Social Media Platforms for Low-Income Blind People in India

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90% of the World's Blind in Low-Income Settings
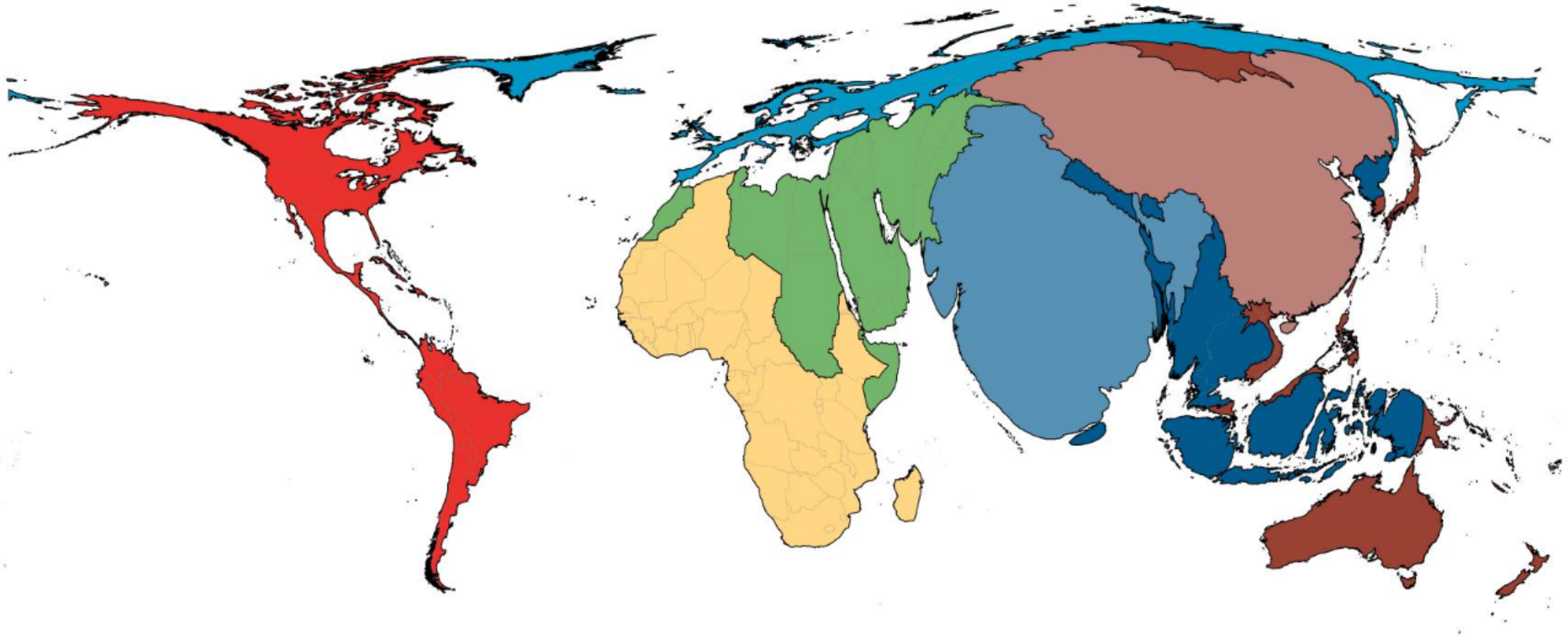
A Cartogram showing the prevalence of blindness by WHO region (using WHO region colors)

Social Media Revolution

In this talk…

- **Formative Evaluation:** first analysis of the use and non-use of social media platforms by low-income blind people living in rural and peri-urban India

- **Deployment:** first analysis of how low-income blind people used a voice-based social media platform through basic mobile phones

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Mixed-Methods Approach

- 18 semi-structured interviews, observations and analysis of social media accounts

- Classification of participants
  - Recent adopters (N=8)
  - Consistent users (N=5)
  - Disenchanted users (N=2)
  - Non-users (N=3)

Demographic

- Young male from villages and small towns
- Half of the participants lived on 0.88 USD per day
- Only 2 had a smartphone
- Half of them did not use a computer in the last 3 months

Facebook, WhatsApp and Twitter

9

Facebook

3

1

0

4

WhatsApp

1

0

Twitter

0
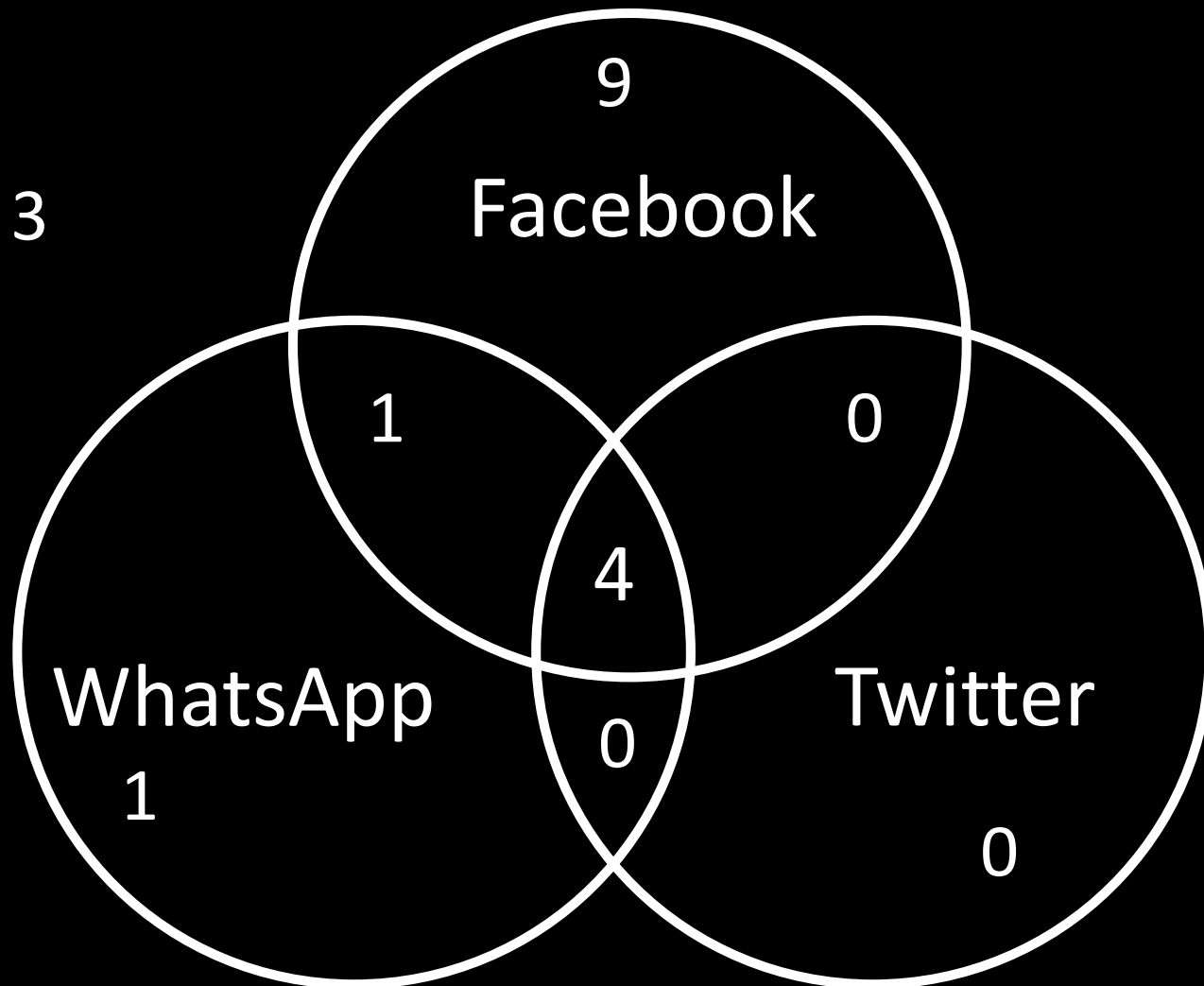
Facebook:
A platform to expand social connections

- Number of Facebook friends: median (11), mean (122)

- Facebook is *"an e-commerce platform"* (N=5)

- Facebook chatting is *"opening doors to a new world full of opportunities"* (N=9)

- Desire to connect with strangers and sighted users

WhatsApp:
A social media platform for mobile phones

- Platform for strengthening existing connections rather than facilitating expansion of their social network (N=3)

- WhatsApp voice messages were very popular

- More trusted platform

  "I trust people on WhatsApp more than the people on Facebook. Facebook has many people with fake profiles because it is easy to create a fake email ID and thus, a fake Facebook account. While creating a WhatsApp account, you have to use your own phone number"

Twitter:
A platform to connect with celebrities

- To have *"intelligent conversations with friends"*

- Low-adoption
  - Limited resources to learn a new platform
  - Found it less engaging than Facebook and WhatsApp
  - Only a few friends use it

Aspirational Use of Social Media

"When I say to people that I use a computer, then no one believes me. They think I am blind and when they cannot operate a computer properly how I will be able to. But when I send a request on Facebook, they know it is me who has sent that request. People in my locality now know that I use the computer"

P4 (Male, Bachelor's Student, 25 years, Delhi)

Challenges with Screen Reader

- Language of audio output in English (N=11)
- Difficulties with texting language and code-mixing
- Voice is devoid of human emotions

"If I could hear the voice of my friend rather than JAWS reading the message, it would be so much better. JAWS is like a robot. I cannot get the feelings and emotions… It diminishes the impact of chatting."

Non-use

- Cost of devices and Internet is the biggest bottleneck

"I rarely shave and get a haircut because I am unemployed. My financial situation is terrible and I have no family support. If there is no income, there will be no phone, no Internet, and no Facebook"

- Lack of training and practice
- Limited access to Internet cafe

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Sangeet Swara
A Community-Moderated Social Media Voice Forum for Songs, Poems, Jokes & Cultural Content

1800-102-3690

Sangeet Swara Home Menu

① Access Analytics on User's Posts

② Record New Post

③ Listen, Rate and Share Posts

④ Access a Post Directly

To share this song with friends, Press 4.

Eleven-week Deployment

1500 people		53 blind people
• 25,000 calls	3.5%	• 4,784 calls
• 5,400 audio posts	19%	• 1,350 audio posts
• 140,000 ratings	25%	• 35,000 ratings
• 200,000 playbacks	25%	• 46,000 playbacks
	24%	

Demographic Information of blind users

• Majority were male from rural areas earning around 2.5 USD a day

• Only 3 people had an account on Facebook

Content Analysis

Explicit Content 3%
Generic Social Media 39%
Songs 21%
Poems 24%
Focus on VI 4%
Questions and News 9%
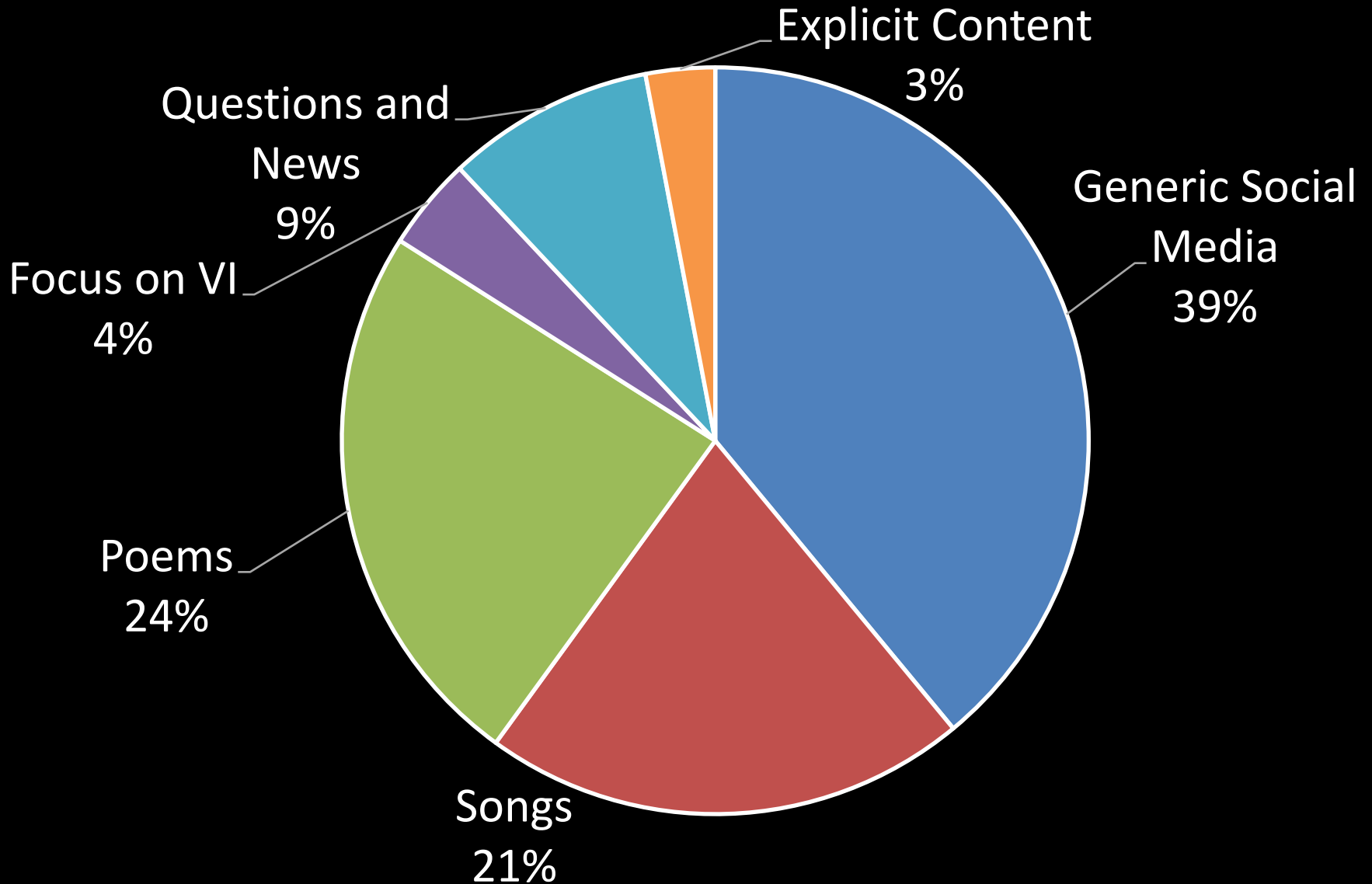
Platform to Expand Social Connections

"The platform is a boon for blind people. It gives us the opportunity to show and improve our talent. We also reach out to people in far-off towns and get to know them better. I also get inspiration from listening to other blind people."

U2 (Male, High school student, Uttar Pradesh)

19

Information and Entertainment

"Whatever I say about this platform will not be enough. We hear good jokes, songs, poems and even useful knowledge. We listen to the important news of India and world. We also got to know the latest situation of North India floods on the platform."

U3 (Male, High school student, 18 years, Gujarat)

Instrumental Benefits

"The platform has provided me a lot of self-confidence. I learn a lot from general knowledge questions asked on the platform. It is a great way to learn and understand principles of life."

U5 (Male, High school student, Orissa)

Conclusion

- Use and non-use of social media platforms by low-income blind people living in rural and peri-urban India
  - Gain entertainment, instrumental benefits, social acceptance
  - Socioeconomic barriers, limited English language proficiency and constrained access to computing devices impede adoption

- Voice-based social media platform in Hindi language accessible using basic mobile phones
  - Connected blind people living in far-off locations
  - Improved knowledge, communication skills, language skills and confidence

Thank You!

@adityavash

Extra Slides

Strengthening and Expanding the Social Circle

"Some of my friends live in other states as well. Now, three of my friends are in touch with me using Facebook. We can share information on business opportunities and competitive exams with each other. We also share songs."

P3 (Male, Unemployed, 30 years, Rajasthan)

More Benefits

- Enabled women and young girls to expand their social network without the need to go to cybercafé

  "..It is much better than Internet, Facebook and Twitter because we can use it without spending money. We can chat, listen to messages, understand them and learn from them.."

- Enabled several uneducated and unemployed blind people without smartphones to create their own India-wide social network

  "…I come from a village where it is very difficult to get educated. I want to thank you sincerely because you enabled all blind people in India to get to know each other…"

User Analysis

- Two-thirds from rural areas
- 107 USD monthly income

- 93% male
- Average age = 24.6 years
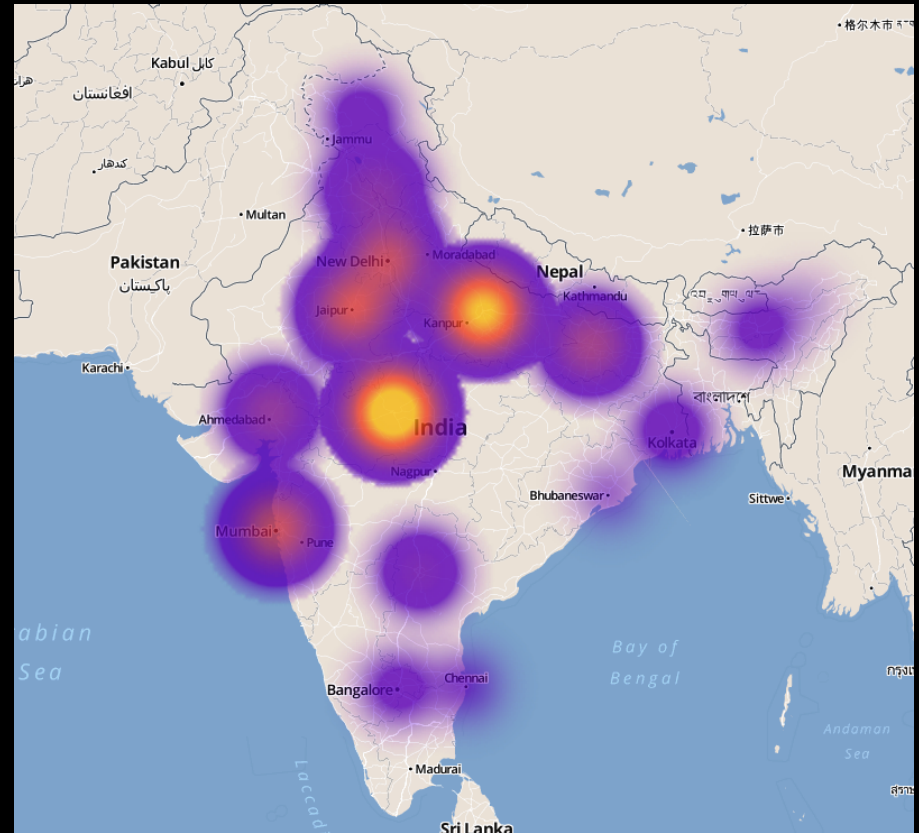
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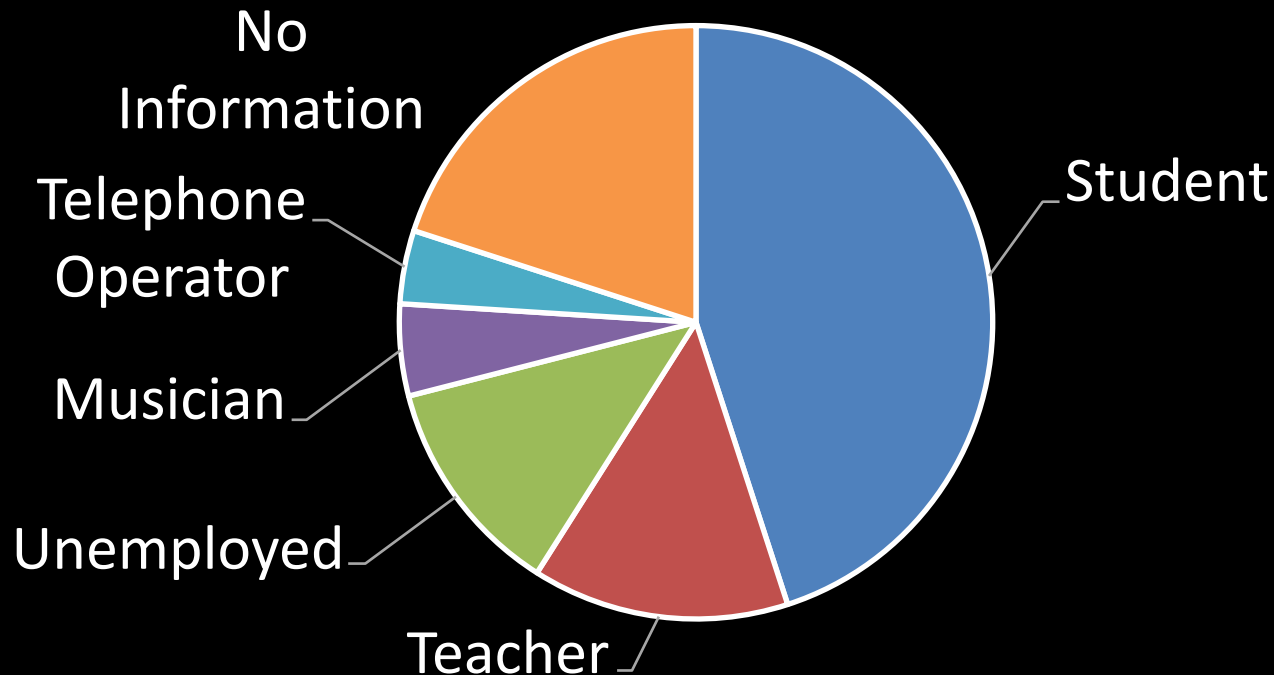
Deployment

Spread from 73 people to 1500+ by word of mouth

Traffic in 11 weeks

- 25,000 calls

- 5,400 audio posts
  (by 500 people)

- 140,000 ratings

- 200,000 playbacks

- Avg. call 5 min

At least 26% population was visually impaired

Inaccessible Features

- Facebook
    - Lack of captions on photos
    - Lack of commands for Facebook chatting
    - Difficulty in searching for friends
- WhatsApp
    - Issues in sending and listening to voice messages
- Participants found the concept of *wall*, *tweet*, and *follow* difficult to grasp