

Dirk Gepts, Solution Architect Innovation

Chatbots

DNA and Added Value

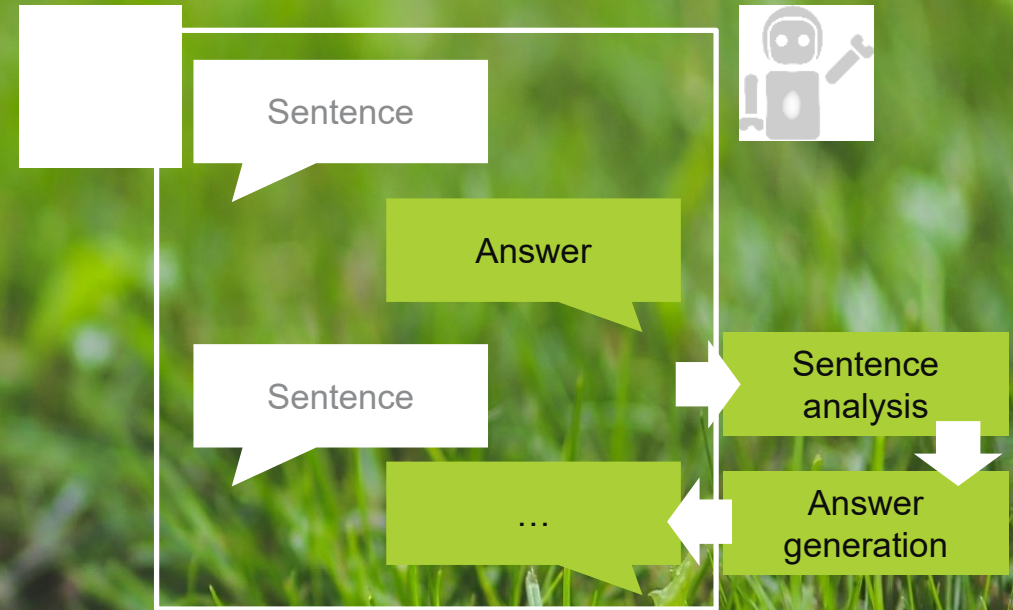


01. DNA OF CHATBOT



WHAT'S A CHATBOT?

A chatbot is a **program** designed to **interact** with a « **human** » using **natural language** simulating a **conversation**.



CONVERSATION TYPE 1: Q&A

The screenshot shows the configuration interface for an FAQ bot. On the left is a navigation sidebar with categories: INNOVATION BOT, Bot Foundry, GLOBAL (Overview, Bot, Settings, Portal Users, Global Variables), CONTENT (General, Interjections, Dialogs, **Faq**, Definitions, Chitchat), and LOGS (NLP, Fallbacks, Conversations, Not Understood). The main area is titled 'FAQ' and includes a 'Logout' button. Below the title are buttons for 'Save', 'Cancel', 'Add QA', 'Scopes', 'Add Scope', and 'Publish'. The current scope is 'O365 user adoption' with sub-scopes 'General' and 'Realdolmen ITO'. The bot name is 'Realdolmen ITO' and it has '3 answers for 6 questions'. Two question entries are visible:

- Question 1:** Questions include 'How can I unlock my account?' and 'My account is locked'. The answer is: '{Visit [Realdolmen Selfservice]}(https://self.realdolmen.com/pm/user_name.asp?act=unlock) (This can be done from any device); {image:http://showcasechatbotportal.azurewebsites.net/images/ITO_UnlockAccount.JPG}; {Enter your username. This is the 7 character ID you received. Click on Next.}; {Enter the answers to the questions which you have set up when you enrolled your account. Then click on Next again.}; {The result should show : "The account has been unlocked successfully, please try to
- Question 2:** Questions include 'How do I change my password?', 'Where can I change my password?', and 'My password is about expire. What do I need to do?'. The answer is: 'According the password policy used at Realdolmen, passwords must be changed every 65 days. Use the password self service tool at https://self.realdolmen.com/pm/ to change your Realdolmen password. (= email password) If you want to keep both your windows and your email passwords aligned, please use control-alt-delete on your workstation to change your windows password.'

The screenshot shows a chat interface with an orange header. A user asks: 'What do I do when my account is locked?'. The bot responds with: 'Visit Realdolmen Selfservice (This can be done from any device)'. Below this is a screenshot of the 'REALDOLMEN Password Manager: Unlock Account - Step 1 of 2' web page. The page shows a 'User Name' section with an 'Account Name' input field and a 'Domain' dropdown menu set to 'ATOMIUM'. There are 'Next >' and 'Cancel' buttons. The chat interface continues with the following messages:

- Bot: 'Enter your username. This is the 7 character ID you received. Click on Next.'
- Bot: 'Enter the answers to the questions which you have set up when you enrolled your account. Then click on Next again.'
- Bot: 'The result should show : "The account has been unlocked successfully, please try to login in 15 minutes." If not

The chat ends with a 'Not satisfied' button and a text input field 'Type your message...'. A small Realdolmen logo is visible in the bottom left corner of the overall image.

CONVERSATION TYPE 2: DIRECTED DIALOG

Dialog ITO Create Ticket

Edit Dialog Delete Dialog

Reset View

msg21 Omnitacker

- msg211 Report issue
- msg212 Request something
- msg213 Ask Information

Message edition : msg21

Description

Omnitracker

Bubbles

#1Text

Realdolmen uses OMNITRACKER as a ticketing tool. You can find this tool [here](https://incidents.realdolmen.com/otwg/?tzo=-60). You can also access OMNITRACKER through the [Realdolmen Portal](https://portal.realdolmen.com/).

#2Image

http://showcasechatbotportal.azurewebsites.net/ir

#3Text

Log in with your username and password, select Login

#4Image

http://showcasechatbotportal.azurewebsites.net/ir

#5Text


What type of ticket do you wish to open?

Chat

Innovation Showcase Bot

Log in with your username and password, select Login

Innovation Showcase Bot



Innovation Showcase Bot

What type of ticket do you wish to open?

Innovation Showcase Bot

- Report issue
- Request something
- Ask Information

Innovation Showcase Bot at 5:47:03 PM

type your message...



CONVERSATION TYPE 3: FORM FLOW



For which car brand?

Toyota

For which model?

Prius

From which year?

2008

Winter or summer tyres?



I want to buy winter tyres for my Prius

When was the car build?

1997	2006
-	-
2005	2018

2006 - 2018

We have the following tyres for your car:

“Brand”
“Model”
“Year”
“Type of tyres”



DON'T FORGET ABOUT THE UNFORESEEN!

“Your bot will not always have an answer or understand the question!”

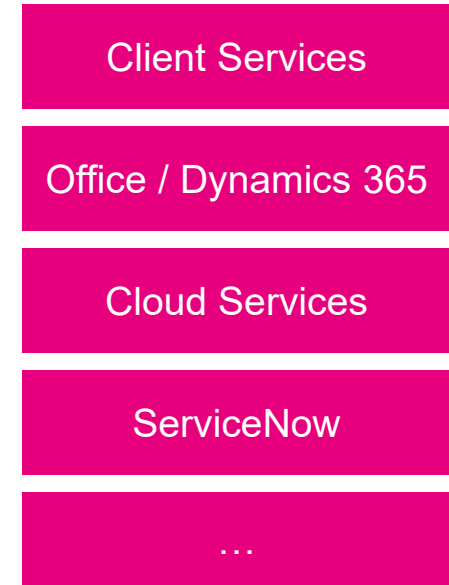
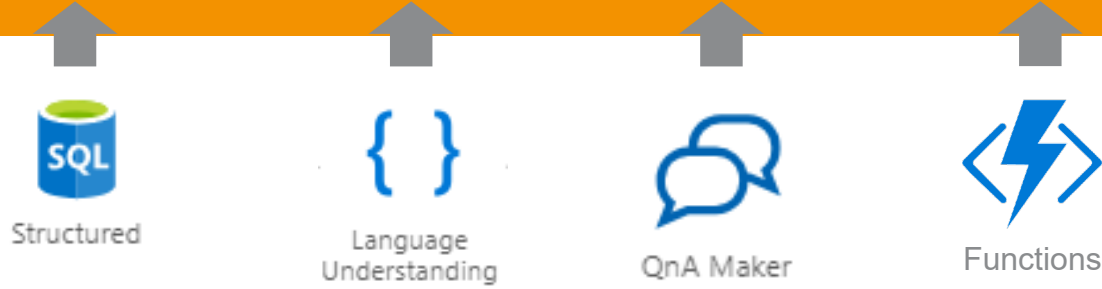
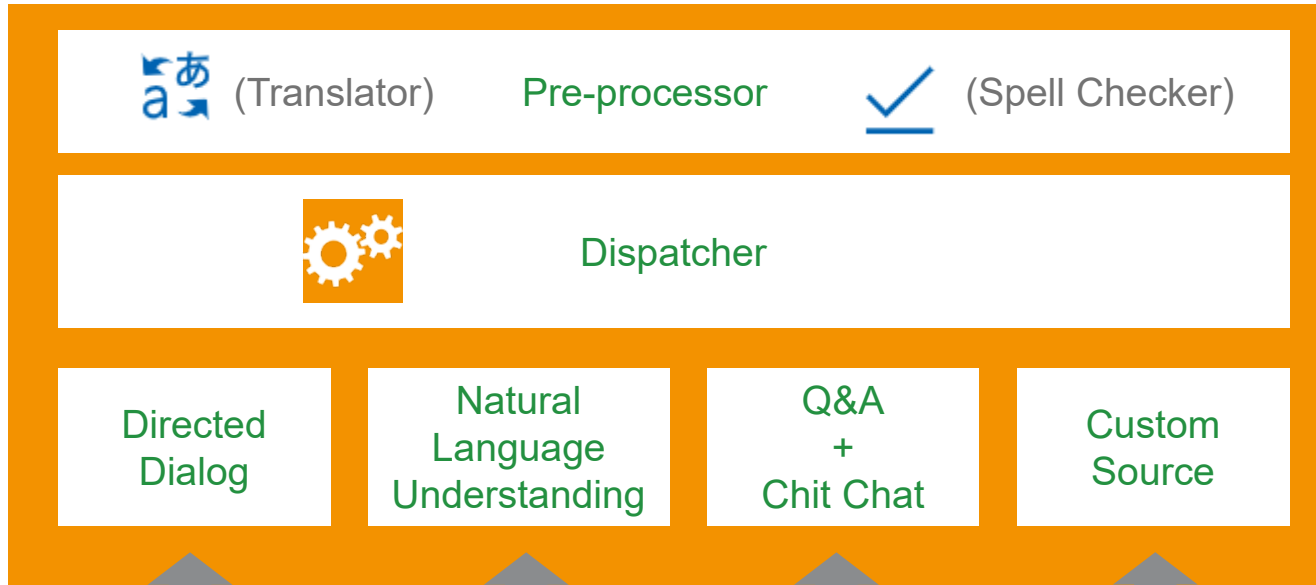
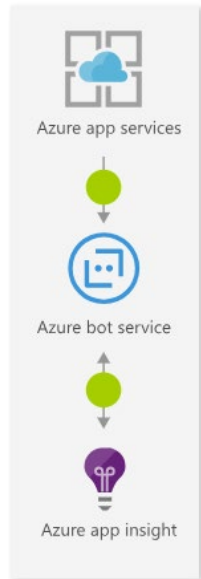
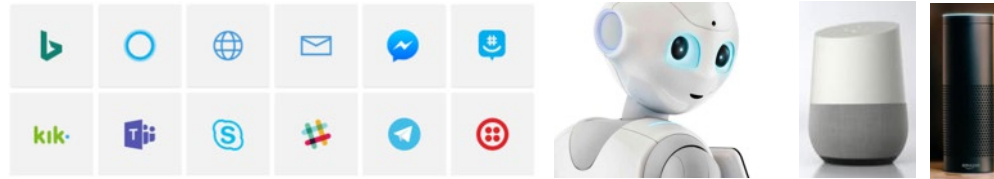
- ▶ Use Call To Actions: buttons, example phrases, suggestions
- ▶ Do not underestimate the importance of chitchat
- ▶ Foresee hand-off procedure:



- ▶ Use humour to soften the experience
- ▶ Ask the user for feedback and use sentiment analysis
- ▶ Log conversations and analyse quality



REALDOLMEN CHATBOT ARCHITECTURE



02. ADDED VALUE



ADDED VALUE OF A CHATBOT



Leads to better insights on user needs



24 / 7 availability
On your users platform



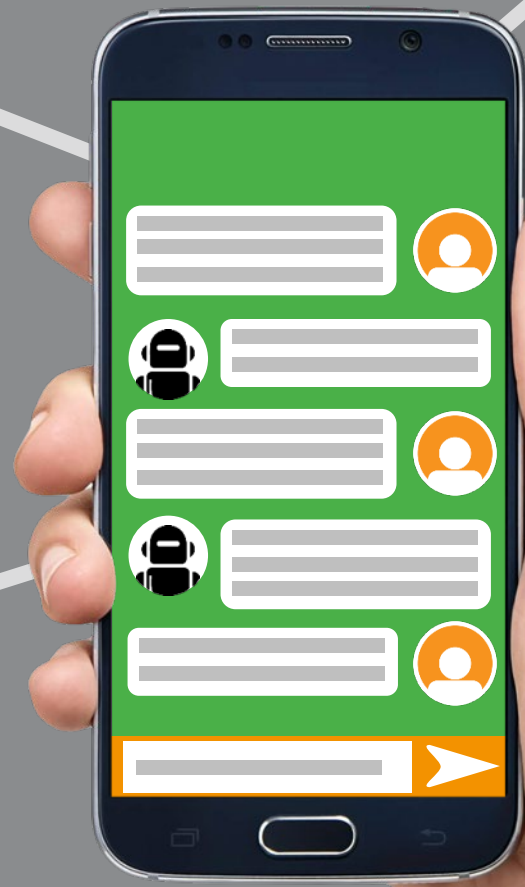
User takes lead
Better User Experience



Helps you to unburden
Reduce cost



Continuously improved service



03. USE CASES

- SERVICE DESK
- PRODUCT CONFIGURATOR
- SMART AGENTS



SERVICE DESK CHATBOT



- Combines Q&A and Directed Dialogs with knowledge articles
- Informs about relevant outages or existing tickets
- Creates ticket when needed
- Allows users to check status updates, add information or close tickets
- Handles incoming mails



Product configurator



SMART AGENT ON GOVERNMENT SERVICES



All



What are you looking for?



EN



Reserved area



FEATURED IN THE PUBLIC SERVICES PORTAL

ARRANGEMENTS AND CONTINGENCY PLAN FOR THE EXIT OF THE UNITED KINGDOM FROM THE EUROPEAN UNION: CITIZEN



AUTENTICAÇÃO.GOV

LOCATIONS

CITIZENS

BUSINESS

Virtual Assistant



Hello, my name is Sigma, the virtual assistant of ePortugal portal. I've started working recently, but I'm here to help you find the information and services you are looking for. Tell me what would you like to know!

Sigma - Assistente virtual

I've lost my ID



utilizador



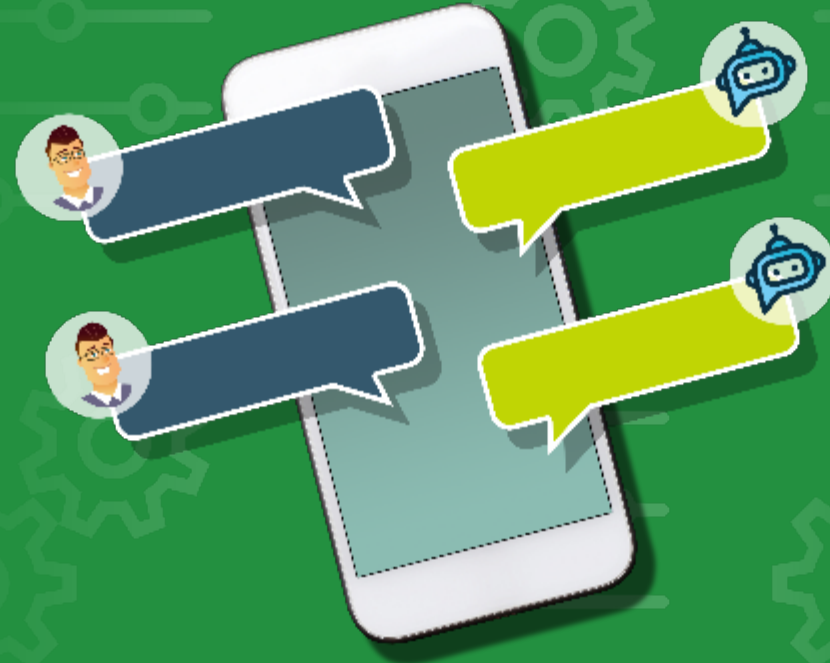
I've found these services, which one would you like to know about?

Replace documents in the "I Lost My Wallet" Desk

Obtain information about the Identity Card

I don't want any of these services

04. bot foundry



INDIVIDUAL COMPONENTS



Starter kit

Chatbot including:

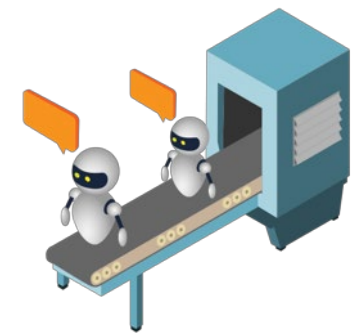
- Chit Chat
- FAQ
- Directed Dialogs
- Feedback
- Logging
- GDPR



Administration Portal

Web Application for:

- Easy content management
- Analytics
- Feedback overview
- Not Understood overview



Factory

Web Application for:

- Deploying chatbots on Azure
- Global analytics
- Global management



DIFFERENT PACKAGES



STATIC CHATBOT

Includes:

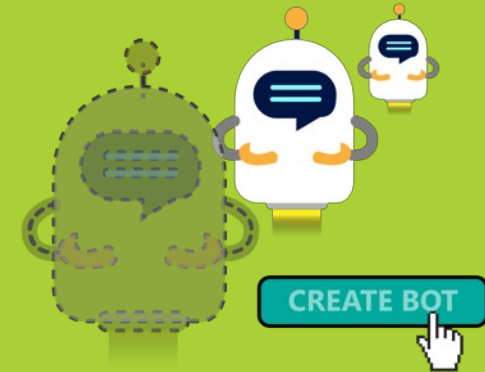
- Starter Kit
- Administration Portal
- QnA & Chit Chat
- Directed Dialogs
- Standard Hand-off



DYNAMIC CHATBOT

Includes:

- All Static Chatbot Features
- Advanced Conversations
- Custom Hand-off
- Integration with External APIs



BOT FACTORY

Includes:

- All Static and Dynamic Chatbot Features
- 1 Click Chatbot Instance
- Logical Groups of Bots
- Global Tower of Control



ADMINISTRATION PORTAL - OVERVIEW

SERVICE DESK

- Bot Foundry
- GLOBAL
- Overview**
- Bot
- Settings
- Portal Users
- Global Variables

CONTENT

- General
- Interjections
- Dialogs
- Faq
- NLP
- Fallbacks

LOGS

- Conversations
- Not Understood
- Feedbacks
- GDPR

ANALYTICS

- Global

OVERVIEW Logout

General	Bot Active	Language English	Automatic translation Disabled	Spell Checking Disabled
Health	6 Feedbacks	50% Satisfaction <i>You have 55 messages not understood by the chatbot to review</i>	99% Avg Conversation Health	0.59% Messages not understood
Content	3 Dialogs	665 Questions	11 Intents	5 Entities
Dialogs	3 Dialogs 6 Images	38 Bubbles 0 Videos	Faq 4 Scopes 2 Definitions	17 Questions 646 Chitchat
Intents	11 Intents 62 Utterances	5 Entities		
Bot Usage	173 Users	1 782 Conversations	10 084 Messages	6 Feedbacks
Dialogs	Feedback 1	Mail signature 20	Faq Api calls 1 074	Avg score 90.5%
	Troubleshoot Network printer 1		Intents Api calls 970	Avg score 63.5%

ADMINISTRATION PORTAL – CONVERSATION LOG

INNOVATION BOT

Bot Foundry

GLOBAL

- Overview
- Bot
- Settings
- Portal Users
- Global Variables

CONTENT

- General
- Interjections
- Dialogs
- Faq
- NLP
- Fallbacks

LOGS

- Conversations**
- Not Understood
- Feedbacks
- GDPR

ANALYTICS

CONVERSATIONS

User: Anonvmous Conversation: 23/03/2019 16:39:03 Refresh

Stats

Bot understanding	Conversation duration:	Message total	Sent by user:	Spell Checked:
100%	07m 59s	19	3	0

Conversation

What do I do when my account is locked? Bot decision: Faq 98%

user: 23/03/2019 16:39:03

Visit [Realdolmen Selfservice] (https://self.realdolmen.com/pm/user_name.asp?act=unlock) (This can be done from any device)

bot: 23/03/2019 16:39:15

Image showed to user

bot: 23/03/2019 16:39:19

Enter your username. This is the 7 character ID you received. Click on Next.

bot: 23/03/2019 16:39:22

Enter the answers to the questions which you have set up when you enrolled your account. Then click on Next again.

bot: 23/03/2019 16:39:26

The result should show : "The account has been unlocked successfully, please try to logon in 15 minutes." If not, please call the [helpdesk](tel:+32 2 801 55 11).

bot: 23/03/2019 16:39:30

Logout

ADMINISTRATION PORTAL – FEEDBACK OVERVIEW

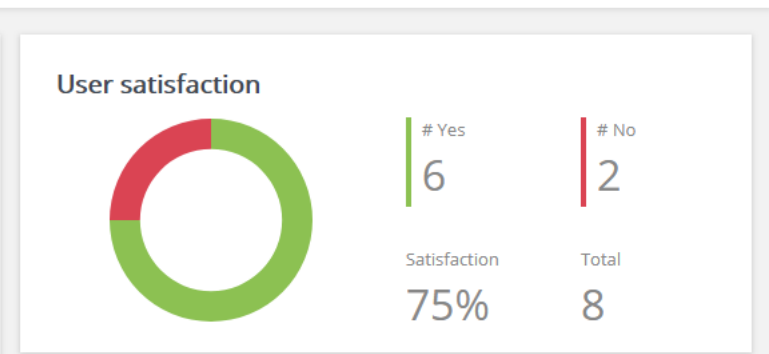
- INNOVATION BOT
- Bot Foundry
- GLOBAL
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 - Feedbacks**
 - GDPR
- ANALYTICS
 - Global

FEEDBACKS

Logout

Dialog **All** Feedback Share Files ITO Create Ticket Filter **All** Yes No

Timestamp	Dialog	User	Feedback
1/7/2019 11:39:43 AM	Feedback	User	test
1/7/2019 11:32:11 AM	Feedback	User	Not switching dialogs
3/22/2019 10:31:10 AM	ITO Create Ticket	User	I loved it.
3/22/2019 9:47:34 AM	ITO Create Ticket	Anonymous	no thanks
3/22/2019 9:46:48 AM	ITO Create Ticket	Anonymous	/
3/22/2019 9:43:54 AM	ITO Create Ticket	Anonymous	unlock
1/7/2019 11:42:34 AM	Feedback	User	Testing
1/7/2019 11:40:34 AM	Feedback	User	Test happy



ADMINISTRATION PORTAL – NOT UNDERSTOOD DETAILS

STELLA BOT Logout

NOT UNDERSTOOD

Show Unread All Period Last 7 days Last 30 days Last 365 days All Group occurrences On

4 message(s) to review

#1 default 27/03/2019 11:11:15	NLP score: 11.04% NLP intent: EmployeeFeedBack	Qna score: 28.41% Predicted answer: That's not something I can do.	✓ ➤
Can I forge a doctor's notice?		Add to chitchat	
#2 default 27/03/2019 11:09:29	NLP score: 38.32% NLP intent: EmployeeFeedBack	Qna score: 0.39% Predicted answer: I'm happy to hear that.	✓ ➤
I am pregnant, when does the maternity leave start?		Add to chitchat	
#3 Anonymous 22/03/2019 14:20:33	NLP score: 54.97% NLP intent: Help	Qna score: 34.13% Predicted answer: For sickness absences of 1 day, the employee must follow these steps: immediately communicate the absence to the Gfi Back-Office by phone (+32 16 38 11 11). Following information must at least be communicated: Employee name, Business Unit and, if applicable, Customer contact person. The back-office will take care of the communication to the manager and the team leader. \n\nFor sickness absences of maximum 1 day, there is no need for a medical certificate. However, Gfi always has the right to request a medical certificate, e.g. in case of repeated 1 day sickness absences. Answer not found in knowledge base	✓ ➤
I'm sick, what do I need to do?			
#4 Anonymous 20/03/2019 15:34:37	NLP score: 9.07%	Qna score: 37.94%	✓ ➤

- Bot Foundry
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- Not Understood**
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- ANALYTICS
- Global

HOW TO GET STARTED?



STATIC BOT - Trial Version

- 5 days consultancy (setup, training, advise)
- 30 days free use of demo environment
- All static features (limited # of interactions)



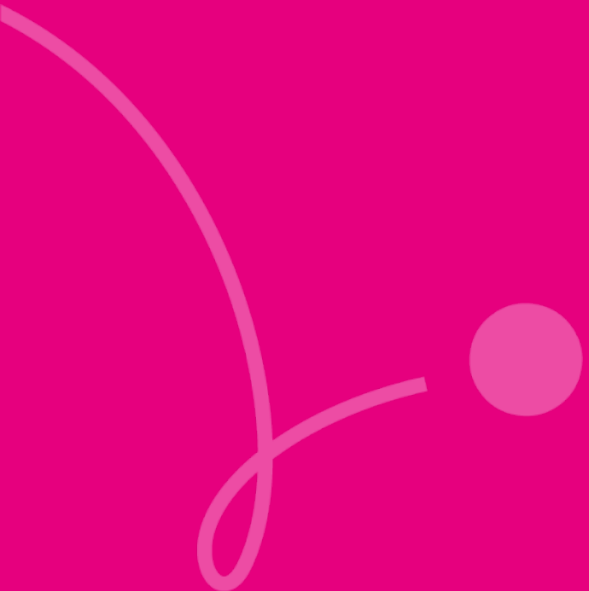
Dynamic BOT - Design Sprint

- Design Sprint of 1 week with 2 consultants
- Results in chatbot prototype
- 30 days free use of prototype on demo environment
- All dynamic features (limited # of interactions)
- Can serve as intake for Agile chatbot project



05. QUESTIONS

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WHAT'S NEXT ?

	Technical Track	Services & Management Track
14:15-15:00	<p>Choosing the right Cloud connectivity model</p> <p><i>Nichola Van de Voorde</i></p>	<p>IOT, beyond the hype</p> <p><i>Johan Kumps</i></p>



New challenges

NEW IDEAS



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