TapBack:
Towards Richer Mobile Interfaces in Impoverished Contexts

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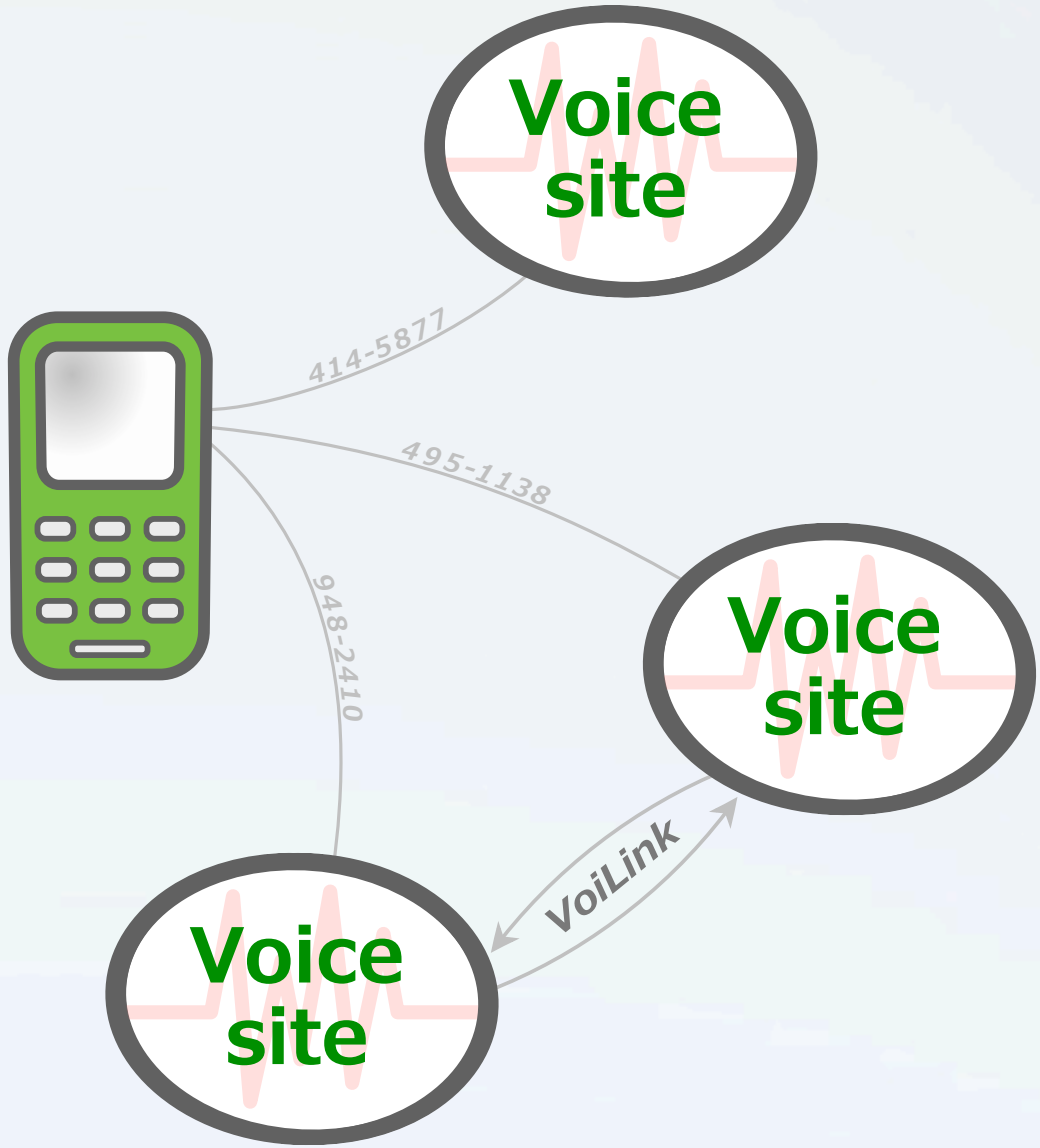
Photo: http://rb7.ru/files/news_img/tel_5025.jpg

Impoverished platform

- Spoken Web
  - Dial-up voice site
  - Interconnected
  - Interactive



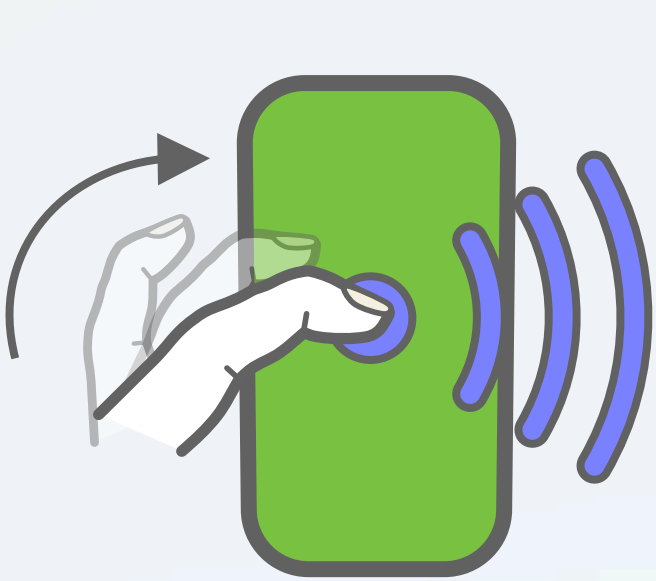
Current interactions:

Speech

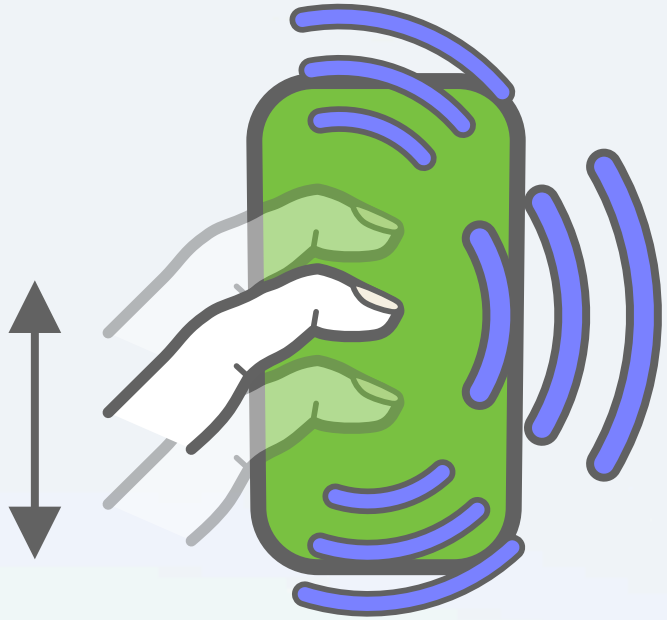
Keypad

Design

- Back of device inputs



Tapping



Scratching

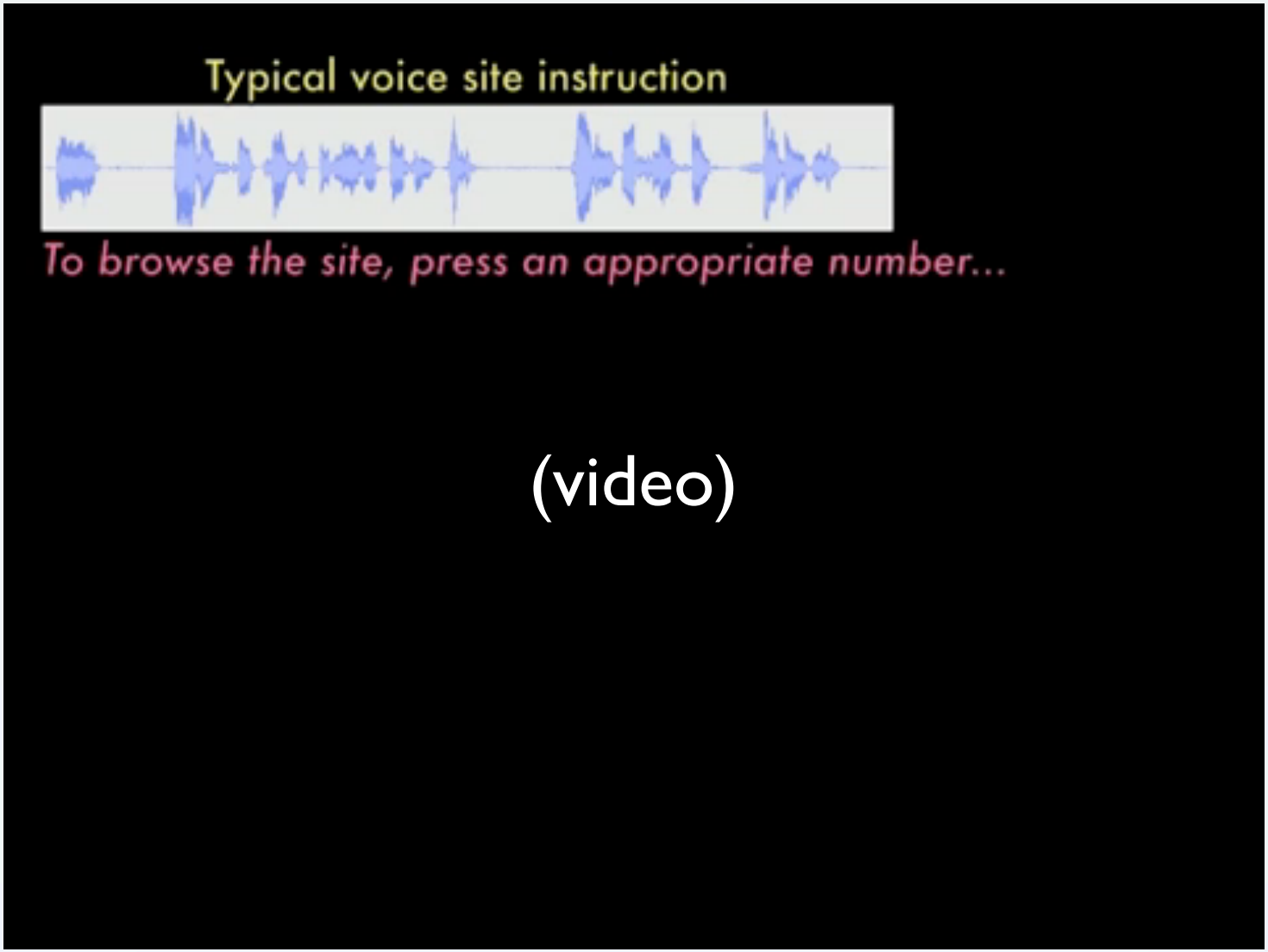
Related work

Eyes-free input [5]

Mobile scratch & tap input [6]

Scratch & tap input anywhere [3]

System in action



Deployed and tested with farmers in rural India

Accuracy study

- 18 users, all with low-end handsets
- Asked to tap in response to cues
- 1 tap, 2 taps, 3 taps; repeated 4 times

- 1-tap : 93%
- 2-tap : 78%
- 3-tap : 56%

Deployment

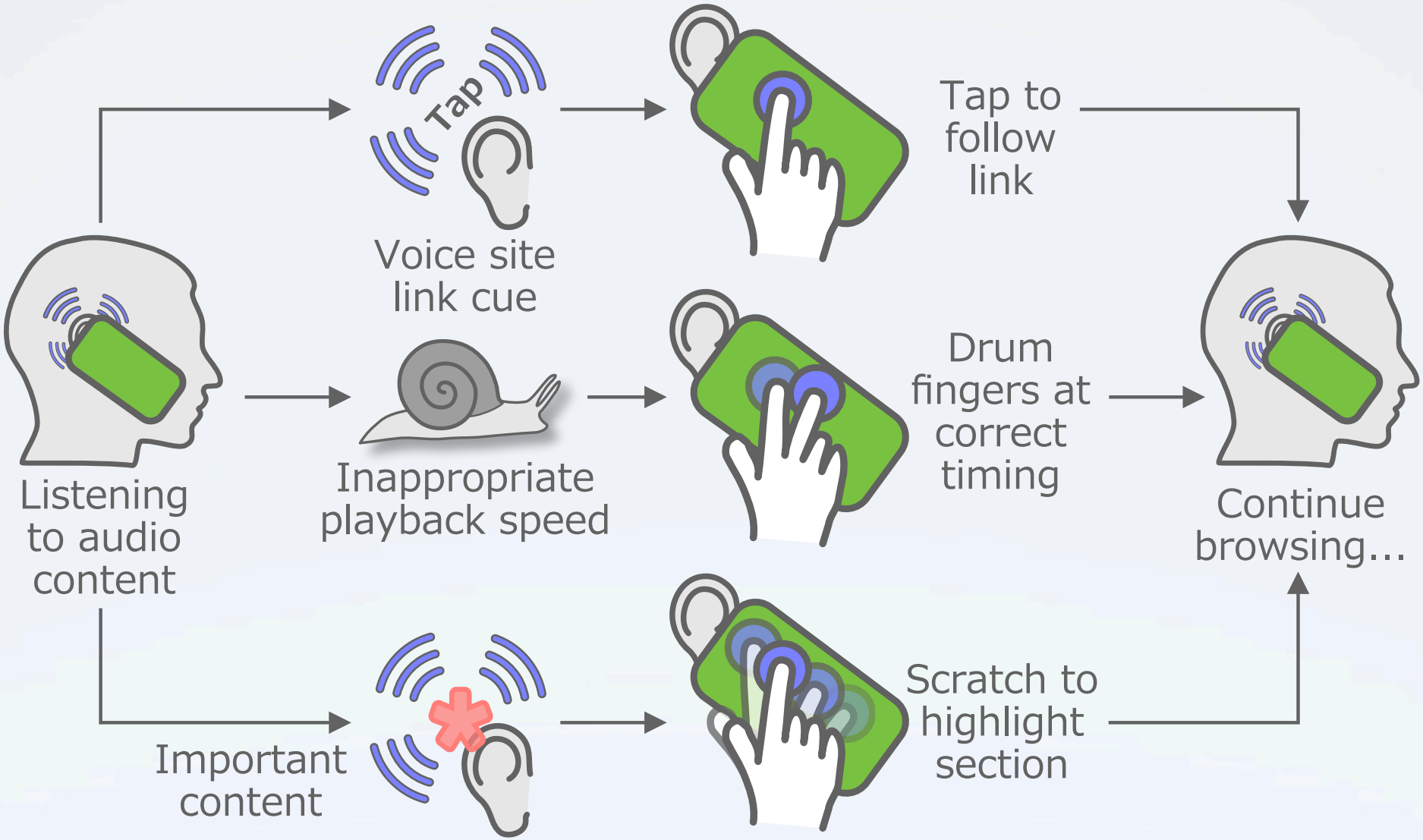
- 52 unique users, 286 calls
- 36 used TapBack once, 25 more than once
- 1293 separate tap interactions (8 per call avg)

- "This is like having a touch screen, this is a modern thing to use – its cool"
- But: "(buttons) …they always work – end of story"

Conclusions

- Logged data indicates potential:
  - People repeatedly used feature during calls
  - 93% of callers used it again on subsequent calls
- Qualitative feedback
  - Encouraging
  - Value even in low-end situations

Future?


Tap
Voice site
link cue
Tap to
follow
link
Listening
to audio
content
Inappropriate
playback speed
Drum
fingers at
correct
timing
Continue
browsing...
Important
content
Scratch to
highlight
section

Thank you

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