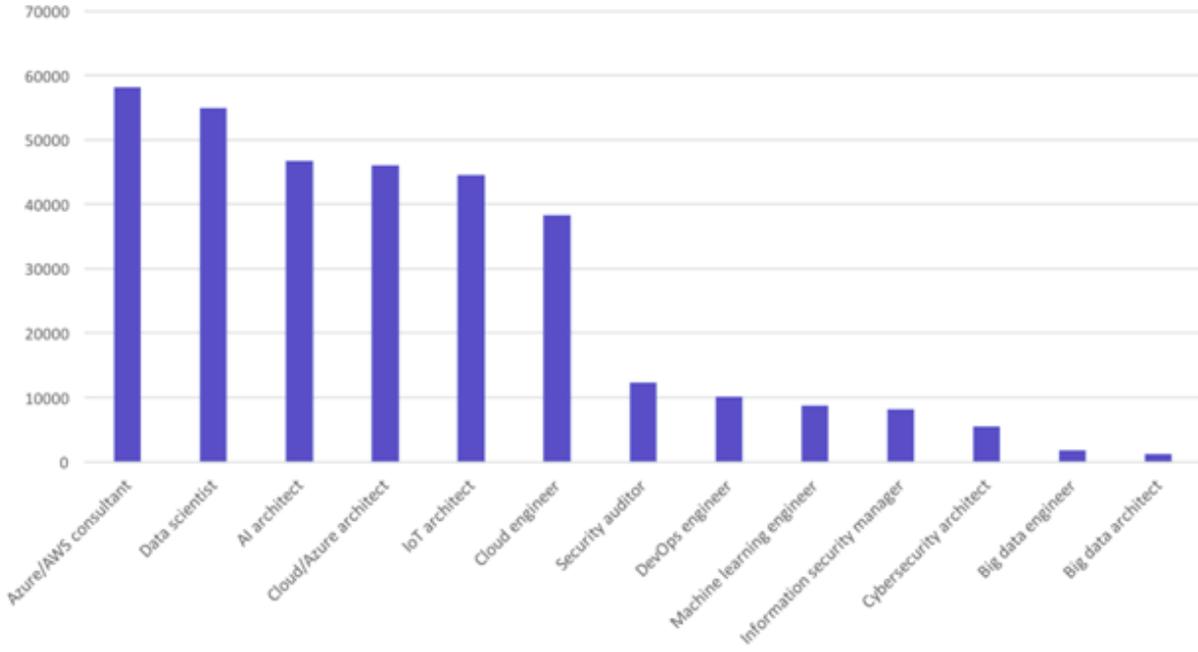
- 90% of female workforce in unskilled jobs – which could shrink with digitalisation (IT for Change 2018)
- NSS data – 27% share in population of SCs, with only 15.7% contribution to non-cognitive analytical jobs in the new economy (Vashisht, 2016)
- Upward mobility prospects – rural vs urban and upper caste vs SC/ST (Iversen et al 2017)
- Larger prospects for downward mobility rural and SC/ST (Iversen et al 2017)

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# Labour

- Lack of attention to digital literacy and vocational training in formal education (ASER 2017)
- Skill India – a programme without bite? (IT for Change 2018)
- Government-led digital literacy programmes – not reaching the right beneficiaries and not contributing to the transition from basic literacy to higher order digital skills (IT for Change 2018)

Tech jobs created per annum



**Jobs for the 1 percent**

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# Implications for agricultural sector

- E-NAM not making a dent in reviving agricultural productivity because of lack of institutional reform – APMC Act, absence of systems for price-risk management and institutional credit (Chand 2017)
- Economic Survey 2018 push for substitution of input subsidies and price support to farmers by direct benefit transfers.
- 100% FDI in food retail – what global trends tell us on manipulative pricing based and suppressing farmers' payments

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(We live in the ) Hi-tech, Hi-touch paradox

“The more rapidly technological progress enables automation of existing activities.....the more hi -touch jobs grow in activities which at least for now cannot be automated, or where wages are low enough to make automation uneconomic.”

Rapid technological progress could eventually automate away almost all the activities which are truly essential for human welfare while supporting increased intensity of zero- sum competition or zero sum consumption games of the elite so that zero sum activities (personal care, footworkers of cosmetic industries, home nurses) account for an increasing % of employment and measured output over time

Adair Turner



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# Implications for MSMEs

- Retail traders' associations are flagging violation of marketplace model rules in FDI in e-commerce arrangements – distorting level playing field (CAIT 2017)
- Less than 5% of SMEs have a web presence (Khan 2013)
- Stand up India and MUDRA – not doing enough to expand institutional credit to MSMEs, SCs and micro-borrowers (IT for Change 2018)

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# Digitalisation of social welfare

- Unfair denial of benefits due to errors in Aadhaar seeding and authentication
- Underdeveloped banking infrastructure – only 27% of villages have banks within 5 kms – what this augurs for a transition to DBT

# Big Picture

- The top 1 percent of the population in India cornered 73 percent of the additional wealth generated in the year 2017 (CreditSuisse, cited in Macroscan 2017)
- Growth of inequality more rapid than anywhere else in the world (Macroscan 2017)



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# Research issues

**In what ways  
can the  
information  
economy  
contribute to  
productivity?**

How can new public goods impact jobs including in traditional economic activity? – AI, cloud.

How can legal frameworks support knowledge based capital, including in traditional sectors?

What does the rhetoric of inclusive growth translate into?

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# Research issues

**In what ways  
can the  
information  
economy  
contribute  
equality and  
wellbeing?**

How do we address the  
question of redistribution?

How do we address the  
question of drudgery?

What is the role of social  
policy?

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Thank you!