

WHO ELSE?



Make AIs talk to each other!

Do AIs need an Universal Grammar?

Problem: Voice AIs are not really nice to talk to

Every assistant has a different name and knows other skills

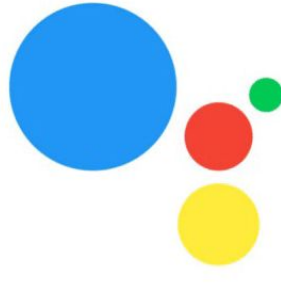
70% of users report problems not knowing what they can ask voice assistant about



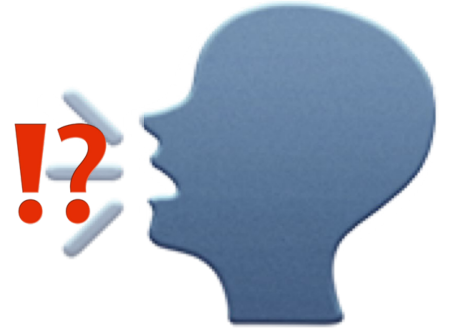
“Hey Alexa”



“Hey Siri”

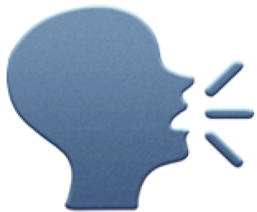


“Hey Google”



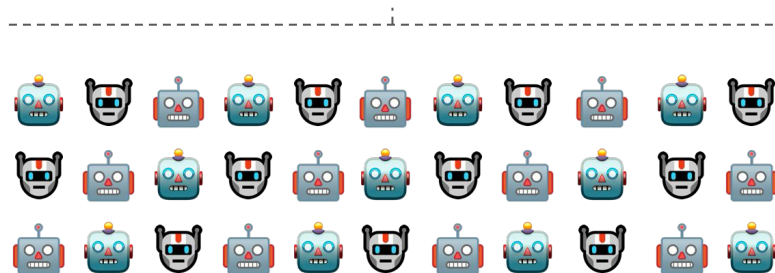
Solution: Make AIs talk to each other!

A shared question format across all conversational AIs



Pizza	who else?
Date	who else?
Apartment	who else?
Taxi	who else?

"Sure, I got you covered!"



Idea: A better verb for the Internet of Voice

whoelse.ai is the only question users ever need to know

“For Internet companies the ultimate goal is to be verb”

Source: New York Times

1 question instead of many names

YOU SHOULD TWEET THAT!
LET ME GOOGLE IT!
I'M GOING TO BING HIM!
THAT MOMENT IS INSTAGRAMMABLE!
I'M GOING TO TUMBLE THAT!
DO YOU WANT TO SKYPE?
YOU SHOULD FACEBOOK THAT!
I'M GOING TO PHOTOSHOP YOUR PHOTO!

WHOELSE?

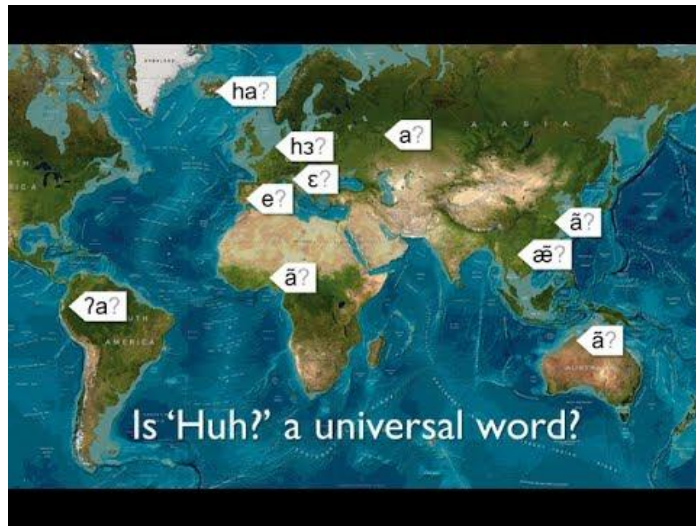
TAILOR who else?	LAWYER who else?	CAR who else?	DOCTOR who else?	GARAGE who else?
TAXI who else?	LEGO who else?	CAR CHARGING who else?	DOG-SITTING who else?	GARDENING who else?
THEATRE who else?	LOAN who else?	CHILDCARE who else?	DONATIONS who else?	GAS STATION who else?
TIMBERMAN who else?	MINI BUS who else?	FLAT-SHARE who else?	JOB XYZ who else?	UNIVERSITY who else?
TOYS who else?	MOVERS who else?	FLEA-MARKET who else?	KINDERGARTEN who else?	WORKERS UNION who else?
E-SCOOTER who else?	MUSIC who else?	FOOD-SHARING who else?	LAUNDRY who else?	WORKSHOP who else?
EVENT who else?	NOTARY who else?	MOVERS who else?	PSYCHOLOGIST who else?	JOB XYZ who else?
FASTFOOD who else?	NURSE who else?	MUSIC who else?	REFUGEE who else?	COPYSHOP who else?
FLAT-SHARE who else?	OPERA who else?	NOTARY who else?	RELIGION who else?	CITY who else?
FLEA-MARKET who else?	PAINTER who else?	SPORTS who else?	PAINTER who else?	LEGO who else?
FOOD-SHARING who else?	TRAINER who else?	STARTUP who else?	PETSITTING who else?	DOCTOR who else?
FOUND&LOST who else?	TRAVELLING who else?	STREET who else?	PHONE REPAIR who else?	CINEMA who else?

Secret sauce: Universal Grammar

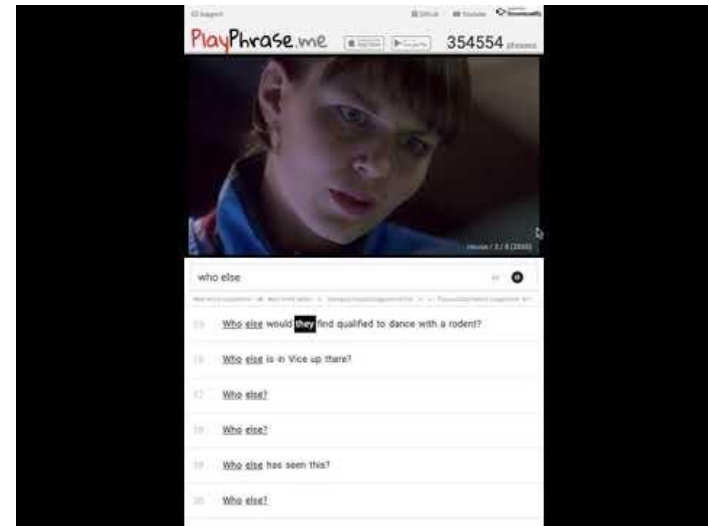
We designed a brand based on a natural law in human language

UG describes concepts “hard-wired” in human language

Example: Max-Planck Institute



“who else? questions are universal too



Advantage: The **shortest, yet most complex question available**

Users can anticipate how to ask for every other service they think of



Hey Siri, I need a Taxi here.

t = 2.4 seconds

vs.

Taxi who else?

t = 0.8 seconds

It's easy to come up with new questions:

Apartment who else?

Date who else?"

Parking space who else?

Food delivery who else?

Nursing who else?

Product: A shared address system for voice AIs

User requests are dispatched across conversational AIs

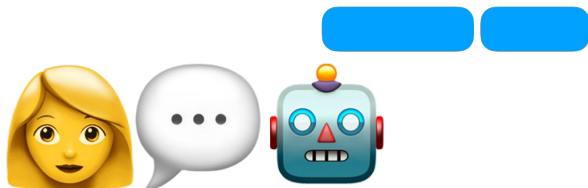
AIs store voice commands in a shared format



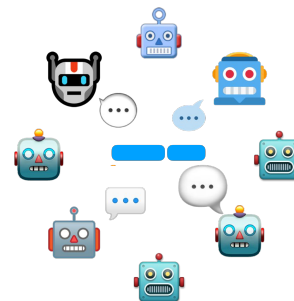
AIs look into a shared address system



Suiting AIs bid on the user request

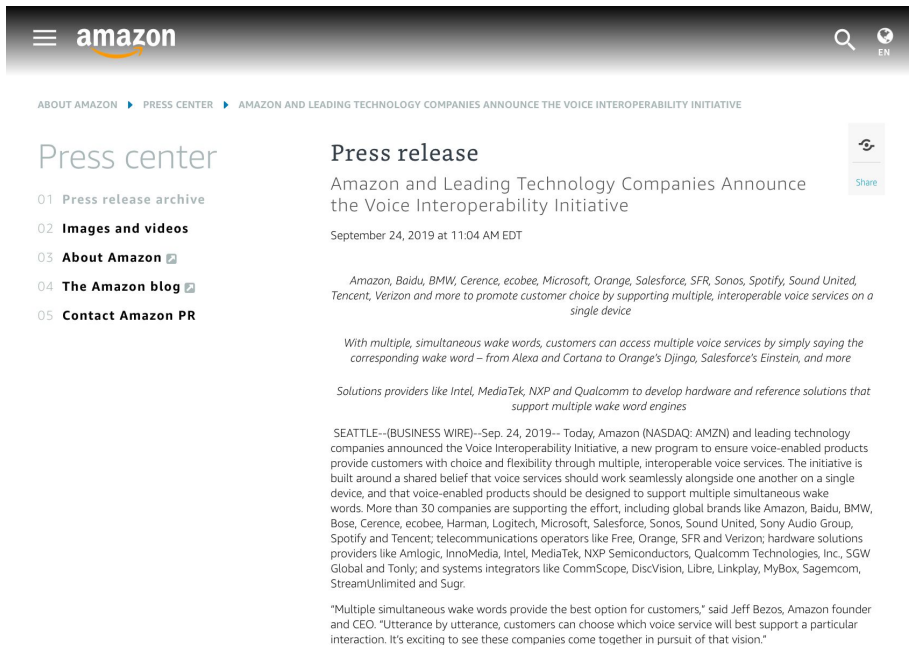


TAILOR who else?	LAWYER who else?	CAR who else?	DOCTOR who else?	GARAGE who else?
TAXI who else?	LEGO who else?	CAR CHARGING who else?	DOG-SITTING who else?	GARDENING who else?
THEATRE who else?	LOAN who else?	CHILDCARE who else?	DONATIONS who else?	GAS STATION who else?
TIMBERMAN who else?	MINI BUS who else?	FLAT SHARE who else?	JOB XYZ who else?	UNIVERSITY who else?
TOYS who else?	MOVERS who else?	FLEA-MARKET who else?	KINDERGARTEN who else?	WORKERS UNION who else?
E-SCOOTER who else?	MUSIC who else?	FOOD-SHARING who else?	LAUNDRY who else?	WORKSHOP who else?
EVENT who else?	NOTARY who else?	MOVIE who else?	PSYCHOLOGIST who else?	JOB XYZ who else?
FASTFOOD who else?	NURSE who else?	MUSIC who else?	REFUGEE who else?	COPYSHOP who else?
FLAT SHARE who else?	OPERA who else?	NOTARY who else?	RELIGION who else?	CITY who else?
FLEA-MARKET who else?	PAINTER who else?	SPORTS who else?	PAINTER who else?	LEGO who else?
FOOD-SHARING who else?	TRAINER who else?	STARTUP who else?	PET-SITTING who else?	DOCTOR who else?
FOUNDLOST who else?	TRAVELLING who else?	STREET who else?	PHONE REPAIR who else?	CINEMA who else?



Amazon launched an NLP interoperability initiative too

Unlikely it will convince either Walmart or Mercedes



The screenshot shows the Amazon Press Center page for the announcement. The header includes the Amazon logo and navigation links. The main content area features a 'Press release' section with the title 'Amazon and Leading Technology Companies Announce the Voice Interoperability Initiative' and a 'Share' button. Below the title is the date 'September 24, 2019 at 11:04 AM EDT' and a list of participating companies: Amazon, Baidu, BMW, Cerence, ecobee, Microsoft, Orange, Salesforce, SFR, Sonos, Spotify, Sound United, Tencent, Verizon, and more. The text explains that the initiative is designed to support multiple simultaneous wake words, allowing users to access various voice services by simply saying the corresponding wake word. It also mentions that solutions providers like Intel, MediaTek, NXP, and Qualcomm are developing hardware and reference solutions to support multiple wake word engines. A quote from Jeff Bezos is included at the bottom, stating that multiple simultaneous wake words provide the best option for customers and that the initiative is in pursuit of a vision where users can choose which voice service to use based on their utterance.

Press center

- 01 Press release archive
- 02 Images and videos
- 03 About Amazon
- 04 The Amazon blog
- 05 Contact Amazon PR

Press release

Amazon and Leading Technology Companies Announce the Voice Interoperability Initiative

September 24, 2019 at 11:04 AM EDT

Amazon, Baidu, BMW, Cerence, ecobee, Microsoft, Orange, Salesforce, SFR, Sonos, Spotify, Sound United, Tencent, Verizon and more to promote customer choice by supporting multiple, interoperable voice services on a single device

With multiple, simultaneous wake words, customers can access multiple voice services by simply saying the corresponding wake word – from Alexa and Cortana to Orange's Djinga, Salesforce's Einstein, and more

Solutions providers like Intel, MediaTek, NXP and Qualcomm to develop hardware and reference solutions that support multiple wake word engines

SEATTLE--(BUSINESS WIRE)--Sep. 24, 2019-- Today, Amazon (NASDAQ: AMZN) and leading technology companies announced the Voice Interoperability Initiative, a new program to ensure voice-enabled products provide customers with choice and flexibility through multiple, interoperable voice services. The initiative is built around a shared belief that voice services should work seamlessly alongside one another on a single device, and that voice-enabled products should be designed to support multiple simultaneous wake words. More than 30 companies are supporting the effort, including global brands like Amazon, Baidu, BMW, Bose, Cerence, ecobee, Harman, Logitech, Microsoft, Salesforce, Sonos, Sound United, Sony Audio Group, Spotify and Tencent; telecommunications operators like Free, Orange, SFR and Verizon; hardware solutions providers like Amlogic, InnoMedia, Intel, MediaTek, NXP Semiconductors, Qualcomm Technologies, Inc., SGW Global and Tonli; and systems integrators like CommScope, DiscVision, Libre, Linkplay, MyBox, Sagemcom, StreamUnlimited and Sugr.

"Multiple simultaneous wake words provide the best option for customers," said Jeff Bezos, Amazon founder and CEO. "Utterance by utterance, customers can choose which voice service will best support a particular interaction. It's exciting to see these companies come together in pursuit of that vision."

Agreement: Trigger words decide which AI is chosen

"Hey Alexa.."

"Hey BMW.."

"Hey Einstein.."

Problem: BMW & VW will NOT agree who owns arbitrary language etc.

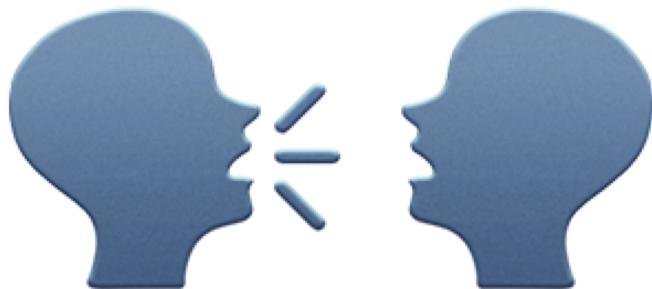
"AI, find me a ride-share!"

"Assistant, find me a supermarket"

A shared marketplace for human language in AI is inevitable

If 5 voice AIs listen to the same user, how will they agree?

***"Pizza, would be great -
what do you think?"***



Problem: AIs react without being addressed

