Avaaj Otalo

NEIL PATEL

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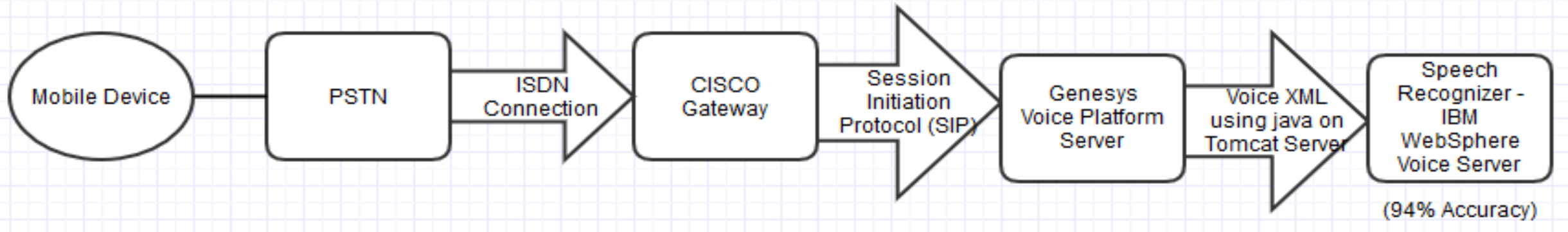
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Introduction

- Voice is a natural and accessible medium for many small farmers
- An appropriately designed voice message forum could allow farmers to learn from best practices, the advice of experts, and the experiences of one another
- Avaaj Otalo was a seven month pilot project
- 51 farmers used this system over 7 months
- Aaavj Otalo was designed in the summer of 2008 as a joint project of Development Support Center (DSC), an NGO in Ahmedabad, Gujarat, India, and IBM India Research Laboratory, based in New Delhi
- It was an interactive, on-demand informational resource that would complement a weekly Gujarati radio program produced by DSC, called "Sajjata No Sang,Lave Kheti ma Rang"

Features

- Question and answer forum
  - **limited functionality:** users could not search for or filter content, and it would play only up to two answers for each question (one from a DSC staffer and one from another farmer). Users were limited to 30 seconds for each question or answer they record.
- Announcements Board
- Radio Archive
  - Users browsed the archive by listening to 30 second summary recordings and then choosing to listen to the full 15 minute program, or continue browsing

Implementation

Mobile Device — PSTN — *ISDN Connection* → CISCO Gateway — *Session Initiation Protocol (SIP)* → Genesys Voice Platform Server — *Voice XML using java on Tomcat Server* → Speech Recognizer - IBM WebSphere Voice Server (94% Accuracy)

Pilot Deployment

- Participants
  - The 51 pilot participants were selected from 4 districts across the state
  - Participants had an existing relationship with DSC
  - No more than one participant was chosen from a single village
  - 19 had an eighth-grade education or less, 20 had completed some high school and 6 had completed college
  - The median age was 29, with a range of 18 to 60. The median land-holding was 10 acres, with a range of 0 to 60
- Data Collection
  1. Log of system navigation
  2. Transcription and manual coding of questions and answers
  3. interviews with Avaaj Otalo users and others in their communities

Study Findings

- Traffic Overview
  - Over the seven-month pilot, 6,975 calls were made to AO
  - 45 (71%) called the system at least once
  - Of the 36 AO users that were interviewed, 65% named it as the AO feature they liked the most (the remainder liked the radio archive)
  - The 10 most frequent callers accounted for over 80% of overall calls, with the top 3 accounting for 60%
- Usability
  - Input Modality
  - Errors
  - Navigating the forum
- Forum Content and Usage
  - Questions
  - Responses

Social Dynamics

- ▶ Introductions
- ▶ Moderations (of the content posted)
- ▶ Intermediated Access
- ▶ Social Status
- ▶ Core Users

Other Uses

- ▶ AO as Entertainment
- ▶ AO as Business Consulting
- ▶ AO as Advertising

Discussion

- Use Touchtone

- Need for structured and Open Spaces

  - overwhelming preference for answers that came from institutionally credentialed "experts" over peer farmers

  - To prevent this misunderstanding, and the possibility of spreading misinformation, DSC recommended that they approve all content before it appears on the forum

- Leveraging Social Ties or Perpetuating Inequality?

- Complement Social Media with Traditional Media (benefit because of DSC)

- Financial Sustainability

Conclusion and Future Work

▶ Voice can be a suitable medium for online communities in the rural developing world

▶ How to make user-generated voice content easier to navigate and search is still an open problem

Thank You!