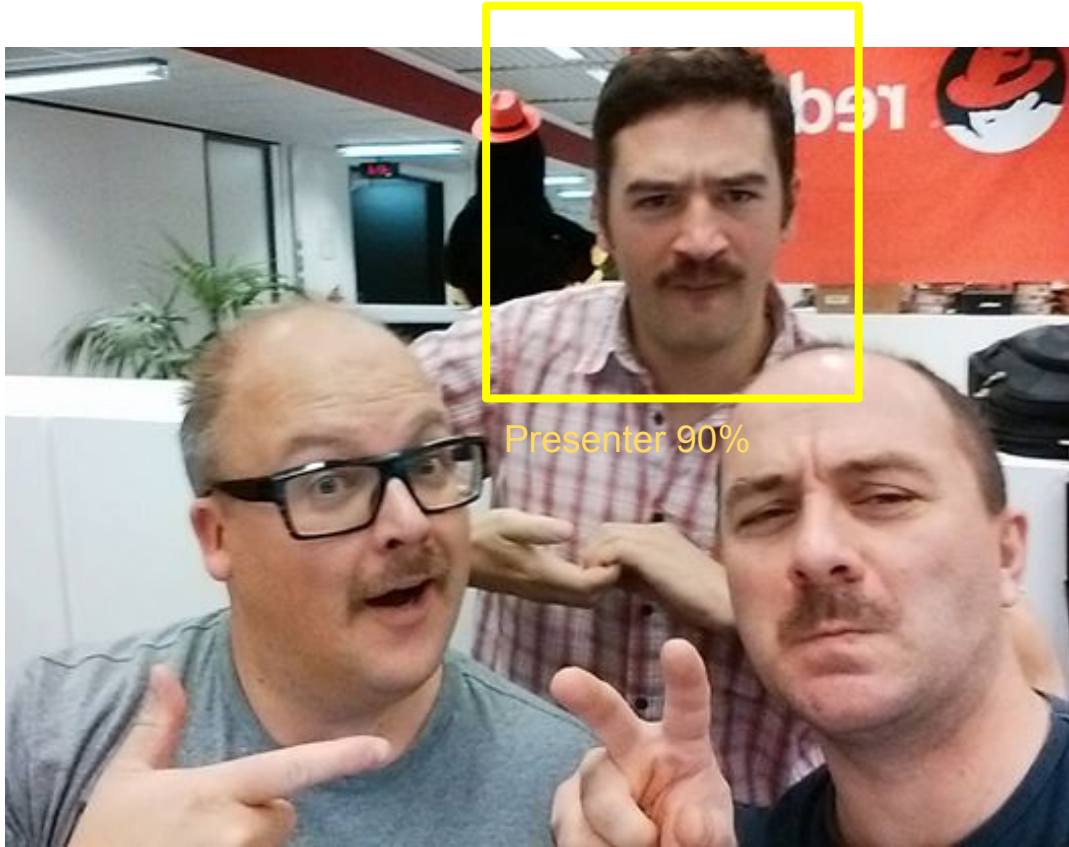
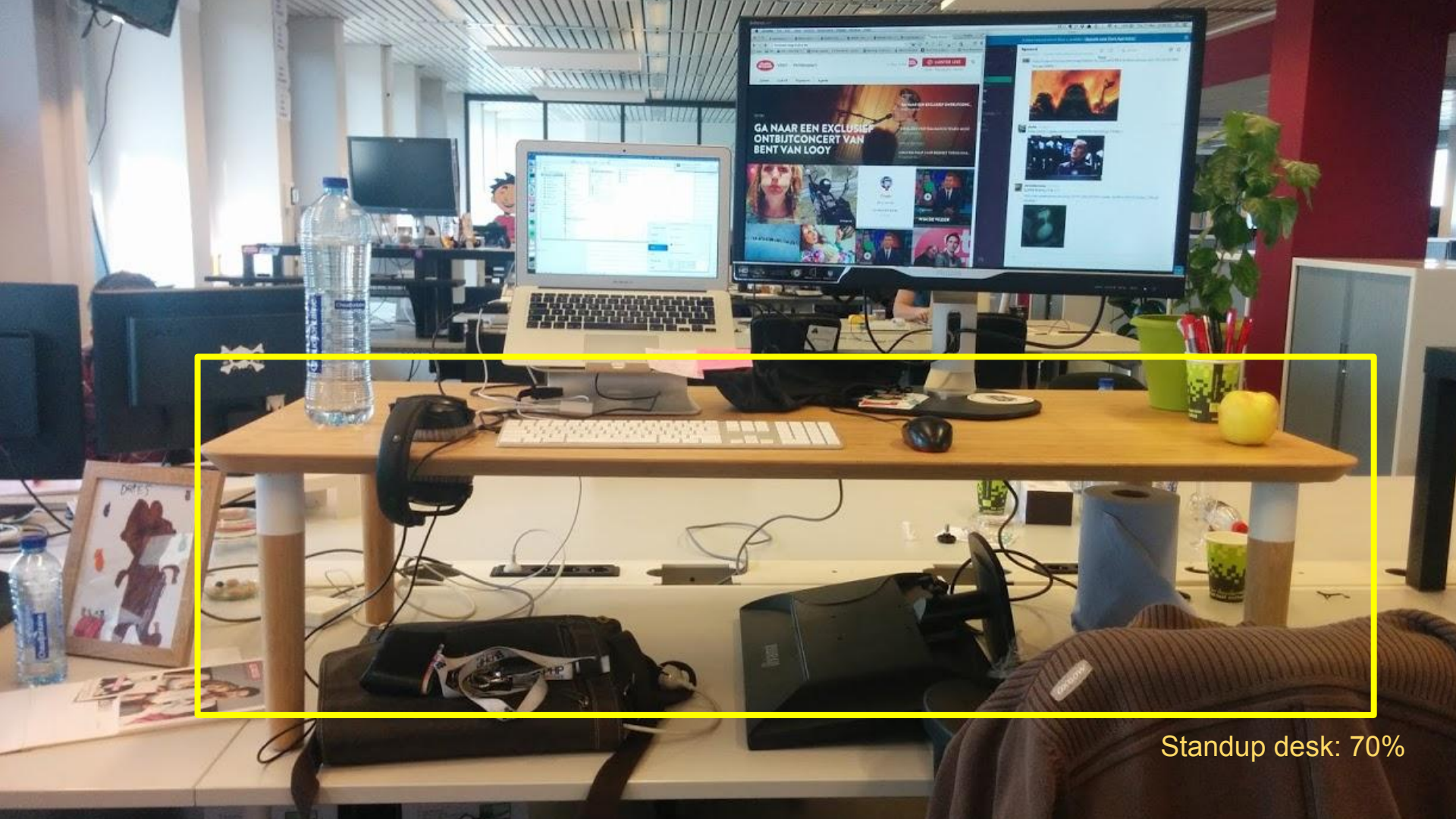




Feed your Chatbot Drupal data
@wouters-f



- Open source enthusiast
- Pleasantly disturbed
- Father of 2 boys
- Active
- Gymnastics coach
- Freelancer
- Runner
- Skier



Standup desk: 70%



Belgium

[LinkedIn](#)
[Facebook](#)
[Twitter](#)
[Google](#)
[Gratipay](#)

Current Role(s):

Freelance

IRC: drupal_sensei

Professional Info

Companies Worked For
Medialaan, [Wieni](#), Amplexor, imec, KBC ICT

Industries Worked In:
Content management, Research and development, Bank, Mainframe, Media, Television/Radio

Personal Info

Gender: male

Languages spoken: Dutch
English
French
German

Bio:

Worked @KBC maiframe on (very) high availability software.
Started actively following drupal in 2010
Interested in solr geospatial search since 2011
Presented about solr spatial on drupal dev days in 2011
Attended drupalcon London 2011
Attended drupalcon prague 2013
Attending drupalcon Barcelona 2015

History

Member for 7 years 1 month

Drupal Contributions:

I love to create issues...
Contributions to modules on d7.
Minor contributions to core d7.
Contributions to modules on d8.

Areas of Expertise:

Enterprise Drupal
Varnish/Solr
Module developer
Usability enhancer ,command line enthusiast
Elasticsearch

Drupal Events:

DrupalCon London 2011
DrupalCon Prague 2013
DrupalCon Barcelona 2015

Credited on 3 issues fixed in the past 1 year

[S3 File System](#), 1 issue
[Lightweight Directory Access Protocol \(LDAP\)](#) , 1 issue
[Webform References](#), 1 issue

Projects

[Commerce Europabank \(unofficial\)](#) (20 commits)
[asf_old](#) (20 commits)
[Mixcloud Field](#) (12 commits)
[date time picker](#) (11 commits)
[Advanced scheduling field](#) (11 commits)
[Apachesolr Sort](#) (8 commits)
[System Status](#) (7 commits)
[requestador](#) (6 commits)
[commerce I agree](#) (5 commits)
[Desktop notifications](#) (4 commits)
[deploy_version_date](#) (3 commits)
[Out of the blocks](#) (2 commits)
[Display Suite](#) (2 commits)
[Selligent](#) (2 commits)
[Webform References](#) (1 commit)

Hey! Want to support the Drupal Community, Drupal.org's infrastructure, and get one of the cool [Drupal Association](#) badges on your profile page? [Become an Individual Member](#) today.

My mentors:



One person lists [wouters_f](#) as a mentor

I contributed Drupal patches
I contributed Drupal modules
I contributed to Drupal issue queues
I contributed Drupal documentation
I provide Drupal-related services

CHATBOT

DEV

DRUPAL



*“A computer program designed to **simulate** conversation with human users, especially over the Internet.”*

Obligatory Wikipedia reference

!chatbot



Chatbots are a
business problem





BE : (078 05) 12 00
NL : 0900 - 8002







Agentschap Inf... 🔔

Frederik Wouters 👤

🔍 Jump to...

📁 All Unreads

🔍 All Threads

★ Starred

content-api-devs 1

digitale_hulp_aws

🔒 webplatform_dev

webplatform_drupal

Channels ⊕

announcements

bl_tech_boetseer

de-separee

docker_feedback

dvr-jira

mbp_communicatie

openingsuren

or-jira

po_digitalehulp

🔒 productteam_pers_ond

🔒 teamactiviteit

vac_brussel

Direct Messages ⊕

♥ slackbot

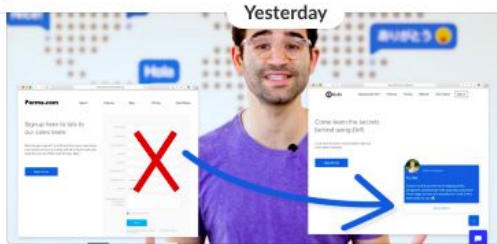
Frederik Wouters (... 👤)

Adriaan Meuris 👤

Vincent Sennesael 🇳🇱, leen reyniers 🇳🇱

☆ 👤 3

🔍 Search @ ☆ ⋮



fijn artikel trouwens: <https://medium.com/the-mission/the-best-sales-pitch-ive-seen-all-year-7fa92afaa248>

 Medium

The Greatest Sales Pitch I've Seen All Year - The Mission - Medium

It's Drift's and it's brilliant. Here's why.

Reading time
9 min read

Oct 24th, 2017 (103 kB) ▾




+ Message Vincent Sennesael, leen reyniers @ 😊

Downloads Clear all ✕

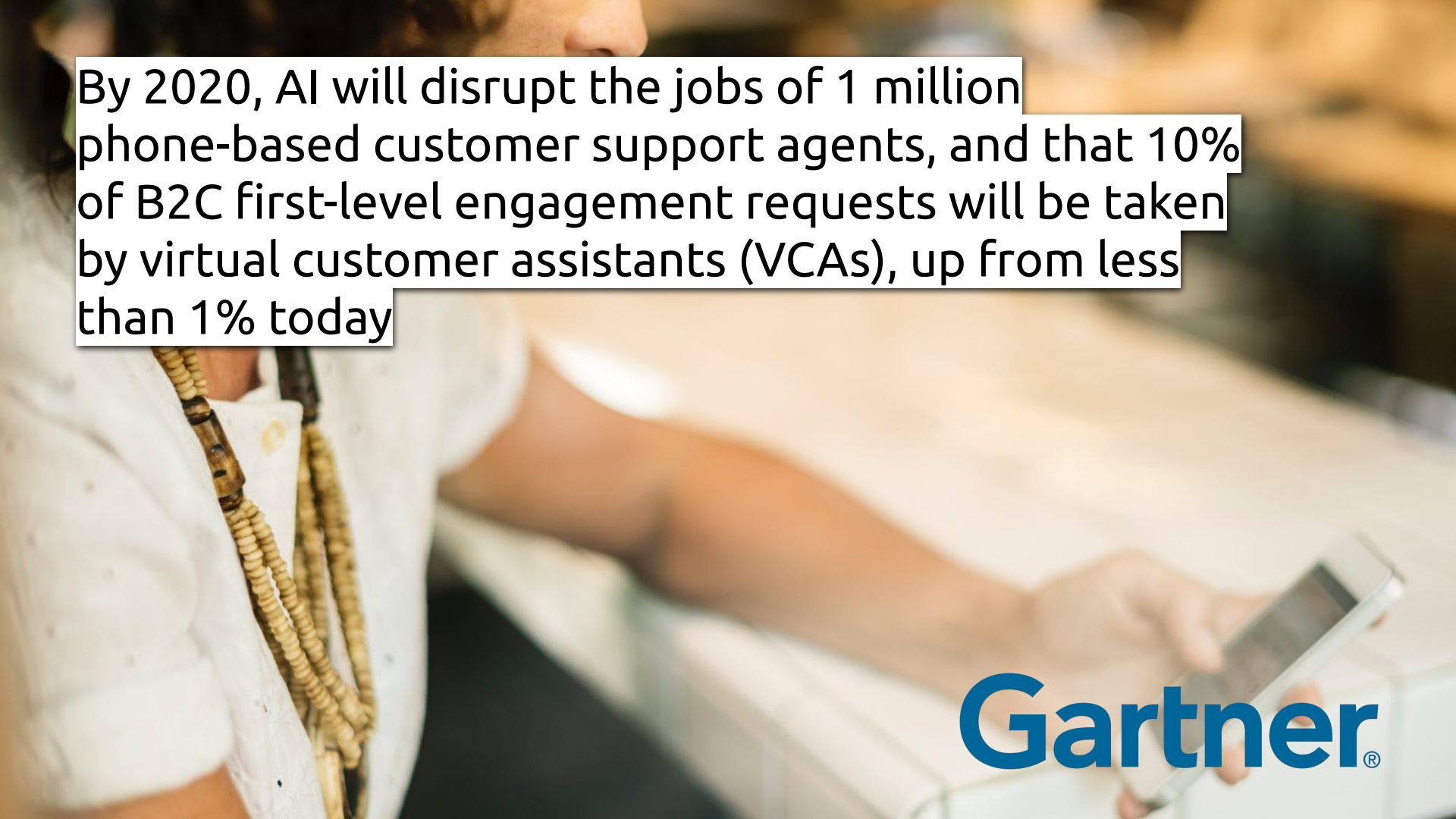
-  contactOpties.zip
-  Screen Shot 2018-10-16 at 11.25.45.p...
-  SPRINT 18.pptx

Hold **Shift** to open the file.



By 2020 the average person will have more conversations with their bot than with their spouse.

Microsoft®
Research



By 2020, AI will disrupt the jobs of 1 million phone-based customer support agents, and that 10% of B2C first-level engagement requests will be taken by virtual customer assistants (VCAs), up from less than 1% today

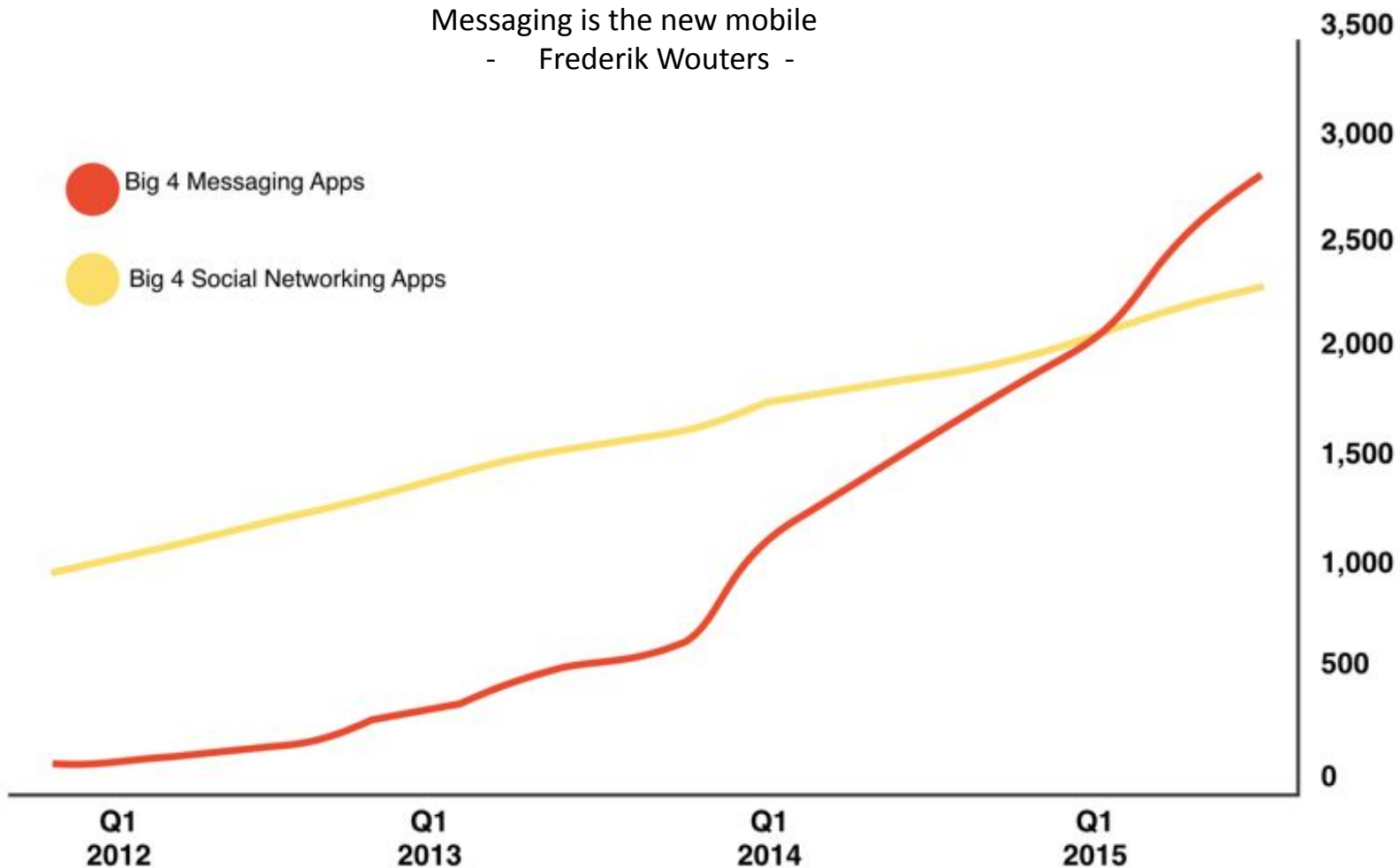
Gartner[®]

Messaging is the new mobile

- Frederik Wouters -

● Big 4 Messaging Apps

● Big 4 Social Networking Apps



START

HOW GREAT LEADERS INSPIRE
EVERYONE TO TAKE ACTION

WITH

SIMON SINEK

WHY

WITH A NEW
PREFACE
AND
AFTERWORD

Vlaanderen

Voornaam *

Voornaam (verplicht)

Naam *

Naam (verplicht)

E-mailadres *

E-mailadres (verplicht)

Bericht *

Bericht (verplicht)

Bijlagen

Bijlagen mogen maximaal 10 MB groot zijn.

 [Bijlage toevoegen](#)

Sleep de bijlage naar dit venster om het te uploaden

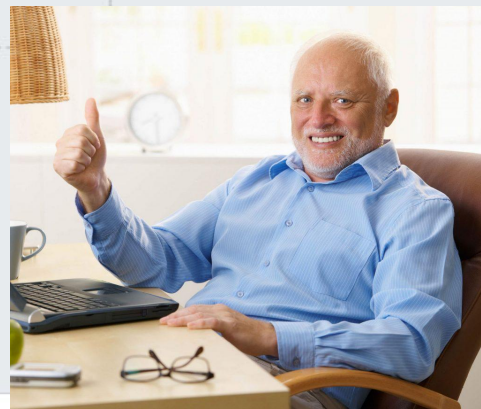


Ik ben geen robot

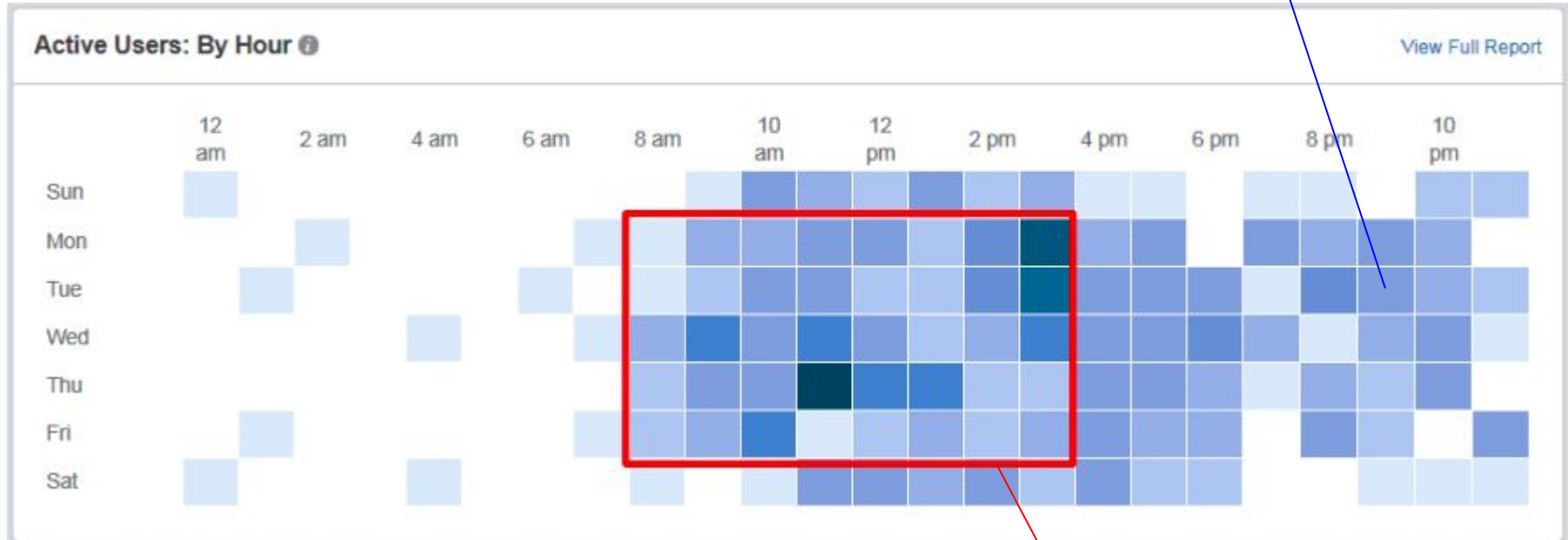


reCAPTCHA
Privacy - Voorwaarden

Bericht versturen



People using chatbots



Classic opening hours

OPEN

24/7

10TH IN LINE

I LOVE WAITING MUSIC



- Multi channel consistency
- Client Autonomy



 works with the
Google Assistant

 amazon alexa

 Viber

 skype™

 Cortana

 facebook®

 twitter

 slack

 Telegram



2018

amazon

IBM



Google



WE UNDERSTAND DUTCH TEXT

Why not?





"Susan, can you come in here? I've got some more crap for you to put up with."



=





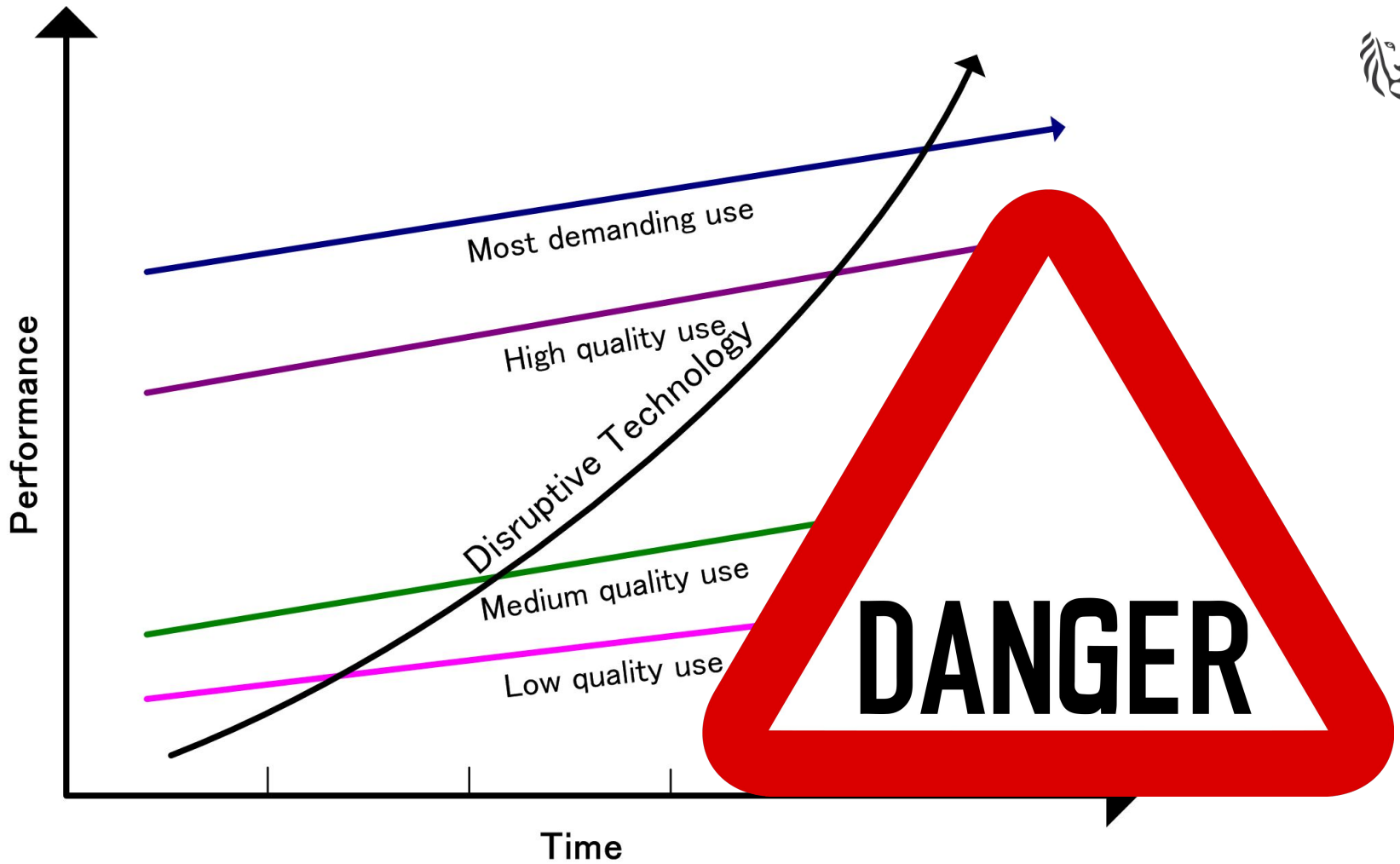
Beste, kan ik een attes van vorig jaar opvragen ? Ik zou z ogezegd over mijn uren zijn gegaan, maar volgens de app had ik nog 72uur over vorig jaar. Alvast bedankt.

#bedanken



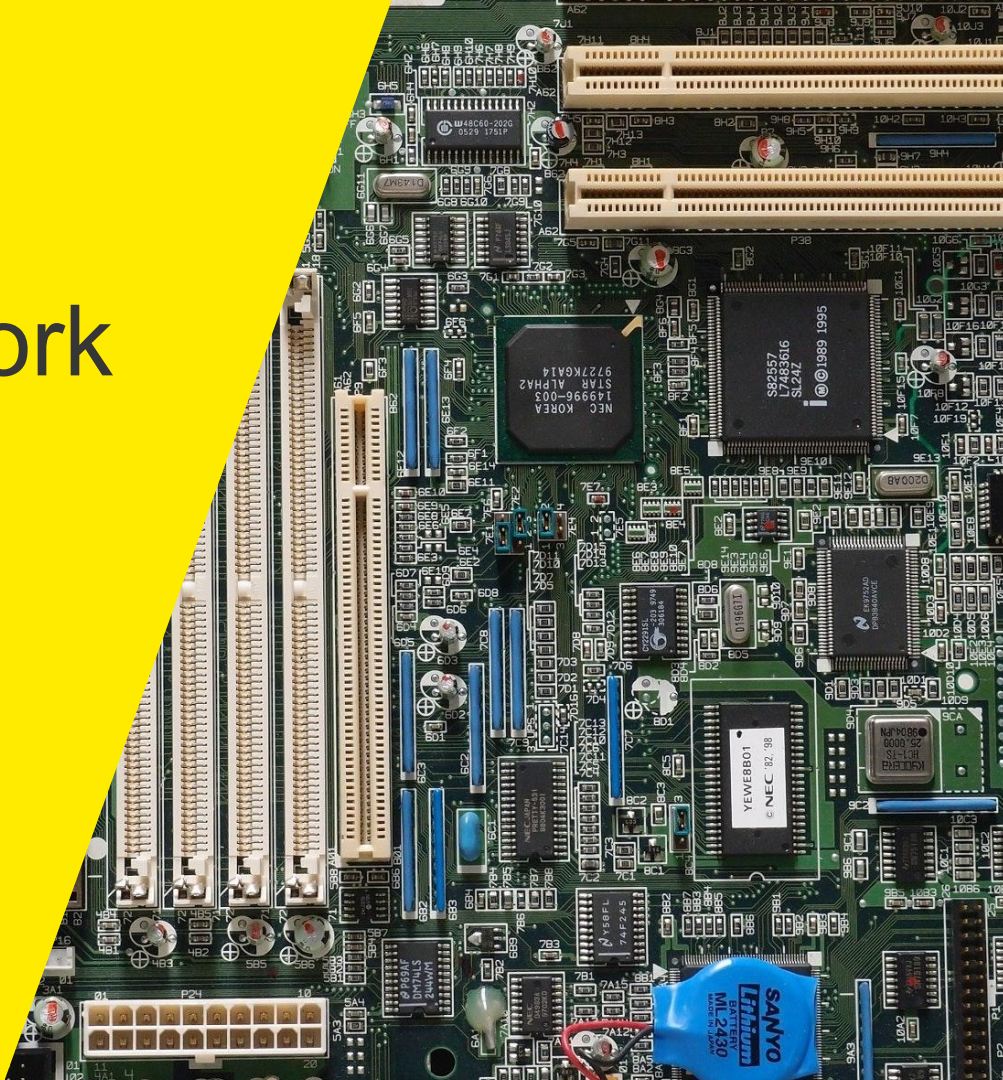
| Graag gedaan ;)

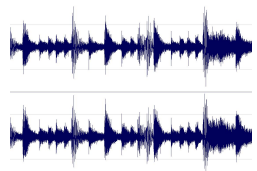




How does it work

NLP?

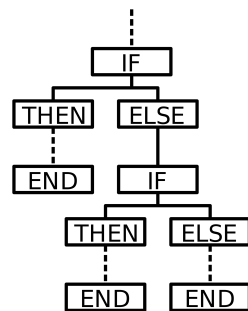




Speech to text

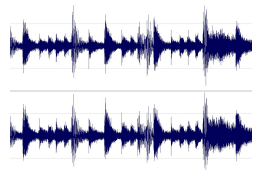
abc

NLP



DETECT INTEN

- Actions
- Parameter
- api calls
- ...



text to speech

abc

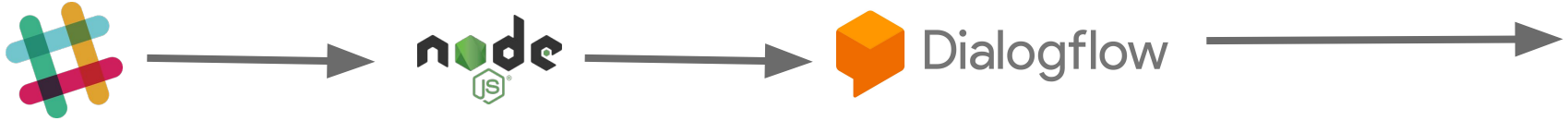




Dialogflow



Messaging portal Frontend



Messaging portal
Frontend



Dialogflow



Middleware

Messaging portal
Frontend



Middleware



**Backend
NLP/Learning**

Dialogflow



Messaging portal
Frontend



Middleware



Backend
NLP/Learning

Dialogflow



Fulfillment

Website

App

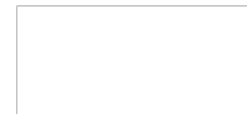
Messaging portals



Virtual Assistants



Smart Objects



Middlewares

- Botkit (node.js)
- Hubot (by GitHub, in CoffeeScript)
- Cloudbot (Python IRC bot)
- Lita.io (Ruby)
- Lazlo (Go/Lua)

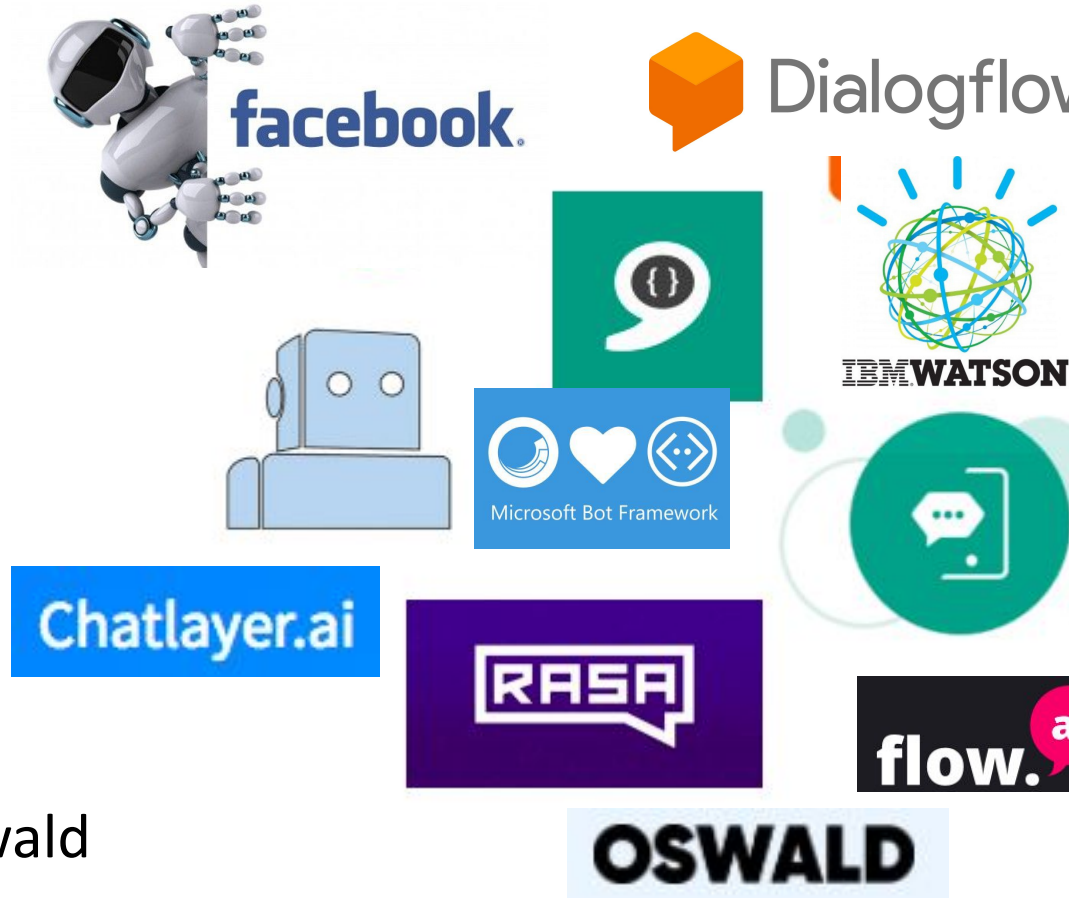
Cloud

- Google Dialogflow
- IBM Watson
- Microsoft LUIS
- Facebook Wit.ai
- Oracle Intelligent Bots
- Flow.ai

On-premise

- Open source: RASA
- Cronos: Craftworkz Oswald
- Faktion: Chatlayer.ai

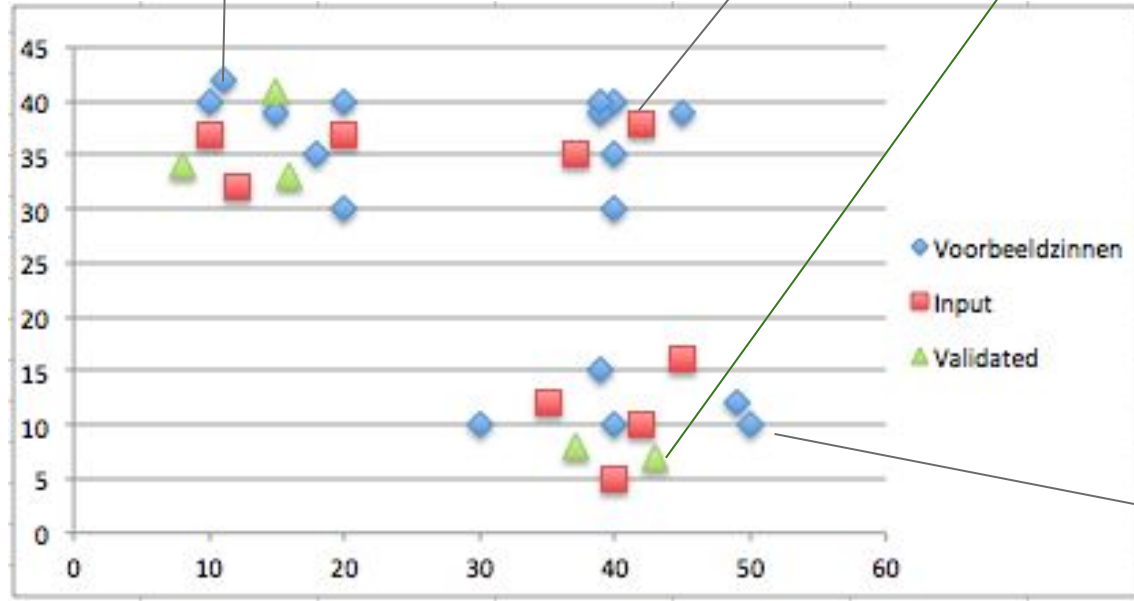
most on-premise solutions probably RASA-based



Intent: Weather request

Intent: Menu

Self learning? - Tay



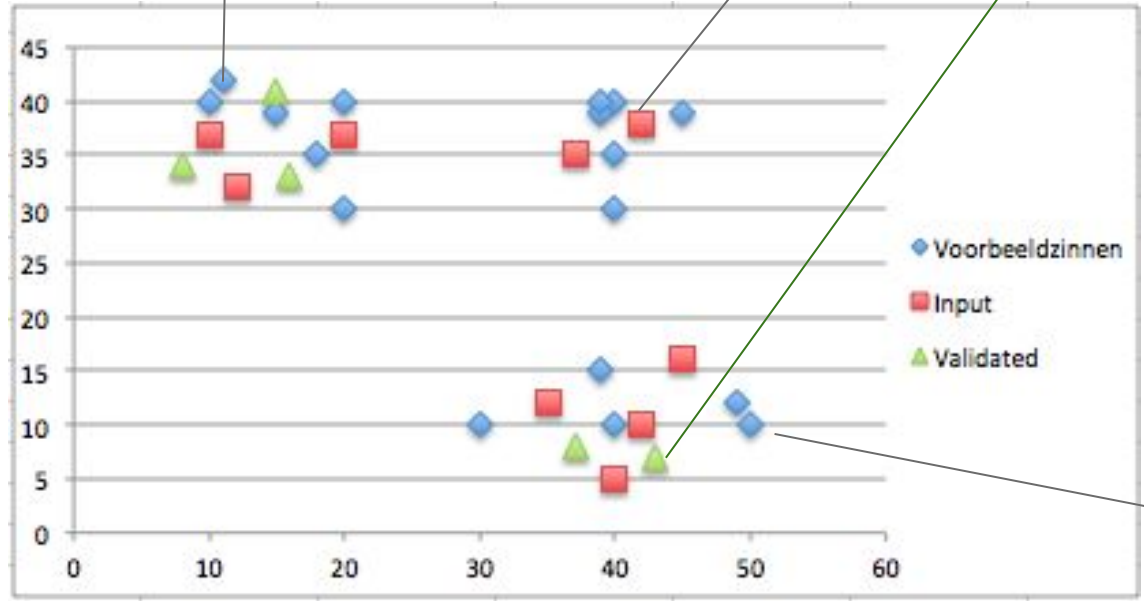
Intent: Time request

Intent: Weather request

Intent: Menu



Human in the loop



Intent: Time request

Intent: WeatherRequest how hot is it today? → api.test/getWeather?date=20180303

System Entity: Date

Intent: HandoffPhone Call me at 0498535576 → api.test/startCall?phone=0032498535576









System entity: PhoneNumber

Intent: SandwichOrder I would love a white sandwich with cheese please

User entity: Sandwich type

User entity: Spread

Prebuilt Agents

name		controlled settings, and preferences	
 <p>Currency Converter</p> <p>Get exchange rates for major currencies</p>	 <p>Date</p> <p>Date calculator and holiday lookup</p>	 <p>Device</p> <p>Control your device settings</p>	 <p>FAQ</p> <p>A very simple FAQ agent</p>
 <p>Flights</p> <p>Find, create and manage reservations for flights</p>	 <p>Food Delivery</p> <p>Create and manage food and drink orders</p>	 <p>Formats</p> <p>Control default units of measurement</p>	 <p>Hotel Booking</p> <p>IMPORT</p> <p>VIEW DETAILS</p>



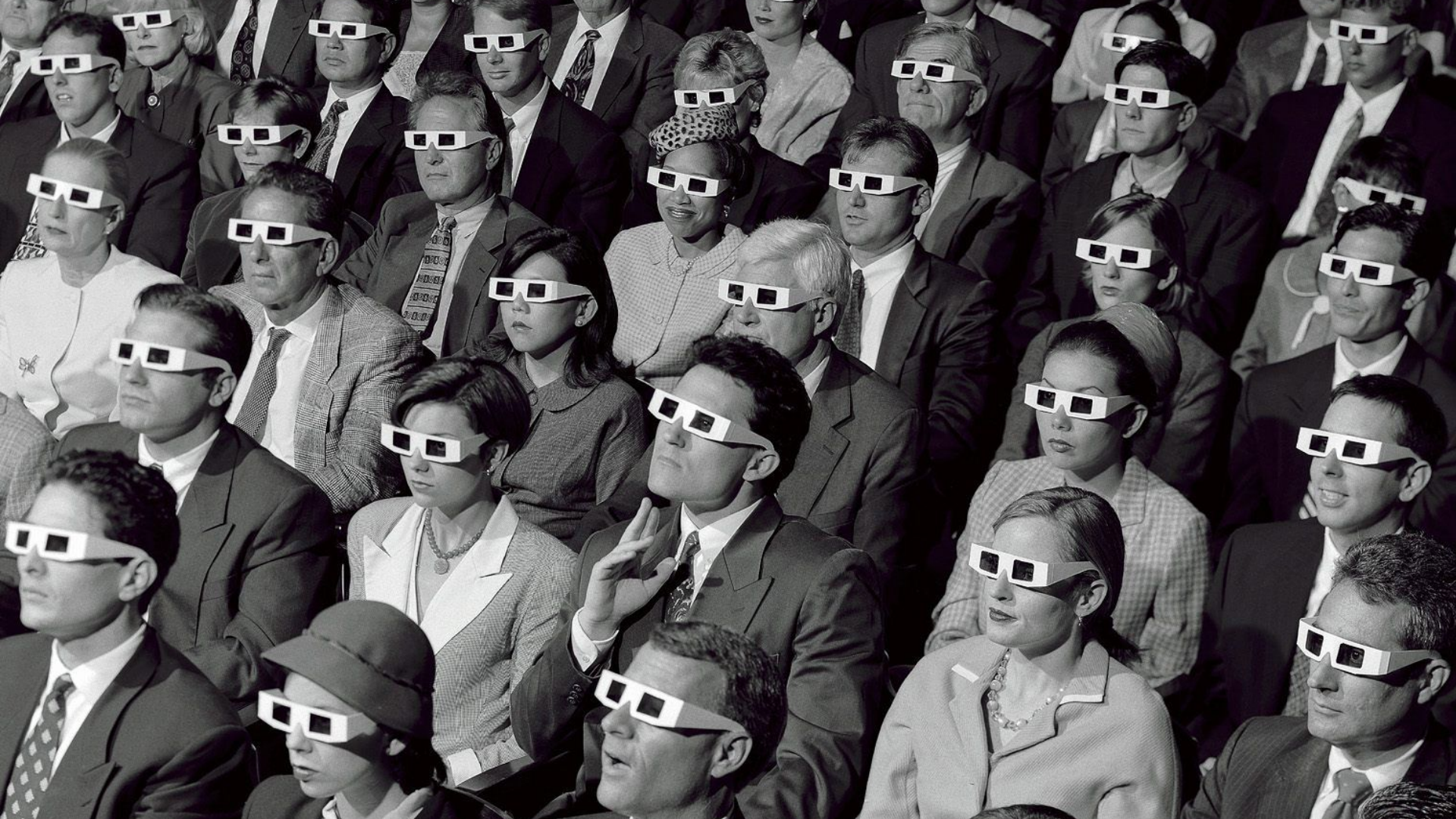
Give your
bot a personality

“If you don’t spend the time crafting that character and motivation carefully, you run the risk of people projecting motivations, personality traits, and other qualities onto your App and brand that you may not want associated with them.”

— [Oren Jacob \(Google I/O '17\)](#)



People prefer an agent
with an easy to perceive
personality



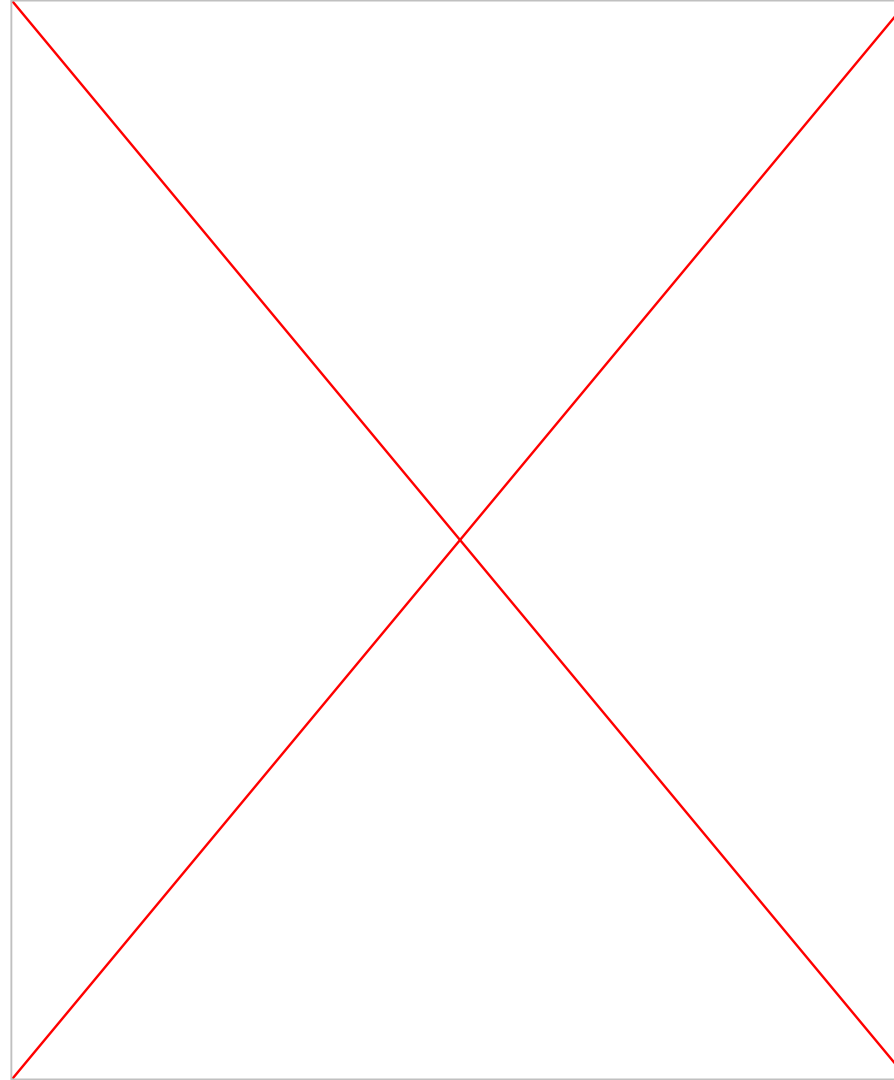


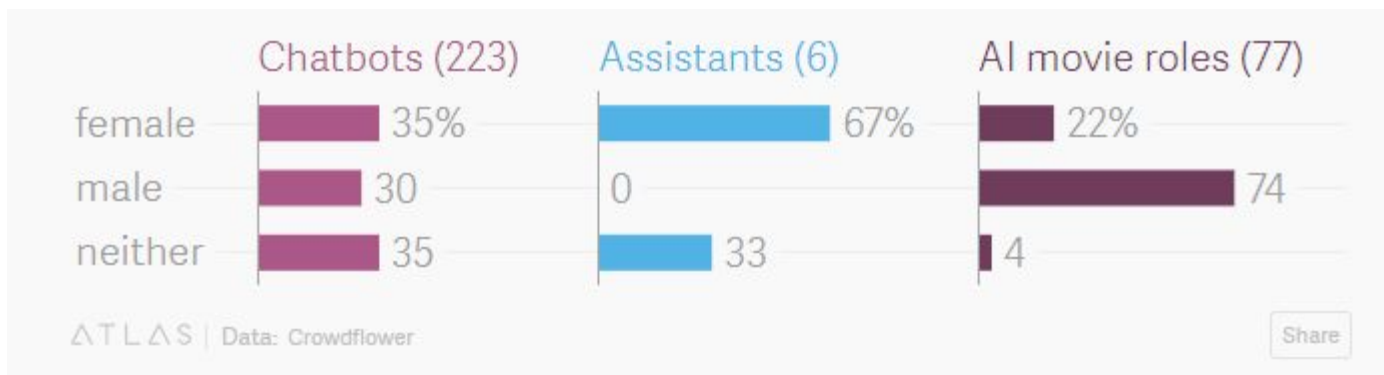
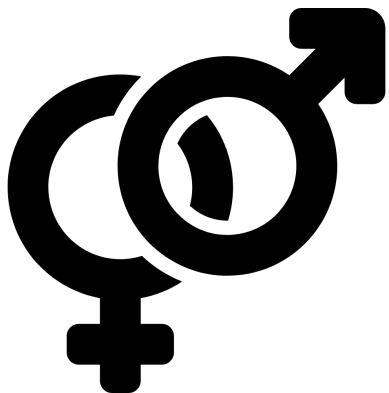
wee wee



Write for the ear, not for the eye

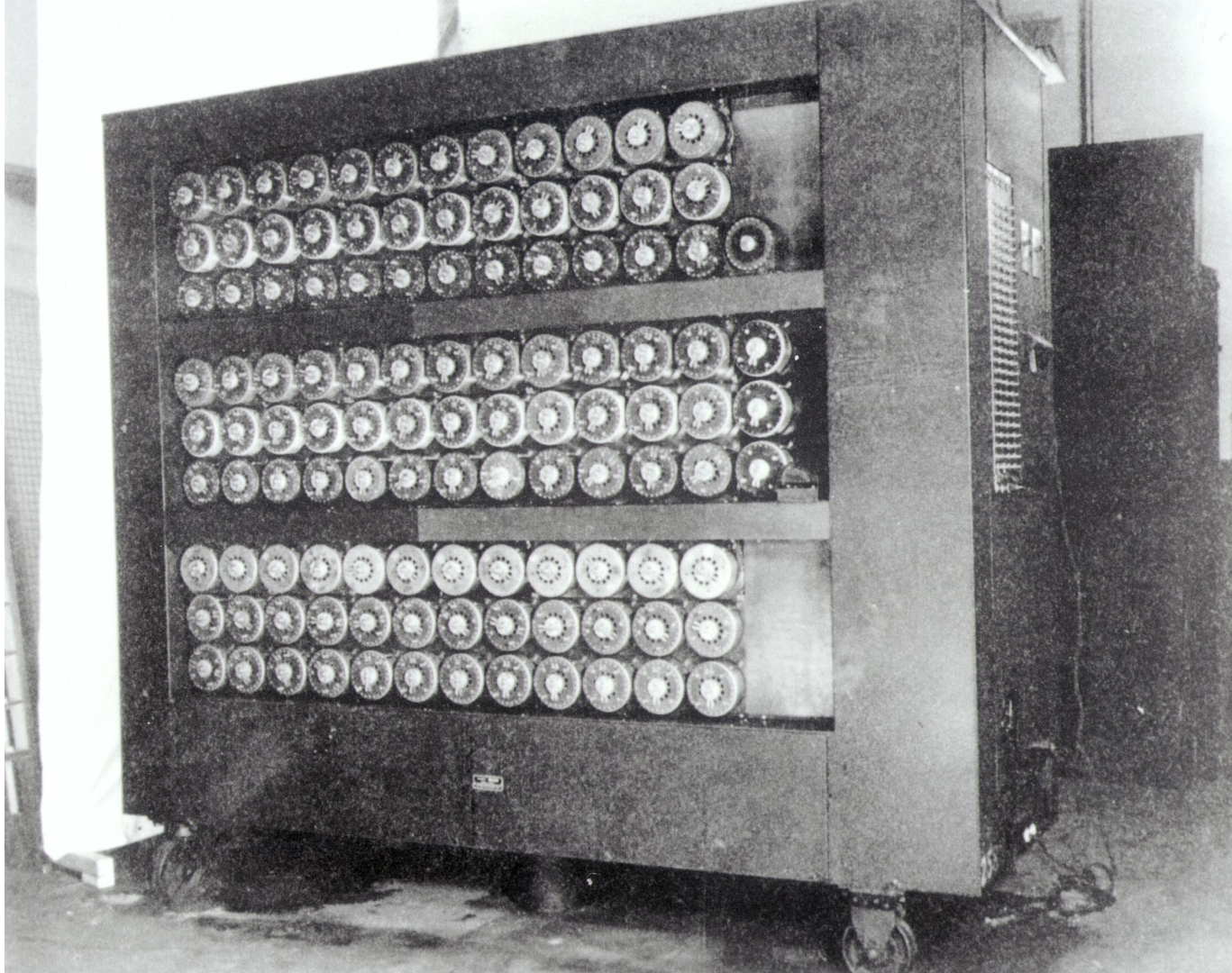
- 😊 Grinning Face
- 😄 Beaming Face With Smiling Eyes
- 😂 Face With **Tears** of Joy
- 🤪 Rolling on the Floor Laughing
- 😄 Grinning Face With Big Eyes
- 😄 Grinning Face With Smiling Eyes
- 😓 Grinning Face With Sweat
- 😏 Grinning Squinting Face
- 😉 Winking Face
- 😄 Smiling Face With Smiling Eyes
- 😋 Face Savoring Food
- 😎 Smiling Face With Sunglasses
- 😍 Smiling Face With Heart-Eyes
- 😘 Face Blowing a Kiss
- 😗 Kissing Face
- 😙 Kissing Face With Smiling Eyes
- 😚 Kissing Face With Closed Eyes
- 😊 Smiling Face
- 😊 Slightly Smiling Face
- 🤗 Hugging Face
- 🤪 Star-Struck
- 🤔 Thinking Face
- 🙄 Face With Raised Eyebrow
- 😐 Neutral Face







Tell your users
they are talking
to a bot



A California law now means chatbots have to disclose they're not human

By [Dave Gershgorn](#) · October 3, 2018

Check out Quartz on Instagram

Follow us

California governor Jerry Brown signed regulations into law last Friday (Sept. 30) that should make it easier for Californians to know whether they're speaking to a human or a bot.

The new law goes into effect on July 1, 2019—Botageddon, as we're going to call it—and could have far-reaching consequences for how automated systems communicate with people online. It will require companies to disclose whether they are using a bot to communicate with the public on the internet (something like “Hi, I’m a bot.”) A representative for California state senator Robert Hertzberg, who

Het gebruik van automatische oproepsystemen zonder menselijke tussenkomst of faxen met het oog op direct marketing is verboden zonder de voorafgaande, vrije, specifieke en geïnformeerde toestemming van de geadresseerde van de boodschap.

U kunt uw toestemming te allen tijde zonder reden en zonder enige kosten terugtrekken.

De afzender draagt de bewijslast van de naleving van zijn wettelijke verplichtingen.

Ongewenste communicaties voor direct marketing met andere technieken dan geautomatiseerde oproepsystemen en faxen, zijn toegelaten bij afwezigheid van een duidelijk verzet hiertegen van de geadresseerde, fysieke of morele persoon.

U kunt uw recht op verzet gratis uitoefenen. De afzender mag u hiervoor geen kosten aanrekenen.

Voor telecomabonnees, moet de operator volgende regels respecteren:

De telecomoperator moet:

- het verzet van de abonnees tegen het gebruik van hun telefoonnummer registreren in een gegevensbestand binnen vijf werkdagen na het verzoek;
- de registratiedatum meedelen aan de abonnee op schriftelijke wijze of op een duurzame drager; uitdrukkelijk, schriftelijk of op een andere duurzame drager
- de aandacht van de abonnee vestigen op zijn recht op verzet bij het aangaan van de overeenkomst;
- erop toezien dat de abonnee gratis verzet kan aantekenen, per telefoon, e-mail of post;
- het gegevensbestand bijhouden;
- het gegevensbestand ter beschikking stellen van personen die aan direct marketing doen.

Ondernemingen (boek VI WER) - [art. VI.110 e.v. WER](#)

Vrije beroepen (boek XIV WER) - [art. XIV.77 e.v. WER](#)

Opgelet!

Elke telefonische oproep voor direct marketing naar een telefoonnummer dat is opgenomen in het gegevensbestand is verboden.

Bij verzending van reclame met een andere techniek dan een geautomatiseerd oproepsysteem of fax, moet de onderneming of de beoefenaar van een vrij beroep, uit naam waarvan de communicatie plaatsvindt, haar of zijn identiteit bekendmaken.

Wilt u geen reclameoproepen meer ontvangen

SCHRIJF U IN OP BEL ME NIET MEER

1

A bot that does ONE thing well is infinitely more helpful than a bot that does multiple things poorly.



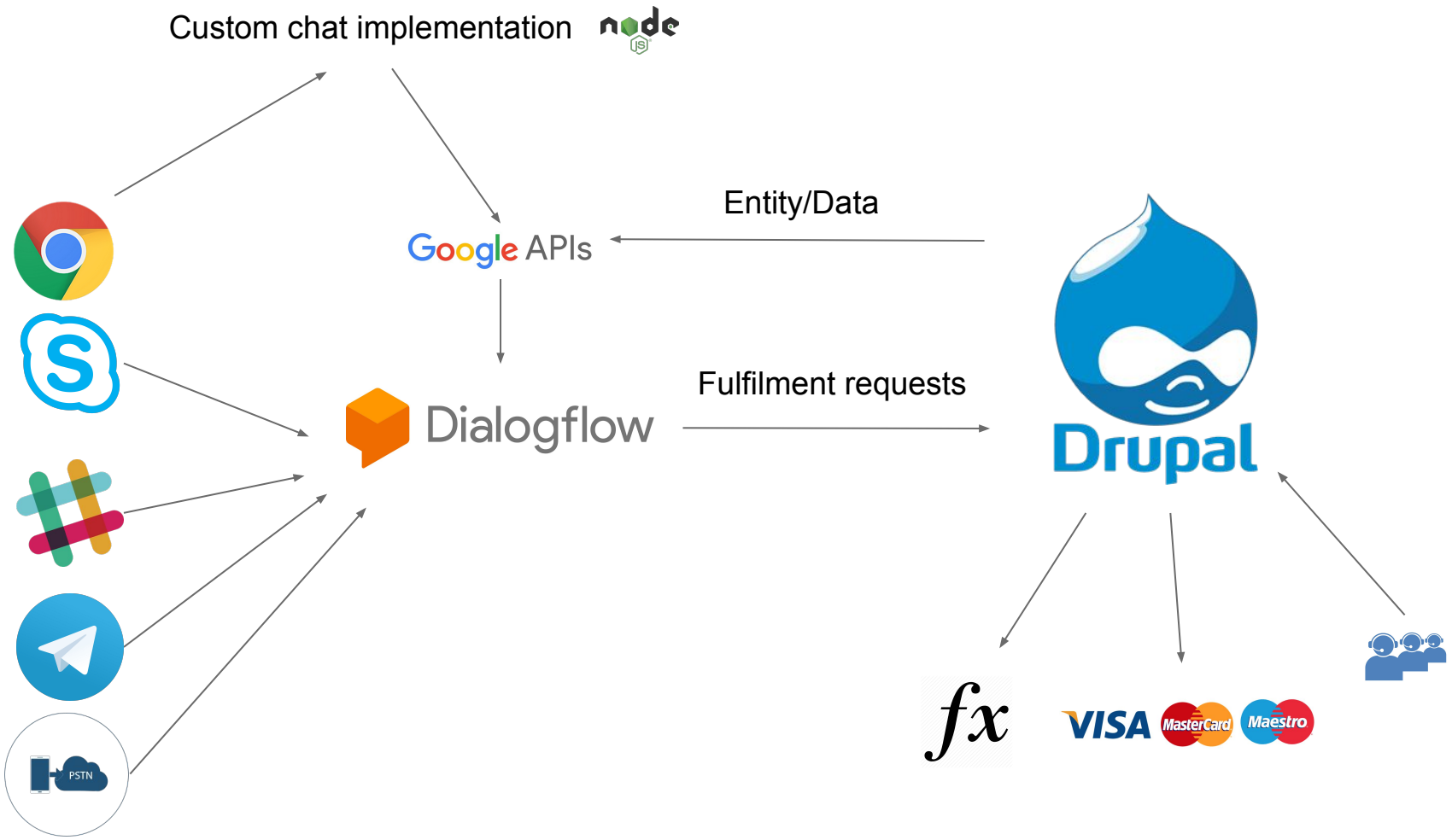




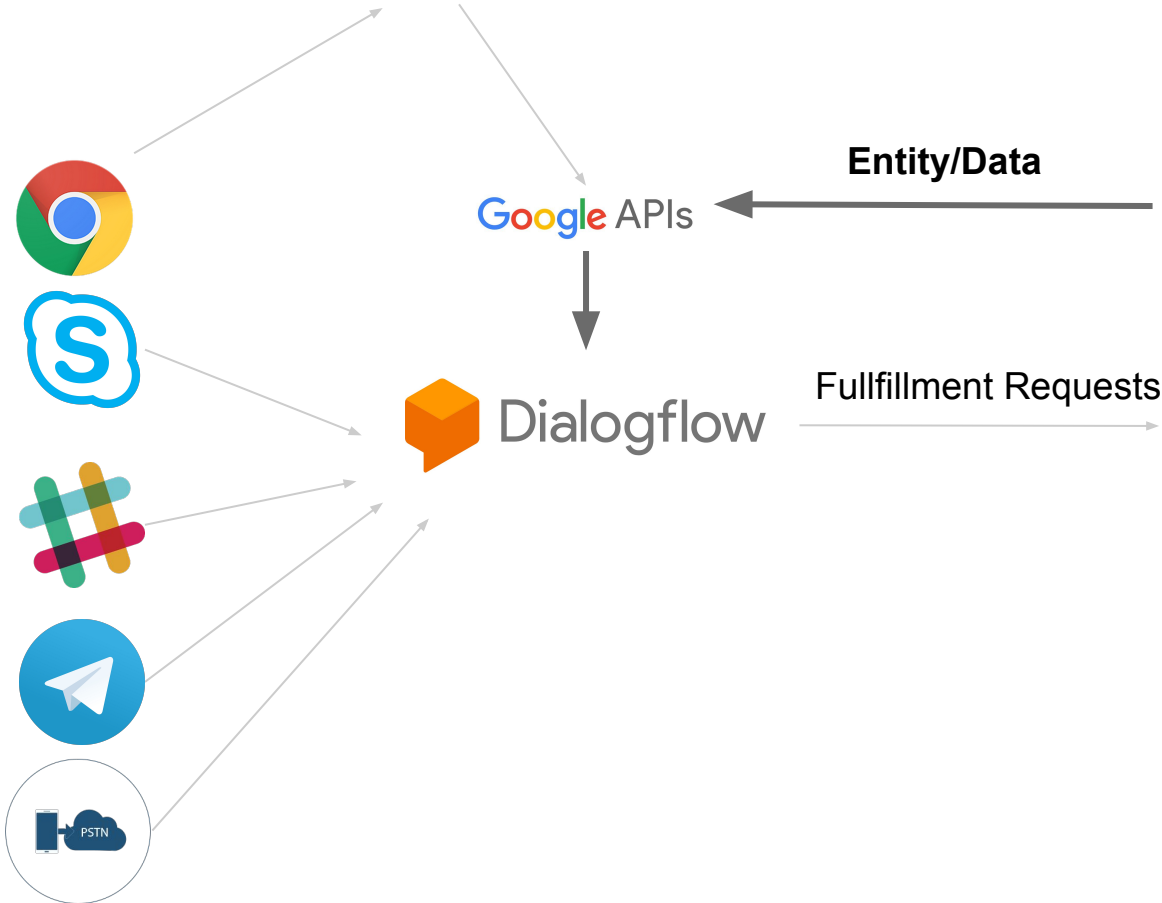
chatbot API
modules

Getting our hands dirty!





Custom chat implementation 



- Menu
- Orders
- Spreads
- Bread types
- Payment link generation
- Reports
- Locations

” tomorrow i want a white sandwich with north sea salad

PARAMETER NAME	ENTITY	RESOLVED VALUE	
date	@sys.date	tomorrow	×
sandwichtype	@sandwichtype	white sandwich	×
spread	@spread	north sea salad	×

” one sandwich please

” can I have a white sandwich with bacon and eggs please

” A brown sandwich with salmon please

” i'd like a brown bread with parma





Chatbot API
modules

▼ **CHATBOT**

- Api.AI Webhook** ▶ Api.AI Webhook implementation
- Chatbot API** ▶ API for chatbot and Personal Assistant
- Chatbot API - Alexa** ▶ Alexa driver for Chatbot API
- Chatbot API - Api.ai** ▶ Api.ai driver for Chatbot API

settings.php



README.md



```
1 <?php
```

```
2  
3 // @codingStandardsIgnoreFile
```

```
4  
5  
6 $settings['api_ai_webhook_developer_token'] = 'DONTTHUSETHISTOKEN8ba422818d6';
```

```
7  
8  
9  
10
```

Edit Spread ☆

Home » Administration » Configuration » Entity collection entities » beleg

Label *

Machine name: test

Label for the Entity collection.

Entity Type:

Choose the entity type for the entities to comprise this collection. Creating and update entities of this time will queue the collection endpoint during the next cron run.

Synonyms field

Select the field to use for synonyms

Enabled query handlers *

Content query

Enabled push handlers *

API AI entities endpoint

Push handler configuration

API AI entities endpoint

Remote name

Give the collection a name on API.ai

Save

Delete

Custom block

Basic block

File

File

Content

✓ Beleg

Bestelling

Basic page

Shortcut link

Default

Taxonomy term

groenten

Service category

Tags

User

User

Webform submission

Contact

Custom menu link

Custom menu link



CRON

Hummus Basil	Hummus Basil
mozzarella pesto	mozzarella pesto
brie new style	brie new style
pallierter	pallierter
bicky chicken	bicky chicken
Fjord	Fjord
Beef pesto	Beef pesto
Gandico	Gandico
Forelsalade	Forelsalade
Halitzi	Halitzi
Tuna italia	Tuna italia
vissalade deluxe	vissalade deluxe
brabant	brabant
sombrero	sombrero
martino	broodje martino

Click here to edit entry

+ Add a row

Edit Beleg martino ☆

View Edit Delete

Home » Node » martino

Name *
martino

[Show row weights](#)

SYNONYM

+ broodje martino

+

[Add another item](#)

Published
Last saved: 08/15/2018 - 10:51
 Author: admin
 Create new revision

Revision log message

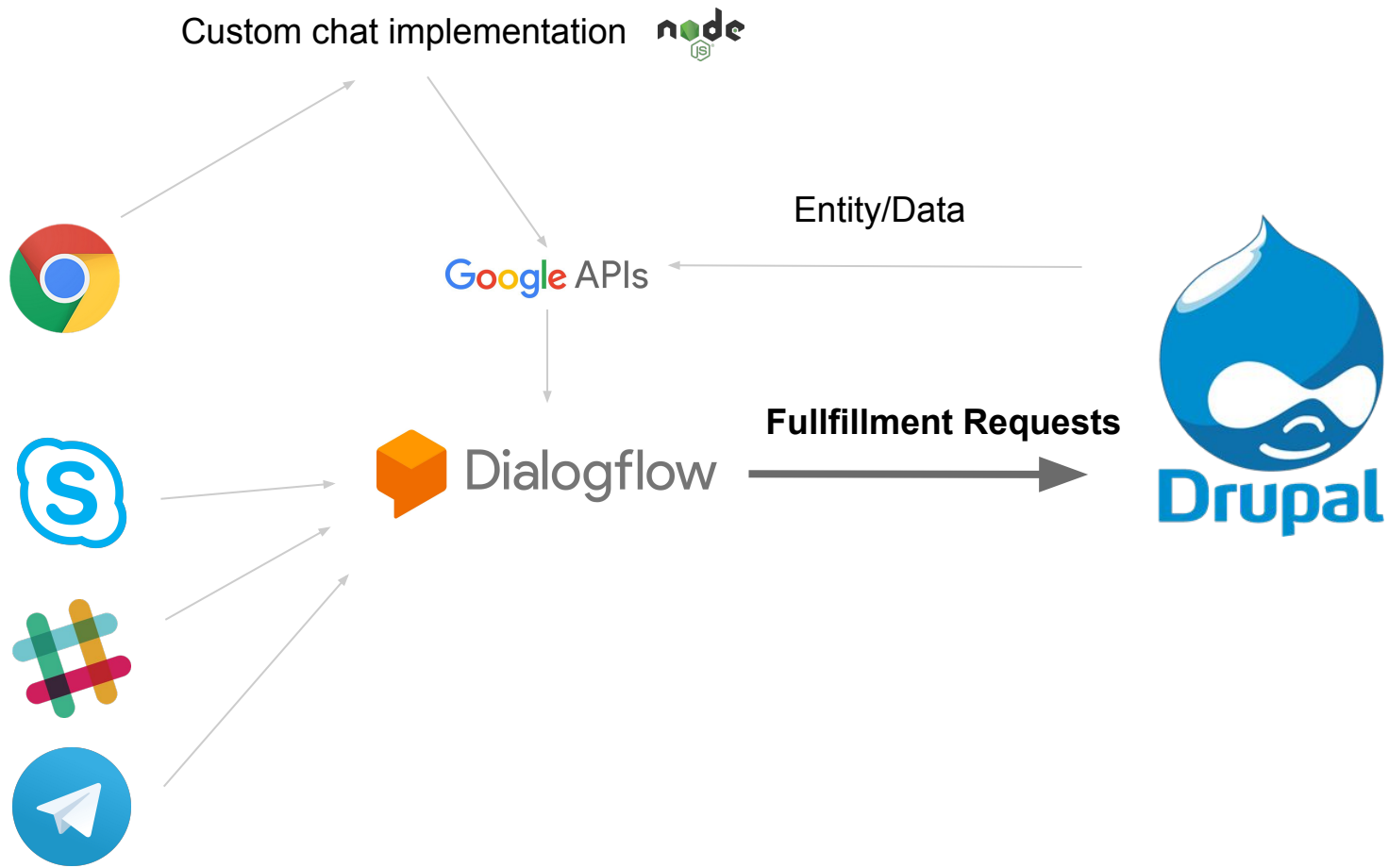
Briefly describe the changes you have made.

► MENU SETTINGS

► URL PATH SETTINGS

► AUTHORIZING INFORMATION







Restobot-HFB



nl

en



Intents



Entities



Knowledge ^[beta]

Fulfillment

Integrations

⚡ Fulfillment

Your (in this case free) domain

chatbot_api module webhook

Webhook

ENABLED



Your web service will receive a POST request from Dialogflow in the form of the response to a user query matched by intents with webhook enabled. Be sure that your web service meets all the [webhook requirements](#) specific to the API version enabled in this agent.

URL*

http://drupalflow.herokuapp.com/api.ai/webhook

BASIC AUTH

Enter username

Enter password

HEADERS

Enter key

Enter value

Called when intent detected and Parameters Filled.
Simple chatbots: you'll only need this one.

Fulfillment ?

Enable webhook call for this intent

Enable webhook call for slot filling

More advanced filling (validate / intercept every call)
Not used in these examples.

Action

restobot.bestel

parameters

REQUIRED ?	PARAMETER NAME ?	ENTITY ?	VALUE	IS LIST ?	PROMPTS ?
<input checked="" type="checkbox"/>	date	@sys.date	\$date	<input type="checkbox"/>	Voor welke dag ...
<input checked="" type="checkbox"/>	beleg	@beleg	\$beleg	<input type="checkbox"/>	Wat moet er op ...
<input checked="" type="checkbox"/>	broodsoort	@broodsoort	\$broodsoort	<input type="checkbox"/>	Wil u een wit s...
<input checked="" type="checkbox"/>	groenten	@groenten	\$groenten	<input type="checkbox"/>	Met of zonder g...
<input checked="" type="checkbox"/>	name	@sys.any	\$name	<input type="checkbox"/>	Wat is uw naam,...
<input checked="" type="checkbox"/>	remark	@sys.any	\$remark	<input type="checkbox"/>	Heeft u nog opm...
<input type="checkbox"/>	Enter name	Enter entity	Enter value	<input type="checkbox"/>	—

+ New parameter

```
namespace Drupal\dialogflow_example_intent\Plugin\Chatbot\Intent;
```

```
use Drupal\chatbot_api\Plugin\IntentPluginBase;
```

```
use GuzzleHttp\Client;
```

```
/**
```

```
 * Plugin implementation of chatbot intent.
```

```
 *
```

```
 * @Intent(  
 *   id = "projects/restobot-hfb/agent/intents/7327f61f-8305-456c-9e1b-f3938d287420",  
 *   label = @Translation("tell me a joke.")  
 * )  
 */
```

```
class DialogFlowJokeIntent extends IntentPluginBase {
```

```
/**
```

```
 * Do the joke request
```

```
 */
```

```
private function doJokeRequest(){  
    $client = new Client([  
        'base_uri' => 'http://api.icndb.com/',  
    ]);  
    $response = $client->get('jokes/random');  
    $body = $response->getBody();  
    return json_decode((string) $body);  
}
```

```
/**
```

```
 * {@inheritdoc}
```

```
 */
```

```
public function process() {  
    $data = $this->doJokeRequest();  
    $this->response->setIntentResponse($data->value->joke);  
    $this->response->setIntentDisplayCard($data->value->joke, 'Greetings');  
}
```

src

Plugin

Chatbot

Intent

DialogFlowJokeIntent.php

DialogFlowWeatherIntent.php

```
namespace Drupal\dialogflow_example_intent\Plugin\Chatbot\Intent;
```

```
use Drupal\chatbot_api\Plugin\IntentPluginBase;
```

```
use GuzzleHttp\Client;
```

```
/**
```

```
 * Plugin implementation of chatbot intent.
```

```
 *
```

```
 * @Intent()
```

```
 * id = "projects/restobot-hfb/agent/intents/7327f61f-8305-456c-9e1b-f3938d287420",
```

```
 * label = @translation("tell me a joke.");
```

```
 * )
```

```
 */
```

```
class DialogFlowJokeIntent extends IntentPluginBase {
```

```
/**
```

```
 * Do the joke request
```

```
 */
```

```
private function doJokeRequest(){
```

```
    $client = new Client([  
        'base_uri' => 'http://api.icndb.com/',  
    ]);
```

```
    $response = $client->get('jokes/random');
```

```
    $body = $response->getBody();
```

```
    return json_decode((string) $body);  
}
```

```
/**
```

```
 * {@inheritdoc}
```

```
 */
```

```
public function process() {
```

```
    $data = $this->doJokeRequest();
```

```
    $this->response->setIntentResponse($data->value->joke);
```

```
    $this->response->setIntentDisplayCard($data->value->joke, 'Greetings');
```

```
}
```

```
{  
  "intent": {  
    "name": "projects/restobot-hfb/agent/intents/7327f61f-8305-456c-9e1b-f3938d287420",  
    "displayName": "randomjoke"  
  }  
}
```

```
namespace Drupal\dialogflow_example_intent\Plugin\Chatbot\Intent;

use Drupal\chatbot_api\Plugin\IntentPluginBase;
use GuzzleHttp\Client;

/**
 * Plugin implementation of chatbot intent.
 *
 * @Intent(
 *   id = "projects/restobot-hfb/agent/intents/7327f61f-8305-456c-9e1b-f3938d287420",
 *   label = @Translation("tell me a joke.")
 * )
 */
class DialogFlowJokeIntent extends IntentPluginBase {

  /**
   * Do the joke request
   */
  private function doJokeRequest(){
    $client = new Client([
      'base_uri' => 'http://api.icndb.com/',
    ]);
    $response = $client->get('jokes/random');
    $body = $response->getBody();
    return json_decode((string) $body);
  }

  /**
   * {@inheritdoc}
   */
  public function process() {
    $data = $this->doJokeRequest();
    $this->response->setIntentResponse($data->value->joke);
    $this->response->setIntentDisplayCard($data->value->joke, 'Greetings');
  }
}
```

More code examples

https://www.drupal.org/sandbox/wouters_frederik/3001603

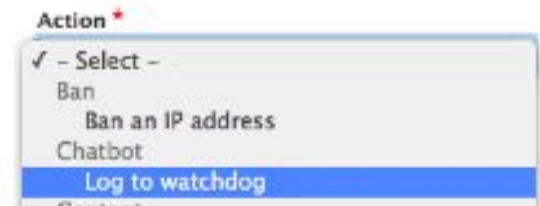
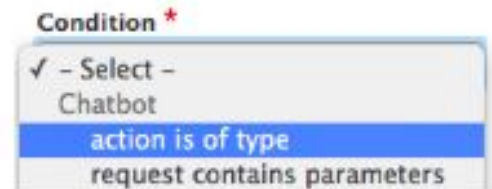
==

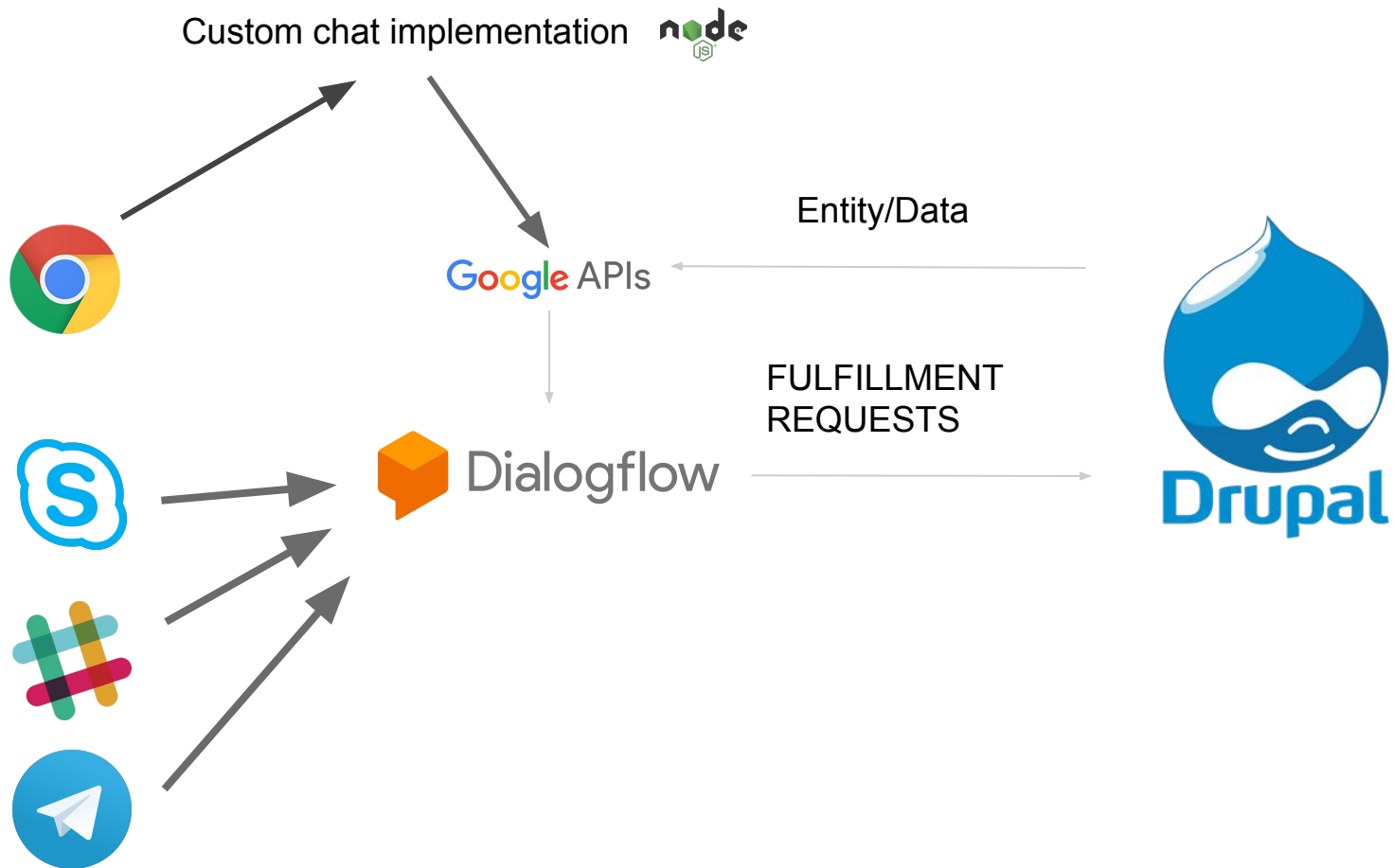
http://it2servu.be/dialogflow_examples

Hidden examples module

DRUSH EN dialogflow_example_intent

- Weather request = super simple
- Joke request (with parameters)
-























Google Assistant

Build Actions for the Google Assistant to reach users through Google Home, Android phones, and more devices.

INTEGRATION SETTINGS

 Web Demo <input type="checkbox"/>	 Facebook Messenger <input type="checkbox"/>	 Dialogflow Phone Gateway <small>BETA</small> <input type="checkbox"/>	 Slack <input type="checkbox"/>
 Viber <input type="checkbox"/>	 Twitter <input type="checkbox"/>	 Twilio IP <input type="checkbox"/>	 Twilio (Text messaging) <input type="checkbox"/>
 Skype <input type="checkbox"/>	 Tropo (Text messaging) <input type="checkbox"/>	 Telegram <input type="checkbox"/>	 Kik <input type="checkbox"/>
 LINE <input type="checkbox"/>	 Cisco Spark <input type="checkbox"/>	 Amazon Alexa <input type="checkbox"/>	 Microsoft Cortana <input type="checkbox"/>

PREBUILT integrations



CUSTOM integrations



Google APIs



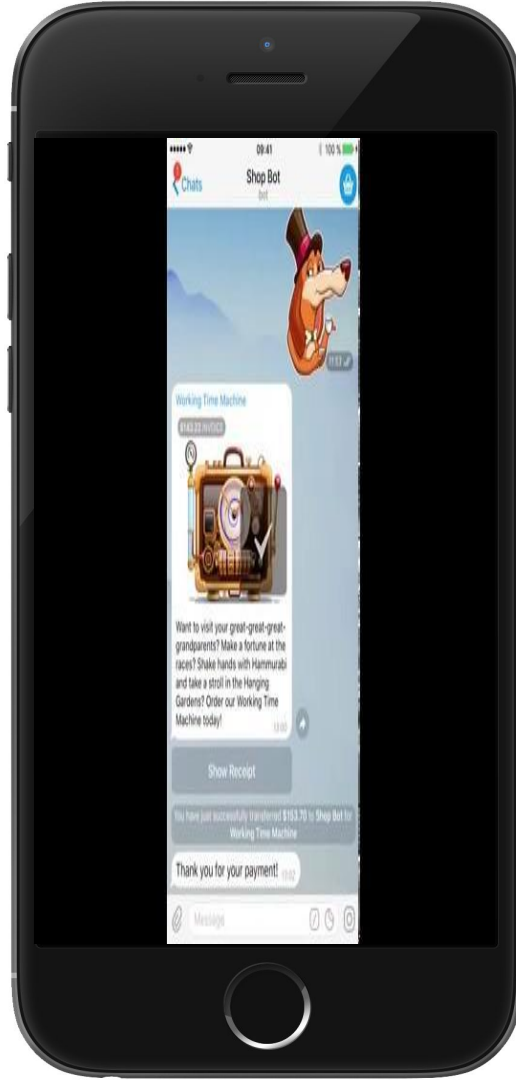


FAQ

<https://dialogflow.com/docs/reference/agent/intents>

Payment?





Options:

- Middleware
- Payment API (FB & Telegram)
- Fully integrated (masterpass)

Drupal can take
phone calls





Dialogflow Phone Gateway ^{BETA}

+1 201-365-7047(english only)

Examples

- Run cron
- Flush cache
- Put site offline/online
- weather
- joke



https://github.com/wouters-frederik/drupalcon_dialogflow_POC



Phone OPS?



Special thanks!



[Smals research](#)

[pexels](#)



Esgrame
23.11.2018

Linkedin



What will your chatbot do?



wouters_f



wouters.f@gmail.com

CHATBOT ALL THE DRUPALS

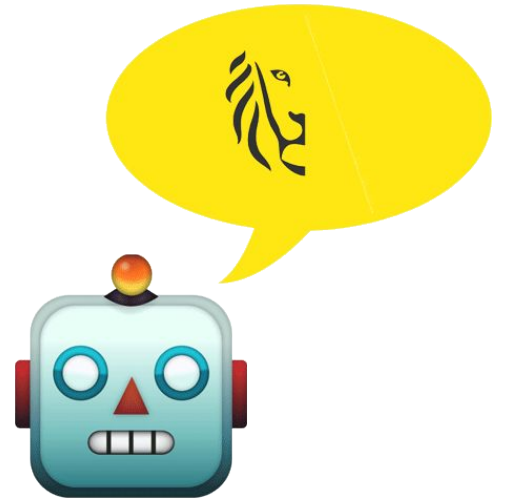


DEMO!



SAM

Snel Antwoorden op Maat!



Experiment 1

DEMO

Na 11 uur “hacken”

- Integrated in vlaanderen chat
- Chatbot met fulfillment
- Service die OV berekent

Today's
Specials!



7AM-
8PM

\$9.99

♥ Create your
own pizza

♥ Chicken

asparagus, soup of
the day, mashed potatoes

Experiment 3

FILMPJE RATATOUILLE

