# Billie, Grow Up! Al for Customer Service

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# **INTRO**

- $\lambda$  Improving Customer Service by improving processes, making better decisions
- $\lambda$  Better insights for bol.com, sellers
- $\lambda$  Case: Billie, our automated service solution

### Billie, our chatbot

- $\lambda$  About 10 years old
- $\lambda$  2M conversations / year and going UP
- $\lambda$  Created by LivePresence
- $\lambda$  Knowledge system with manual written patterns & rules & heuristics & synonyms...
- $\lambda\,$  Assigns the right label in  $\pm$  66% of the conversations.

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**DATA ANALYSIS** 

# Data Analysis



## Some statistics

Conversations	4412
Solved	31.1%
Customer leaves	33.3%
Unsolved	18.0%
To human agent	17.7 %

### A deeper dive...

- $\lambda$  In 52 % of the conversations >= 2 confirmation questions ("Do you mean ...?")
- $\lambda$  In 44 % of the conversations >=1 incomprehension answer ("I don't know what you mean")

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## Why improving Billie?

- $\lambda$  Automated solutions have lowest cost
- $\lambda$  24/7, no delay for customers
- $\lambda$  Converting to live-chat, the most efficient channel
- $\lambda$  By solving most frequent, easiest problems, our agents can focus on complex cases

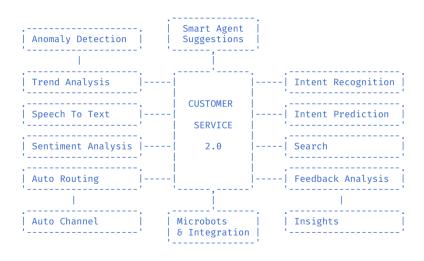
#### Current results

- $\lambda$  ML-based model that recognizes intents (topics) of customer
- $\lambda$  Gives suggestions to current implementation
- $\lambda$  Context-based prediction of intent (predicting relevant FAQs for customers, agents, etc)
- $\lambda\,$  A/B test soon, measure impact on interactions, nr. escalations, etc.



THE PLAN

## Modular approach



#### End

