Broadcasting Change: India's Community Radio Policy and Women's Empowerment

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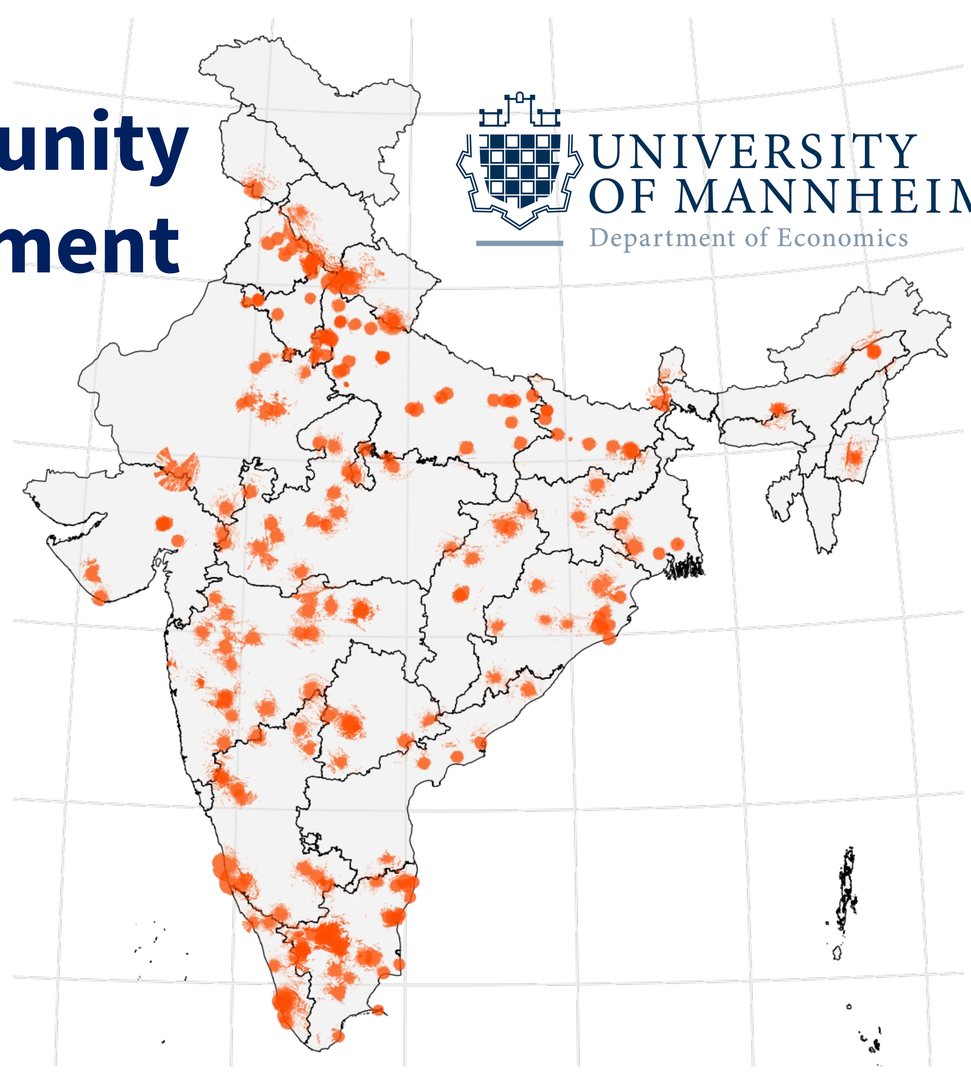


1. Grassroots Media for Development

- Media: cheap and scalable way to affect (collective) beliefs and attitudes → How to translate into policy?
- Most research on unintended effects of entertainment media (e.g., telenovelas, television) or field experiments[1,2,3]

Can **grassroots media** be used **as a policy** to affect development outcomes?

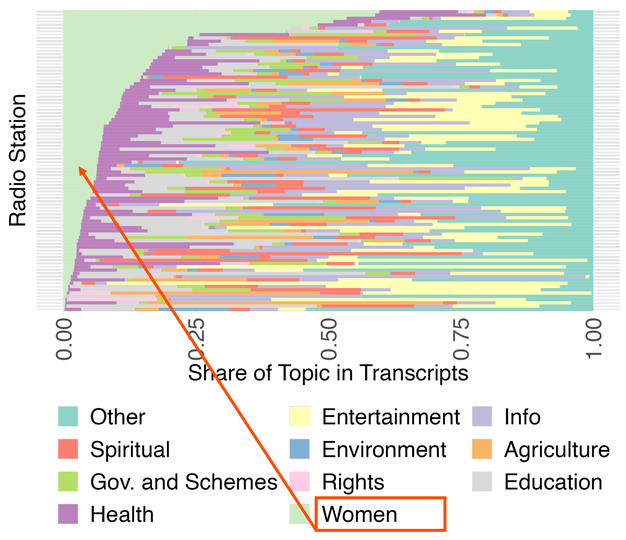
→ Specifically: does India's community radio policy affect the role of women?

2. 2006 Community Radio Policy in India

Policy
NGOs and educational institutions can obtain a radio license. (Some) requirements:[6]

- Focus on local development
- Majority of content locally produced
- Not allowed to air news
- Non-profit
- Coverage effectively restricted to 15-30km

Content Analysis using LDA
Transcription of 6k+ radio shows



"Women" topic: marriage, education, sanitation, health, maternity…

3. Empirical Strategy

Data

- 2015-16 DHS/NFHS data
  - **Main outcomes:** marriage, fertility, and education
  - Sample restricted to survey clusters in vicinity of radio tower
- Self-collected data on radio stations: 184 treatment (established before data collection: 2005-15), 84 placebo (established after data collection: 2016-20), c.a. 8,000 and 6,000 DHS survey clusters

Exploiting topography between radio tower and receiver

$$y_i = \beta\, \text{Exposure}_{c(i)} + \text{Propagation}_{c(i)}\, \omega + X_i\, \lambda + \gamma_{r(i)} + \epsilon_{i,c(i),r(i)}$$

- y_i: outcome for individual i
- $\text{Exposure}_{c(i)}$: exposure of individual i in cluster c to radio signal: Coverage * share of time between 2005-15 signal was available
- $\text{Propagation}_{c(i)}$: (travel) distance to radio, geographic controls
- X_i & $\gamma_{r(i)}$: Other controls & community radio FE

Identification Assumption: remaining variation in signal strength is driven by the topography between the transmitter and the receiver

Correcting for Random Displacement of DHS Data

- NFHS/DHS locations randomly displaced by up to 5km[7]
  → Previously ignored, BUT: measurement error and bias
- Draw on knowledge of displacement algorithm to compute: "Coverage Probability": Given a displaced location, what is the probability mass on original locations within treatment area?

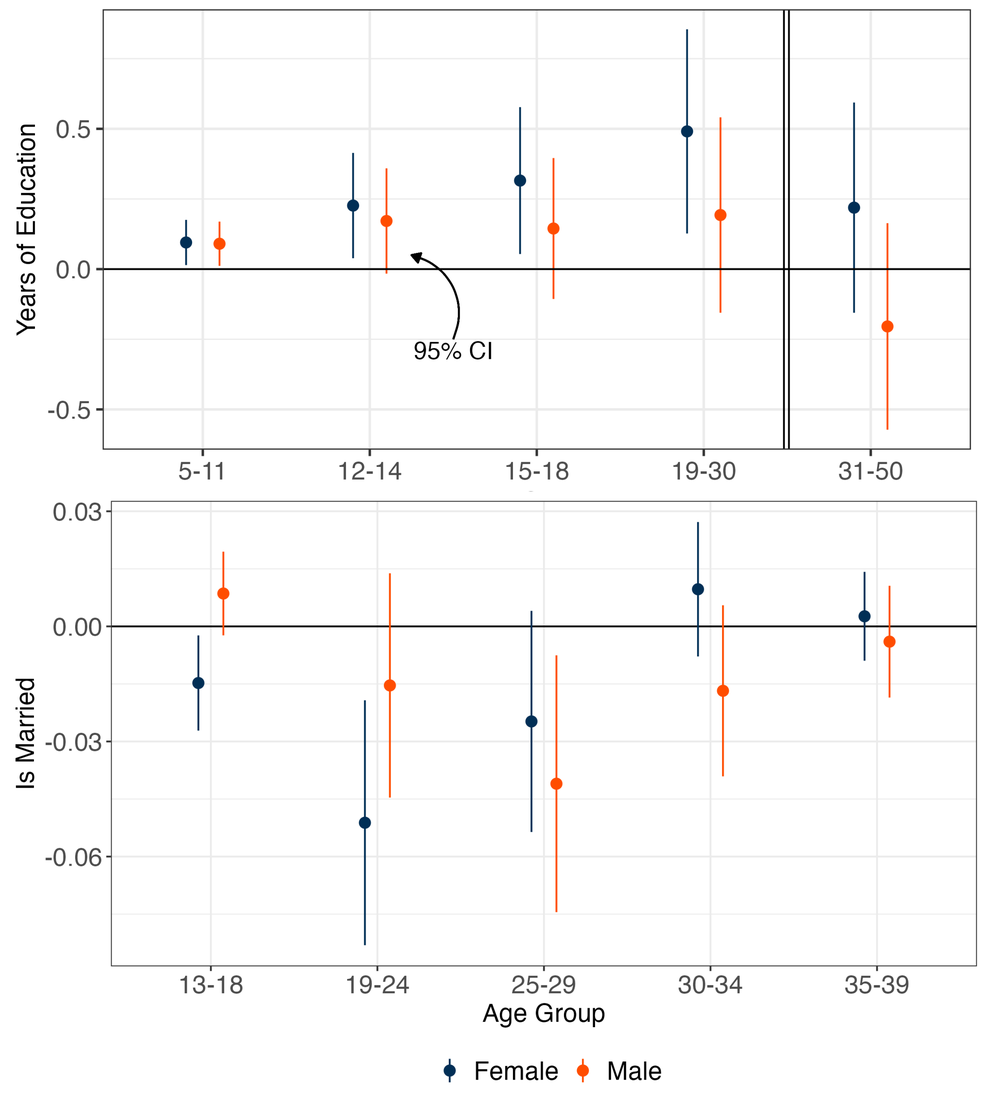
4. Key Results: Radio Empowers Women

Exposure to Radios…

- … increases radio consumption (incl. of radio family planning messages)
- … **delays marriage** of young women and men
- … **increases girls' education** (esp. middle school and above)
- … **lowers fertility** of young women
- … **increases young women's autonomy** (mobility & decisions)

Robustness

- Placebo: Re-run all regressions for radios launched post data collection (2016-2020) → no effects
- No effects on cohorts unaffected by treatment or other media



5. Conclusion

- Use of grassroots media as a policy → empowerment of women[4,5]
- Methodological: increased precision when working with randomly displaced coordinates

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5. Okuyama, Yoko. 2023. "Empowering Women Through Radio: Evidence from Occupied Japan." Working Paper
6. Govt. of India. 2006. Policy Guidelines for Setting up Community Radio Stations in India.
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