The Artificially Intelligent Agent

The role of AI and chatbots in customer engagement

Daniel Hong, David Lloyd, Kathy Brown

Batteries not included



















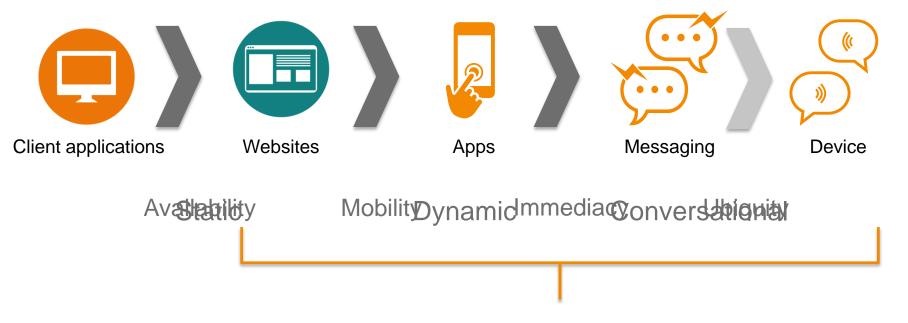






Why chatbots, why now?

How customers communicate is changing



Digital properties for the enterprise



The need for Artificial Intelligence

Problem solving, decisionmaking, learning, speech recognition, visual perception, and translation Mass personalization in a one-to-many paradigm

Conversational and cognitive

But wait there's more...

What are the real business benefits of a bot strategy



Cost optimization

- Cost reduction through automation
- In-channel agent escalation to web chat
- 1.8 simultaneous chat sessions per agent



UNCONSTRAINEDVoice of the Customer

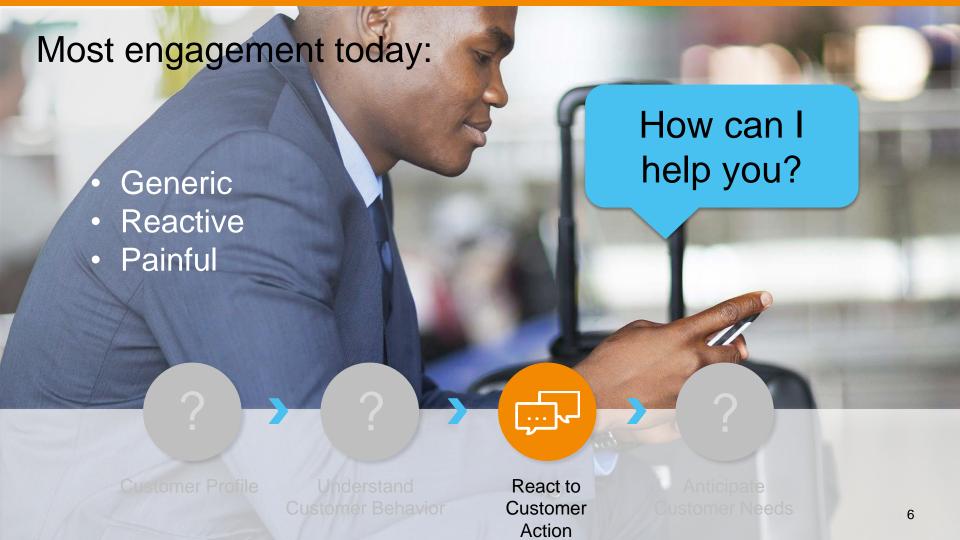
- Critical customer level data
- Identification of customer friction points
- Deriving competitive insights

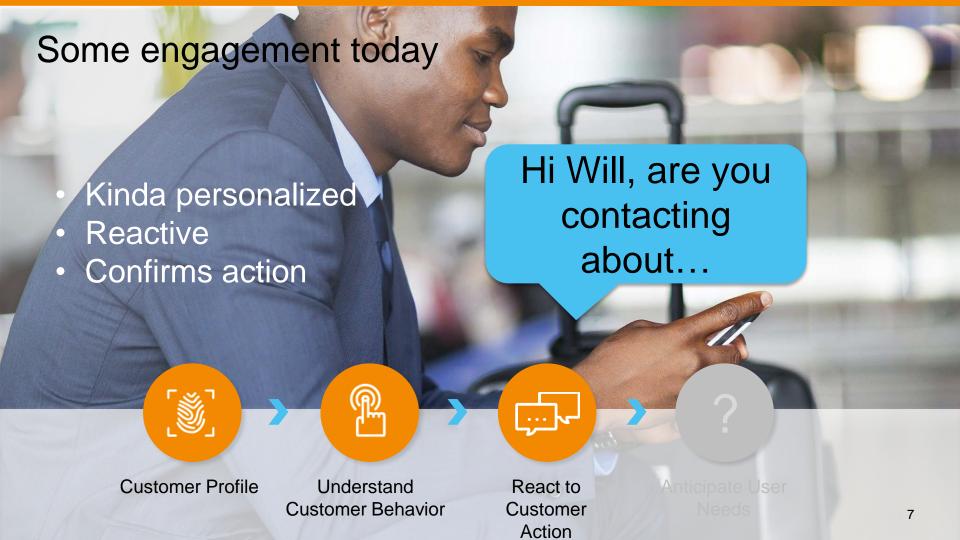


Customer AND agent Experience

- Improved ergonomics for Millennials
- Increase in CSAT / ESAT, NPS and retention
- Preparation for the next wave of "AI-led" experiences







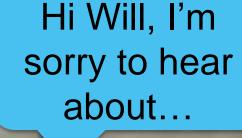
Engagement tomorrow: Personal

- Anticipatory
- Conversational



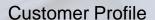






I already went ahead and made changes...

> This is a better experience for that...



Understand **Customer Behavior**

React to Customer Action

Anticipate Customer Needs

Where are chatbots used in the enterprise



Customer Engagement
Sales
Customer service
Technical support



Employee Assistance
Contact center agents
Help desk/tech support
Sales

The chatbot evolution

Understanding

Contextual

Responses

- NL maps user request to simple intent
- Response is from derived content – for that intent

Personalized Answers

- Responses include results from backend systems (e.g. CRM)
- Intent disambiguation through decisionbased dialogs

Guided Transactions

- Executes transactions on behalf of user
- Complex intent contains topic and goals
- Conversational based transaction
- Non-linear

Information Provision

Engagement

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Transactional

Natural Language

How to get there with a customer engagement framework

Anticipate Simplify Learn



Anticipate

Deriving intent from data, context and natural language



Using data, context, and natural language to understand intent and come to a decision



Big Data

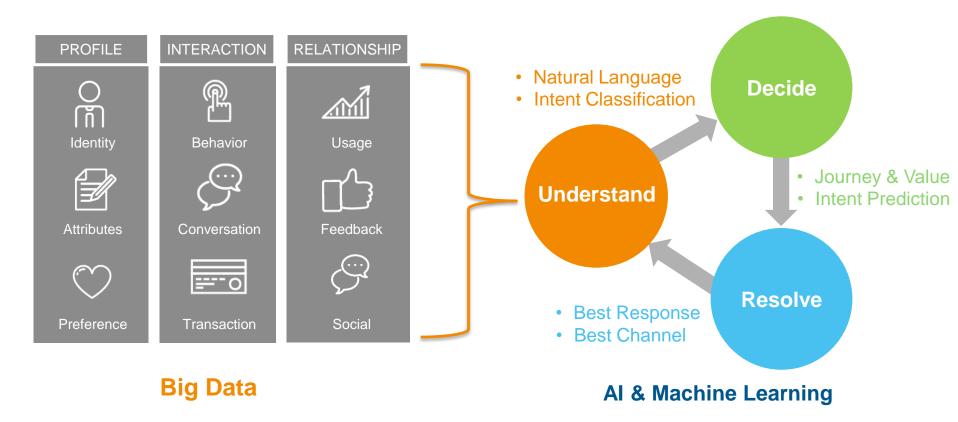
AI & Machine Learning

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Simplify

How to engage with the "best" experience

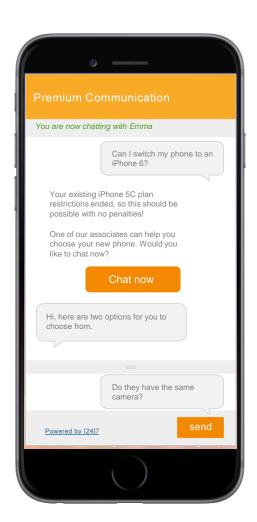
Using context, natural language and intent to drive outcomes



Best channel treatment

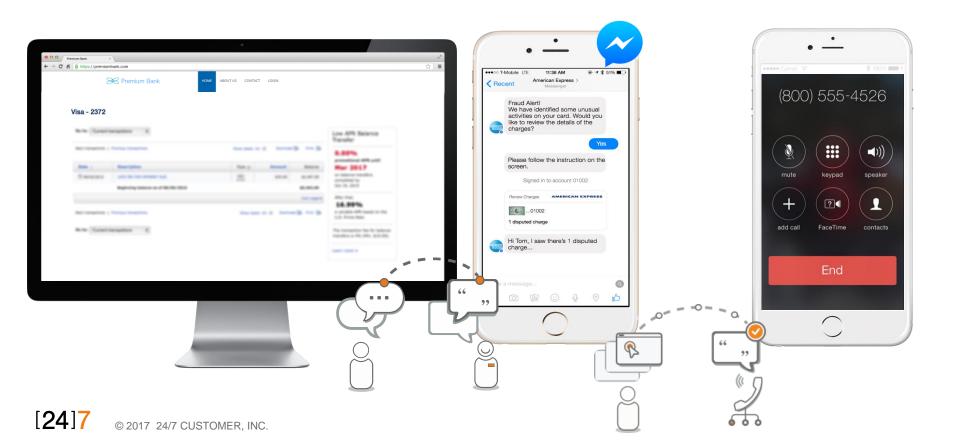
All chatbots should:

- Have an easy agent escalation path to chat
- Remain in the conversation to learn how to solve similar issues in the future
- Be made for multiple channel engagement



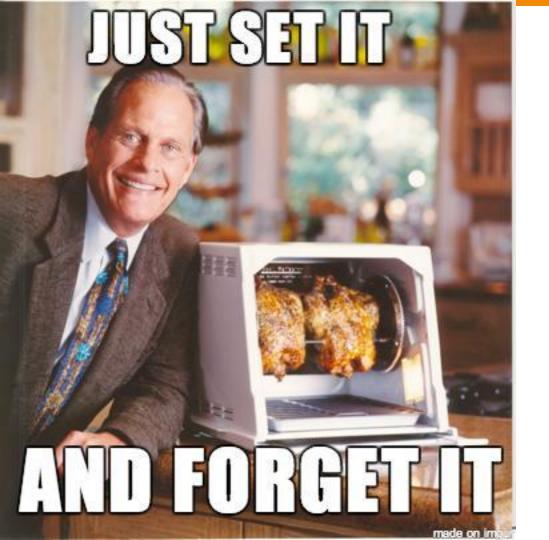


Follow across time and channel with context



Learn

Using machine learning, analytics, crowdsourcing



Not really

Machine learning: the reality today



Designed Intelligence



Human-Assisted Learning



Emerging

Observational learning

A developer designs the app to do specific things to complete a user task following defined rules



Most apps today

1) Supervised learning

Collaborative tagging so models can identify intents

2) Semi-supervised learning

Automated learning and tagging where confidence score is low

3) Crowd-sourced learning

Customer VOC (surveys, feedback) and influence

Customer inputs and trains

Unsupervised learning

Identifies new intents in the data and can update the model to provide a new answer or take a specific, new action in response



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Analytics: gleaning insights from tools



Original Question

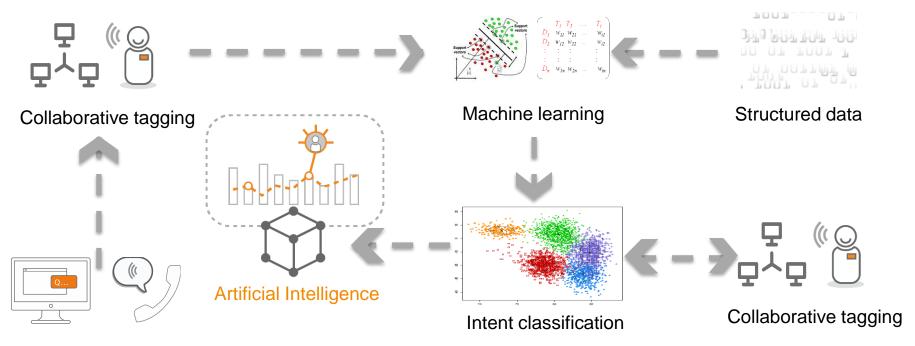
Do you have discounts on winter tires?

Post Interaction Analytics

- Insurance customers are asking about winter tires?
- Competitors offering winter tire discounts
- \$ New revenue stream, lower P&C claims
- Tag CRM record with interests for future Marketing campaigns
- Update product and partner offerings
 - Update KPI metrics (revenues, high NPS, low CES)

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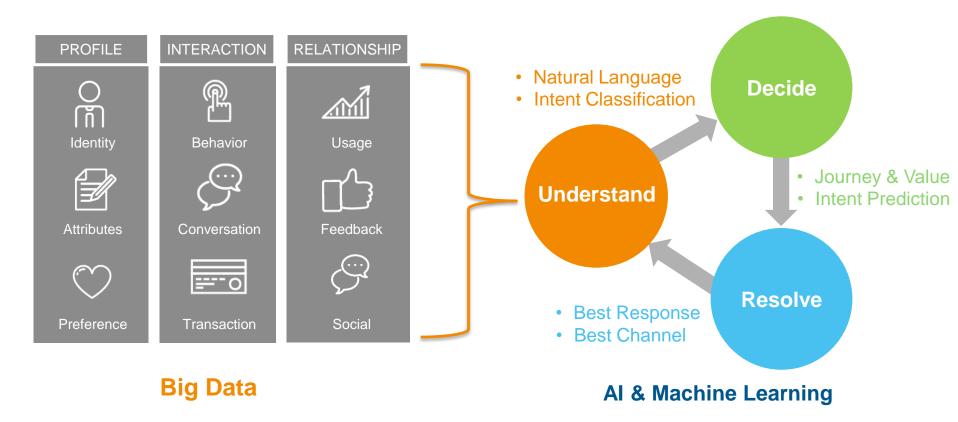
Models are built, trained, and optimized with structured and unstructured data



Unstructured data

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Using context, natural language and intent to drive outcomes





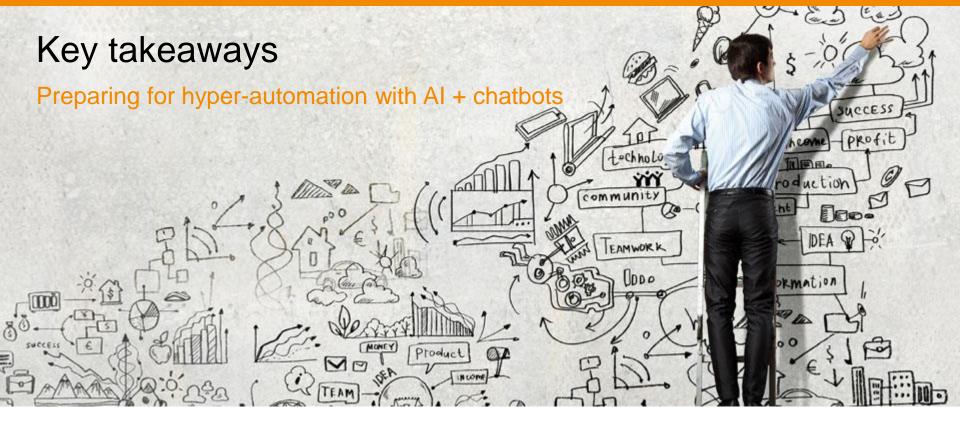






Business impact of chat bots

Reductions call volume by up to 35% email volume by up to 50% chat volume by up to 56% Accuracy 90%+ | CSAT +30%



Allocate the right amount of resources

Operationalize the chatbot

Start small, increase footprint

Channel future proof

It's not what you learn about bots

...it's what you learn about your customers

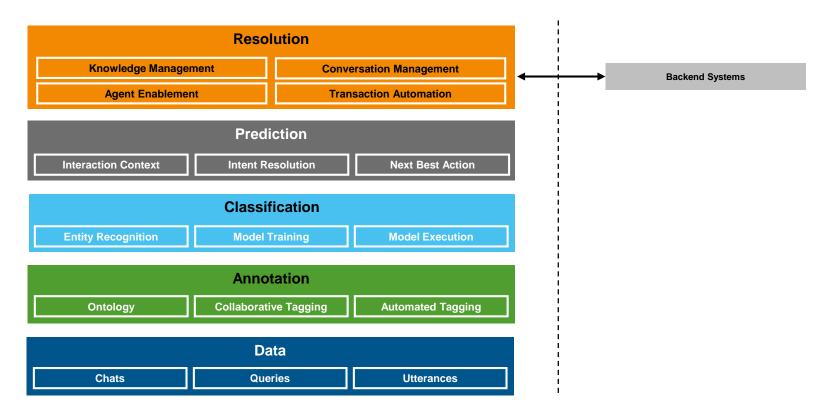




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