

Bose + Key Lime Interactive: Utterance Testing for Bose Alexa Skills



About Bose

Bose Corporation is an American manufacturing company that predominantly sells audio equipment. The company was established by Amar Bose in 1964 and is based in Framingham, Massachusetts.

"I've really enjoyed working with [Key Lime Interactive]. [They] did great work recruiting, organizing, fielding, synthesizing and keeping the project headed in the right direction. I hope we get another opportunity in the near future."

- **Joe, Bose Corporation**

They Asked

- Bose is working to enable voice control of future products through the use of 'Alexa Skills'.
- Bose wanted to enable voice control of future products and to optimize the user experience by making it seamless, frustration-free, and better than the existing touch-based interaction.
- They also wanted to optimize the user experience by ensuring the system can receive and respond correctly to as many command variations and requests as possible.

Challenges

Bose & KLI worked together to understand the product need, devised a rigorous research approach, and executed an iterative process to refine the user experience of the Bose skill prior to its initial release.



During research phase 1 & 2 the following challenges presented itself:

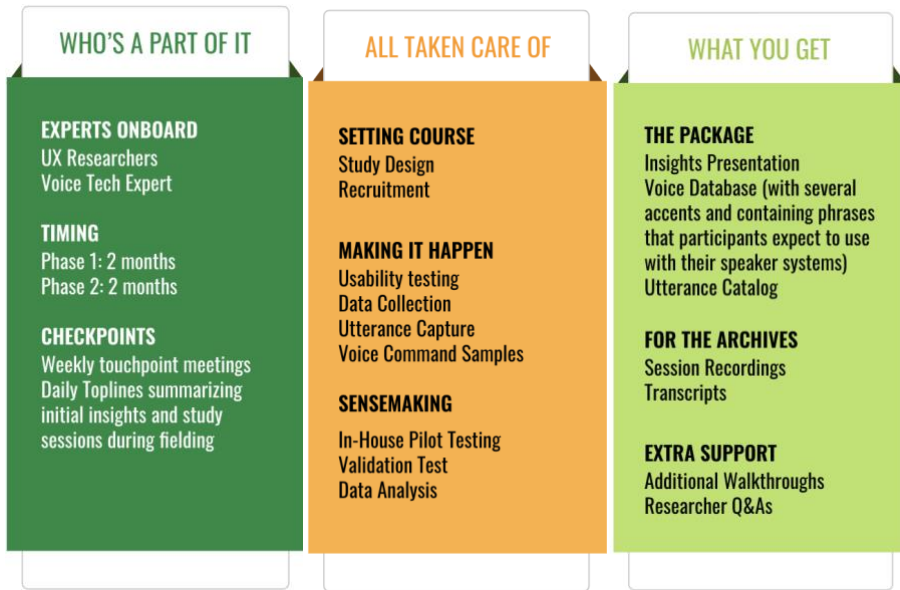
- Phase 1: KLI obtained a large sample of utterances, which included a domestically diverse collection of phrases and the nuance that comes with the various dialects and different pronunciations
- Phase 1: While recordings were obtained, there were some interesting divergences in the way that participants expected the speaker to turn on, and function.
- Phase 2: During skill performance, 5% of instances encountered a skill failure while 10% encountered a complete failure (i.e. the system turned off a speaker or everywhere, played everywhere, etc.)

We Delivered

- A two-phased research project
- Updated utterance log and voice database to be utilized for future voice products and designs
- The research and actionable insights KLI provided proved that the updated database of utterances was ready for deployment

What was Received

- Insights Presentation for Phase 1 + 2
- Voice Database, spanning across several accents and containing phrases that participants expect to use with their speaker systems, to be used for future voice product designs
- Utterance catalog & Researcher Q&A's
- Session recordings and transcripts



Methods Used

- Remote unmoderated mobile study
- Validation via an in-lab usability study
 - The goal was to collect a large, geographically diverse set of utterances that would be used to increase the reliability of system responsiveness

Participants

- Part 1 n= 238, Part 2 n= 222
- Participants were recruited from various locations across the country in order to obtain a Geographic sample that reflected the English language dialect within the US

Results and Future Plans

Our team delivered two in-depth report decks highlighting the research method, insights gained, as well as actionable recommendations provided by experts that **improved skill performance by over 36%**.

Our team also provided the client with a substantial database of voices, spanning across several accents, that was ready for deployment to use in future voice products.

Contact info@keylimeinteractive.com to have an Utterance Test conducted by research experts.

We'll provide *the*:

Methodology

Study Design

Recruitment

Analysis