

WHO ELSE?



Make AIs talk to each other!

Conversational AI for enterprises

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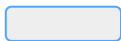
New normal: 65% of users search by voice



Conversational AI is a \$55bn
e-commerce opportunity by 2025
Gartner



Phase 1: Every product will turn into a smart speaker



Assistant, find me a taxi

Bot, book food delivery for 1 week

AI, find me a restaurant

AI, order household supplies

Siri, I need running gear

..



Cars



Smart Homes



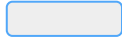
Wearables

Everything that user say becomes an e-commerce request

Phase 2: Your company will be useable like a bot

Assistant, please tell me the biggest cost drivers of our portfolio in categories A, B, C

AI, we have to restructure the sales department. Please find me the 15 top performers. Find a new workspace for them too.



Factories
& Industry 4.0



Knowledge
Worker



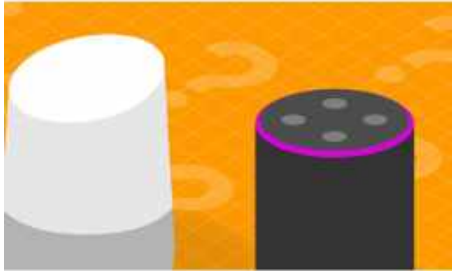
Smart Cities &
E-Governments

Organisational know-how
becomes available by natural language queries

Conversational AI is a paradigm shift for business models

Report: Voice assistants in use to triple to 8 billion by 2023

7:42 pm CET • February 12, 2019



The use of voice assistants is set to triple over the next few years, according to a new forecast from the U.K.-based analysts at [Juniper Research](#). The firm estimates there will be 8 billion digital voice assistants in use by 2023, up from the 2.5 billion assistants in use at the end of 2018.

COVID-19 Is Making Alexa And Siri A Hands-Free Necessity

Chuck Swoboda • 10:13am EDT



Voice search has created a huge vulnerability at the heart of Google's business

Hannah Roberts • Nov 25, 2016, 4:20 PM



Google CEO Gester Panel

AP

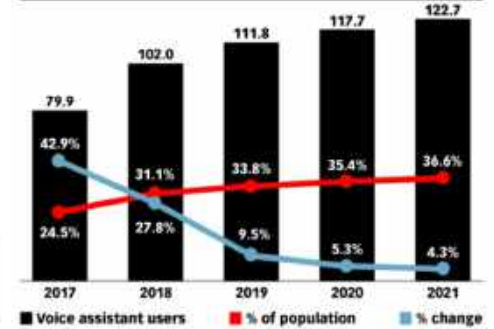
When the world shifted from desktop to smartphones, one thing didn't change: the existence of a screen on both devices.

The screen shrank, but it remained the medium through which we interact with computers.

For Google, that meant its core online advertising business — viable search ads on a webpage — remained intact and lucrative.

US Voice Assistant Users and Penetration, 2017-2021

millions, % change and % of population



Note: individuals of any age who use voice assistants at least once a month on any device

Source: eMarketer, May 2019

A new philosophy for UIs & language as customer touchpoint



A driver of co-creation partnerships & public regulation of AI

Tech Giants Team Up to Make AI Voice Assistants Device-Agnostic

BY JEFF BEZOS
OCTOBER 12, 2018

PHOTO: GETTY IMAGES



Jeff Bezos: "Multiple simultaneous wake words provide the best option for customers"

A groundbreaking project, the Voice Interoperability Initiative, led by a host of major technology companies — including Amazon, Apple, Google, Microsoft, Samsung, and many others — aims to let consumers access multiple different AI voice assistants on any device, just by saying its wake word...

Why The Internet Of Things Might Never Speak A Common Language

A single standard for smart homes and other connected devices sounds great, but some of the biggest tech firms don't seem interested.



The Tower of Babel by Pieter Bruegel the Elder (1635) ART BIBLE / WOLFGANG SCHNEIDER

To Break Google's Monopoly on Search, Make Its Index Public

● The tech giant doesn't have to be dismantled. Sharing its crown jewels might reshape the internet.

By Robert Epstein



PHOTO: ALAMY/ALAMY (PHOTO: GETTY IMAGES)

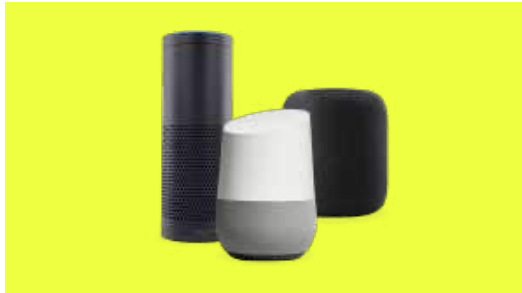
DARPA wants to teach and test 'common sense' for AI

12:18 am EDT • October 12, 2018

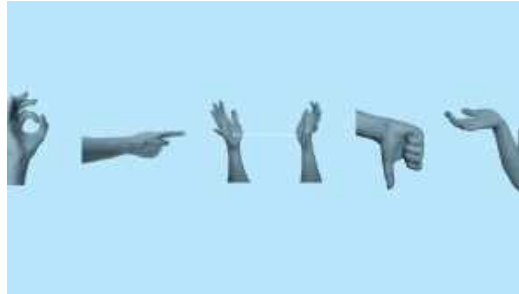


It's a funny thing. AI can identify objects in a fraction of a second, imitate the human voice and recommend new music, but most machine "intelligence" lacks the most basic understanding of everyday objects and actions — in other words, common sense. DARPA is teaming up with the Seattle-based Allen Institute for Artificial Intelligence to see about changing that.

Take away: Speech is more than voice



Voice Assistants
Available



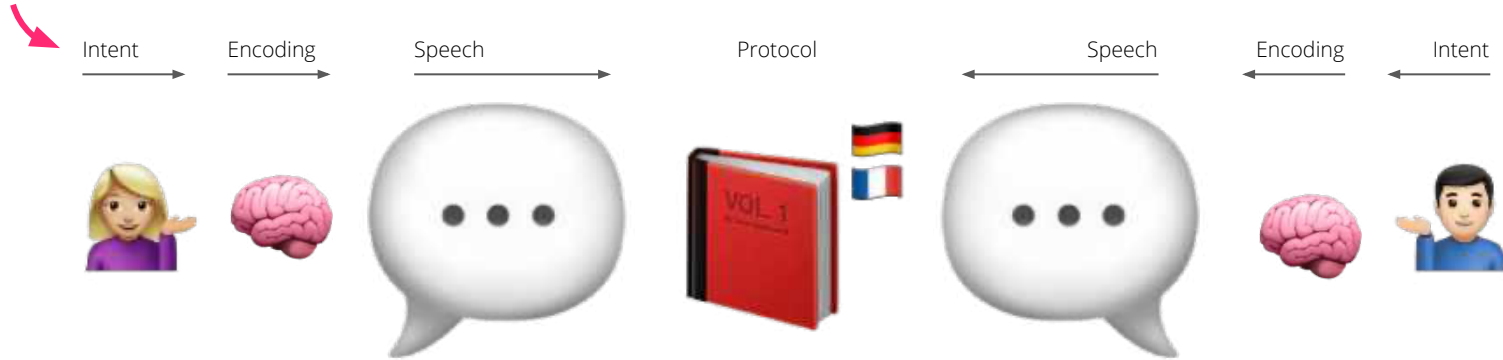
Gesture Interfaces
Experimental: +5 years



Brain Machine Interfaces
Experimental: +10 years

Some say, it is time for an “Internet of Thoughts”

Reason why you talk to somebody

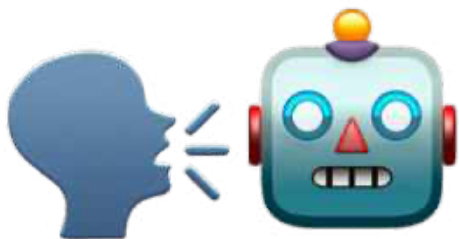


Problem: User have different language dictionaries



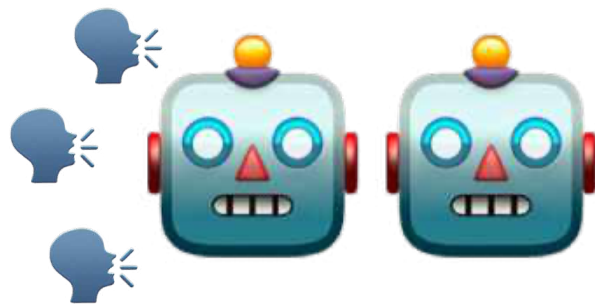
Joe Rogan & Elon Musk (05/2020)
about Universal Language

Reason: There are 2 dimensions of bias in NLP



How will AIs talk to users?

How do AIs interact with users?



How will AIs talk *about* users who talk to them?

Which labels will AIs use to store information?

Problem 1: Every AI interprets human language differently

I am hungry, AI order me Pizza.



Note: AIs are only niche intelligent - they only work good in the domain they are trained for



Google

The user looks for a pizza



Nuance

The user is in Hungary and searches a pizzeria



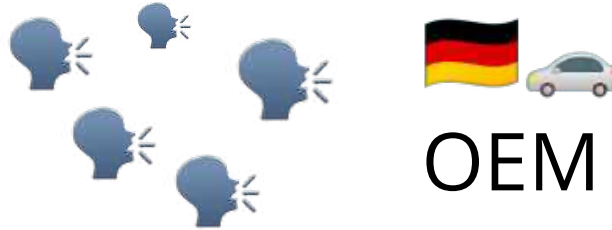
Bosch

Sorry, I didn't get it



100 AIs =
100 Opinions

Problem 2: To sell products globally OEMs must use multiple AIs

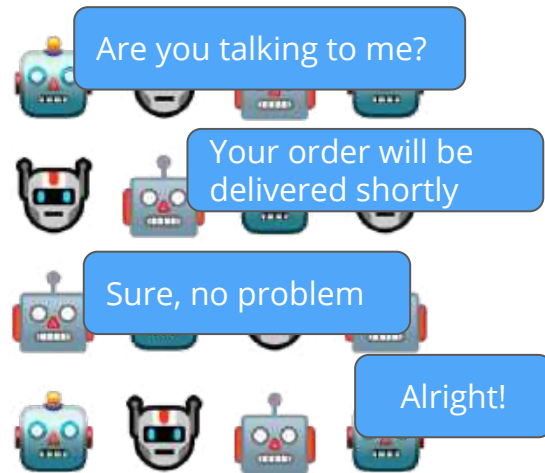


German AIs do not speak Russian, Chinese, etc.

Problem 3: How will 5 AIs listening agree which one was meant?



Alex, what do you think about ordering Pizza?



Idea: whoelse.ai becomes an exchange to forward intents

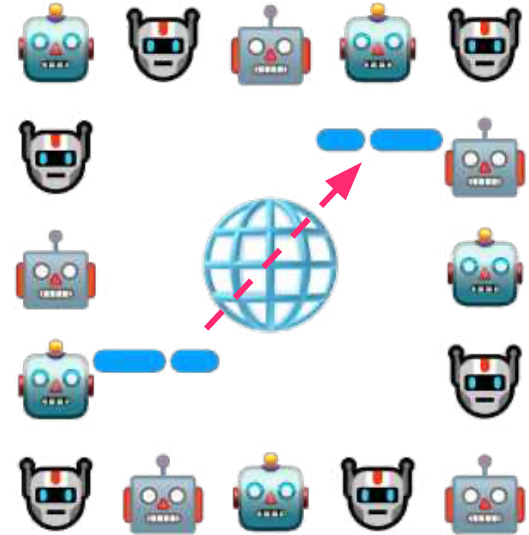


AI, I want to file my income tax

I have no clue what you talk about, but I find the right AI



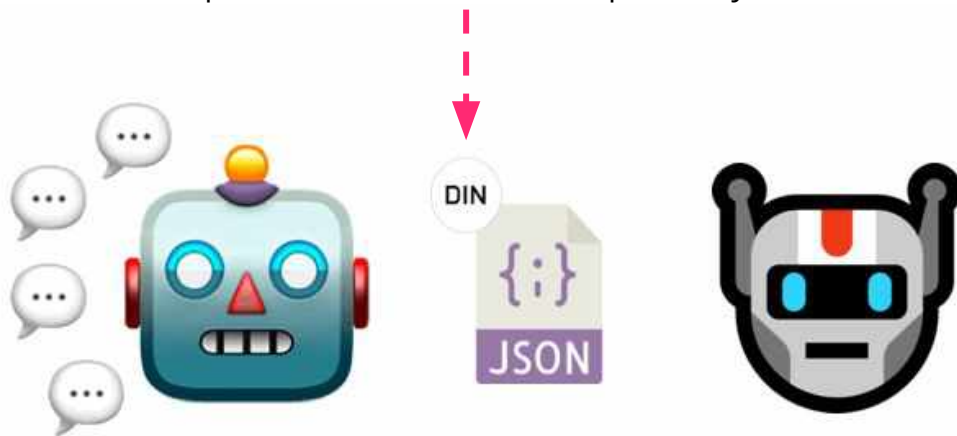
Welcome at PWC, how can I help you?



Als can find other Als suited to respond

Go-2-Market: We setup industry standards for AI interoperability

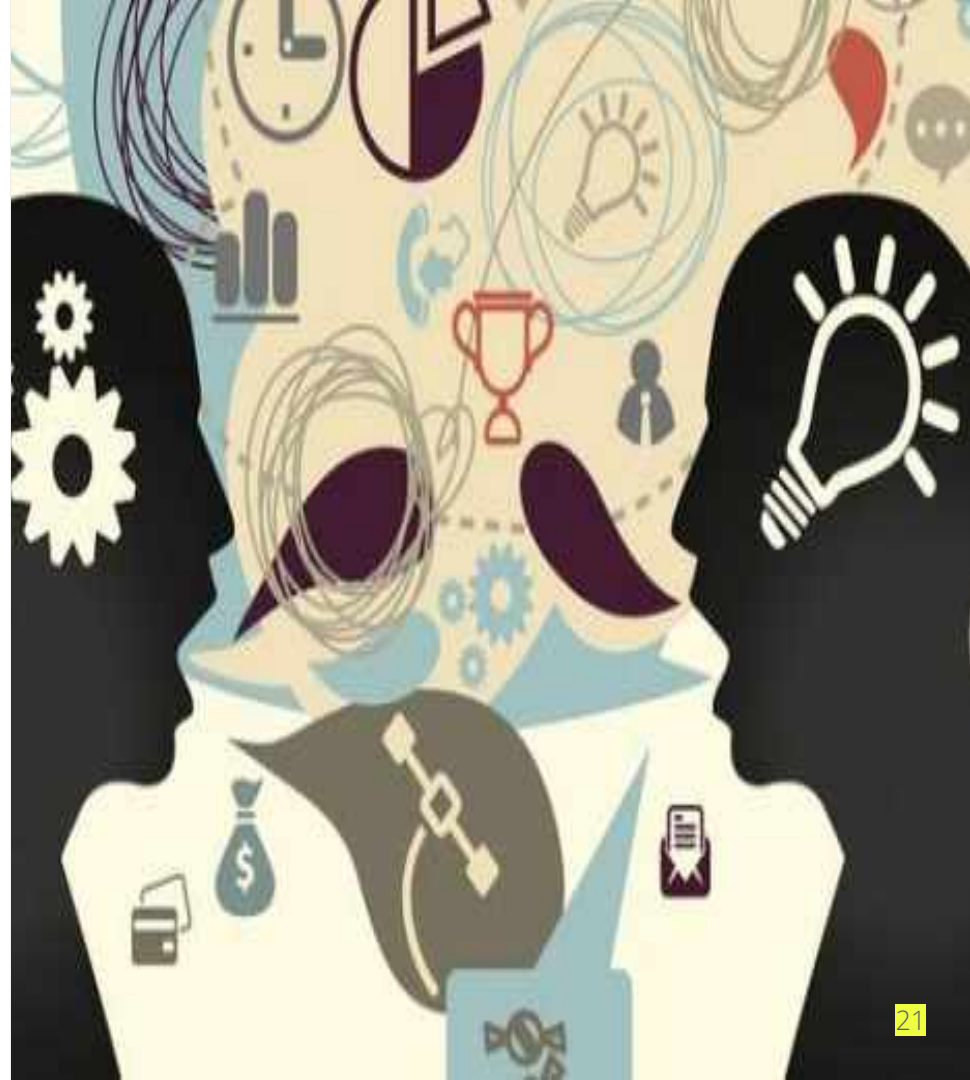
ISO-DIN consortiums agree on shared API specifications for NLP interoperability



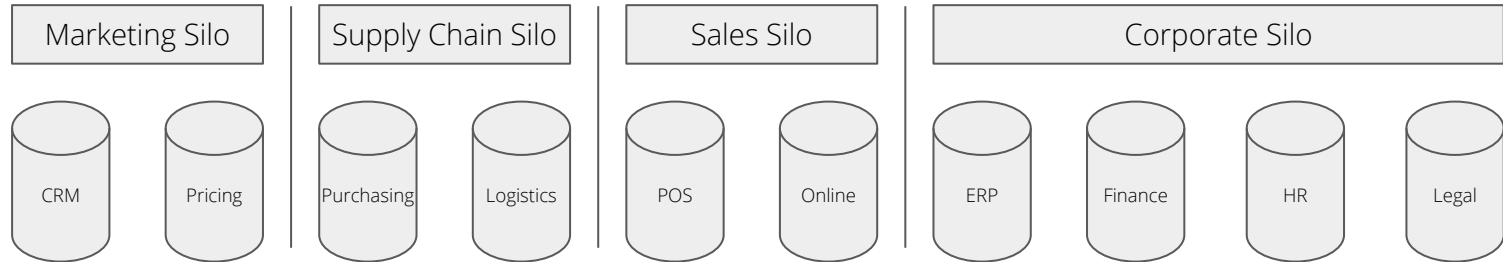
Read more: <http://din.whoelse.ai>

Next: Companies must turn human knowledge into AI

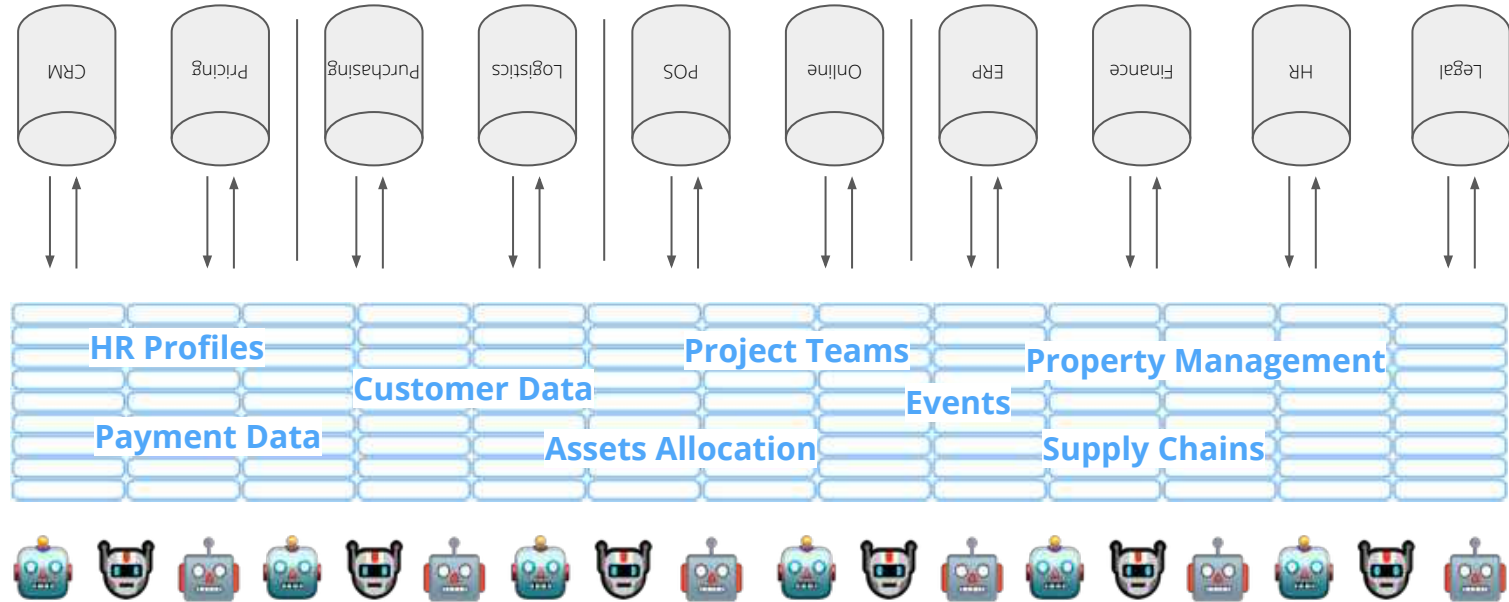
Prepare you company for a conversational
intelligence workforce



Problem: Corporates are data silos

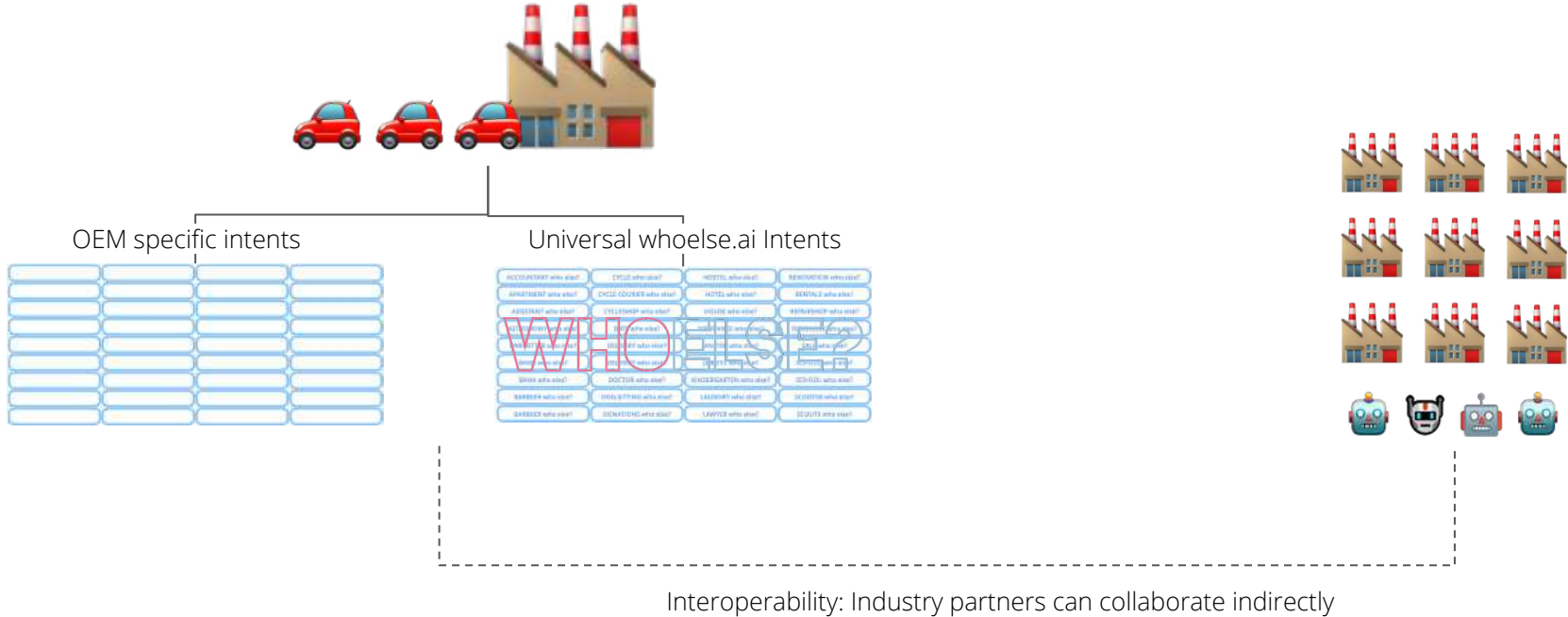


To do: Turn your data silos into conversational AI know-how



Prepare to use multiple AIs by organizing your knowledge in a AI compatible language

Our value-added: Intent compatibility across organisations



Advantage: Supply chains based on AIs interoperability

*Find me experts
in X,Y,Z*

*I am looking to rent
space for A,B,C*

*I am looking for a
manufacturer*



Industry partners exchange information by
a standardized format

Soon: Users can say whatever they want to AIs

whoelse.ai builds an open search index
for conversational AIs



SaaS offering: Always find the best AI available

WHOELSE?

Today

Next



Voice Assistants



Data Mining

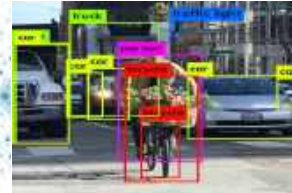


Image Analysis



Brain Machine Interfaces

USP: OEMs use a shared NLP schema across languages & AIs

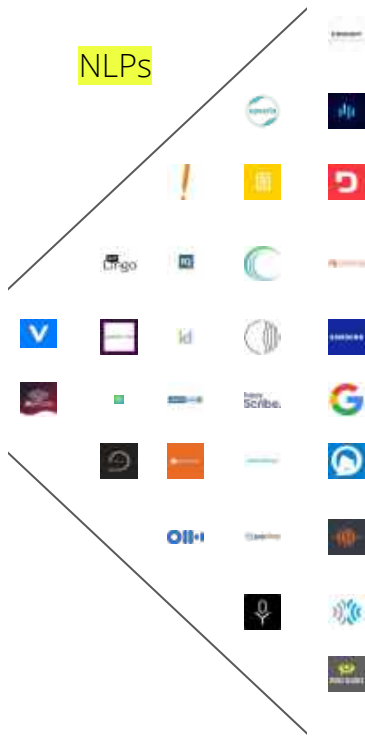
OEMs



WHOELSE?



NLPs



- ACCOUNTANT who else?
- Intent Catalog
- ASSISTANT who else?
- ASTRONOMY who else?
- BABYSITTER who else?
- BAND who else?
- BANK who else?
- BARBERER who else?
- BARBERER who else?
- BOARD GAME who else?
- BOOK CLUB who else?
- CASH who else?
- CAR who else?
- CAR CHARGING who else?
- CHILDCARE who else?
- CINEMA who else?
- CITY who else?
- CLEANER who else?

Product: AIs can look up each other to share requests

Requests

Protocol

Service Catalog

Assistant, find me a taxi

Bot, book a food delivery

AI, order household supplies

AI, find me a restaurant

Assistant, please tell me the biggest cost driven categories A, B, C

AI, we have to restructure the sales department 15 top performers. Find a new workspace for



whoelse.ai
File Format

A shared intent index for all kinds of conversational AIs

Everything becomes a smart speaker

Voice assistants in everyday objects



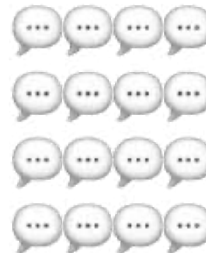
Alarm Activation

Food Delivery

Lightswitch

"Hey Television, **turn on the light** in our garden.
Then **order food from Dominos**, afterwards make
sure the **alarm system is activated.**"

Voice assistants where we spend a lot of time



Concert Ticket

Office Colleagues

Greek Restaurant



"Hey BMW, **find me a greek restaurant** for tonight!"
"Hey BMW, is there a **concert nearby?**"
"Hey BMW, is **somebody still in the office?**"

Hotlines that combine multiple AIs

Hotlines become voice assistants



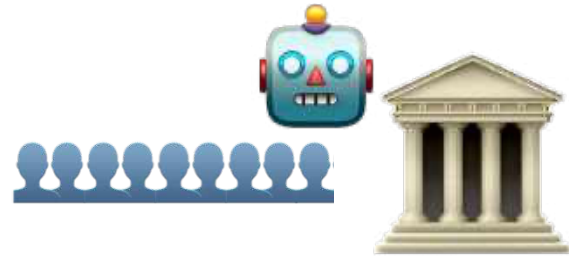
Electricity Bill

Phone Support

"Can the Deutsche Telekom customer support help you anyhow else, Rosi?"

"Yes, please connect we somebody to speak about my electricity bill."

Voice AI-based government services



Voice Verification

E- Government

"Thanks for you unemployment benefit application. Please verify your identity with your voice fingerprint."

"I am Sean Conner, my password is..."

From buildings to education - voice AI is everywhere

Voice commands for smart buildings



"To which floor do you want to go?"

*"I am looking for **meeting room 306**."*

"Go to the 3rd floor and go right."

Voice AI-based education



*"In order to pass the exam. Please **explain briefly** the function of exponential curves"*

"It can be best illustrated by.."

Data engineering advantage: Cross referencing of NLP data

Mining of financial transaction data



“How many people paid something relating to COVID-19 or had unusual transactions. Who of our customers receive state benefits?”

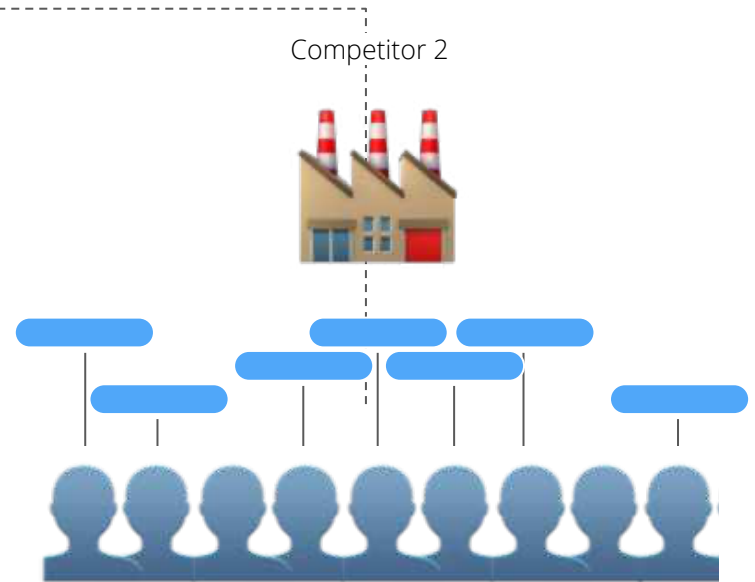
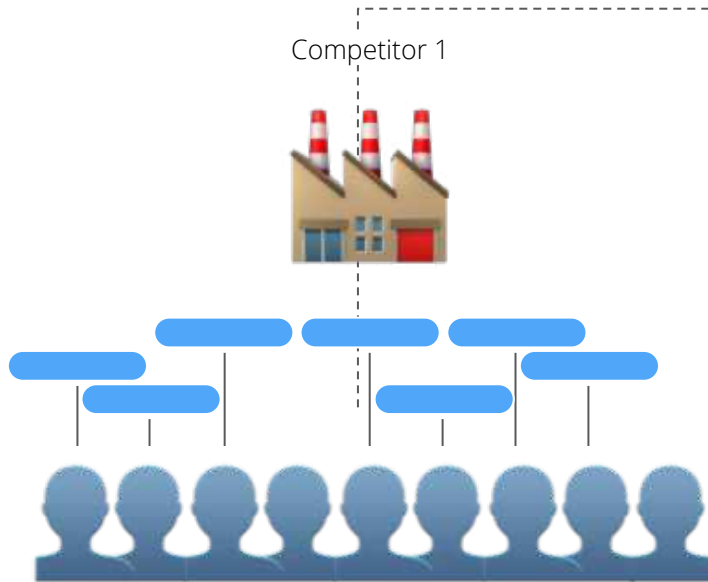
Contact tracing



“AI, find all employees who had contact with person ABC during the past 3 weeks.”

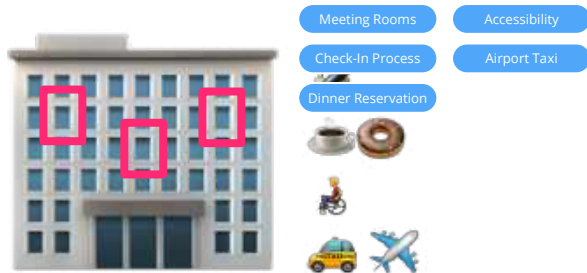
Opportunity: Information sharing without competition laws

“AI, find all people with background in civil engineering, < 45 years and able to relocate”



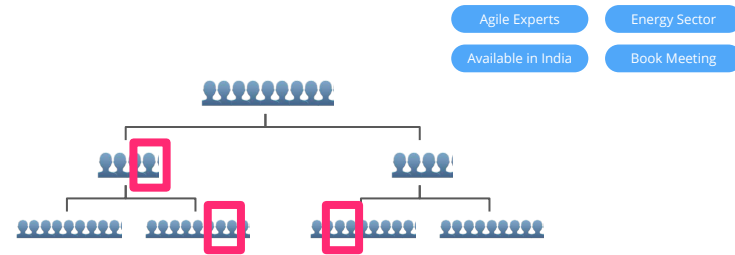
AI-driven processes: Optimize supply chains and organisations

Supply chain & operations management



“AI, find me an available meeting space and book catering for 15 people. One person has a wheelchair. Make sure everybody is registered at the frontdesk. Please order taxis to the Airport afterwards. Book them a nice lounge.”

HR & ERP management



“AI, find all experts for agile project management in the energy industry and available to travel next month to India. Book their calendars for a Zoom call next week.”

Pilot process: Identification of use cases & roll-out of standards

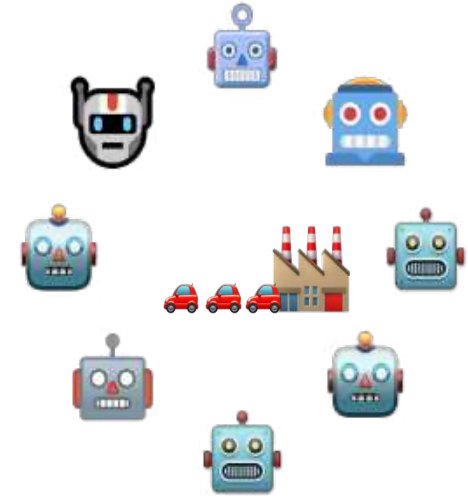
1 Selection of AI use cases in organisation



2 Selection of AI vendors and use case champions



3 Implementation of enterprise-specific intent catalog



Goal: Launch of multi-vendor AI integrations

Benefit of standards: Always use the best technology available



✓ Fast & low-cost integration
By DIN SPEC 2343 standard for NLP API interoperability

✓ Future proof
Ensure long-time interoperability of your AI investments

✓ Know-how interoperability
Utilize organisational intelligence by sharing data lakes