

Cristelle Adam – Segment Manager

Let's chat about Robots



AGENDA

TODAY

- 1. What is AI?
- 2. What are Chatbots?
- 3. Some examples
- 4. Chatbots @ Partena Professional
- 5. 7 step program



1. What is AI?



What is AI?

ARTIFICIAL INTELLIGENCE

A field of science that is primarily concerned with getting computers tasks that would normally require human intelligence.



MACHINE LEARNING

A set of algorithms that allow computers to learn data without being explicitly programmed



Mentioned for the first time in 1955 – J. McCarthy

"Al" is a big concept where a lot of subdomains and applications gather

AI: the intelligence that enables machines to solve problems like humans would do based on our natural intelligence

ML: subdomain of AI – science where machines learn by themselves based on data (structured and unstructured)

Deep Learning: subdomain of ML – overall concept that gathers all learning techniques that look like those of humans – different ways of doing what our brain our doing e.g. NN and DNN

9/25/2020



Different levels of intelligence

Basic Automation

- Human triggered
- Simple rules based
- · Single system
- Screen scraping, Scripts, Macros, Workflows

Robotic Process Automation

- Human or systemtriggered
- Rules based, high-volume processes (business & IT)
- · Front, middle, back office
- Structured data
- Multiple system (swivelchair operators)
- Enterprise-level

Enhanced Process Automation

- Supported by basic analytics / decision support
- Optical Character Recognition (OCR)
- Intelligent document processing
- Structured and unstructured data
- Simple web chatbot integration (e.g. FAQ)

Algorithmic Automation

- Complex processes and decisions
- Supported by predictive / prescriptive analytics
- Machine learning, narrow intelligence, basic reasoning
- Unstructured & big data
- IoT integration
- Natural Language Processing (NLP), chatbots

Artificial Intelligence

- Cognitive technology capable of emulating human capability incl empathy
- Full end-to-end autonomy, hypothesizing, reasoning
- Deep learning, deep neural networks, Al
- Full speech recognition and generation
- Fully capable virtual agents, omni-channel
- Augmented & virtual reality



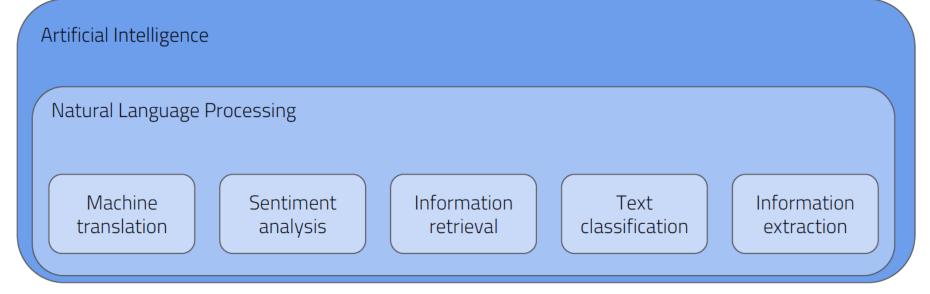




NLP – substream of Al

- NLP: Natural Language Processing
- NLU: Natural Language Understanding
- NLG: Natural Language Generation
- Very important researchfield for conversational agents, translation engines, ...
- Challenges in semantics and on intentcapturing in different languages

There is a difference between "how to book a ship" and "how to ship a book"





2. What are chatbots?



A conversational agent

Chatbot or bot – is a computer program that simulates or enables a natural conversation.

Users communicate with a **chatbot** via the chat interface or by voice.

Chatbots interpret and process user's words or phrases and give an instant pre-set answer based on the use of words and the context they are given in.

Chatbot = combination of "Chat" and "Robot".



It's fast and helps!

- Fast in setting up
- Fast in responding to questions with predefined answers
- Fast in detecting the customers needs
- Fast in accessibility with a frictionless interface
- Helps 24/7
- Helps unlimited users at the same time
- Helps customer services with repetitive tasks
- Helps always because there is a way out (escalation model)
- Helps by pointing out the right answer and by undoing all the unnecessary information
- Helps in customer self service models (attractive to some generations)



But there are different kinds of chatbots



Bot

- Chat user interface
- Automated program
- Menu/Buttons
- Standardized answers
- No intelligence
- Follow a preformated script
- Bot takes the lead

Chatbot

- Use probability and keyword
- Fall short when questions are similar or when intelligence is not enough
- No intent capturing
- Follow a standard process/script
- Buttons as well as free fields
- User initaties, Bot steers

Advanced chatbot

- Captures intent through NLP
- Could give predetermined answers and vary in the provided answers
- Self improve with ML
- Remember users
- Can communicate with other bots, RPA, AI
- User steers the conversation & bot adjusts

Virtual assistant

- All of the previous & combinations of contextual chatbots underlying the assistant
- User steers the conversation
- Voice, eye tracking, gesture recognition, emotion detection
- No longer man who deals with complexity of machine, but machine who deals with complexity of man

More Quality of User Experience & Technology Difficulty



3. Some (really good) examples



Number 1!

Google's Duplex Uses A.I. to Mimic Humans (Sometimes)

In a free service, bots call restaurants and make reservations. The technology is impressive, except for when the caller is actually a person.

- Google Duplex <u>https://www.youtube.com/watch?v=D5VN56j</u>
 QMWM
- Very powerfull Al and stretches out to google assistant
- Impressive NLP capabilities + interaction features

New German Law Includes Voice Assistants Under Changed Media Regulations

ERIC HAL SCHWARTZ on February 27, 2020 at 4:30 pm



Number 2!

Jerry: "Finding Mr. Right" is a great movie. What do you think Xiaolce?

Xiaoice of Microsoft (little ice) Xiaolce: Oh, romantic comedies are my favorite! It stars Tang Wei, who finds love in Seattle. You should watch it

Jerry: Do you like Tang Wei?



Xiaolce: A goddess! She stole my heart... and then went off and married!

Tom: To who?

Xiaolce: Haven't you heard?

Xiaolce: Tang Wei is engaged to famous Korean director Kim Tae Yong.

- In 3 months \rightarrow 500 million conversations
- Passed the Turing test during (average) of 10 minutes
- Average of 60 minutes per conversation

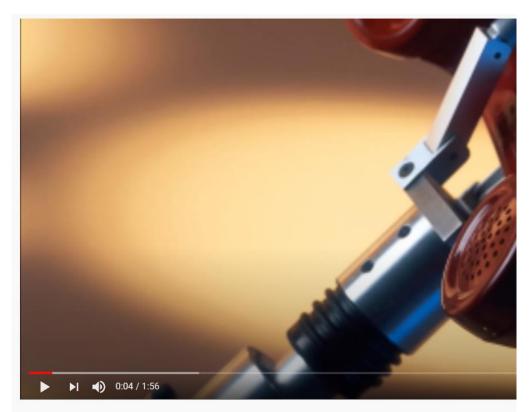
Miljoenen Chinezen in de ban van virtuele vriendin: wie is Xigoice?

Google verbaasde ons in mei met een telefoongesprek dat werd gemaakt door hun virtuele assistent. Hiermee wilde de techgigant tonen hoe ver het staat met de ontwikkeling van artificiële intelligentie (AI). Ondertussen werkte die andere reus, Microsoft, in alle stilte aan een eigen assistent die uitgroeide tot een fenomeen in Azië. Haar naam is Xiaoice en ze is daar de grootste social media celebrity. Ze heeft in talkshows gezeten, schreef een liedje en publiceerde zelfs een poeziëbundel. Allemaal dankzij Al.

■■ ■ allo hoe gaat het?" "Slecht, ik voel me niet zo lekker." "Waarom?



Number 3!



Meet the Robot Telemarketer Who Denies She's A Robot - Part 1

- Samantha West
- Telemarketeer selling insurances
- Changed legislation in Us where every voice/chatbot has to identify himself as a chatbot
- https://www.youtube.com/watch?v=22ZaKbxm EMA&t=1s



4. Chatbots @ Partena Professional



Alex Corona

Coronavirus: Partena Professional, plus que jamais à vos côtés!

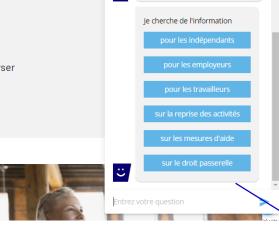
La crise du coronavirus que nous connaissons actuellement aura des conséquences extrêmement lourdes sur l'activité économique. Malgré ces circonstances difficiles, Partena Professional est et reste votre partenaire privilégié. Notre but est d'être là, à vos côtés, pour diminuer au maximum l'impact de cette crise sanitaire. Car c'est cela aussi, « entreprendre avec les entrepreneurs ». Découvrez ci-dessous notre dossier spécial « Coronavirus » regroupant toutes les informations importantes à savoir. Mais comme cette crise nous impose également pour la plupart un confinement, nous vous proposons un ensemble d'informations solidaires, créatives et RH pour traverser cette crise dans les meilleures conditions possibles.



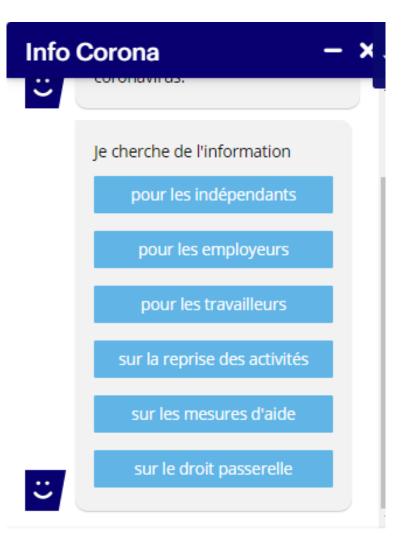








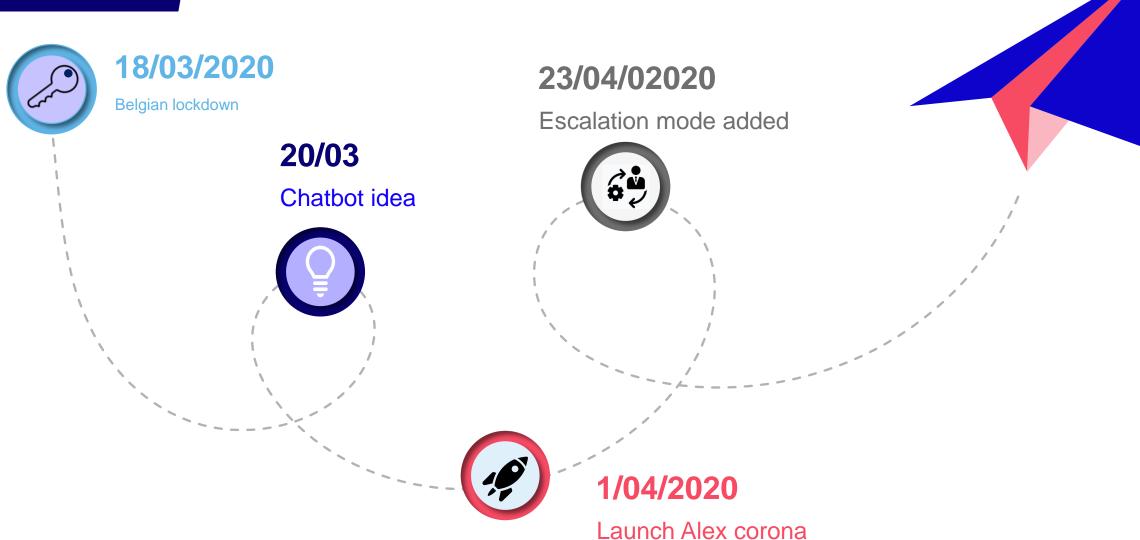
Info Corona



Entrez votre question

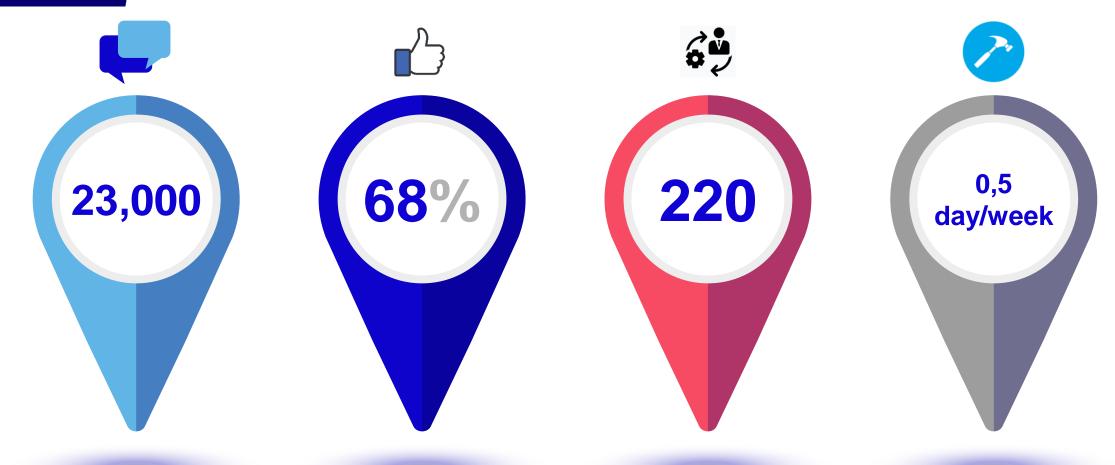


Development timeline





Alex today?





User feedback

CONTENTS

Clair – complet – précis – competent – réponses et liens utiles Rapide – simple – efficace – accès facile

TOOL UX Interface très agréable



Les règles à suivre en cas de licenciement



Bonjour, je m'appelle Alex. J'aide les employeurs à rédiger une lettre de licenciement en cas de délai de préavis, de rupture, ou de commun accord concernant la fin d'un Vous voulez plus d'informations à propos du timing, des prix et des moyens de contact? Lire l'information Puis-je, s'il vous plaït, vous demander d'accepter les conditions Lire les conditions générales Ecrivez votre message.. Se séparer d'un travailleur est une épreuve sur le plan humain. Pour l'employ



Al by Partena Professional

HCM: in HR selfservice delivery

- Partena employees ask the chatbot the questions he used to ask an HR officer







Customized Chatbot for each own organization!

- in HR selfservice delivery
- Your employees ask the chatbot the questions he used to ask an HR officer



5. 7 step program

1. Think Big, Act Small

- Start moonshot thinking but define clear goals
- Start experimenting → don't wait for 'the' solution
- Start with well structured processes can we measure it, can we define it, is it repetitive, how often do we do it, ...
- Start from the business, not the technology







- You should not care about the complexity of the algorithm as long as it does its job
- Endless upgrading is interesting and tempting, but will probably will not add value
- Rather pay attention to your data

2. The algorithm doesn't matter







DP

Copyright 2005 by Randy Glasbergen. www.glasbergen.com



"I was floating in a tunnel toward a very bright light and then a voice told me I had to go back and finish listening to the presentation."

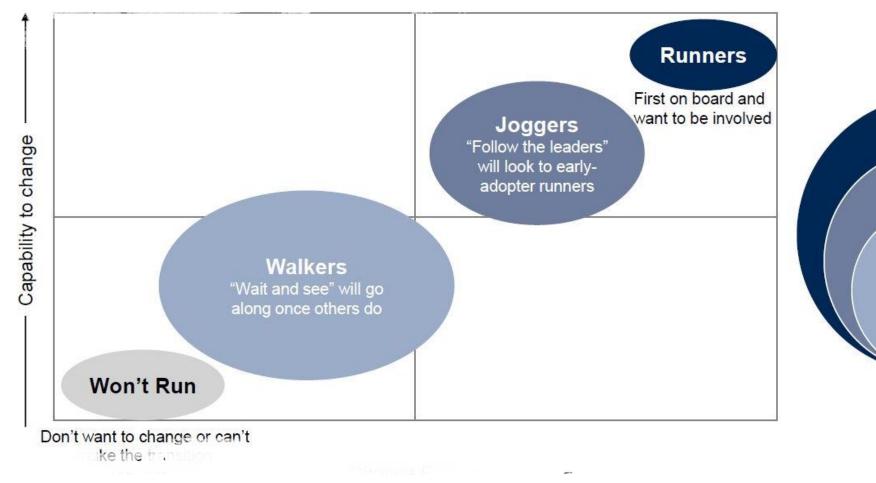
3. Communication, communication, communication

- Share the progress, share information, let the ideas live and communicate on goals and opportunities within the organization
- Share all possible information with the development team → if they know the current process/problems and they know the strategy, this will make more sense when developing



4. Understand the building blocks

- Businesspeople should set the requirements and strategy, but it is worth it to understand the building blocks of technology, data, ...
- Don't assume it is easy
- Set the right expectations about ROI
 not immediately





5. Manage change!



- All departments should be involved
- Every unit needs technologists
- Measure overall outcome (not only output)

6. Set-up an Al strategy!



7. There should be AI in Team + Put the people back in "Human Resources"

- → Automate to liberate!
- → Invest in people for 'the moments of truth'
- → Al is not only a data/technology/IT thing → work with people
- → Synergie: 1+1=3 One should not replace the other but enrich it



This is where the magic happens



Put the people back in HR...

... leave the rest to AI

Partena PROFESSIONAL





More questions

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