Building Citizen Engagement into the Implementation of Welfare Schemes in Rural India

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Welfare Schemes
NREGA
RSBY
Kanyashree

Beneficiaries
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NREGA
RSBY
Kannyashree

1. Grievance Channels

Beneficiaries
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- NREGA
- RSBY
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1. Grievance Channels

Call Centres
- Awareness
- Poor enforcement to ensure resolution

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2. Account Information

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MIS

• Literacy
• Access
• Govt. facing

2. Account Information

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Call Centres
- Awareness
- Poor enforcement to ensure resolution

1. Grievance Channels

3. Feedback

Social Audits
- Who does it?
- Resource intensive

MIS

2. Account Information
- Literacy
- Access
- Govt. facing

Beneficiaries
Citizen Engagement

- Grievance resolution
- Feedback
- Account Information
Citizen Engagement

- Grievance resolution
- Feedback
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Government

Intermediary
(Community Radio Stations, Civil Society, CSCs)

Beneficiaries
Citizen Engagement

Government

Beneficiaries

Intermediary

FM Radio Stations
- Run by non-profits
- Limited Range (~15-20 km)
- Locally sourced content

Stations, Civil Society, CSCs)
Citizen Engagement

- Grievance resolution
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Intermediary (Community Radio Stations, Civil Society, CSCs)

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Intermediary (Community Radio Stations, Civil Society, CSCs)

- IVR Systems
- Breaks literacy barrier
- India: among cheapest voice calls
- Automated voice calls
- Typed and spoken inputs

Beneficiaries
Citizen Engagement

- Grievance resolution
- Feedback
- Account Information

Intermediary (Community Radio Stations, Civil Society, CSCs)

- Pilot with the National Rural Employment Guarantee Act (NREGA) partnering with a Community Radio Station
- Has been implemented throughout the country
- Extensive and updated MIS

Beneficiaries

- IVR Systems
- Breaks literacy barrier
- India: among cheapest voice calls
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Related Work
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- Engagement platforms over voice
- CGNet Swara [Mudliar et al ICTD '12], Mobile Vaani, Avaaj Otalo [Patel et al CHI '10]
- Spoken Web [Agarwal et al DEV '10, Kumar et al W4A '10]
- P2P media systems
- Our work is in the context of a government scheme
### Related Work

<table>
<thead>
<tr>
<th>IVR for resource poor areas</th>
<th>IVR usability</th>
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- Typed vs Spoken input
  - [Lerer et al DEV '10], [Sherwani et al ICTD '09],
- Automatic Speech Recognition
  - [Khan et al COCOSDA '13]
- We do not focus deeply on IVR design
- Use simple model to evaluate IVR in desired use cases
## Related Work

### IVR for resource poor areas
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### IVR usability
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### E-gov & transparency
- Media tools
  - [Bertot et al GIQ '10], [Andersen IEP '09], [Kim et al GIQ '09]
- CSCs and Call Centres
  - [Kumar et al IS '06], [Mishra ICEGOV '11], [Singh et al GIQ '08]
- Mix of media and CSCs
- Media: create awareness, gather feedback and enforce accountability
- CSCs: open up MIS data
NREGA - overview

- National Rural Employment Guarantee Act (NREGA)
- Minimum number of work days
- Minimum pay
- Construction of roads, toilets, ponds, plantation
- Unemployment allowance
- Delay compensation allowance
- Work site facilities
NREGA – implementation problems
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- No. of work days allotted
- Wrong, delayed or non payment of wages
NREGA – implementation problems

Account Info
- No. of work days allotted
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Grievances
- Job cards not issued
- Machines used instead of workers
NREGA – implementation problems

- **Account Info**
  - No. of work **days** allotted
  - Wrong, delayed or non payment of **wages**

- **Grievances**
  - **Job cards** not issued
  - Machines used instead of workers

- **Feedback and Transparency**
  - Fudged records
  - **Ghost** assets,
  - Substandard quality
Our work

- 3 IVR tools
- Community Driven
- Crowdsourced reporting
- Partnering with a Community Radio Station
- Evaluate these tools
  - Context: NREGA
  - Improve citizen awareness
  - Get feedback
  - Verify MIS data to check for discrepancies
Demographics

- Pilot: **in a district** in the Indian state of **Haryana**
- 37% households below poverty line in the district
  - Poor NREGA implementation
- **95% rural population** in the district
  - Wide scope for NREGA implementation
- **Literacy rate** in the district is **56%**
  - Prevents information access
- **Telephone** (mobile and others) penetration is **71.3%** in the district
  - Scope for using IVR tools
- Partner radio station, Alfaz-e-Mewat, reaches **183 of 431 villages** in the district
  - Tie-in within the community
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1. Mobile Vaani - unstructured feedback collection

Beneficiaries

Mobile Vaani Server
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Beneficiaries

Missed call

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- Beneficiaries
- Missed call
- Call back
- Mobile Vaani Server
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Beneficiaries

- Leave feedback on NREGA
- Listen to others' feedback
- Post responses on others' feedback
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- Mass of issues faced by the beneficiaries
1. Mobile Vaani - unstructured feedback collection

Missed call → Beneficiaries

- Leave feedback on NREGA
- Listen to others' feedback
- Post responses on others' feedback

Call back → Mobile Vaani Server

- Better planning, implementation and troubleshooting by officials
- Mass of issues faced by the beneficiaries
- Live discussions in partner CR station, Structured survey to measure extent of issues
1. Mobile Vaani - conversion rates
1. Mobile Vaani - conversion rates

- # missed calls: 1873
- Most callers called to listen
- Attempts to post: 19% of callers
- Valid posts: 8% of callers
- This is consistent with Mobile Vaani Deployments in Jharkhand and Bihar

- Calls from 59 panchayats
1. Mobile Vaani – feedback and grievance redressal
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- Blame local leaders
- No NREGA work

- Local leaders point to state officials for delay in approval and funds
- Officials:
  - info collected is new
  - Can help in planning and implementing schemes better
1. Mobile Vaani – feedback and grievance redressal

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<td>• Blame local leaders</td>
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<th>Grievance Redressal</th>
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<tbody>
<tr>
<td>• Radio partner conducted live programmes</td>
</tr>
<tr>
<td>▪ Played out recordings from Mobile Vaani</td>
</tr>
<tr>
<td>▪ Local leaders sorted out problems on air</td>
</tr>
<tr>
<td>▪ Increases trust in the system</td>
</tr>
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</table>
2. vSurvey - structured data collection
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- Structured, quantifiable voice survey
- DTMF and voice inputs
- What is the severity of the issues raised on Mobile Vaani?
- Formulated by experts, based on the issues on Mobile Vaani
2. vSurvey - structured data collection

- Structured, quantifiable voice survey
- DTMF and voice inputs
- What is the **severity** of the issues raised on Mobile Vaani?
- Formulated by **experts**, based on the issues on **Mobile Vaani**

- Utilisation
- Awareness
- Feedback
- Problems
2. vSurvey - structured data collection

- Structured, quantifiable voice survey
- DTMF and voice inputs
- What is the severity of the issues raised on Mobile Vaani?
- Formulated by experts, based on the issues on Mobile Vaani

Do you have a NREGA job card?
- Press 1 for Yes
- Press 2 for No

#utilisation

Please say during which season do you prefer to work in NREGA.

#feedback
2. vSurvey – gauge the actual severity of issues

- Quantifiable info over IVR
- Severity of issues
3. Work Verification
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Please press 1 if you are from panchayat X. Press 2 otherwise.
3. Work Verification

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1. If this work was implemented properly
2. If this work was not implemented properly
3. If you are not sure about this work.
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1. If this work was implemented properly

2. If this work was not implemented properly

3. If you are not sure about this work.

Please record any additional information related to the work.
3. Work Verification – How accurate is the data?

**Type I:** Misunderstood question

- Confirmed IVR Answer: 26
- Disputed IVR Answer: 5

**Type II:** IVR usage

- Yes: 6
- No, not artefact of IVR usage: 3
- No, artefact of IVR usage: 1

Could repeat IVR flow
3. Work Verification - outcomes

Has the work been implemented properly?

- Yes: 30
- No: 51
- Not Sure: 19
3. Work Verification - outcomes

Red Flagging Panchayats
- Identify under-performing places for deeper inspection
- Red flag ratio: # 'No' responses to total # responses from a panchayat
- Panchayat with second red flag ratio same as panchayat with highest negative feedback on Mobile Vaani
3. Work Verification – Spoken versus Typed Input

**Spoken Input**
+ Useful feedback like “rain washed away the road that was constructed”
- Many responses blank
- Takes longer to transcribe and analyse
- Calls are of longer duration

**Typed Input**
+ Easier to summarise and analyse
- Suffers from inaccuracies
- Unable to capture the entire gamut of information
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- Verify public data
- Identify under performing areas
Voice fora are able to collect quantifiable and qualitative information regarding welfare schemes. They can help collect feedback on the running of a scheme, including:
- Problems beneficiaries face
- Severity of problems
- Under performing areas
Civil Society bodies like Community Radio can build pressure for resolution of grievances. Beneficiaries can help vet official published data.
Completeness of MIS

- Several stages of a work not differentiated
- Unstructured work description, difficult to scale
- Job card numbers not mapped to phone numbers, making feedback collection and info dissemination difficult

<table>
<thead>
<tr>
<th>S.No</th>
<th>District</th>
<th>Block</th>
<th>Gram Panchayat</th>
<th>Work Name (Work Code)</th>
<th>Executing Level</th>
<th>Completion Date (DD/MM/YYYY)</th>
<th>Est. labour component (in Rs.)</th>
<th>Est. material component (in Rs.)</th>
<th>Actual exp. on labour (in Rs.)</th>
<th>Actual exp. on material (in Rs.)</th>
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<tbody>
<tr>
<td>1</td>
<td>MEWAT</td>
<td>PUNAHANA</td>
<td>BISRRU</td>
<td>E.T in link rasta from ghatwadi bypass road to siroli scheme (1219008000-RC/131143)</td>
<td>GP</td>
<td>25/06/2014</td>
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<td>813016</td>
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<tr>
<td>2</td>
<td>PUNAHANA</td>
<td>PUNAHANA</td>
<td>FEROZE PUR MO</td>
<td>WBM Rasta from School to Asia house to Mohdpr Tar. (1219008000-RC/13472)</td>
<td>GP</td>
<td>09/09/2014</td>
<td>182322</td>
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<td>1031004</td>
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<tr>
<td>3</td>
<td>PUNAHANA</td>
<td>PUNAHANA</td>
<td>FEROZE PUR MO</td>
<td>E.T in Rasti Faderi Kalo to Thake Khuman fields (1219008000-RC/1342)</td>
<td>GP</td>
<td>09/09/2014</td>
<td>150000</td>
<td>0</td>
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<td>4</td>
<td>PUNAHANA</td>
<td>CHANDANI</td>
<td></td>
<td>Interlocking Rasta Fager House Sari to Sh. Shahid S/o  Dhelep House (1219008014-RC/135182)</td>
<td>GP</td>
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<td>95000</td>
<td>75500</td>
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<td>PUNAHANA</td>
<td>FARDARI</td>
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<td>GP</td>
<td>09/09/2014</td>
<td>701000</td>
<td>135000</td>
<td>67000</td>
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<tr>
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<td>PUNAHANA</td>
<td>DUDOLI</td>
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<td>E.T in Rasti from first to Nacha Shingal. (1219008014-RC/13152)</td>
<td>GP</td>
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<td>139540</td>
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<td>7</td>
<td>PUNAHANA</td>
<td>GANGWANI</td>
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<td>Interlocking Rasta Ali Mohd Plot to Mohd House &amp; Namaydar house to phirwade House Tak (1219008046-RC/13438)</td>
<td>GP</td>
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<td>67000</td>
<td>438000</td>
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<td>PUNAHANA</td>
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<td>PUNAHANA</td>
<td>SUNEERA</td>
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<td>322700</td>
<td>139000</td>
<td>380064</td>
<td>143800</td>
</tr>
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Integration with MIS

- Deployment through a media partner is hard to scale or to fund
- Interest in the Ministry of Rural Development to make the MIS more accessible to the target beneficiaries
- **Wage payment alerts** and **work verification**
| Community Radio | Mobile Vaani | vSurvey | Work Verification |
Feedback collection through voice fora over phone calls
Pressure for resolution through civil society groups
Verification of published data by beneficiaries
Concepts are general and applicable to other schemes as well
Community Radio  Mobile Vaani  vSurvey  Work Verification

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Integration of IVR systems with the MIS for information dissemination and feedback collection
Community Radio  Mobile Vaani  vSurvey  Work Verification

- Feedback collection through voice fora over phone calls
- Pressure for resolution through civil society groups
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- Concepts are general and applicable to other schemes as well

Integration of IVR systems with the MIS for information dissemination and feedback collection

Thanks: Arti, Pooja, Fakat, Varsha, Shakir and Sohrab from Alfaaz-e-Mewat; Zahir and Kapil from Gram Vaani

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