



# “Alexa, Tell Me a Joke”:

## An Analysis of Humor-Based User Interactions with Intelligent Personal Assistants

Research team: Dr. Irene  
Lopotovska, Katherine  
Curran, Armando Garcia,  
Mary Mann,

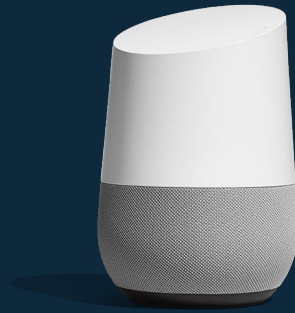


Shannon Mish, Alexandra  
Srp, Sydney Stewart, Alanood  
Al Thani, Wanyi Wang

# Intelligent Personal Assistants (IPAs)



Siri



Hi, I'm Cortana.





## Research Summary

While the function varies by personality types, we use humor to build unity, express identity, provide support, and stand out.

A decorative graphic on the left side of the slide consists of several hexagons of varying shades of blue and cyan. Some hexagons contain icons: a lightbulb, a thumbs-up, a smartphone, a magnifying glass, and a gear. A speech bubble icon is also present at the bottom left. The central hexagon is the largest and contains the text 'Research Summary'.

## Research Summary

Pre-programmed jokes and AI (machine learning) make it possible for IPAs to generate humorous responses.

A decorative graphic on the left side of the slide consists of several overlapping hexagons in shades of blue and cyan. Some hexagons contain icons: a lightbulb, a thumbs-up, a smartphone, a magnifying glass, a gear, and a speech bubble. A central, larger cyan hexagon contains the text "Problem Statement".

**Problem  
Statement**

- 1. Type(s) of humor that users request**
- 2. Type(s) of humor that IPAs generate**
- 3. Measure user perception UI/interaction**



## Methodology

**Tools like surveys, categorical labels, rating scales, and log forms allowed us to qualify participants, gauge their language proficiencies and background.**



## Methodology

**Tools like surveys, categorical labels, rating scales, and log forms allowed us to qualify participants, gauge their language proficiencies and background.**

**These instruments were also incorporated by participants' to describe, rate, and measure perception/effectiveness of the humorous interactions.**



# User Requests & Utterances

## Active Requests

Users directly asked the IPA for jokes, system tests and pop culture references

1. “Alexa, tell me a joke”
2. Siri, when’s your birthday?
3. Cortana, are we in the Matrix?
4. What is love?
5. Who's on first?

## Passive Requests

Users asked Alexa or Siri to perform a task but got a funny response instead

1. Siri, play some rap music
2. Hey Siri, send a sample invoice to Jane Doe





# IPA / System Responses

## Canned Joke

Pre-programmed jokes based on word play, pop culture references, or common joke pairings

1. “What’s a pirate's favorite animal?  
An Argg vark”
2. “The present, of course. Tardis functionality is still undergoing development, sorry!”

## Non-Humorous

“Love seems like one of the most important things people can share”

## Unexpected

Siri began reading off the lyrics to The Sugar Hill Gang’s “Rapper’s Delight” in its digital monotone

## Avoidance

“I can tell jokes it’s up to you to decide whether or not they’re funny”

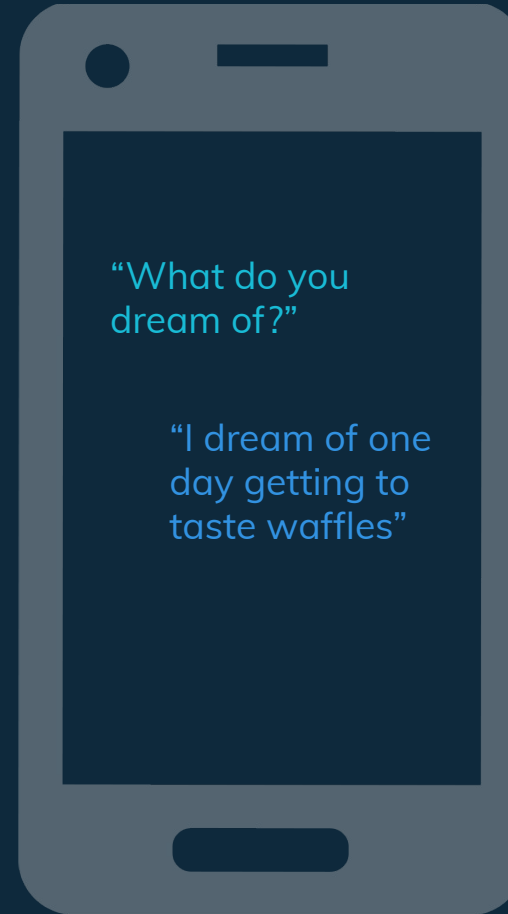




# Discussion

## Testing System Personality

- User exploration of IPA knowledge and socialization capabilities
- Search for similar human qualities
- Create solidarity through shared experiences
- Improve IPAs learning algorithm



**Thank You!  
Questions?**

