



INFORMATION TECHNOLOGY
UNIVERSITY

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Viral Entertainment as a Vehicle for Disseminating Development Services

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ICT4D

Information and Communication Technologies for Development

- More and better information and communication furthers the development of a society.
- Can lead to better management of available resources, improved monitoring & reporting of corruption and more connectivity among people

To achieve impact at a massive scale:

- Robust solutions to reach the masses using available means with minimum resource expenditures

How do you reach low-literate masses?

- TV, radio are non-interactive
- PCs are not feasible
- Smart phones are not always feasible
- Text is problematic for the non-literate

Speech over simple phones is a viable way to reach low-literate masses



Our Research Vision

Speech-based services over simple phones to facilitate **development** where **information** and **connectivity** are the missing components

Examples include, speech-based:

- Marketplace (Craig's List), Citizen Journalism, message boards/blogs
- Health, agriculture, jobs, education,...
- Information gathering through surveys and polls,...
- ...

Challenges: User Training, Motivation, and Mass Dissemination

1. How do you train low-literate masses to use of telephone based speech interfaces?

- Explicit user training is not scalable.

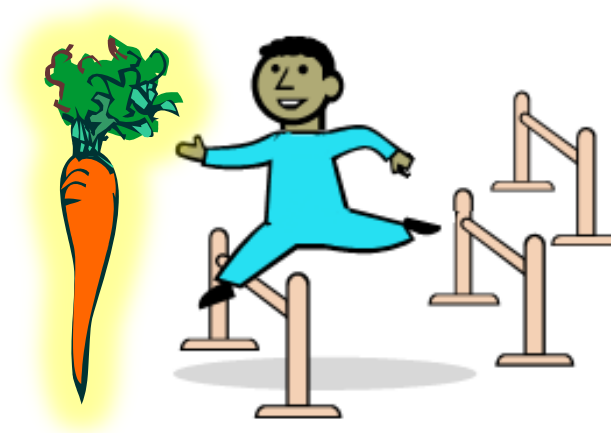
2. How to advertise / communicate to masses who don't read?



Our Strategy: Viral Entertainment

Use simple voice-based entertainment to
incentivize people to train themselves

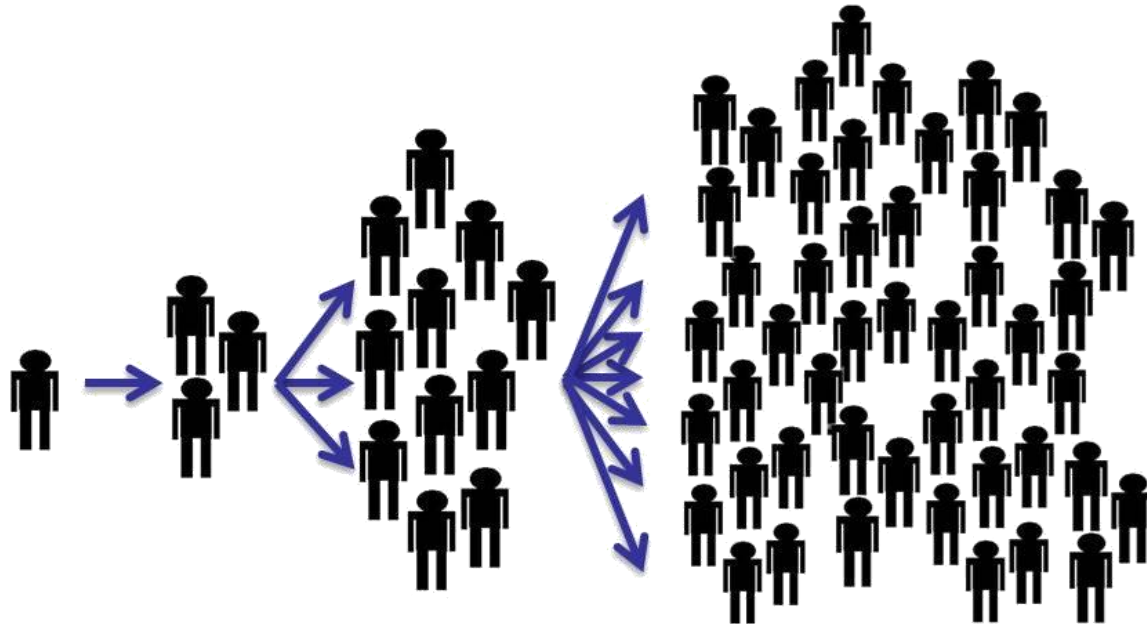
“Where there's a will there's a way...” [Smyth et al 2010]



“Entertainment turns User Interface barriers into mere speed bumps”

Our Strategy: Viral Entertainment

Use simple voice-based entertainment to
Incentivize people to organically spread these
services to others



Use ***Viral Entertainment*** as a vehicle
for disseminating ***Development***
related telephone-based services

Polly (میاں مٹھو)

Polly is a **telephone-based, voice-based** service which allows users to make a short recording of their voice, **modify it** and **send the modified version to friends**.





This brief video depicts a typical user interaction with Polly

USER INTERFACE

First Information Service: Job Audio-Browser



1. Scan Pakistani newspapers for jobs for low-skilled workers



Ref: paperpk.com



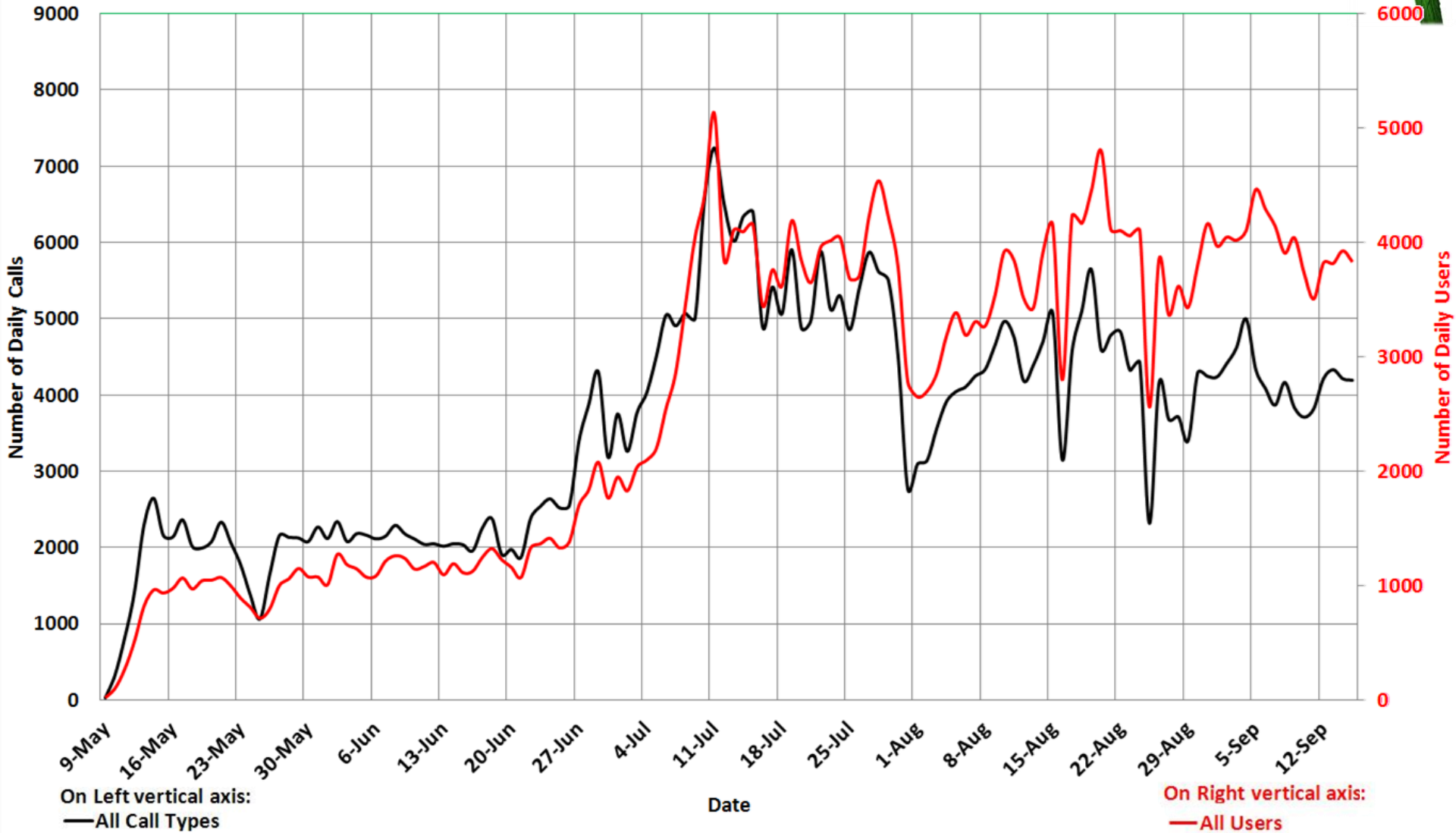
2. Record these ads
3. Invite Polly's users to audio-browse them

Deployment in Lahore

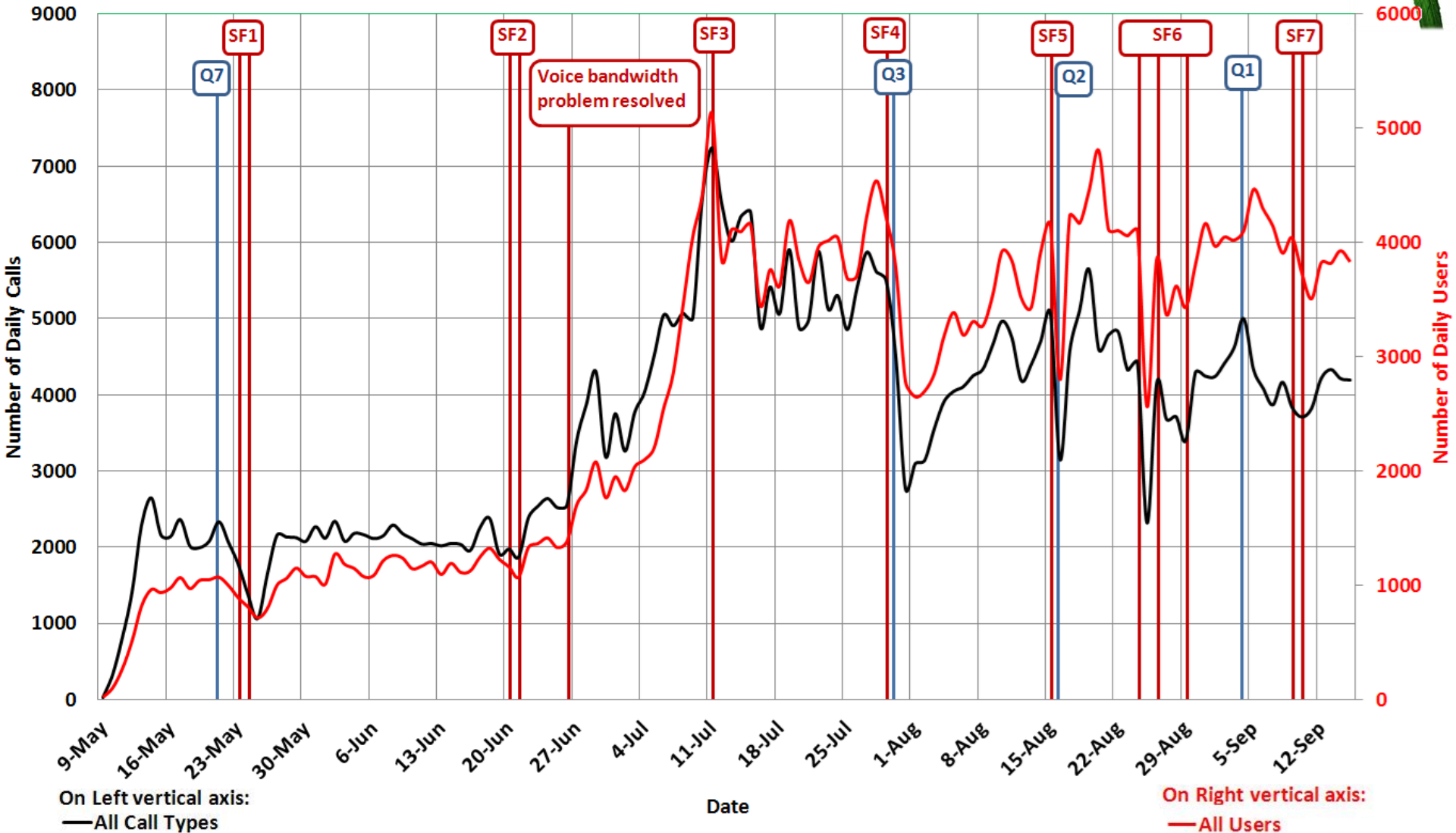


- Started with **5 users**
- After a year:
 - **636,000** calls
 - **165,000** users
 - Spreading to **1,000 new people daily**
- **34,000** people used the job search service
- listened **386,199** times to **728** job ads
- and **19,000** users forwarded them **34,000** times to their friends.

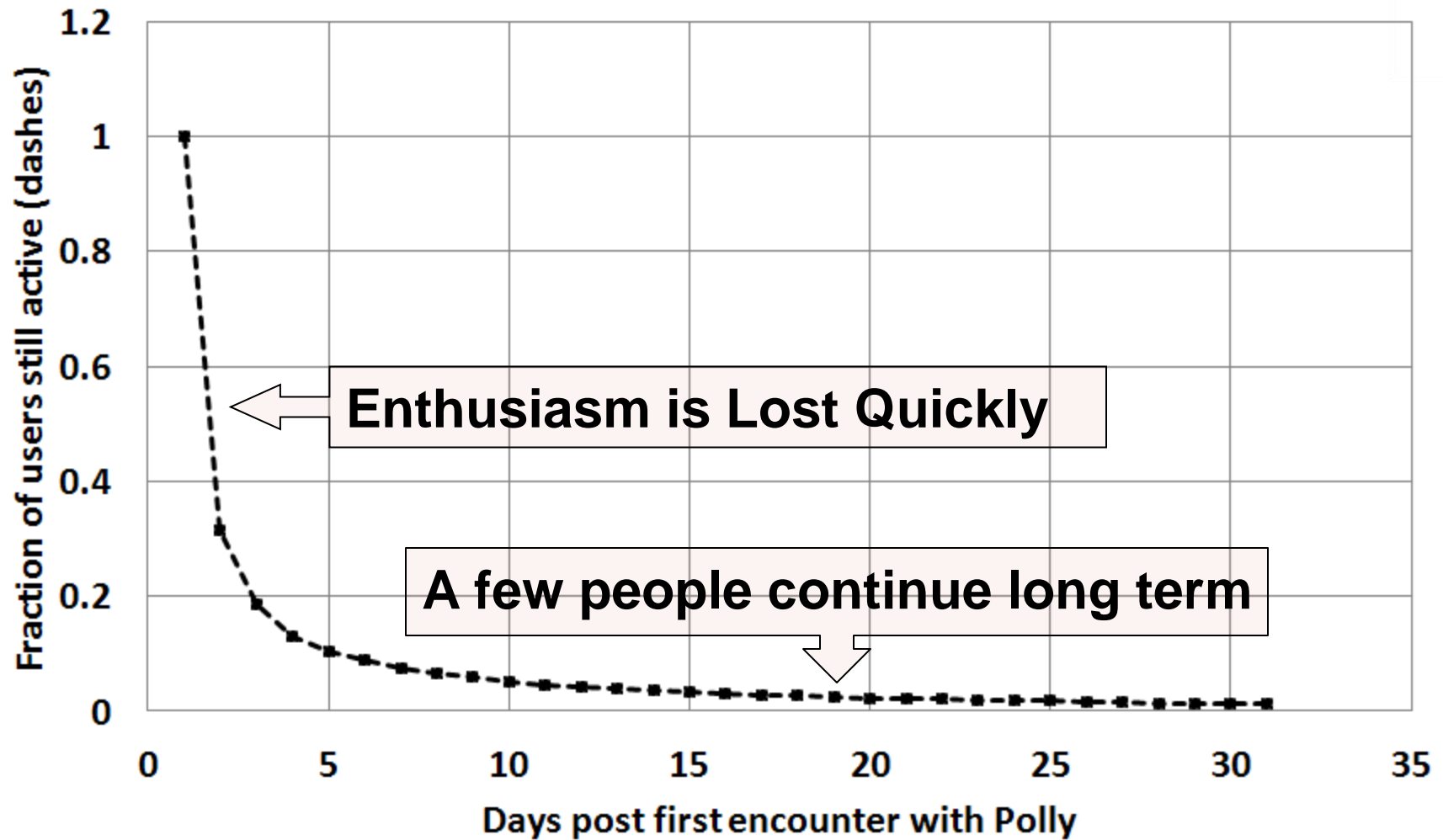
2012 – Large Scale Deployment



2012 – Large Scale Deployment



User Retention

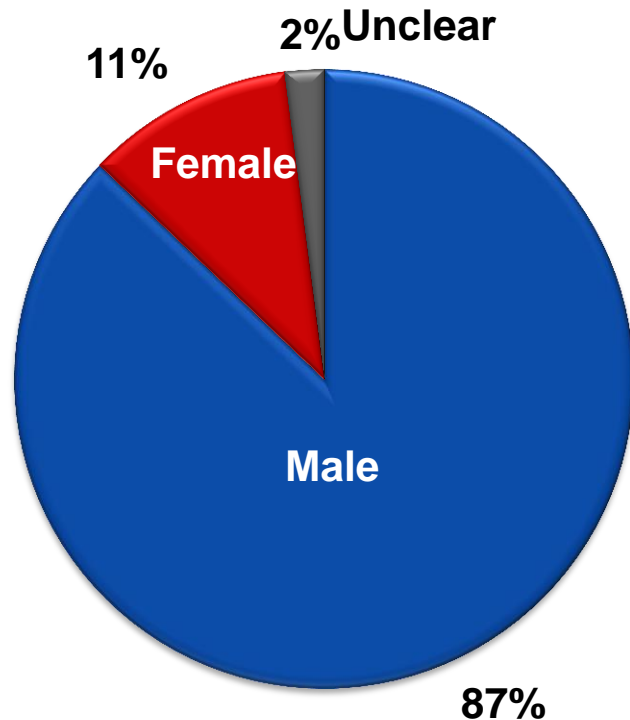




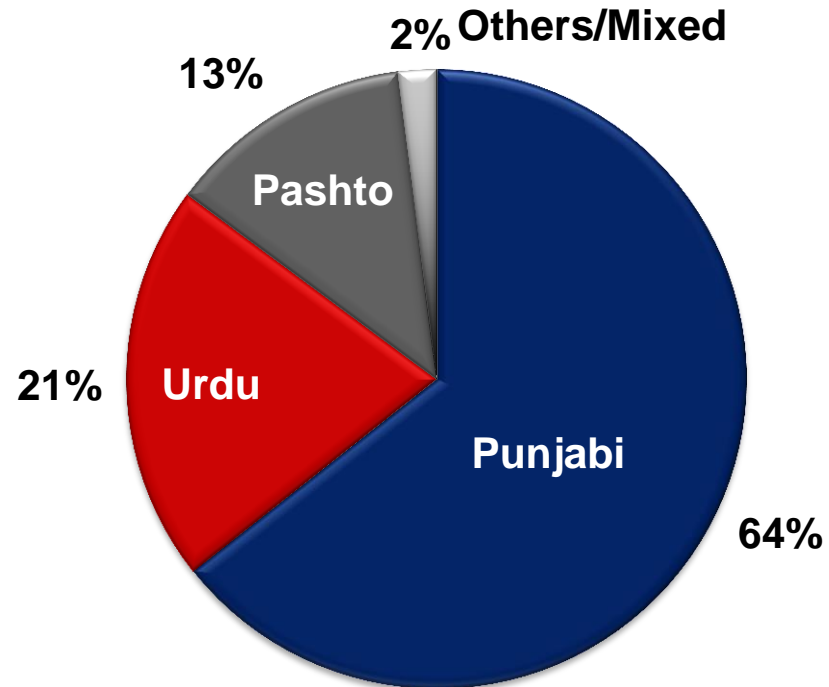
User Demographics

Determined by listening to a sample of recordings:

Gender



Languages

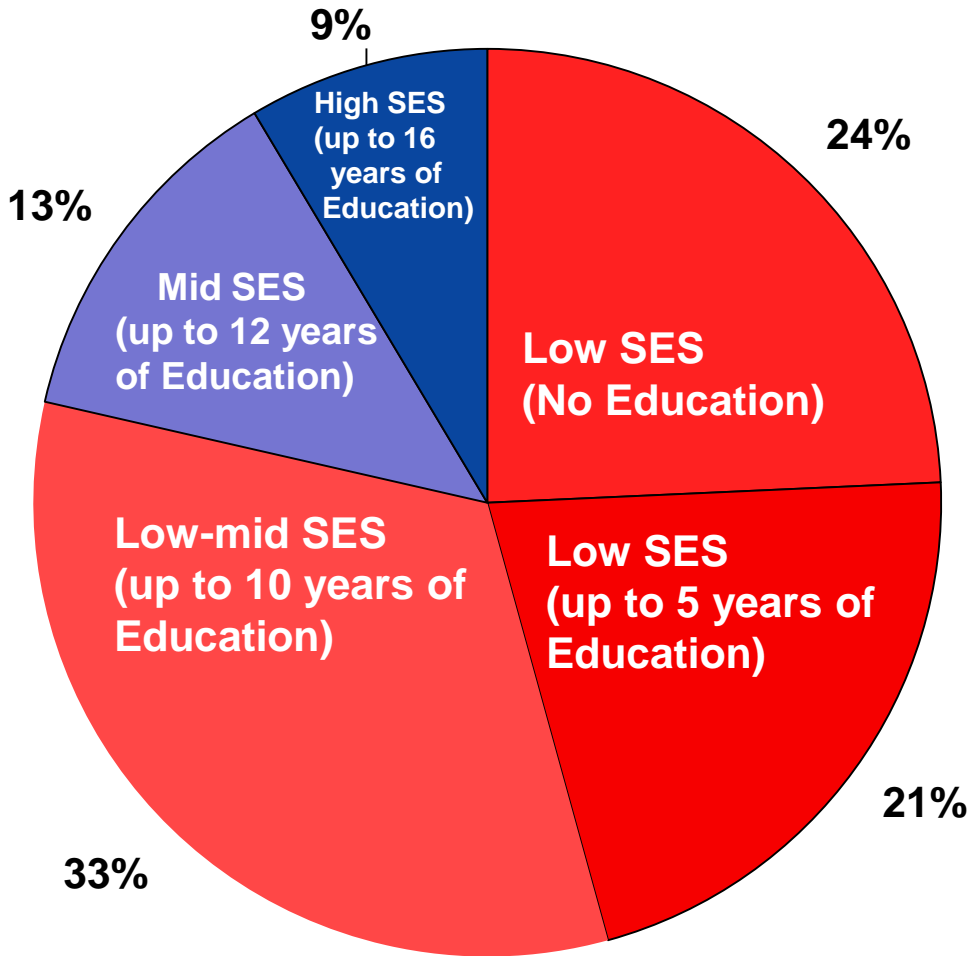


Used mostly by Punjabi speaking men...

User Demographics

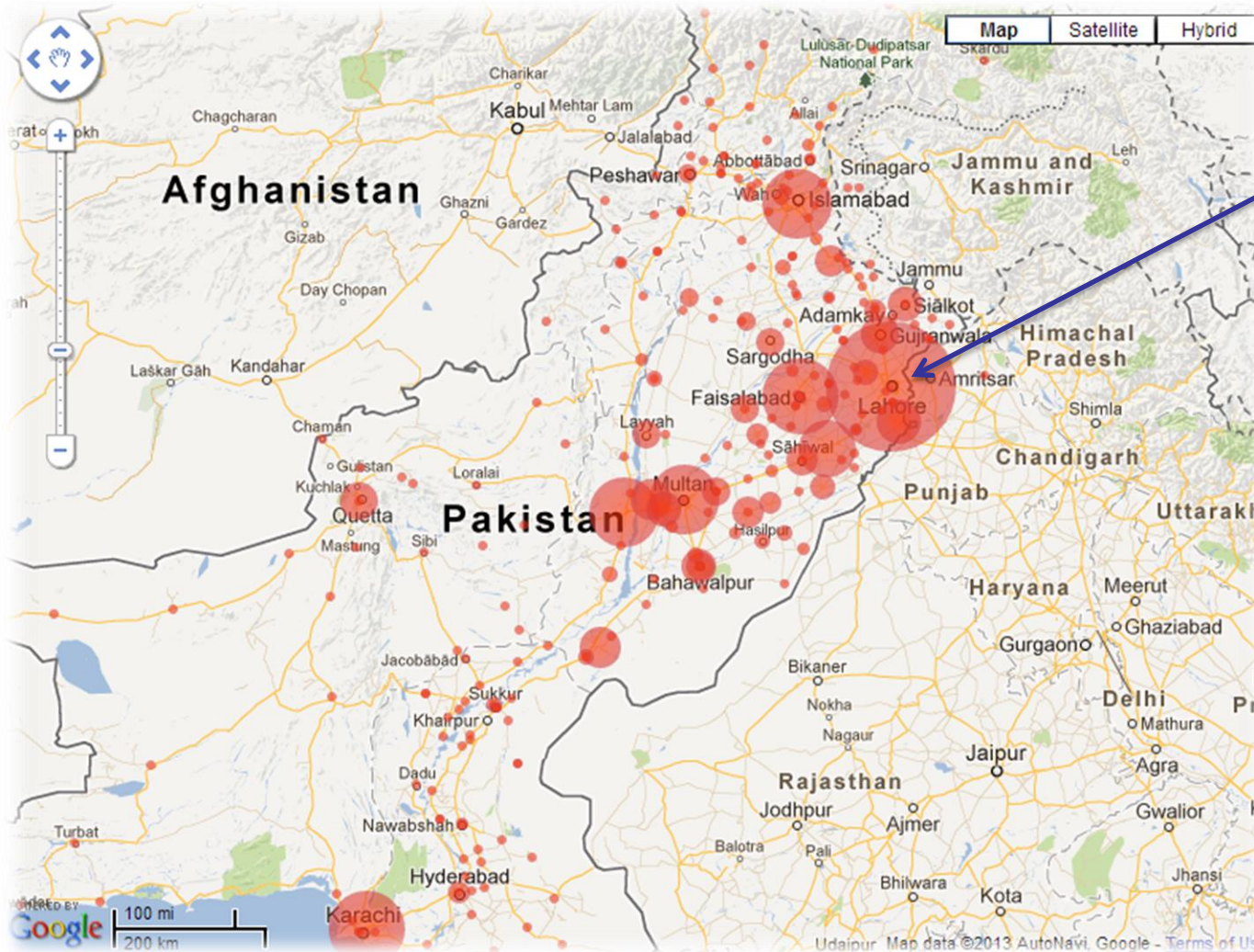
Estimated from 207 survey calls

Socio-Economic Status



**Primarily used by
low-educated,
low-income people**

Geographical Spread



- Seeded in Lahore and Okara
- Reached all parts of Pakistan.
- And also a handful of calls from:
 - India
 - Belgium
 - Oman
 - Saudi Arabia
 - UAE

Development Services

- **Job Audio-Browser:** Audio browse newspaper job ads appropriate for low-skilled workers (Pakistan; 2011-12)
- **Babajob.com's** audio portal for entry level jobs (India; 2013-14)
- **Ebola Healthline:** Browse and spread authoritative messages about Ebola (Guinea; 2014-present)
- **Hello Rozgar:** A portal to connect employers and employees; trainers and trainees (Pakistan; currently live)

Hello Rozgar (Hello Livelihood)

A portal where:

- Registered employers can post jobs and browse profiles of interested applicants
- Registered users looking for jobs can browse and apply for nearby jobs
- Registered trainers can post training/apprenticeship vacancies
- Registered users looking for skill training opportunities can browse and apply for nearby vacancies.



Thank you!