CHATBOT SOLUTIONS

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A MODERN BUSINESS NEEDS MODERN SOLUTIONS

Chatbot trends

Monthly active users and session times of messaging platforms overtake that of social media.

The customers

- **85%** have been used online channel to contact customer service via a messaging app or web live chat
- **40%** expect a reply within an hour and do not tolerate the non 0-24 customer service
- **60%** choose a communication channel depending on the activity and location.

Customers continuously expect high quality customer service. In order to support expectations, companies have to allocate more human resources to match the rising demand.

* Forrás: The State Of Chatbots, 2016, Forrester

UTILIZING CHATBOTS CAN SIGNIFICANTLY IMPROVE EFFICIENCY

After chatbot deployment approx. 20-30% of customer service's tasks can be automated to simultaneously improve service quality.

How does a chatbot work?

The first steps of the customer's conversations are being directed through a chatbot …

- Capable of handling cases without human intervention (Information inquiries, self-service support)
- In other cases the bot opens a new communication channel (agent, email, phone)

Supervised Machine Learning

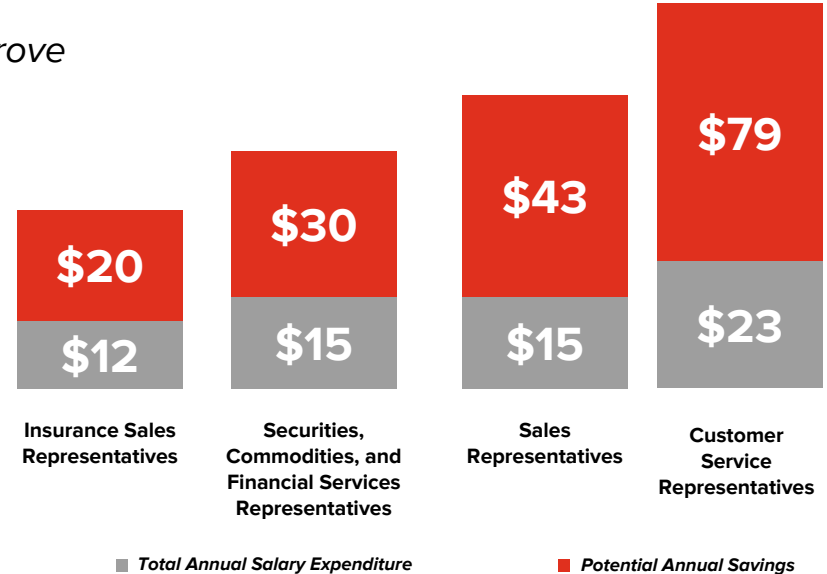- Capability to learn basic scenarios, in order to avoid confusions human supervision is required

Advantages

Improved customer service

- 0-24 customer service availability

Improved efficiency

- 20-30% time saved for the Agents
- Chat conversations are integrated in the CRM

	Insurance Sales Representatives	Securities, Commodities, and Financial Services Representatives	Sales Representatives	Customer Service Representatives
Potential Annual Savings	$20	$30	$43	$79
Total Annual Salary Expenditure	$12	$15	$15	$23

■ *Total Annual Salary Expenditure*   ■ *Potential Annual Savings*

Potential Annual US Salary Savings Created by Chatbots 2016, In billions (USD)
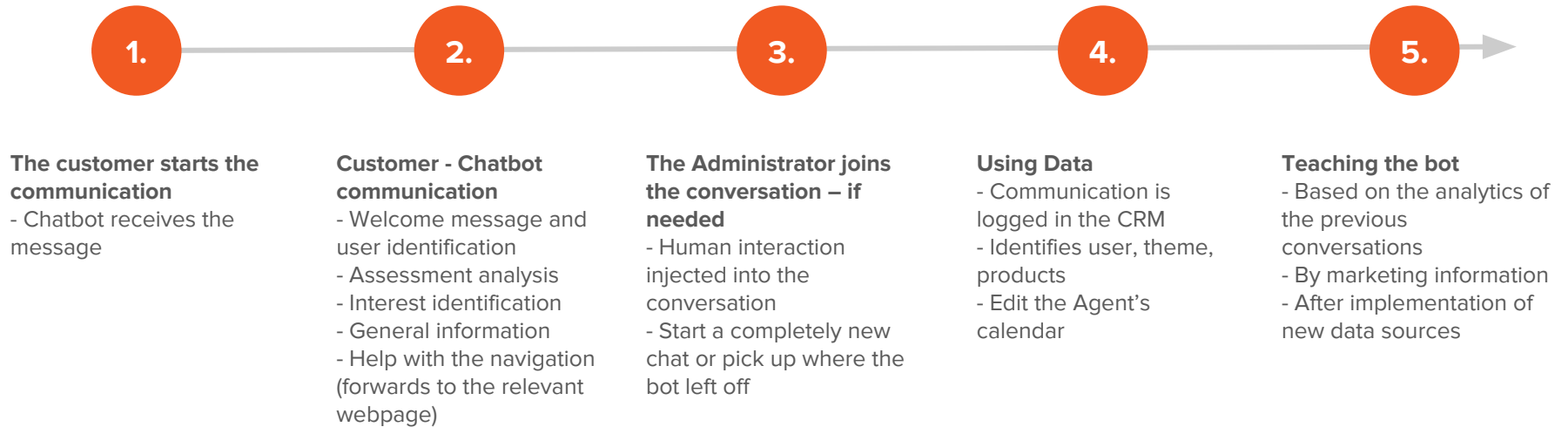
Note: Estimates are calculated against the potential of bots replacing these positions: Insurance sales rep = 60%; Securities, commodities, and financial services rep = 46°; Sales rep = 36%; Customer service rep = 29°.
Source: McKinsey estimates, US Office of Personnel Management
Source: BI INTELLIGENCE, The Chatbots Explainer, 2016

CHATBOT FLOW

1. **2.** **3.** **4.** **5.**

The customer starts the communication
- Chatbot receives the message

Customer - Chatbot communication
- Welcome message and user identification
- Assessment analysis
- Interest identification
- General information
- Help with the navigation (forwards to the relevant webpage)

The Administrator joins the conversation – if needed
- Human interaction injected into the conversation
- Start a completely new chat or pick up where the bot left off

Using Data
- Communication is logged in the CRM
- Identifies user, theme, products
- Edit the Agent's calendar

Teaching the bot
- Based on the analytics of the previous conversations
- By marketing information
- After implementation of new data sources

POTENTIAL CHATBOT USE CASES

Disclosure of information

Situation flow

Sales and support

Theme	Process	Execution and expected advantages
Information request	Webpage chatbot helps the users to find the most appropriate information, by using the Q&A, FAQ and other sources.	This function needs a trained chatbot. In a pilot phase CRM integration is not necessary, as a standalone logging tool is created. Flexible, informative, one-gate on-demand customer service.
Interest	User indicates interest about the products/services, offers, contact details or products from his/her own portfolio.	In case of CRM reading connection we can serve the customer based on his/her own product portfolio.
Edit	The customer starts editing account preferences. The chatbot helps the user during the modification and amends data on the backend server automatically.	The chatbot is given write and read access to the database, so it can amend data without human supervision.
Self service support	The users can complete certain account changes with the chatbot for example change password, request account information	The self care chatbot helps users to achieve seamless and issue free transactions.
Order	The user orders via chatbot. The chatbot collects basic data and transfers to the sales agent.	Orders via chatbot help to increase the rate of the agreement, as a chatbot conversation supports users all the way through the purchase journey. Chatbots have higher effectiveness compared to general websites, as they incorporate seamless agent connection.
Outbound contact	Outbound campaign based on received marketing information where the chatbot starts the outbound conversation. Analyzing the replies the chatbot creates a custom tailored proposal or connects a sales agent if necessary.	Collect information and map customer needs and openness for selected products. After receiving the initial data, chatbots facilitate the conversation between the customer and the sales agent, resulting in better conversions.

TWO PHASES OF IMPLEMENTATION, CONTINUOUS DEVELOPMENT

1. Phase - Prototype soft-launch

Facebook messenger platform, free conversation

- Defining the specification
- Conversation design
- Chatbot implementation
- Analytics setup
- Implementation of supervised Machine Learning

Results and actions

- Monitoring, failure analysis
- Discover further development opportunities
- Identify possible teaching points

2. Phase - Extension

Middleware development capable of connecting to every messenger platform + Chatbot - CRM connection

- Identify user, conversation theme, topic, product during the conversation
- Conversation flow and summary are logged in the CRM
- Fine tune chatbot analytics system, adding more data points
- Using Natural Language Processing with supervised Machine Learning
- Possible marketing campaign support, outbound chatbot conversations

Results and actions

- Monitoring, failure analysis
- Identify further development and teaching points
- CRM implementation, audit

SUPERVISED MACHINE LEARNING FRAME

1. Phase - Prototype soft-launch

- Creating scripts
- Conversation logging
- Setting up main Key Performance Indicators
- Continuous data collection by customized structure / according to customized structure

Result:

- Setting up Machine Learning teaching points
- Setting up optimal teaching periods
- Create milestones for further development
- Value analysis

2. Phase - Custom development

- Mark the unknown, unparameterized conversations
- Analytics platform implementation
- Teaching the chatbot using results from the previous stage
- Upgrade the Analytics as necessary

Result:

- Supervised Machine Learning with continuous monitoring
- Mapping and resolving unknown expressions
- Creating new scripts and expansion of the conversation flow

3. Phase - Supervised self-study (from available Database)

- Algorithm assisted learning
- Preceding 8-10 months data collection
- Analyse the question-answer data pairs
- Understand the user behavior and teach the chatbot

Result:

- Generate chatbot answers based on user behavior and existing conversations
- Determine necessary human interactions
- Predictive analytics

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NEXT TECH DIGITAL SOLUTIONS