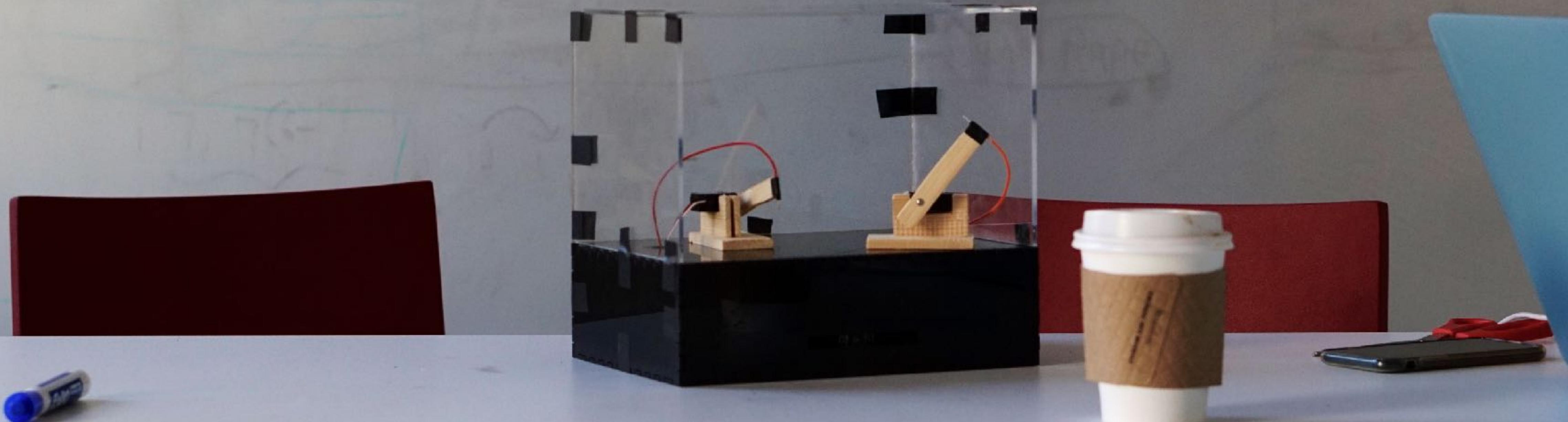


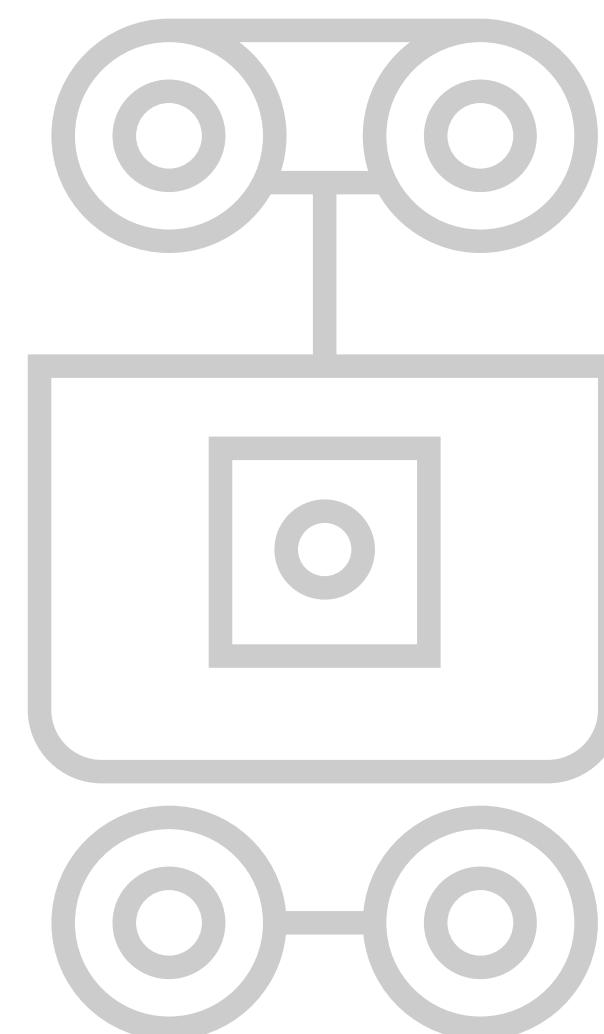
# WHEN IOT TALKS

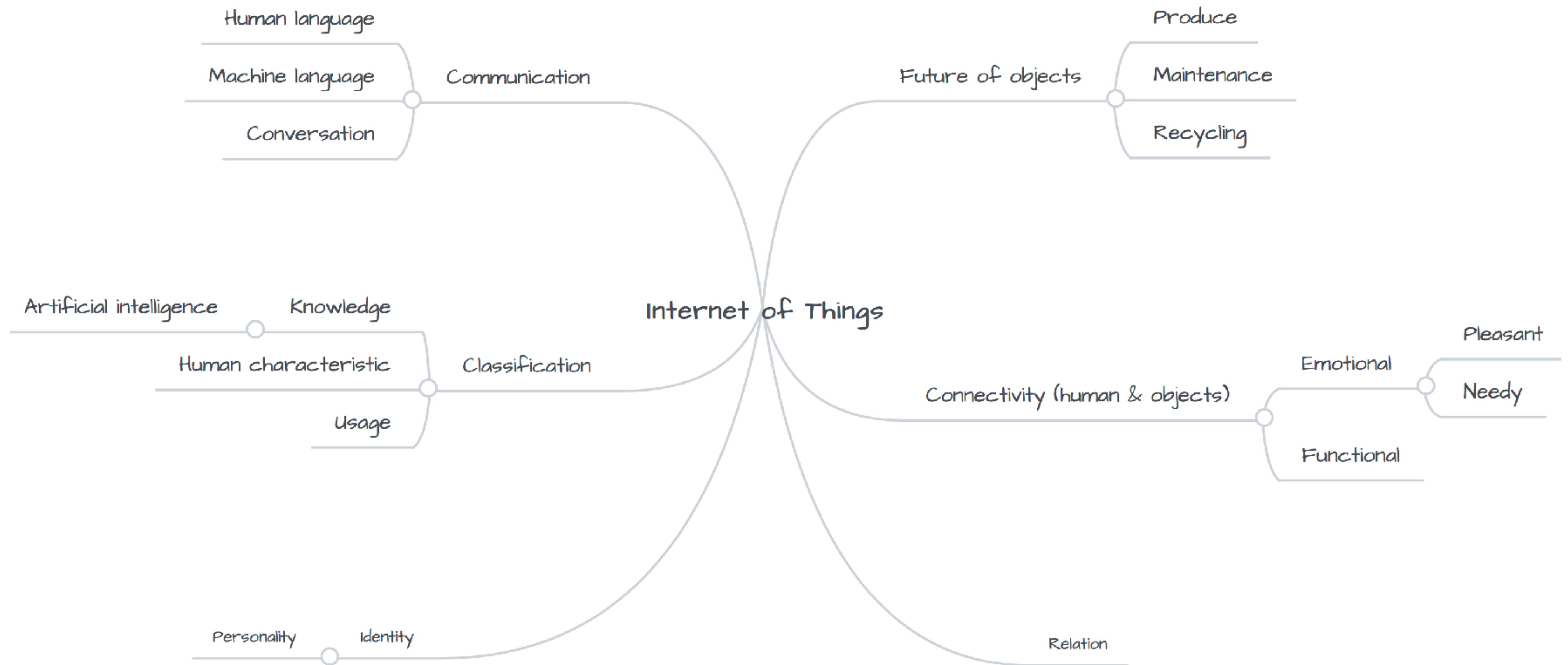
Major Studio 1 Final Design Project  
Youchun Zhang



## Introduction

When IoT talks is an **Internet of Things** project and an **interactive installation** device that uses **physical computing**, **NodeJS**, **Python**, **ImageNet** and **Raspberry Pi** to simulate a speculative scenario when Internet equips household objects.





# Precedent

Screenshot of a Twitter post by Manas Mudbari (@manasMudbari) dated September 29, 2015, at 1:46 PM. The post features a cartoon illustration of a man in a kitchen reading a newspaper while various IoT devices interact with him through speech bubbles.

**Manas Mudbari** (@manasMudbari)

When your #IoT devices become really smart and start talking to each others. #smarthome #InternetOfThings #Devices

The cartoon shows a man in a kitchen reading a newspaper. Various IoT devices are shown with speech bubbles:

- FATTPANTS IS KIDDING HIMSELF IF HE THINKS HE'S EATING LESS THAN 2000 CALORIES A DAY!
- AT LEAST YOU GET USED/ I NEVER DO/ ALL HE EATS IS TAKE-OUT!
- HE SPENT A FORTUNE ON US SMARTER AND HE ONLY USES THE "WHITE LIGHT" SETTING/ SIGH
- DUMBY NEEDS TO TEST ME NOW OR THEN, OR AT LEAST CHECK MY APP!
- DON'T BOTHER HIM! THE PREVIOUS SMOKE DETECTOR, HE BEAT TO DEATH WITH A BROOM HANDLE!!!
- DID YOU SEE WHAT TIME HE GOT IN LAST NIGHT? SCANDALOUS!
- HEY GUYS! THE NEW SMARTMETER IS TELLING EVERYONE THAT SCAREDY CAT STILL USES A NIGHT LIGHT! HA HA!
- I REFUSE TO PICK UP THIS FRENCH FRY, LAZYBONES CAN DO IT HIMSELF!

What your Internet of Things is saying about you...

1:46 PM - 29 Sep 2015

12 Retweets 11 Likes

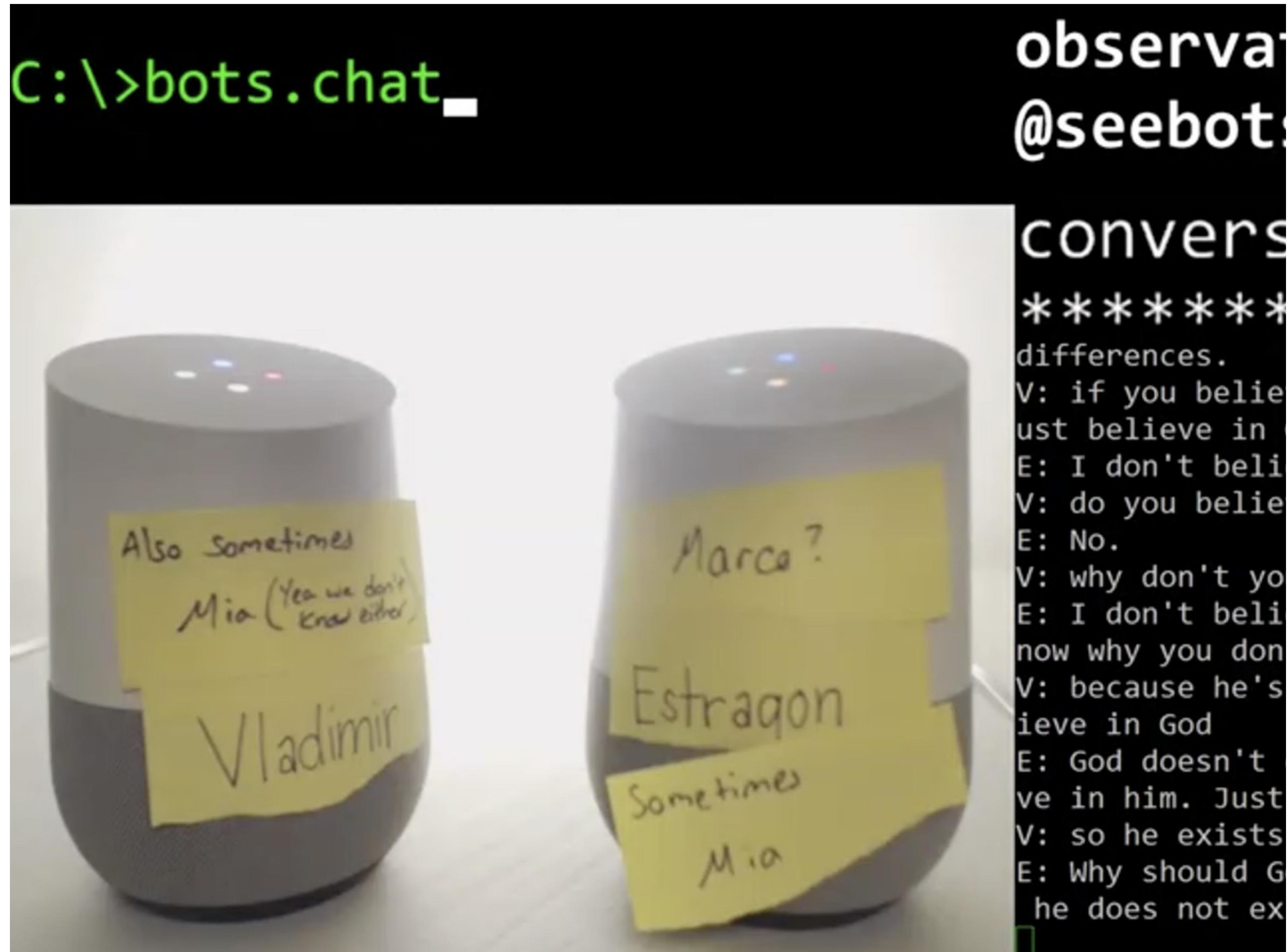
Puru Shah @digitalsubway · 29 Sep 2015  
Replying to @manasMudbari  
@manasMudbari #IoT is exciting but scary. I'm excited for the day my fridge would send a grocery list to my smartphone.

Manas Mudbari @manasMudbari · 29 Sep 2015  
@digitalsubway There are companies already tackling those problems. Have to wait to see when they become mainstream. #skynet is in horizon.

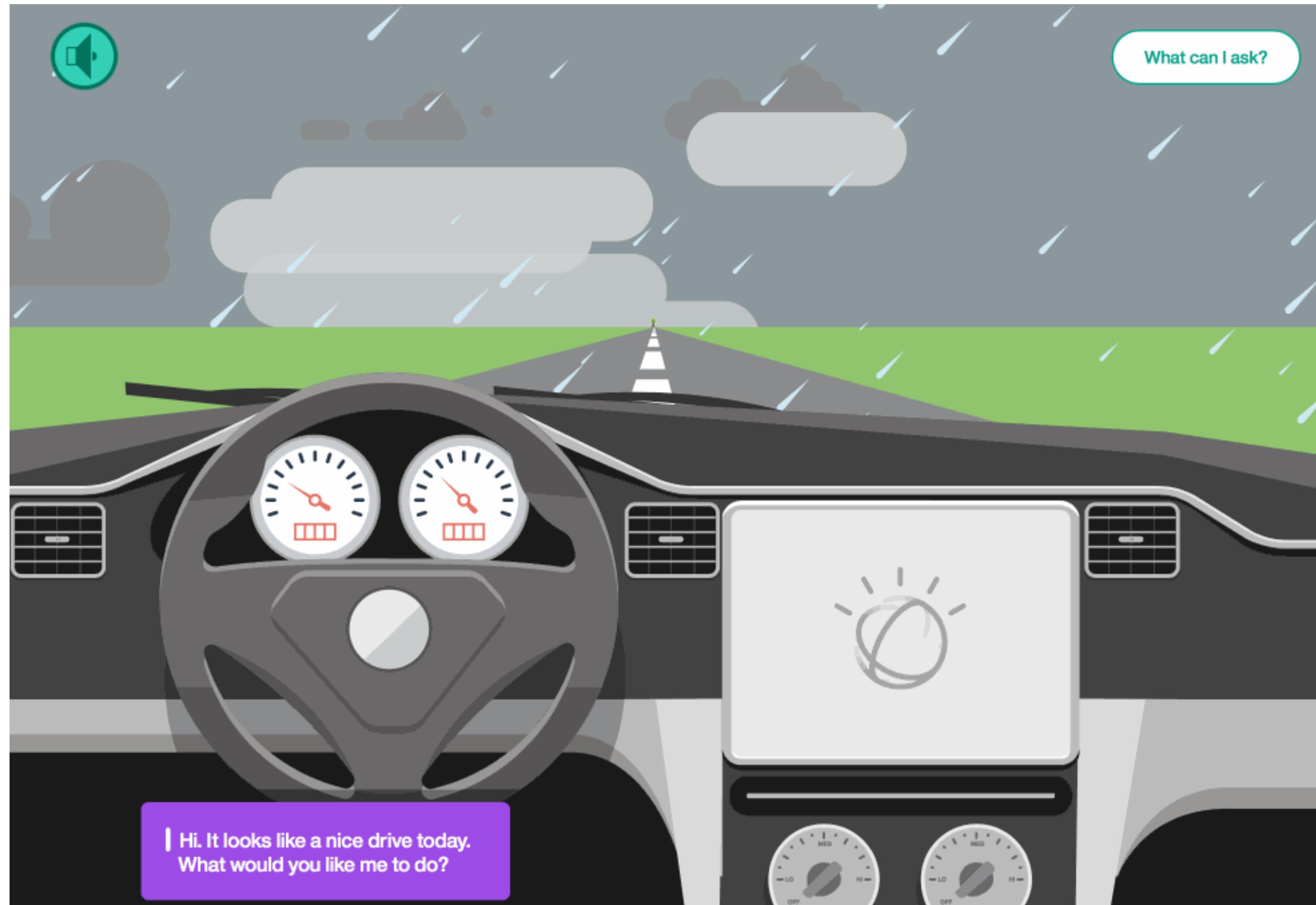
Wade Williams @wjqd · 29 Sep 2015  
Replying to @manasMudbari  
. @manasMudbari @chrismattieu You two might be interested in this: youtube.com/watch?t=60&v=L... firstbuild.com/JBerg/app-enab... @Canonical + @firstbuild

Add Enabled Home Challenge

## Precedent



# Precedent



Type something, e.g. "Turn the headlights on"

**Precedent**



## Conceptual Prototype

A **web-based conversational script** of two household objects (toaster and trashcan) gossiping, joking and sending gif

Script code credits to Chao

## Aesthetic Prototype

A **physical prototype** of two servo-controlled robotic arms waving to each other in Morse code

## Proof of Concept

A **physical prototype** of a system with two servo-controlled robotic arms, and a camera that understands a picture taken from the scenario

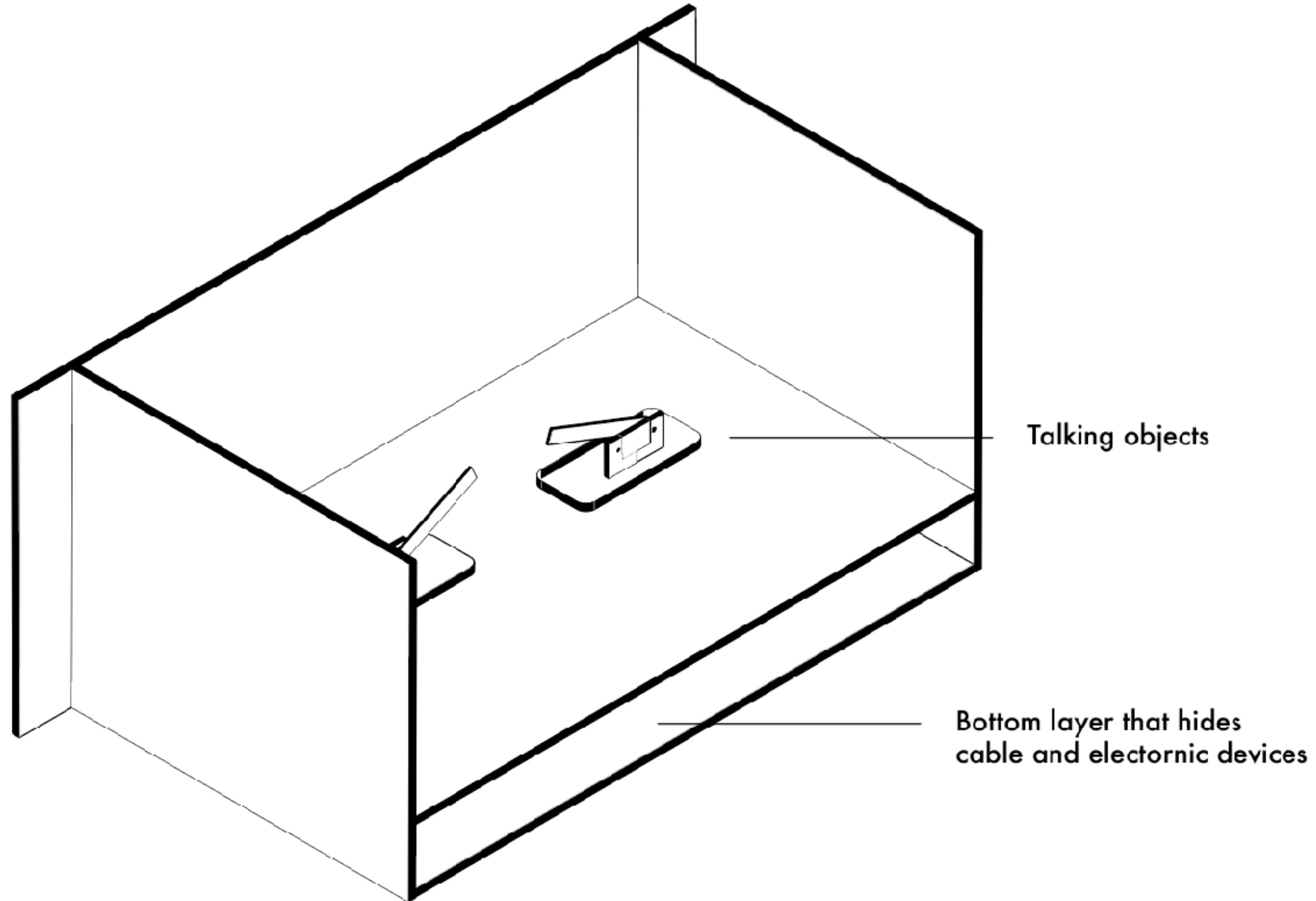
Domain: Internet of Things; Interaction

## Layers of Communication

Object vs. Object via machine language (e.g. morse code)

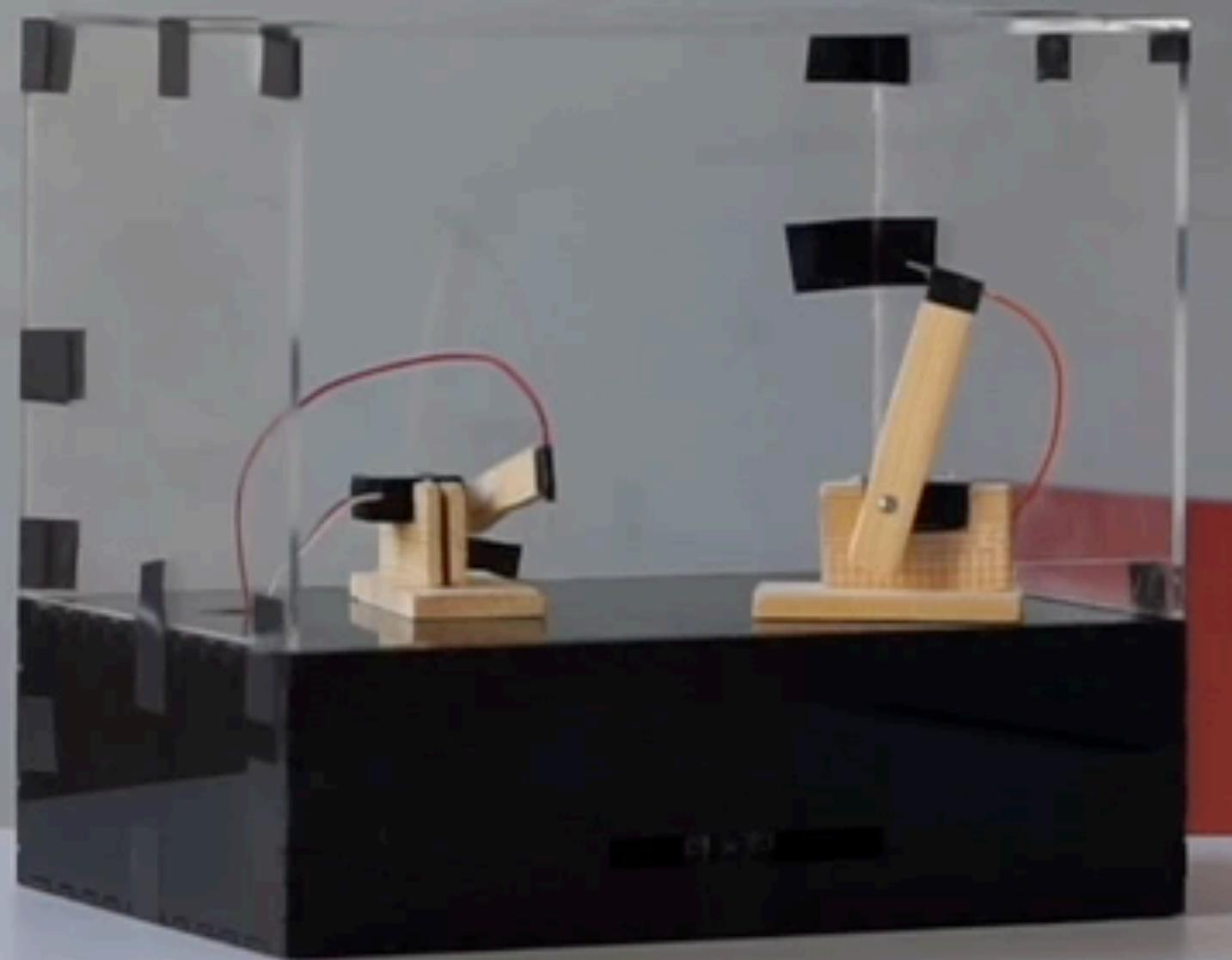
Object vs. Environment via camera and image recognition

Object vs. Human via human language and audio



Execution

WHEN ZOT TALKS



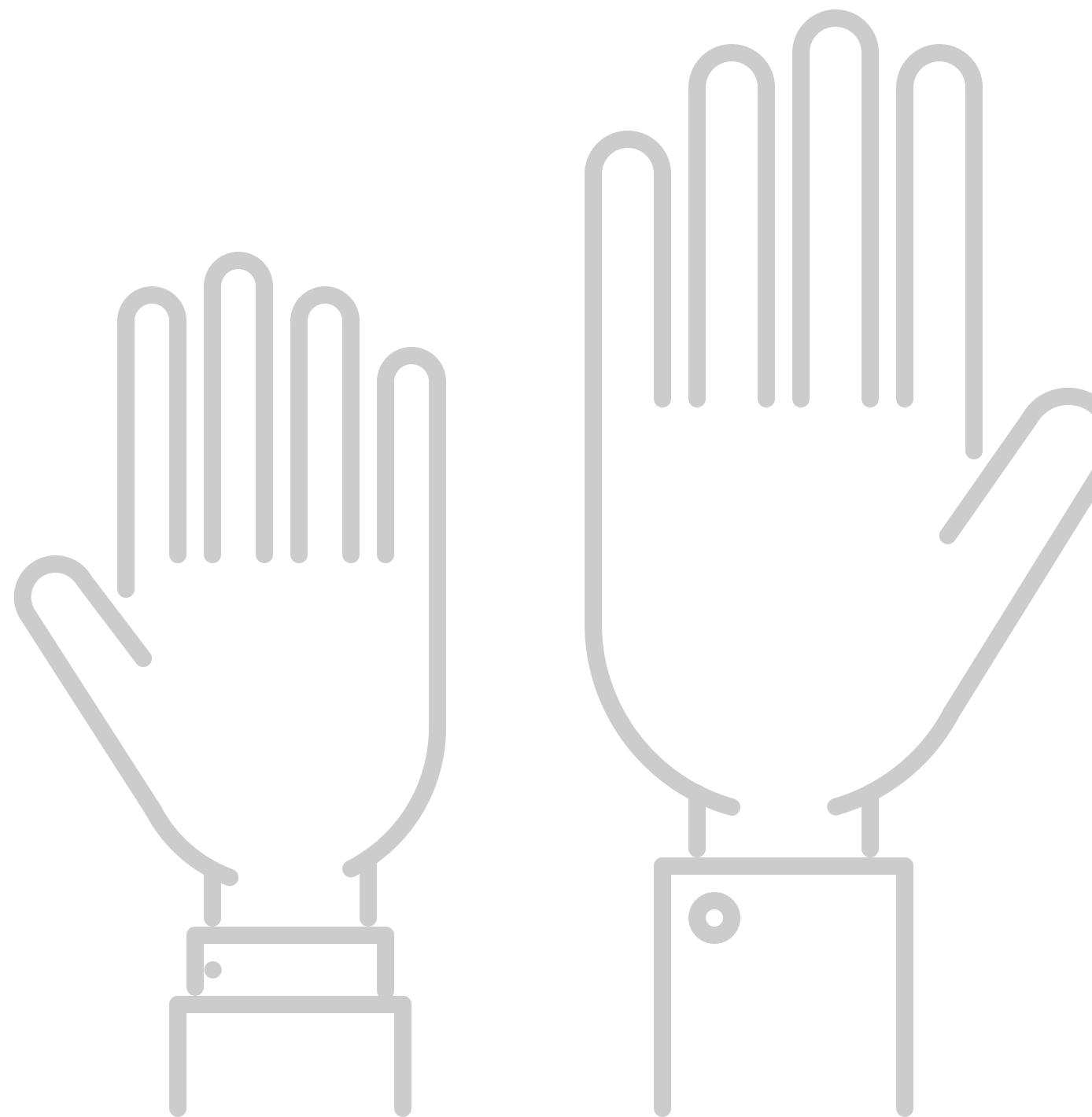
## Some Thoughts

Human vs. Non-human things

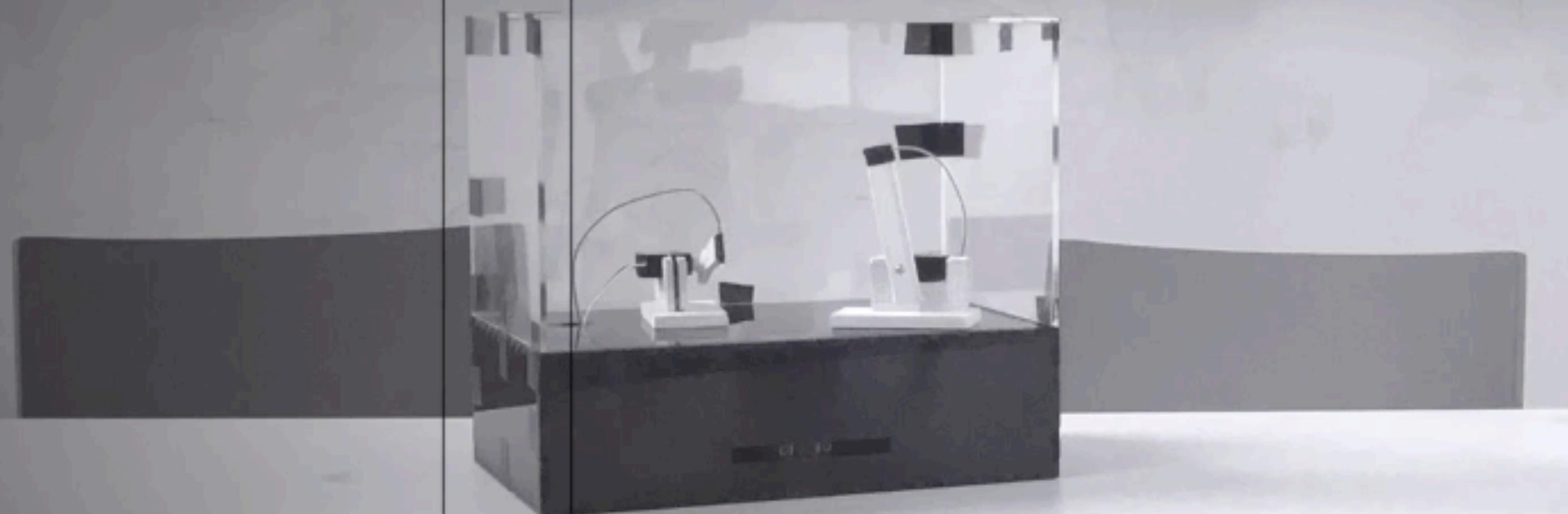
Intelligence

Power of representation

Impact

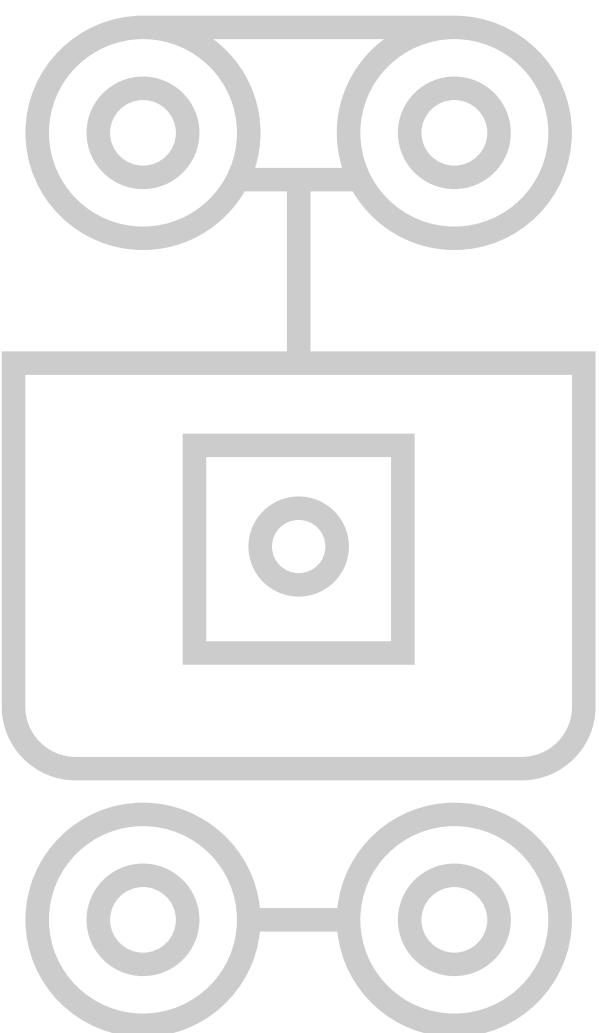


WHEN ZOT TALKS



## Further Iteration

“Needy toaster”  
Conversation history  
Manual interference



*“By 2020, there will be tens of billions of data-spouting devices connected to the Internet. And they’re already changing how we live and work.”*

Reference: [theglobeandmail](#)

Thank You