

# Emergent Practices Around CGNet Swara, A Voice Forum for Citizen Journalism in Rural India

Preeti Mudliar, UT Austin

Jonathan Donner, Microsoft Research India (@jcdonner)

William Thies, Microsoft Research India

**Special thanks to:**

Shubhranshu Choudhary, Arjun Venkatraman, Samujjal Purkayastha, Latif Alam, Anoop Saha, Ben Colmery, Smita Choudhary, Elisa Tinsley, and Saman Amarasinghe.

## Digital Democracy (text)

Letters to the Editor

The Well/Usenet

Community BBS

Blogs

Facebook/Twitter

## Voice-Based Systems for Inclusion

Avaaj Otalo (Patel et. al '10)

Spoken Web (Kumar et. al '10)

Healthline (Sherwani et. Al '07)

PhonePeti (Koradia et al '12)

Talk Radio

AIR (Sterling '09)

RQ: Can we leverage voice for a more inclusive digital democracy (in low-resource settings)?

# Paper contributions

1. Design & deployment of voice-based extension to existing citizen journalism platform

2. Qualitative multi-stakeholder assessment of systems' uptake, use, and appropriation

```
def addComment():
    playFile(PROMPTS_DIR+'mistake-0')
    # ignore hangup during recording
    signal.signal(signal.SIGHUP, signal.SIG_IGN)
    while True:
        commentTempFileName = recordFileNoPlayback(PROMPTS,
            if commentTempFileName:
                break
        os.system("echo %s >> /opt/swara/log.txt" % (user))
        auth=db.getAuthDetails(user)
        os.system("echo %s >> /opt/swara/log.txt" % (auth))
        if auth == 0:
            auth=db.addAuthor(user)
        newCommentID = db.addCommentToChannel(user, auth,'1234')
        os.rename(AST_SOUND_DIR+commentTempFileName+".wav", 50)
        output=os.popen("/usr/local/bin/lame -h --abr 200 "+50)
        os.system("echo '%s' >> /var/log/swara.log" % (output))
        db.addMessageRecordEvent(newCommentID, callID)
    # process hangup again
    signal.signal(signal.SIGHUP, signal.SIG_DFL)
```



Background

# Chhattisgarh, India

- Challenging geo-political context
- 80% rural population
- Internet penetration – 0.5%



# News and mass media in Chhattisgarh



2004



- Little visibility in mainstream media
- Lack of news outlets for tribal languages
- Community radio is expensive to set up
- Illegal to discuss news on community radio
- CGNet: an Internet forum for Chhattisgarh
- Website and mailing list to discuss local issues
  - 2,200 members
  - 300 posts / month

# News and mass media in Chhattisgarh

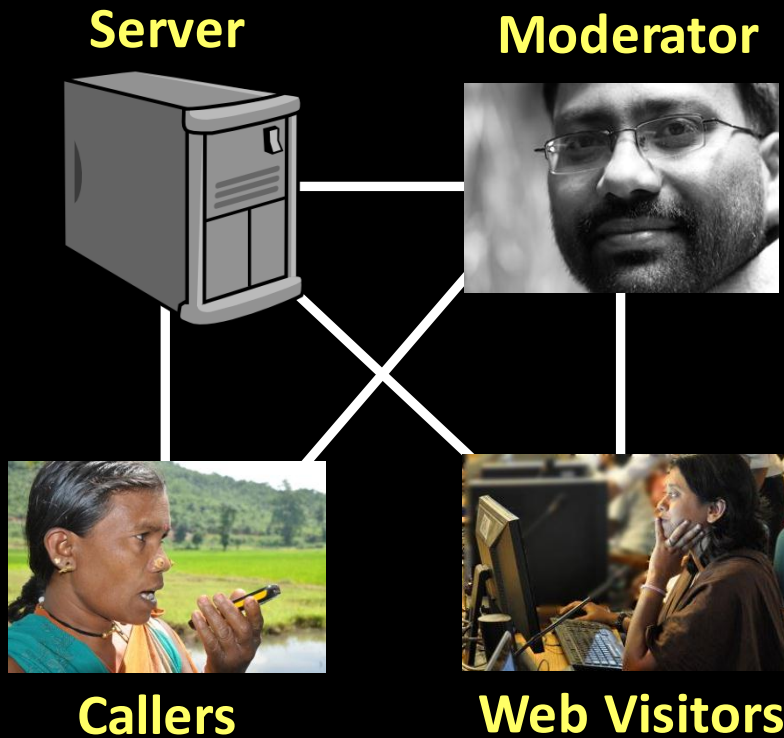


- CGNet: an Internet forum for Chhattisgarh
- Website and mailing list to discuss local issues
  - 2,200 members
  - 300 posts / month
- CGNet Swara: a voice portal for citizen news
- Augments website, mailing list with voice-based phone interface
- Goal: foster a more inclusive dialogue

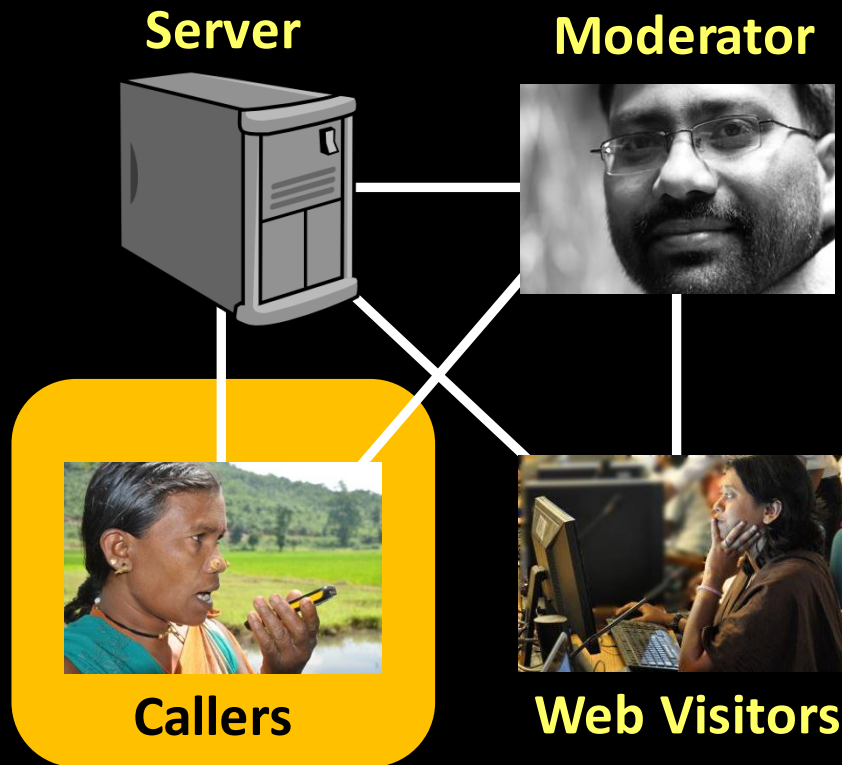
# Design and Deployment



# CGNet Swara: an ecosystem of actors



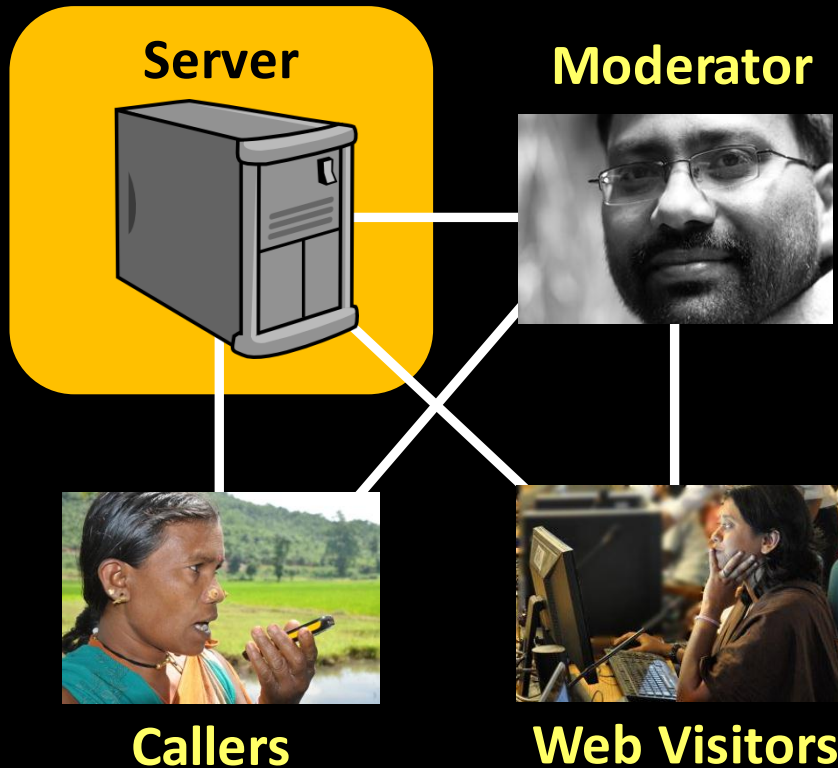
# CGNet Swara: an ecosystem of actors



## Callers

- Send missed call to server, which calls them back
- “Press 1 to listen, Press 2 to record”
- Recordings await moderation

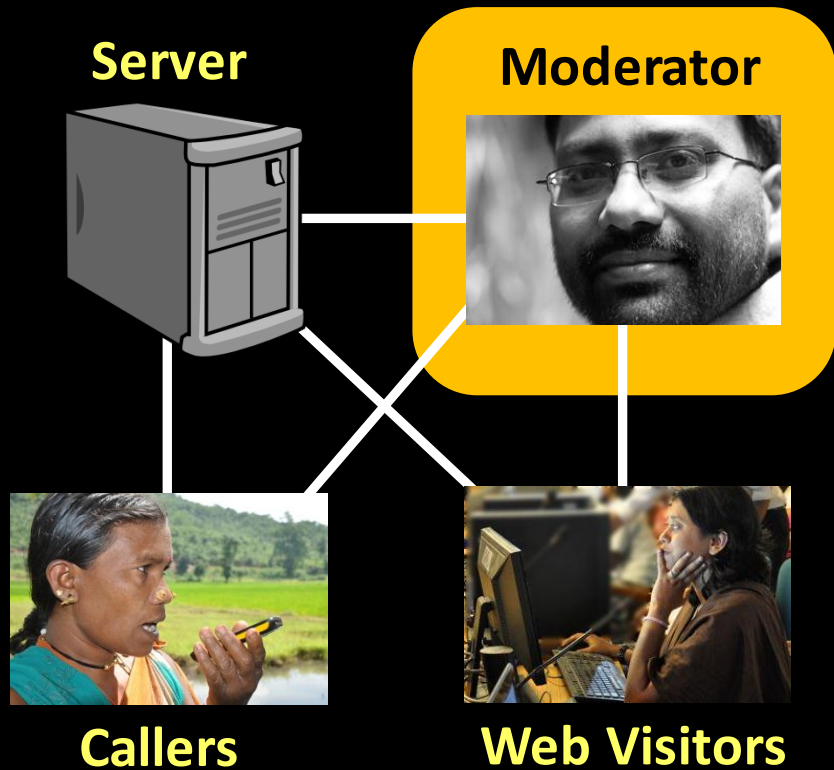
# CGNet Swara: an ecosystem of actors



## Server

- Runs an IVR server and a Web server
- Open-source code, built on Asterisk

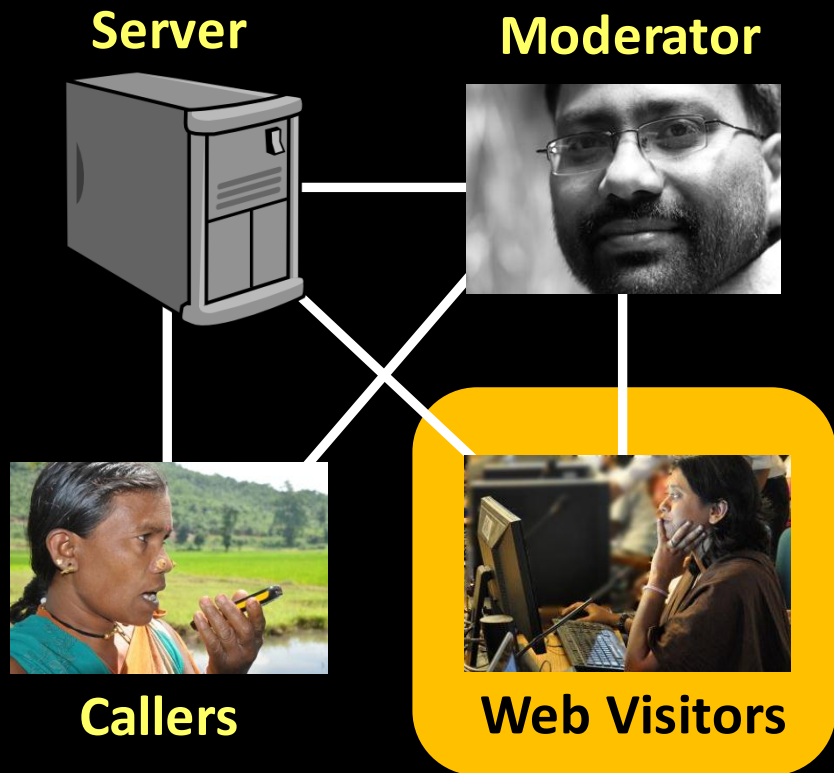
# CGNet Swara: an ecosystem of actors



## Moderator

- Chhattisgarh native & former BBC journalist
- Reviews posts, cross-checks facts, approves
- Releases audio to phone, audio + text to Web
- Follows-up to spur action from stakeholders

# CGNet Swara: an ecosystem of actors



## Web Visitors

- Citizens, journalists, government officials
- Visits site to monitor news and grievances
- Sometimes re-publishes posts in national media
- Sometimes fixes reported problems



**CGNet**  
स्वरा

**About | News & Events | Impact | Recognition**

*CGnet Swara is a platform to discuss issues related to Central Gondwana region in India. To record a message, call us on +91-80-4113 7280.*

## Father wanders for due NREGA wages, son dies in hospital...

Manish Rai from Ambikapur says some days back I had heard an interview on CGnet Swara with a labourer called Pitbasu who had completed 100 days work in NREGA but had not been paid any wages. Today by chance I met him in the hospital and found that while Pitbasu was making rounds for his due NREGA wages his son died in the hospital. Is there any provision in NREGA to punish officials who has caused this grave incident? NREGA laws should be so strong that no one should wait for their wages as has happened with Pitbas. For more on the story please contact Manish at 09826538904



*Recording a report on CGNet Swara*

POSTED ON: **JAN 14, 2011**, BY [MANISH RAI](#)

### Comments

#### Post a Comment

*To record your comment, please call and leave a message at +91-80-4113 7280. Recording your comment in audio format will ensure that it is accessible to all CGNet Swara users, most of whom lack Internet access and access the reports via phone.*

*If you are located outside of India and unable to place a phone call to the number above, then you may leave a comment in text format using the following form. Your comment will be available on the website, but not via phone.*

### SEARCH REPORTS »

Google™ Custom Search   ×

### BROWSE BY MONTH »

- ✳ [December 2011](#)
- ✳ [November 2011](#)
- ✳ [October 2011](#)
- ✳ [September 2011](#)
- ✳ [August 2011](#)
- ✳ [July 2011](#)
- ✳ [June 2011](#)
- ✳ [May 2011](#)

# THE HINDU

[Home](#) [News](#)
[INTERNATIONAL](#)
[NEWS » NAT](#)

## Son die paymen

[AMAN SET](#)
[RELATED](#)
[NEWS](#)

Centre's new  
proposal on  
MNREGS wage

[TOPICS](#)

labour  
employment

[India](#)

## THE TIMES OF INDIA | India

[Home](#) [City](#) [India](#) [World](#) [Business](#) [Tech](#) [Sports](#) [Entertainment](#) [Life & Style](#) [Women](#) [Hot on the Web](#) [NRI](#) [New!](#)

You are here: [Home](#) » [India](#)

# Father struggles to get NREGA wages, son dies in hospital

Supriya Sharma, TNN, Jan 21, 2011, 10.04pm IST

[Article](#)
[Comments \(15\)](#)
[Share](#) [Print](#) [Save](#) [A A](#) [Fire](#) [G+](#) [StumbleUpon](#) [Blogger](#) [Dribbble](#) [RSS](#) [MORE](#)

**Tags:** [National Rural Employment Program](#) | [MNREGA](#) | [Gram Adhikar Manch](#)

SHARE  
AND  
DISCUSS

33

[f Share](#)

18

[Tweet](#)

15

[Comments](#)

RAIPUR: A week after he lost his ailing son, and ten months after he worked on a village road project, Pitbasu Bhoi finally got the ten thousand rupees he had earned under the Mahatma Gandhi National Rural Employment Program (MNREGA).

"Of what use is the money now? I have just immersed my son's ashes. When I needed the money to save his life, I did not have it," says Bhoi.

The disabled man, in his forties, along with his wife

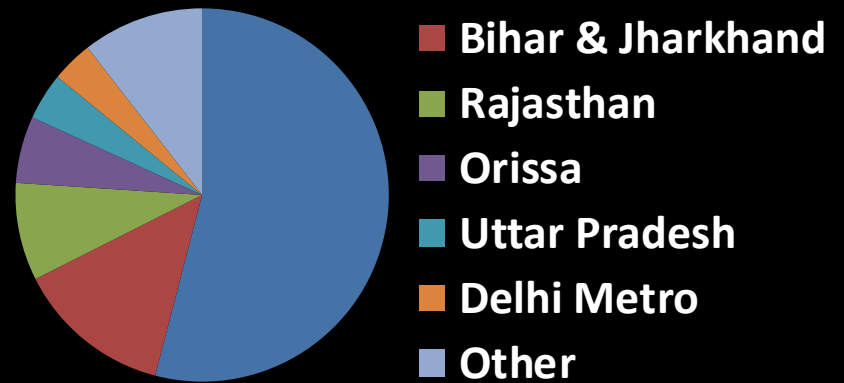
# Usage statistics

## Highlights

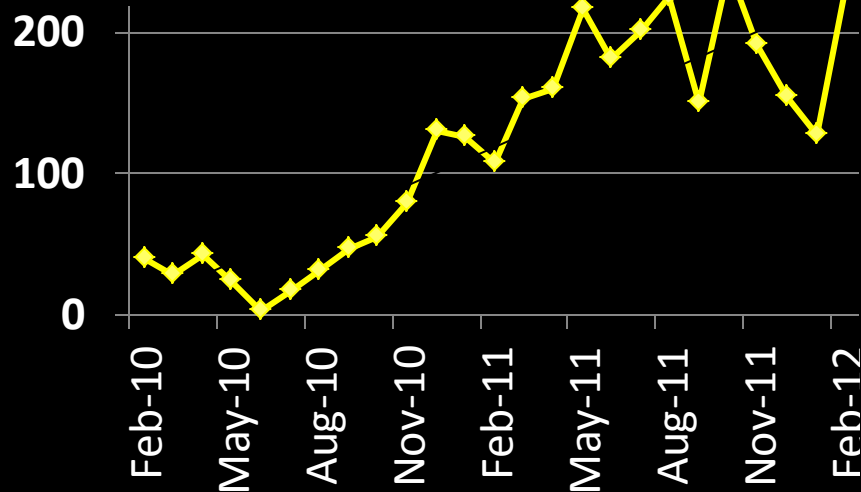
- Total calls: >90,000
- Unique callers: >11,000
- Total posts: >1,200
- Unique contributors: >450
- Top 10 contributors responsible for 25% of posts

## Caller Location

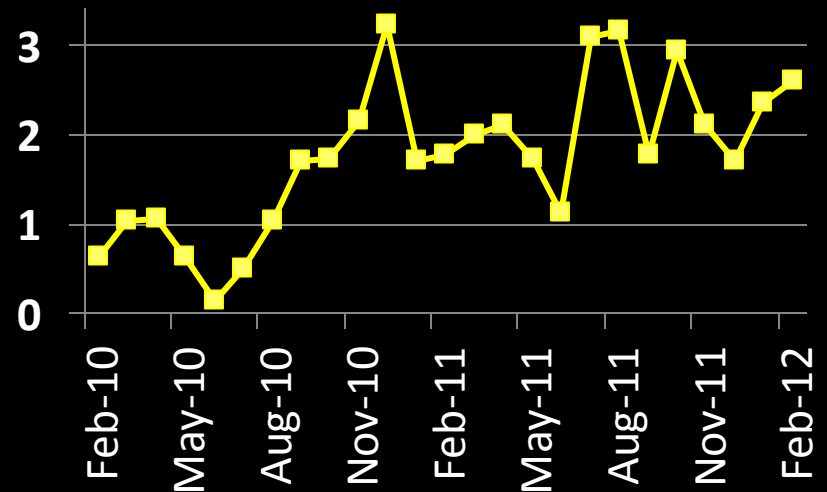
Unique callers only



## Calls per Day

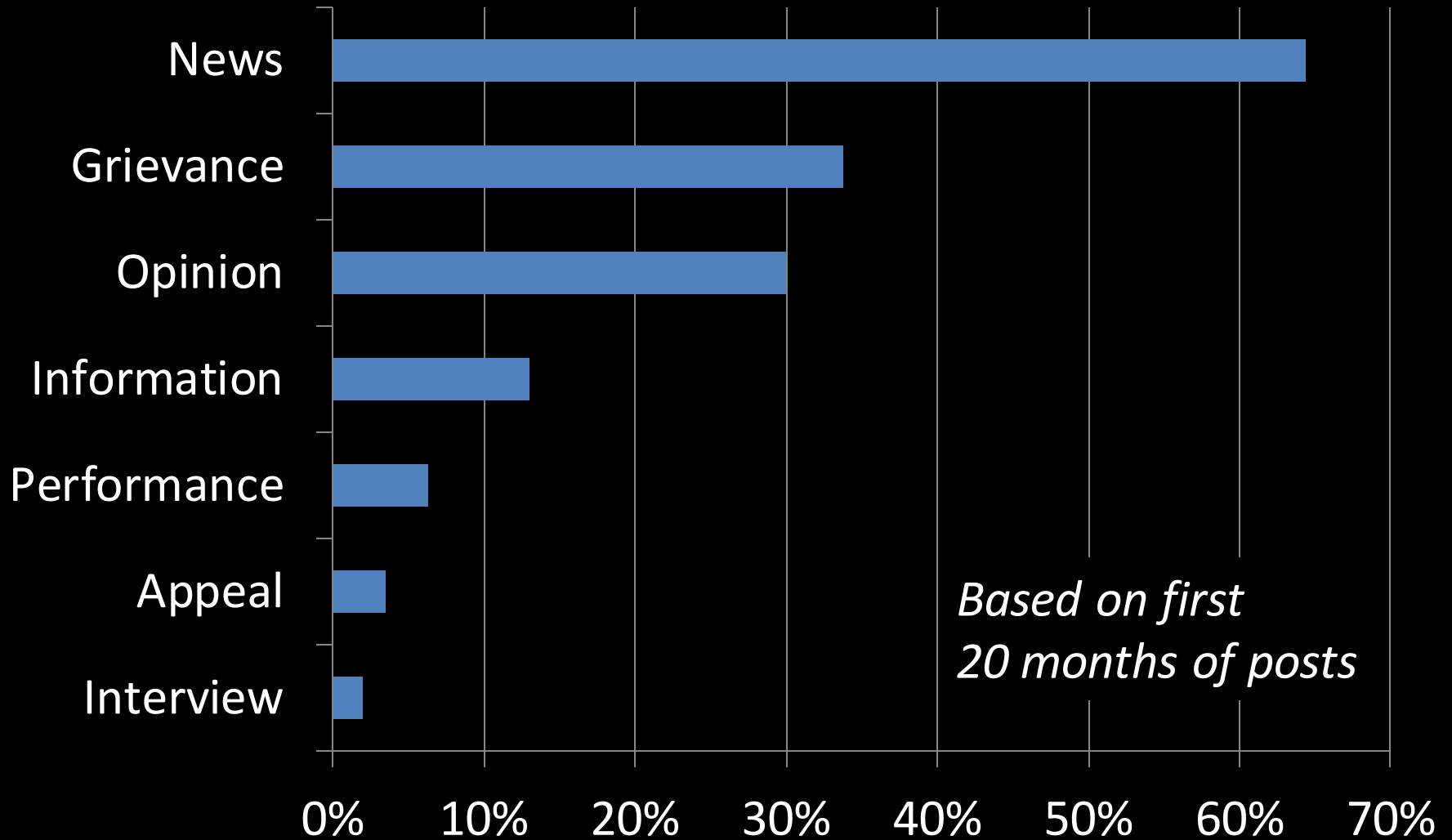


## Posts per Day





# Content analysis



# Qualitative Assessment

# Methodology

## Interviews

- CGNet Swara users recruited from Swara call logs
- Interviews include
  - 17 content contributors
  - 14 listeners
  - 5 Journalists
  - 3 Bureaucrats

## Field immersion

- Travel throughout 4 districts of Chhattisgarh
- Contexts of field interviews include
  - Public meetings protesting wage payment delays
  - Protests against land acquisitions
  - Chhattisgarh government's MNREGA complaint cell

- Grounded Theory for data analysis

# Users

- Who is calling?
  - Social activists and their beneficiaries
  - Part-time stringers and journalists
  - Passive listeners
- Who is not calling?
  - The poorest of the poor
  - Lack of awareness
  - Fear of repercussion



*“We cannot expect a weak defenseless person to have the courage to speak out on Swara ... talking on the mobile phone to someone or something he does not know is a big thing.”*

*— Editor of a Hindi daily*

# Motivations

- Grievance redressal
  - *“I tell them it is a very nice medium where we can speak about any irregularities in government schemes. When you speak, then the government and the administration listen to you and they take steps to address the problem.”*
  - Complementing government’s hotline
- Occasional performances

# Imagined Audiences

*“Who do you think is listening?”*

- The decision makers
  - *“Everybody. Farmers, ‘the big people’, the government administrators. Everybody listens to it.”*
- Bridge to the Internet & Internet users
  - *“What happens these days is that the stories are also put on Facebook and a lot of people are reading it. Some people are taking legal action based on the stories, some people are calling up government officers after learning of incidents. So this is creating a pressure. CGNet Swara is spurring action on stories”*

# Actual Audiences

- Journalists
  - *“What is news?”*
  - *“We are catering to an urban readership”*
  - *“Profits are not to be found in reporting on tribal issues”*
- Government
  - *“If it has to be taken seriously, it has to come to some visible level and also take up various issues not limited to certain complaints or anti-government issues ...nobody will take it seriously if it just becomes a complaint box.”*

# Discussion

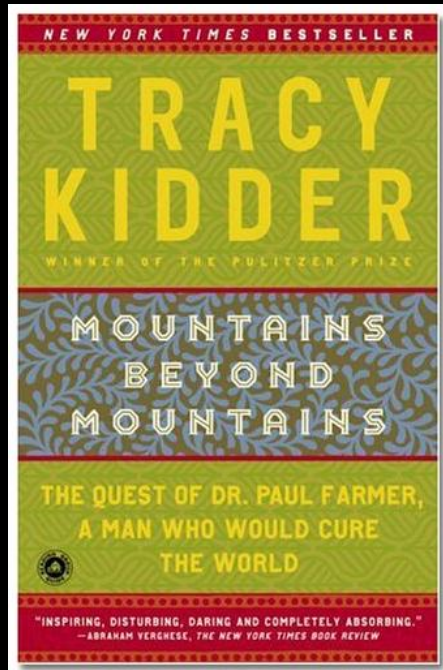


# Broader implications for ICT4D

- Continuing crucial role for infomediaries
- Text *AND* voice trumps text *OR* voice
- System helps journalists, does not replace them

# How to Replicate CGNet Swara

- Need to replicate two parts:
  - Technical → **EASY**. Code is free & open source.
  - Human → **HARD**. Our moderator is irreplaceable.



**Paul Farmer**  
*Renowned public health pioneer*

**“If Paul is the model, we’re f\*\*\*ed.”**

— Dr. Jim Kim  
*President, Dartmouth College  
Co-founder, Partners in Health*

# Conclusions

## New Affordances

- Demonstrated value of voice in participatory platforms for low-literacy environments
- Increased reach, inclusiveness and accessibility
- Small-scale 'ICT4D' success with real users, constituencies, and impact

## Persistent Challenges

- Importance of “champion”/ infomediary / editor as barrier to scale
- Intervention best assessed as new actor in multiplayer, multi-stakeholder space
- Further scale and deeper impact will be hard-fought