

Technology and Power

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Flow of presentation

- Examination of case studies
 - Technology adoption as a purely economic phenomenon
- Point of departure of this paper
 - The societal and inherent technology characteristics need to be mapped in addition to economic forces
- Taking forward from this paper
 - Power as an underlying mechanism

Main line of argument in case studies

- Perceived benefits of technology within the framework of a purely economic phenomenon
 - Information flow
 - Cost of adoption
 - Revenue stream
- Limitations of the paper
 - No case's where technology not accepted
 - The final link up with Power not brought out

Case studies (contd.)

Target Group	Author	Major Conclusions	Grey Areas
Fishermen in Kerala	Robert Jensen	Less price dispersion and wastage with Mobile	Effect of Kerala society and chosen Product group
Farmers and Fishermen in Ghana	Boadi, Boateng (et al)	Cost, convenience and communication enable mobile uptake	Effect of minimal ethnicity, better HDI index
Fishermen in Tanzania	Myhr and Nordstorm	Operational efficiency and information flow enabled by Mobile	Tightly knit Islam community
Grain Traders in Niger	Jenny Aker	Price dispersion of grain reduced by cell phones	Traders a relatively well-off community, urban focus

Main line of argument in this paper

- The paper attacks Economics position on 2 fronts
 - The underlying social variables which may have influenced technology adoption missed out
 - For example, how to translate the following into economic terms
 - Homogeneity of group
 - Previous exposure to technology
 - Existing theory (SCOT)
 - Langdon Winner (1986)
 - Bruno Latour (1979)

Main line of argument in this paper (contd.)

<i>FEATURE/Geographical Area</i>	<i>Kerala</i>	<i>Tanzania</i>	<i>Ghana</i>	<i>Niger</i>
Unit of case study	3 districts	1 district	1 district	1 district
Gini coeff.	Low	Medium	Medium	High
Homogeneity of group	High	High	High	Low
Previous exposure to modern tech	High	High	High	Low
Strength of Regulatory Institutions	High	Low	Low	Low
Complementary Infrastructure	Good	Medium	Medium	Poor
Criticality of target group to wider society	High	High	High	High
Affordability of mobile device to target population	Yes	Yes	Yes	Yes

Main line of argument (contd.)

- The 2nd front
 - Can Inherent Technology variables be explicated in economic terms?
 - Meaning construction of technology
 - The device/technology only allows a subset of all possible meaning constructions
 - One among these meaning invoked in any given situation
 - Mobile for family versus Mobile for individual
 - Focused versus Exploratory potential
 - Existing theory (Technology determinism)
 - Jacques Ellul (1964)
 - Thomas Hughes (2000)

Main line of argument in this paper (contd.)

<i>Societal characteristic</i>	<i>Mobile features</i>				
	<i>Burst</i>	<i>Focused</i>	<i>Form</i>	<i>Reliability</i>	<i>Indiv. Use</i>
Gini coeff.			Yes	Yes	Yes
Homogeneity of group					Yes
Previous exposure to modern tech					
Strength of Regulatory Institutions					
Complementary Infrastructure			Yes	Yes	
Criticality of target group to wider society		Yes		Yes	
Affordability of mobile device to target population	Yes	Yes		Yes	

To be studied

- How Power can act as a mediating mechanism
 - Understanding Power differential necessary while designing technology solutions
 - Power may provide better explanation on how a technology is selected and performs in a given context vis-à-vis economic forces alone
- Existing Theory
 - Michael Foucault (Microphysics of Power)
 - Steven Lukes (3 dimensions of Power)

To be studied (contd.)

- *Mechanism* of Power can link up Society/ Technology and Economics
 - How power equation changing with technology?
 - To answer this question, map on society technology characteristic to understand the mechanism
 - Robert K. Merton (Mechanisms)
 - Jon Elster (Explaining technical change)

To be studied (contd.)

- Demonstration of proposed framework
- Power may be a stronger latent variable than Wealth
 - A person may have wealth but still be relatively less powerful
 - A powerful person has the opportunity to be wealthy, but may not exercise it

Thank You