



ONDEWO

CONVERSATIONAL AI

**Digitizing public sector organizations
with Conversational AI**

**June
2019**

**European
Cities
Conference**

www.ONDEWO.com

High expectations for digitalization in public sector

Expectations

Customer experience

Making it easier for citizens to use government services.

Public value

Optimizing the return on public investment.

Citizen security

Keeping people, information and strategic interests safe.

Future workforce

Improving capabilities in the public sector and reimagining work.

Smart infrastructure

Helping societies and economies to function better.

Exemplary use cases



Virtual assistant Alex helps with general taxation enquiries

(Australian Taxation Office)



A chatbot will help get general information, book appointments, and handle highly personalized document services

(Singapore, Smart Nation initiative)



3 virtual agents (immigration, taxation, patent & company registration) seamlessly “hand over” in case of topic changes

(Finland)

Source: Ernst & Young

...need to overcome several severe challenges

Expectations

Customer experience

Public value

Citizen security

Future workforce

Smart infrastructure

Challenges

Quality of services

Enable meaningful interactions with citizens

Limited resources

Safeguarding a sustainable work-life balance

Data storage, ownership & security

Challenges to effectively comply with regulation

Safety and well-being at work

Pressure to master new technology

Internet connectivity

Both in private homes and public spaces



Source: Ernst & Young

Source: European Public Service Union (EPSU), CREE/CEMR

ONDEWO Conversational AI builds that bridge



Our AI understands human language ...



AUTOMATIC EMAIL ANALYSES IN CUSTOMER CARE CENTERS

EMAIL INPUT

Dear hiring department,

I am writing to you since I want to apply for a Software Developer position at your company.

My name is Julia and my last name is Maier. I just moved from Berlin to Burgasse, Mariahilf in Vienna.

Please call me tomorrow between 14:00 and 16:00 at +43 650 233682. Can you please tell me more about your recruitment process?

Best,
Julia

CLICK
TO
ANALYSE

AI UNDERSTANDS

Content (named entities)

- Country=Austria (NerVersion)
- Interview=Interview (NerVersion)
- sys.date-time={startDateTime: '2019-03-07T14:00:00.000-08:00', endDateTime: '2019-03-07T16:00:00.000-08:00'} (NerDuckling)
- sys.phonenumber=43650233682 (NerDuckling)
- Inform=Inform (NerVersion)
- Recruitmentprocess=Recruitmentprocess

Intent detected

1. 0.7437 i.customerdata.database (IntentMetaClassifier)
2. 0.1608 i.general.defaultfallback (IntentMetaClassifier)
3. 0.05237 i.job.interview_meeting_when (IntentMetaClassifier)
4. 0.01908 i.job.candidate_failed (IntentMetaClassifier)

► Interpreting text parts as **entities** (e.g., phone nr., time durations, address)

► Identifying **human intents** (e.g., “update my customer data”)

► < 1 sec for full NLP analysis

... saves a lot of time by filling forms for you

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CONVERSATIONAL AI

STAMMDATEN

| | | | | | |
|--------------------|---------------|---------------------------|---------------|------|--|
| Titel | Vorname | Nachname | Geschlecht | | |
| Dr. | Andreas | Rath | MANN | FRAU | |
| Staatsbürgerschaft | Geburtsdatum | Sozialversicherungsnummer | Familienstand | | |
| Deutschland | 21. Juli 1983 | 1234 210983 | ledig | | |
| Wohnort | Postleitzahl | Strasse | Land | | |
| Wien | 1070 | Neubaugasse 21a | Österreich | | |

RESET WEITER

INPUT VOICE

AI: VOICE-TO-TEXT

meine Sozialversicherungsnummer ist
1234 21 09 83
bin in der Neubaugasse
21a zu Hause

AI: NAMED ENTITY EXTRACTION

- Country: Deutschland
- FirsnameAustria: Andreas
- JobSimple: Hausmann
- LastnameAustria: Rath
- MaterialStatus: ledig
- PoliticalDistrictAustria: Wien
- PostalCodeAustria: 1070
- TitleAustria: Dr
- comp.address: Neubaugasse 21a
- sys.date: 1983-07-21T00:00:00.000-07:00

INPUT TEXT

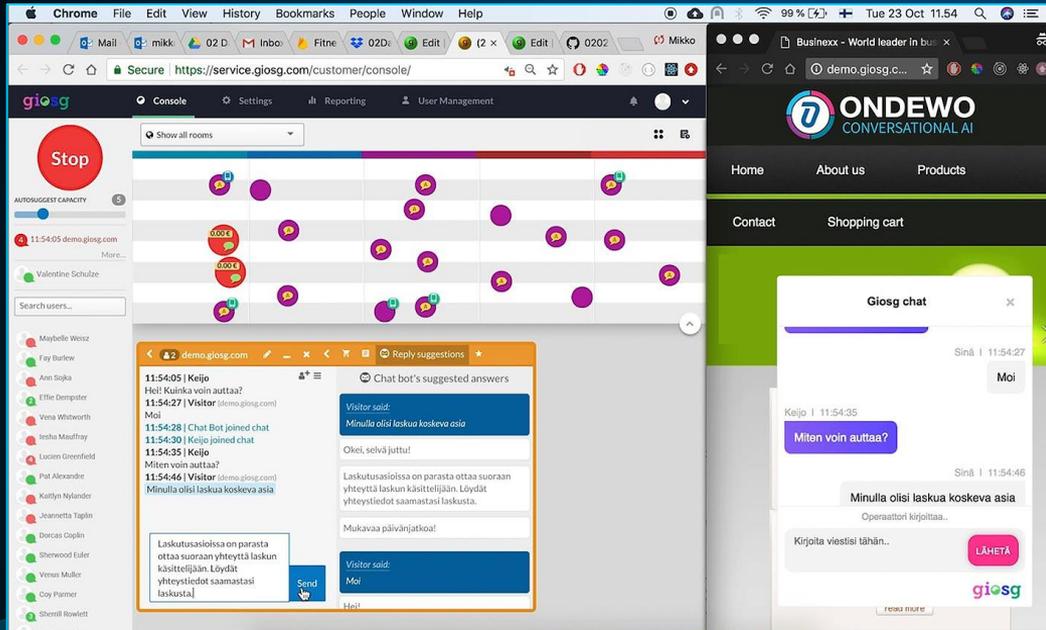
- ▶ Automates navigation of complex software solution or workflow engines
- ▶ Multiple languages even very difficult ones e.g., German, Finnish



Source: *Voice automation proof of concept 4 months*

<http://bit.ly/30bwhbC>

... and writes the best answers for you



► Saves 300,000 EUR per year (customer business case)

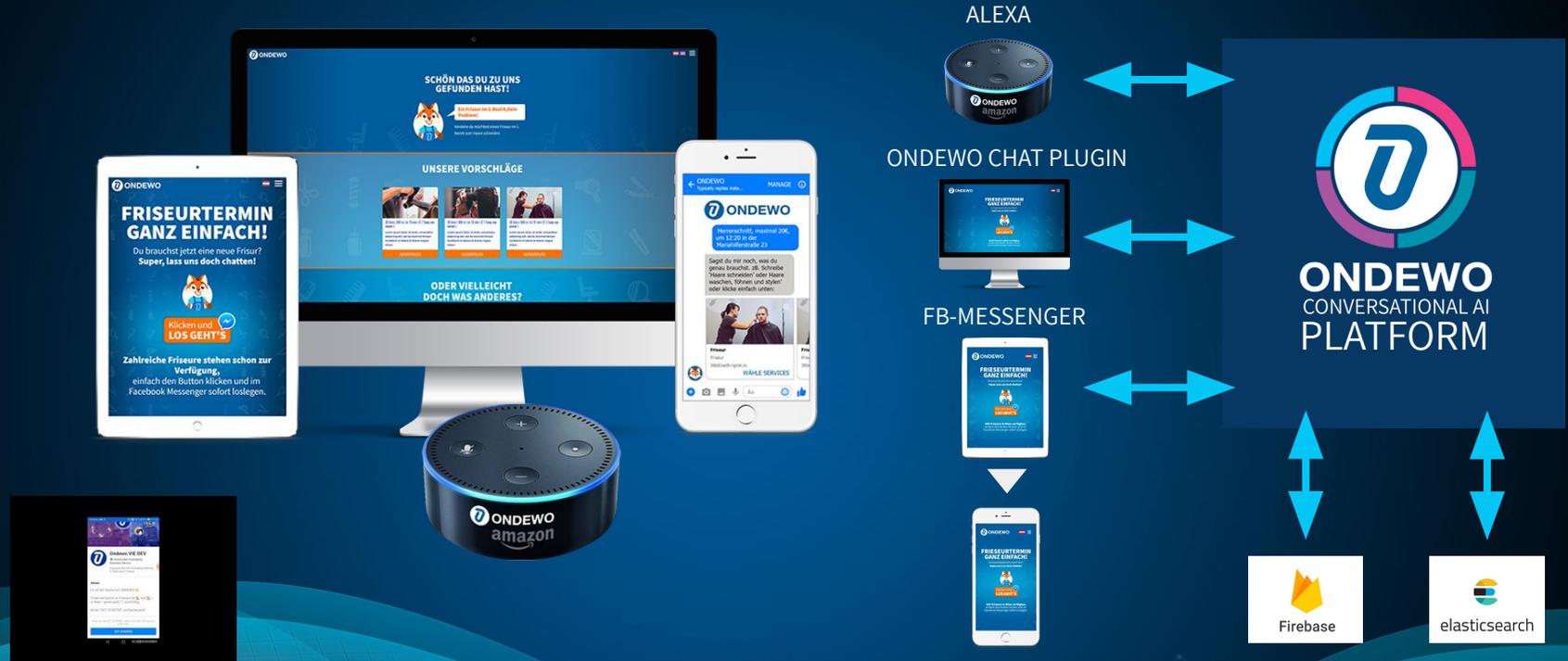
► Knowledge assistance and best practise answers for agents



<http://bit.ly/2Jfkhh3>

Source: Finnish call center proof of concept in 8 weeks

... makes voice assistants & chatbots smarter



<http://bit.ly/2vR7V9m>

Our partners and support network



Made possible by



aws PreSeed

Support grant for building an ambitious AI high-tech company 2017-2018 (0.2 MEUR)



FFG Early Stage

Foundation research grant to develop self-learning conversational brains 2018-2020 (0.5 MEUR)

Incubators



Technology Partners



Academic Partners



Contests



Media



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