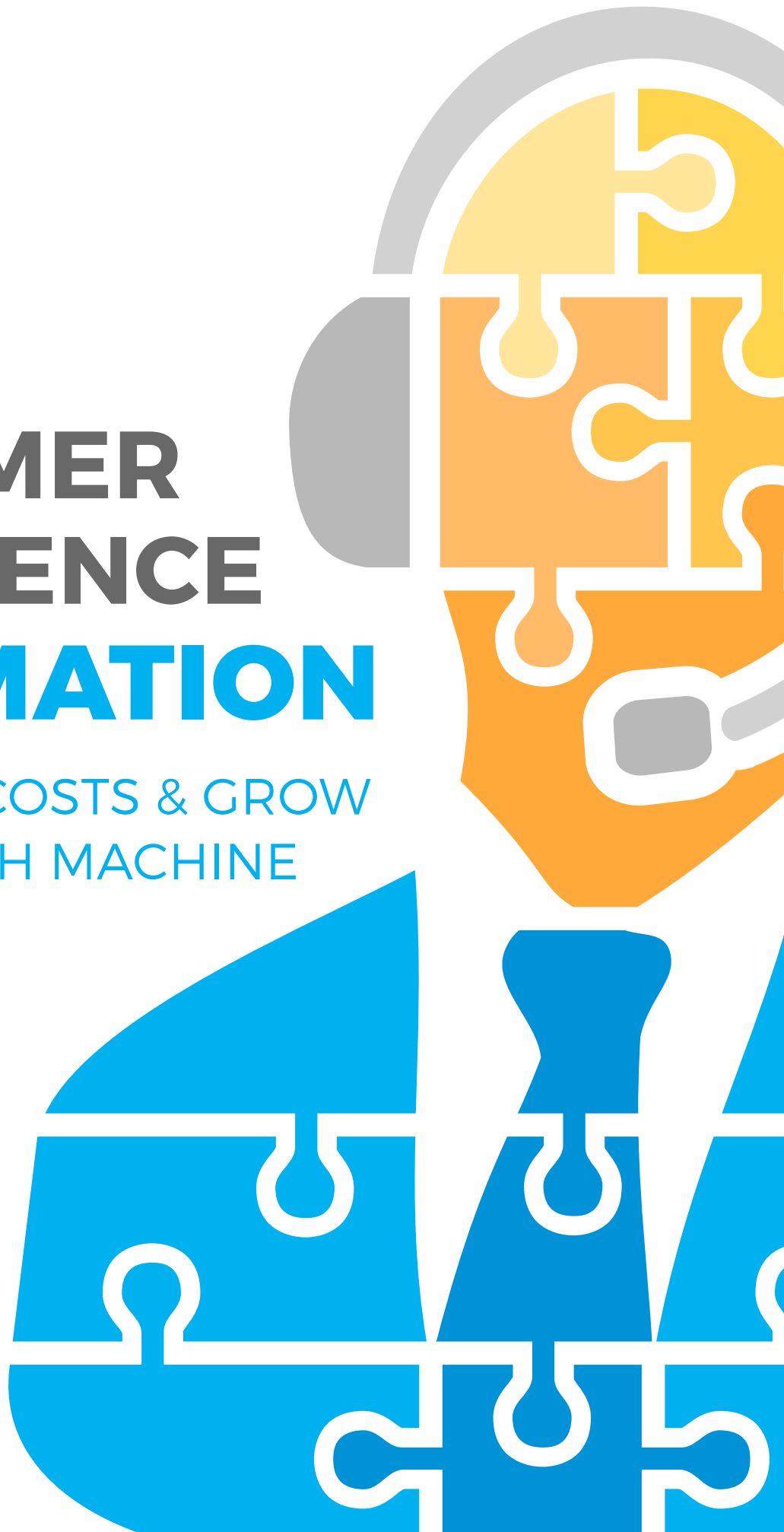


CUSTOMER EXPERIENCE AUTOMATION

HOW TO CUT COSTS & GROW
BUSINESS WITH MACHINE
INTELLIGENCE



CONTENTS

ABOUT CUSTOMER EXPERIENCE AUTOMATION	3
ABOUT TOPBOTS	4
INTRODUCTION	5
STATE OF CUSTOMER SERVICE	8
MODELS OF ARTIFICIAL INTELLIGENCE IN CUSTOMER CARE	12
LANDSCAPE OF PROVIDERS AND CATEGORIZATIONS	21
TYPICAL DEPLOYMENT OF AI SOLUTIONS	26
METRICS FOR SUCCESS	30
BEST PRACTICES AND TIPS	33
PERFORMANCE RESULTS	39
DEEP DIVES INTO ESTABLISHED PROVIDERS	47
DEEP DIVES INTO FAST GROWING STARTUP PROVIDERS	55
CONCLUSION & NEXT STEPS	59

ABOUT CUSTOMER EXPERIENCE AUTOMATION

Today's consumers are increasingly prioritizing customer experience and service in their purchasing decisions, sometimes even over product or price. They expect brands and businesses to be responsive across all communication channels, ranging from traditional call centers and email support to social media, messaging apps, and even smart connected devices.

At the same time, costs to service high consumer expectations are rising rapidly. Customer support tickets can cost several dollars each and require multiple days to resolve, while agent churn is high and job satisfaction is low. Businesses increasingly depend on automation, artificial intelligence, and bots to handle routine or simple inquiries while escalating important and strategic issues to experienced human staff.

Intelligent application of emerging technologies to customer experience have lead to up to 90% lower support costs, 99% lower resolution times, and significantly elevated morale for support teams. Learn how leading global companies have successfully implemented customer experience automation and how you can adapt winning solutions to your own business.

ABOUT TOPBOTS

TOPBOTS is a strategy & research firm focused on applied AI for enterprises. Our customers include leading global companies such as L’Oreal, Paypal, and WPP. We advise business leaders, executives, and practitioners on emerging technology trends and help them successfully apply them to their organizations.

To learn how to adopt automation technologies and AI for your organization, contact us at strategy@topbots.com.



Marlene Jia
Chief Revenue Officer



Julia Bobak
Technology Analyst

HOW YOU CAN WORK WITH US

- To discuss how you can adopt automation technologies and AI at your own organization, contact us at strategy@topbots.com.
- To get your executive team up to speed on emerging technologies and their impact on your industry, ask us about our corporate education programs by emailing education@topbots.com.
- To raise your AI IQ, read our publication at TOPBOTS.com or subscribe to our newsletter.

INTRODUCTION

INTRODUCTION

By 2020, customer care will overtake product and price as the number one way for a business to differentiate itself.¹ This is the age of the customer, and companies must progress to meet changing consumer expectations. In the words of famed economist Arthur F. Sheldon, “He profits most who serves best”. Half of consumers would take their business elsewhere within a day as a result of poor customer service.²

How soon would you end your business relationship with a current company and take your business to their competitor should they satisfy your criteria?

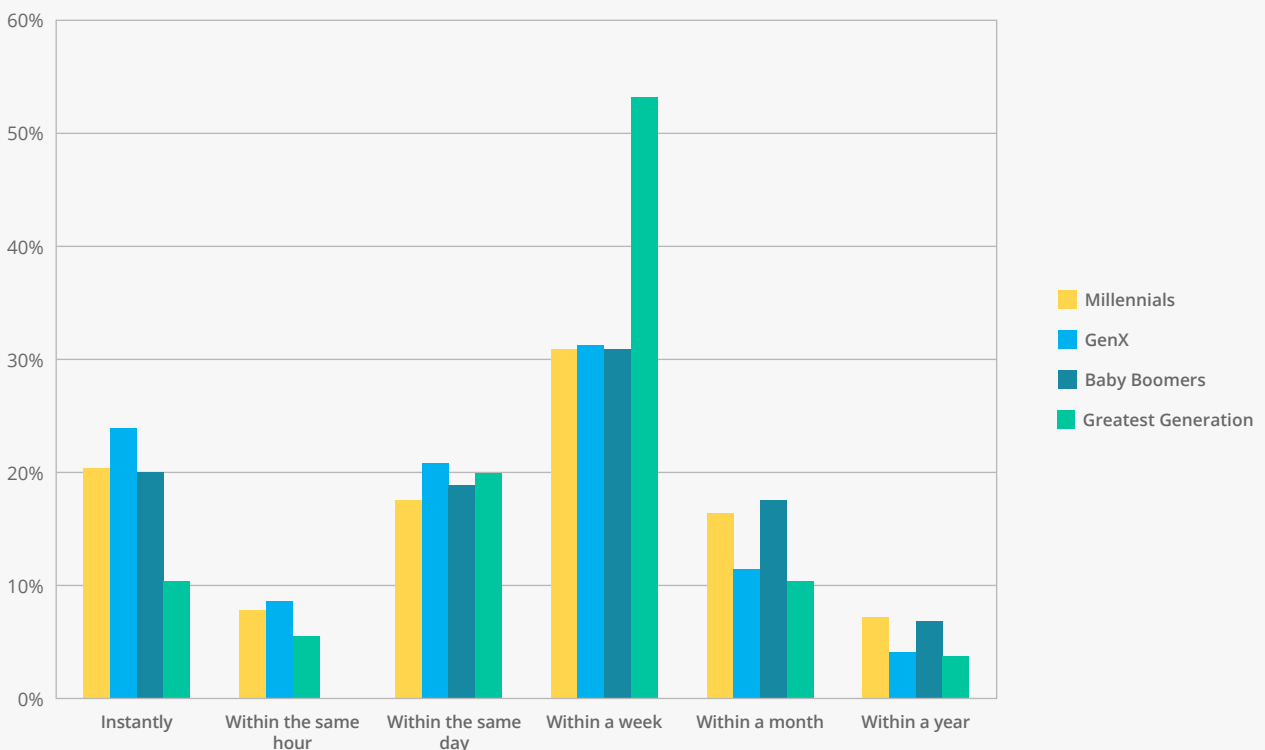


Image Credit: TOPBOTS (Based on Hong, David, 2016 US Customer Engagement Index)

1. Cotrupe, Jeff. Conversational A.I.: It's A Bot Time for a New Conversation on Customer Engagement. Stratecast Frost & Sullivan, 2016.

2. [24] 2016 US Customer Engagement Index, 2016.

Call centers now house hundreds of thousands of agents at a cost of \$4 to \$12 per service request.³ The costs of keeping customers happy is skyrocketing. Even with small startups, one of the first time hires is a customer service representative.

Business have long recognized the potential of automating simpler customer service queries. Recently, customer management software options, employing various levels of artificial intelligence (AI) have flooded the market. Automation and “virtual” employees allow businesses to scale up their services and revenue without a concurrent increase in costs.

Along with the rise of technology, customer preferences are evolving. 64% of consumers expect real-time responses at any time, and 65% say they are likely to switch brands if they receive inconsistent customer service across platforms (online, in-store, phone, text, email).⁴ Customer tastes have also shifted from talk to text. Studies reveal that 64% of people, millennials in particular, prefer texting to talking.¹ A TIME Mobility Poll in 2013 began analyzing this trend and found Americans ages 18-29 send and receive nearly 88 text messages per day vs. 17 phone calls. Additionally, the poll found 32% of all respondents would rather communicate by text, even with close friends and family.

The move towards texting is not necessarily indicative of antisocial behavior. As “quiet media”, texting and messaging are less disruptive in public spaces. They are also regarded as “more private” because they do not require speaking aloud when providing sensitive information such as PINs, passwords or account numbers.

Messaging can also be a richer medium than just voice. People add emojis, stickers, photos, animated GIFs, links to Web sites, and video to their messages. In this agile, API-rich environment, people can launch apps, initiate transactions and make payments inside messaging apps. The implications for customer care and digital commerce are profound.⁵



IT COSTS

\$4 TO \$12

OR EVEN MORE,
TO ANSWER
EACH SERVICE
REQUEST

3. Witcher, Brendan. Good Alone, Better Together: Integrating Chat And Virtual Agents. Forrester Research, 2014.

4. Second Annual State of Service: Insights and trends from over 2,600 global service trailblazers. Salesforce Research, 2016.

5. Witcher, Brendan. Good Alone, Better Together: Integrating Chat And Virtual Agents. Forrester Research, 2014.

STATE OF CUSTOMER SERVICE

STATE OF CUSTOMER SERVICE



Image Credit: Shutterstock

HISTORICAL TRENDS IN CUSTOMER SERVICE

Customer service is in a period of flux and moving towards automation and self-serve. Initially, customer service departments were exclusively staffed by onshore representatives reachable by toll-free numbers. As costs in this model grew too high, call-centers moved offshore. When offshore models became less cost effective, automation was introduced. However, early attempts, such as IVR, were clunky and functionally limited, leading to increased frustration for consumers and limited cost savings for businesses.

Today, the technology for virtual assistants and automated self-serve customer service has arrived. The ultimate goal is fully AI-based autonomous intelligent assistants, but the current best practice is to pair an agent with a bot in a hybrid “cyborg” model. This partnership allows agent and AI to compensate for each other’s weaknesses and work as one team. More on this later in the report.

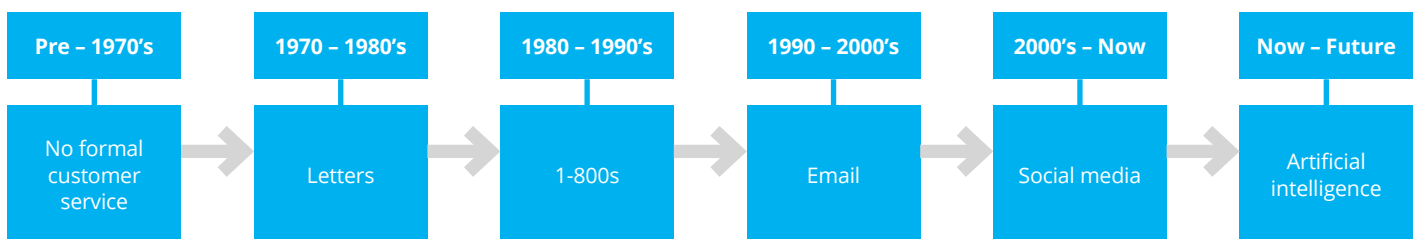


Image Credit: Julia Bobak, TOPBOTS

TRADITIONAL CUSTOMER SERVICE ROUTING

Updating call routing strategies should be the first point of attack to improve customer experience. Delivering the customer to the right agent on the first try leads to greater satisfaction, more efficient transactions, and cost savings. The challenge lies in having a fixed set of resources (agents, time) faced with highly variable customer demands. Intelligent customer routing is an imperative. Six main intelligent routing strategies are available:⁶

1. CUSTOMER RETENTION ROUTING: intelligent business systems can rank customers based on their risk of churn. Calls are then routed such that customers with the highest flight risk are assisted first and agents are given warning.

2. ROUTING CALLS TO THE LAST AGENT SPOKEN WITH: a common customer complaint is that they rarely speak to the same agent on sequential calls and must repeat the context. This problem can be addressed by routing callers to the last agent they spoke with.

6. Call Routing Strategies Improve Customer Service. PSSHelp, 2013.

3. BEST PROSPECT ROUTING: the best prospective customer is routed to the top agent for the best close rates. However, the business intelligence required to rank prospective customers is difficult.

4. CROSS-SELLING IN THE QUEUE: while on hold, a customer is offered products or services they are likely to desire. The offerings can be customized based on previous customer data. This takes advantage of what would otherwise be down time to potentially increase profits and benefit the consumer.

5. MULTI-CHANNEL QUEUING: customers increasingly demand multi-channel access to representatives. Simply providing a toll-free number is no longer enough, businesses must be able to properly route calls, texts, and emails. Routing in this case is typically done based on the agents' abilities in each platform.

6. ROUTING OUTSIDE THE CONTACT CENTER: cases that require specialized knowledge should be able to be routed to experts within the enterprise that are not call center staff. The concept can be further developed into "virtual" contact centers with calls routed throughout the business.

CUSTOMER PAIN POINTS

Customers report that inconsistency in experience across different channels and agents is the most frustrating problem with customer service. Other commonly reported complaints include conflicting experiences on different platforms, unacceptable complaint resolution times, minimal accessibility on social media, and unsatisfying experiences with support centers. The results of this survey, conducted by Gatepoint Research in 2016, lay bare the many aspects of customer service that could improve with increasing automation.⁷

7. Technology Trends in Customer Support Centers. Gatepoint Research PulseReport, 2016.

MODELS OF ARTIFICIAL INTELLIGENCE IN CUSTOMER CARE

MODELS OF ARTIFICIAL INTELLIGENCE IN CUSTOMER CARE

The promise artificial intelligence and virtual agents is improved user experience and decreased servicing costs. These can occur through several pathways.⁸

First, virtual agents can be used to ensure the customer is routed to the proper department. Virtual agents are conversational computer programs that interact directly with a customer without human intervention. They are also known as “front end bots”, “virtual assistants”, or “automated assistants”. Many call centers have separate channels for sales and support, routing the customer incorrectly harms both the business and consumer. An incorrect routing frustrates the customer, increases the transaction time, and requires the engagement of multiple agents. Utilizing a virtual agent to pre-screen calls ensures that users are directed properly.

Virtual agents also allow for up-scaling with minimal cost adjustments. This is particularly useful during unexpected times of heavy call traffic. Virtual agents working in tandem with humans can manage spikes in demand without the need to hire additional agents. Relatedly, virtual agents reduce the overall number of employees needed by independently managing high-volume, low-value transactions. This frees companies from the hiring, training, and assimilating of new employees and yields significant cost savings.

Finally, virtual agents have been shown to benefit the contact center employees as well as their customers. Associates are no longer faced with managing the same trivial queries day-in and day-out and are less likely to develop “associate fatigue”. The result is higher quality conversations when a transaction must be escalated to a live agent.

8. Witcher, Brendan. Good Alone, Better Together: Integrating Chat And Virtual Agents. Forrester Research, 2014.

EVOLUTION FROM HUMAN TO BOT

Customer service has traditionally been a field that relies on the empathic abilities of a human being to resolve issues. Yet as the costs for human staffed call-centers have grown, automation has become imperative and led to the introduction of bots. A bot is a software application that runs automated tasks over the Internet at a much higher rate than would be possible for a human. Today's bots are becoming increasingly complex and functional.

There are two primary models businesses use when incorporating automation into their customer service departments: the "bot-only" model and the "bot-assisted agent" or "cyborg" model. Both have pros and cons and selecting the correct option depends upon the overarching goals of the business.

In the bot-only model, a conversational computer program interacts directly with a customer without human intervention. A "bot-assisted agent" is a human agent supported by bot technology. Other terms for the model include "cyborg", "human in the loop", and "hybrid model." The bot advises the agent on the best course of action or automates knowledge search and other agent functions. At present, the consensus is that bot-assistant hybrids are more effective than bots acting independently, but only if there is seamless transitioning between bot and human agent. LivePerson reported a 30 – 35% increase in efficiency using this model.

The biggest challenge for purely virtual bots is processing natural language and interpreting customers' questions. Clients and businesses often do not use the same language when describing a problem. As a result, they see a very high error rate. This challenge may be alleviated in the future as increasingly sophisticated artificial intelligence bots with stronger natural language processing (NLP) and natural language understanding (NLU) are developed.

VIRTUAL ASSISTANCE



BOT-ASSISTED AGENT



Image Credit: Julia Bobak, TOPBOTS

TYPES OF AI IN CUSTOMER SERVICE

AI-based customer service can be further broken down into six categories of AI.⁹

1. MULTIPLE CHOICE CHATBOTS

Though frequently referred to as "AI" technology, these manually scripted bots contain no intelligence. Instead, they are used to simplify transactions by using a more conversational form of input and output. The retail and travel industries make frequent use of this type of bot.

9. Davis, Ben. An introduction to AI and customer service. Econsultancy, 2017.

2. VIRTUAL AGENTS

Virtual agents (VAs) have been on the market for several years, but they remain essentially glorified search engines able to parse FAQs. The language programming of most VAs is designed to match keywords rather than infer meaning from a request.

3. BOT-ASSISTED AGENTS

These “human in the loop” or “cyborg” models are the next step up from virtual agents. This symbiotic relationship allows bots to increase the efficiency of conversation while a human agent monitors quality control and gives customers both correct and personal answers.

4. REAL-TIME EMOTIONAL ANALYSIS

Emotional analysis software interprets customer emotions, intentions and social signals in real time enabling increased customer and agent satisfaction. This technology is still early, but reported results from companies adopting the software are promising.

5. INTELLIGENT ASSISTANTS

As contrasted with virtual assistants, intelligent assistants are the ultimate end-goal and comprise a fully-automated solution. Improvements in natural language processing (NLP) will be needed to realize this outcome as current technology has unacceptable error rates.

6. CONTENT CURATION

Content curation is distinct from the five already listed. Primarily useful to online retailers, a content-curation bot would learn based on a customer’s answers to questions and/or previous purchases in order to offer personalized product suggestions.

KEY TECHNOLOGIES FOR IMPLEMENTING VIRTUAL ASSISTANTS

A 2016 Stratcast analysis² pinpointed five key technologies that provide the foundation for VAs:

1. MACHINE LEARNING

Machine learning (ML) is a set of technologies that enable a computer to develop new behaviors without explicit programming. Programs can be built to take in data and adapt responses based on evolving inputs.

2. ARTIFICIAL INTELLIGENCE AND ARTIFICIAL GENERAL INTELLIGENCE (AI/AGI)

Artificial intelligence builds on machine learning by enabling machines to exhibit intelligent, human-like behavior. Customer service departments thrive on human-to-human connections, but they no longer produce sufficient revenue per interaction. An intelligent program that can interact like a human, but without a salary, is the ultimate cost-effective and scalable means to deliver personal customer service affordably.

3. NATURAL LANGUAGE PROCESSING (NLP)

NLP is the ability of a computer to interpret or understand human language, both typed and using voiced speech, and take appropriate action. Typically, computers are not programmed to think or speak like a human, resulting in a fundamental disconnect when the two are required to communicate. Furthermore, customers and businesses also communicate differently. NLP attempts to bridge these gaps.

4. REAL-TIME ANALYTICS

Real-time analysis of customer inputs and responses occurs via stream processing of data in primary data storage, or random access memory (RAM), before the data is sent to secondary data storage. Though this technology is promising in terms of increasing efficiency and customer experience, it is currently in a development stage.

5. WEB SERVICES AND USER PROFILES

Web services support interoperable machine-to-machine interaction. This enables systems to develop user profiles by accessing customer demographic and usage basics as well as a variety of contextual, social, and behavioral data points. Ultimately, this data could be processed by a machine intelligence to offer the consumer custom recommendations for products and services.

AI IMPLEMENTATION STRATEGY

The implementation of AI requires some forethought and should be undertaken with the following considerations in mind.¹⁰

1. START WITH A SIMPLE CHATBOT BEFORE UPGRADING TO A VA

The data obtained from the chatbot allows the business to develop a VA with greater efficiency and that is better attuned to customer needs.

2. ALWAYS KEEP THE CUSTOMER IN MIND

Knowing where and how to best deploy AI requires an understanding of the customers' needs. It also requires a knowledge of the customers' language and how it is distinct from the language of the business. Meet the customer on their own terms. For instance, when surveyed, more than half (62%) of respondents prefer chatbots to use a casual or friendly tone, while 21% preferred the bots to use a formal tone.¹¹

3. HAVE THE APPROPRIATE BACK-END INFRASTRUCTURE

Launching self-service tools may not be complex, but they will only be effective if they are faultlessly integrated into existing customer relationship management systems. Customers need to be able to flow seamlessly from VA to chat to live agent to avoid frustration.

4. TIE-IN TRANSACTIONAL SYSTEMS

Eventual integration of self-serve assistance with transactional systems like billing yields greater overall benefit for the customer and gets the most value from the VA.

10. Witcher, Brendan. Good Alone, Better Together: Integrating Chat And Virtual Agents. Forrester Research, 2014.

11. Bradbury, Rurik. How consumers view bots in customer care. LivePerson Research, 2017.

5. KNOW WHEN ESCALATION IS REQUIRED

Rules must be established as to when a VA escalates a customer to a live agent. Overly complex queries, sensitive information, or even the detection of frustration on the part of the customer should all be signals that human input is required. It must also be clear to the user whether they are speaking to a human or a bot.

6. ALLOW THE CUSTOMER TO SELF-IDENTIFY ACROSS CHANNELS

Find a way to identify a customer, either through an email address or ID number, to which the customer can refer during subsequent contact. This eliminates one of the major customer frustrations and streamlines the customer service process.

POTENTIAL PITFALLS TO AVOID WHEN INTRODUCING AI

The introduction of AI to the customer service department of a business is proven effective, but it is important to initialize correctly to limit the risk of roll-out problems and resultant customer loss. Avoiding common pitfalls ensures a seamless transition to self-service.¹²

1. INCOMPLETE KNOWLEDGE

Providing VAs and chatbots with an incomplete knowledge base can occur when the business introduces AI to do too much, too quickly. Launching self-serve solutions in the areas for which the knowledge foundation is available is the best way to begin implementation with upgrades occurring as the knowledge repository increases. Avoid using different knowledge bases across different service channels to prevent giving customers conflicting information.

2. ONE-SIZE-FITS-ALL ESCALATION STRATEGY

A one-size-fits-all escalation strategy is also a mistake as differing types of businesses and customer demands may necessitate their own set of rules. Take the time to establish appropriate points of transfer between bot and human. Sensitive or embarrassing information may be better served on different platforms.

12. Witcher, Brendan. Good Alone, Better Together: Integrating Chat And Virtual Agents. Forrester Research, 2014.

3. LACK OF ACCESS TO CUSTOMER ACCOUNTS AND HISTORY

There is no greater frustration to a customer than being required to speak to multiple bots, agents, or departments to resolve an issue. When rolling out an AI-enhanced customer service department, ensure that the VAs have the same access to customer accounts and histories as the live agents.

4. NOT CONTINUOUSLY IMPROVING AI

Failing to continue to train and update VAs is another potential pitfall. Much like a human employee may require retraining to keep pace with business developments, AIs must be updated as the business grows, requirements change, or policies shift.

5. NOT KNOWING CUSTOMER PREFERENCES

Bear in mind when a customer might prefer to speak with an agent instead of a bot. Studies have shown not all tasks are created equal given a consumer's comfort level in trusting a chatbot. A recent survey offered the following results, some of which are counter-intuitive:

- 52.4% of respondents would trust a text bot to assist in recommending a restaurant
- 12.4% would trust a text bot to assist in finding and applying for a credit card
- 9.6% of respondents would trust a text bot to assist with finding a match for a date
- 4.9% would trust it to diagnose an illness.
- 16.5% would trust a bot to count their ballot for president
- 5.1% would trust a bot to give legal advice
- 6.2% would trust a bot recommend a financial plan

And finally:

- 30.5% wouldn't trust a text bot to assist with anything

These findings highlight that the most important factor when considering an upgrade to automation is to know one's customers.¹³

13. Survata Bots Survey US, 2016.

LANDSCAPE OF PROVIDERS AND CATEGORIZATIONS

LANDSCAPE OF PROVIDERS AND CATEGORIZATIONS



Image Credit: Shutterstock

As automation becomes the best way to handle a growing business without the accompanying growth in expenses, more and more solution providers are entering this space. This diverse array of providers, from start-ups to large enterprises, can be categorized based on their offering type.

CONTACT CENTER SOFTWARE

Providers in this category represent the major players in the space of AI-powered customer care. They provide either standalone virtual agents or virtual assistants designed to be paired with a human agent in a call center context. Such offerings allow for the personalization of customer interactions by addressing channels, customer routing, resource matching, and data captures in real-time to offer the best feedback.

Standouts in this space include LivePerson, [24]7, Nuance, IPSoft, NextIT, 8x8 Inc., Interactive Intelligence, and Avaya. Another is SignPost, which offers an SMB platform and an AI assistant known as Mia. Other companies with a more traditional customer service platforms are LiveAgent, Zendesk, Freshdesk, LiveChat and Intercom.

PLATFORM INFRASTRUCTURE PROVIDERS

This space is occupied by large companies offering a platform that can be adopted by customer care departments. Perhaps the most obvious player in this space is Facebook Messenger, which many companies use as a platform for chatbots. Google too has announced a customer service platform. In its current iteration, Google's is only a transcription service, but expansion seems likely. IBM's Watson has also entered this space with the introduction of a set of APIs, but they do not yet offer an easy to implement solution for non-technical teams. Microsoft also offers several APIs in the areas of natural language processing and bot platforms targeted to developers. Twitter recently entered the game with the launch of bots and automated direct message responses. Amazon entered the market in March of 2017 with the launch of Amazon Connect, a self-service, cloud-based contact center service.

AGENT AUTOCOMPLETE PROVIDER

Agent autocomplete AIs offer suggestions to human agents when resolving a ticket. They provide automated, intelligent responses to the most commonly faced queries. Unlike a simple rule-based chatbot, AI agent assistants draw on past conversations to understand the language of the customer and generate a suitable response. To operate effectively, these programs require a relatively large volume of past support conversations. Companies in this space include DigitalGenius, Inbenta, eContext and True AI.

BOT FOCUSED STARTUP PROVIDERS

Startups are entering this space providing bot-centric conversational AI solutions to customer care problems. These companies provide chatbots that employ real-time machine learning to interact with customers on a messaging platform and escalate to a human agent when needed. The market for conversational AI is large and many startups have entered this area promising similar solutions. Examples include msg.ai, Conversable, Chyme, Converse, Agent.ai, Hellovera, Pypestream, Kasisto and Eloquent Labs.

AUTOMATED RESPONSES

This classification includes companies that are seeking to offer solutions in which a machine handles a large portion of requests with minimal human intervention. With improvements in software and AI programming, this field is expected to grow as it represents an ultimate end-point to the introduction of automation in customer service. [24]7 is one company hoping to deliver solutions in this area. They offer an artificial intelligence platform that “transforms data into decisions to create intent-driven experiences that are highly personalized—across channels, journeys, and devices.” Many companies play in this space with differing levels of technical sophistication, including Inbenta, Nuance (Nina), NextIT, and IPSoft (Amelia).

TICKET ROUTING OPTIMIZERS

Ticket routing optimizers are AI programs that offer intelligent routing solutions to maximize business efficiency. These AIs do not interact with customers themselves, but direct customers' inquiries to the correct party as quickly as possible. They essentially offer a triage service for customer service tickets leading to higher customer satisfaction scores, reduced case volume, and efficient multi-channel service. Companies in this space include Solvvy, Avaya, Genesys, and Cisco.

'SHALLOW' LEGACY CUSTOMER SERVICE PROVIDERS

The early 21st century saw the rise of the online help desk. This service, considered largely outdated now, is essentially a chat process that acts as a search directory through frequently asked questions. Early players in this field were Zendesk, Freshdesk, Zoho, and Desk.com (acquired by Salesforce). While these companies still exist, they have evolved their offerings considerably to stay current.

SOCIAL MARKETING AND CARE SOLUTIONS

Companies in this space offer social media management (SMM) to brands looking to integrate marketing, advertising, care, sales, research, and commerce on Facebook, Twitter, LinkedIn and other social channels. This type of provider is very current, with the rise of social networks in the past decade necessitating development in this area. At the forefront is Sprinklr, but new entries in the field are emerging including Conversocial, Spredfast, and Percolate.

TYPICAL DEPLOYMENT OF AI SOLUTIONS

TYPICAL DEPLOYMENT OF AI SOLUTIONS



Image Credit: Shutterstock

Deploying an AI solution in a business for the first time is a multi-step procedure that should not be taken lightly. An appropriate roll-out allows customers to adjust without being made uncomfortable by the changes. Making mistakes during the initialization phase will immediately frustrate customers and cause them to jump ship.¹⁴

14. Make your virtual assistant 'Employee of the Year'. Nuance White Paper, 2017.

1. ESTABLISH GOALS

The first step, before even determining the best platform to meet the business's needs, must be to set clear goals for what AI is expected to achieve. Is it improved customer experience? Lower contact center costs? Multi-channel connection with consumers? Listing the ultimate aims of the upgrade in order of priority will make all subsequent decisions and steps easier.

2. IDENTIFY USE CASES

The next step is to define use cases – the conversations and situations the AI will be expected to handle. These cases will strongly depend upon the previously established goals and may range from a specific set of questions to broader analysis to large-scale robotic process automation.

3. DEFINE BRANDING AND VOICE

It is equally important at this stage to decide on an appearance for the AI. Will it have an avatar? Will it look human? What tone of voice will it employ? These decisions must be made by considering the needs and opinions of the consumer. For example, 62% of consumers prefer bots to engage in a friendly tone as opposed to only 21% who prefer a formal interaction. Consumers in Japan, Germany and France are more likely than their American counterparts to favor bots with names and personalities.¹⁵

4. INTEGRATE TECHNOLOGY

The design of the proposed bot or VA is followed by technical integration within the existing business infrastructure. This is the stage at which use cases that require the designing and building of new APIs are addressed.



SET CLEAR GOALS FOR WHAT THE AI IS EXPECTED TO ACHIEVE



15. Bradbury, Rurik. How consumers view bots in customer care. LivePerson Research, 2017.

5. DEVELOP LANGUAGE MODELS

The fifth, and arguably most important step, is the development of the natural language model the bot or VA will employ. This programming determines how the bot will interact with customers, how it will interpret their queries, and how it will respond. This stage typically involves parsing large transcripts of previous customer interactions to identify trends in customer demands. The development of the language model is essentially “employee training” for the AI.

6. TEST, TEST AND TEST SOME MORE

The final two stages of any AI deployment are testing and going live. In the testing phase, an iterative process is used to continually update and improve the AI as it learns to adjust to new demands. Conception to the end of pre-production testing can take weeks or months depending on the complexity of the demands and platform.

7. GO LIVE

When the AI finally goes live, another several weeks or months should still be devoted to analyzing progress and making necessary tweaks. More attention paid to the roll-out of an automated customer or employee care program yields an easier transition and greater returns.

8. CONTINUE IMPROVING

A dedicated team must be created with the ongoing task of reviewing metrics and updating the AI over time such that it can grow with the company. Because company products, promotions, news, policy and more change over time, resources must be allocated for reviewing and fine-tuning customer-agent-bot dialogues.



IT'S ESSENTIAL TO ALLOCATE ENOUGH RESOURCES
TO MAINTAIN, UPDATE AND IMPROVE THE SYSTEM
POST-LAUNCH

METRICS FOR SUCCESS

METRICS FOR SUCCESS



Image Credit: Shutterstock

There are several key metrics that establish the efficacy of a customer service system. The **Average Handle Time (AHT)** describes the average duration of a single transaction, from customer's initiation through to the conclusion of the request. This includes talk time, hold time and time spent after the call to conclude the transaction. AHT is one of the most important factors in analyzing the call-center model and determining staffing levels.

First Contact Resolution (FCR) is a metric quantifying the percentage of transactions that are resolved on the first call, without requiring follow-up by the customer. This value is strongly linked to customer satisfaction.

Time To Resolution (also called mean time to resolution (MTTR) and resolution time) is the average amount of time it takes to resolve a case. It's usually measured in days or business hours. Because no one wishes to spend a lot of time dealing with customer service, MTTR is directly linked to customer satisfaction.

A third metric, the **Meaningful Connections Score (MCS)**, is a proprietary technology from LivePerson that gives real time feedback on customer satisfaction. Their engine analyzes customer responses during a conversation and scores them on a scale from negative to positive. Using MCS flagging can increase FCR, enhance contact center management quality monitoring, increase upsells and improve operational efficiency.¹⁶

Customer Deflection, also known as customer churn or customer defection, is the rate at which customers are lost. It is calculated as the percent of customers who buy in one period and not in the next. This important metric provides a clear indication that customers see diminishing value from the company. A climbing defection rate is an equally clear predictor of revenue loss for a company. Even if the lost customers are replaced, new customers cost money to acquire and old customers tend to be greater contributors to cash flow.

The **Net Promoter Score (NPS)** measures the likelihood of a customer recommending a given business to a friend or colleague. It is calculated through customer surveys. While often heralded as one of the most important customer service metrics, it remains controversial due to the nature of data gathering.



FIRST CONTACT
RESOLUTION (FCR)

TIME TO RESOLUTION

MEANINGFUL
CONNECTIONS SCORE
(MCS)

CUSTOMER
DEFLECTION

NET PROMOTER
SCORE (NPS)

16. Meaningful Connection Score. LivePerson.

BEST PRACTICES AND TIPS

BEST PRACTICES AND TIPS



Image Credit: Shutterstock

CHOOSE THE RIGHT BOT MODEL

There are two models of customer service bots — a “front end bot” and a “bot-assisted agent”. A standalone front-end bot is the first line of customer inquiry and typically serves as a conversational version of the FAQs. These bots escalate to a human agent when stumped by challenging questions. The second model of “bot-assisted agent” or “cyborg” model has an AI-powered bot assisting a human agent. In this version, the bot provides suggested customer responses for the agent to modify, if needed, and send. Both models have their pros and cons, and selecting one is a fundamental decision before implementing a bot.

Small and medium businesses which deliver straightforward products and services often see the same handful of customer service inquiries over and over. Delivering answers to customers is often easier and cheaper through a standalone front-end chatbot rather than a lengthy FAQ, an expensive call center, or a more complex cyborg model.

Large enterprises typically have too much variance in service requests to be handled by standalone front end bots. Some multinationals, like airlines, service such a high volume of customers with nuanced preferences, plans, and exception conditions that many service cases still require human judgment and overrides. Other corporations, like large financial or enterprise software firms, deal with inquiries too complex for a bot to handle alone.¹⁷

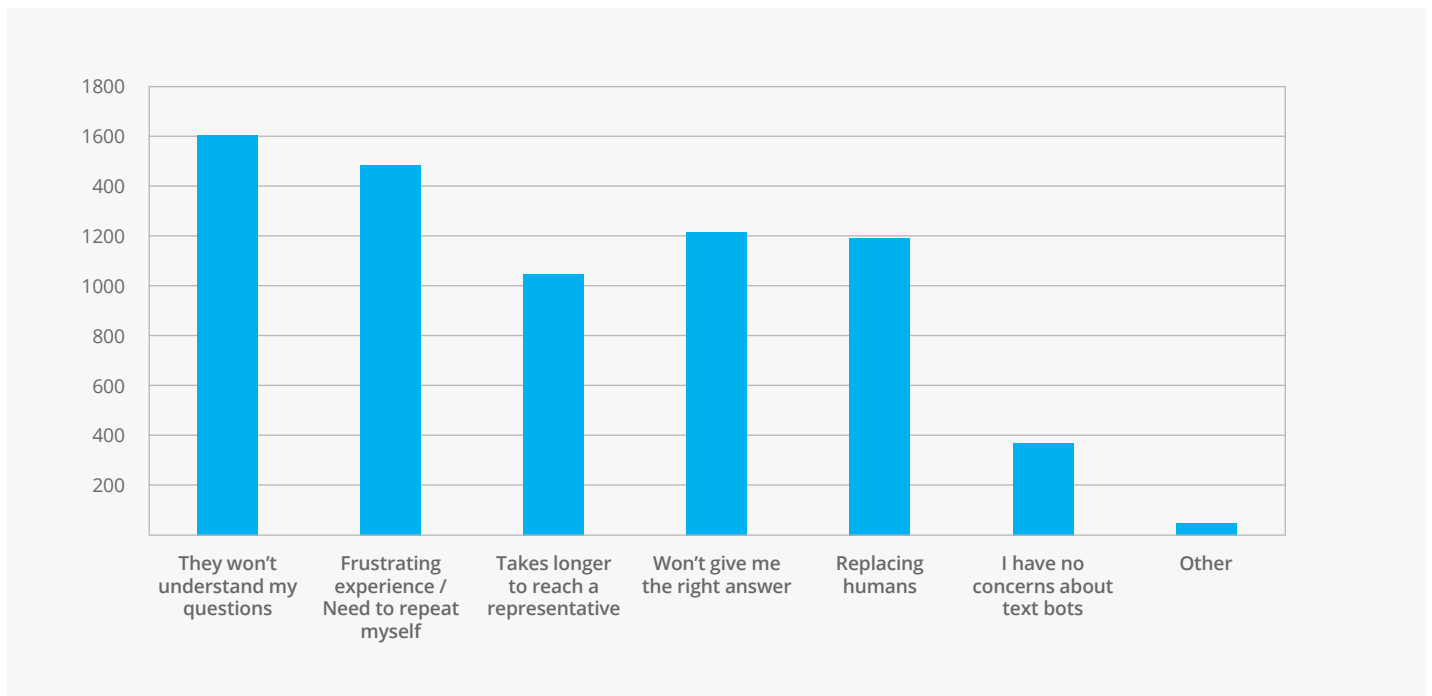


Image Credit: TOPBOTS (Based on *Survata Bots Survey 2016*)

17. What to Expect When You're Expecting [to invest in] a Chatbot. LivePerson Research.

It is also important to consider the typical concerns of consumers when rolling out an automated customer care update. Consumers still have a number of concerns about chatbots including: chatbots won't understand my questions (53%), chatbots create a frustrating experience where I have to repeat myself (49.6%), chatbots won't give me the right answer (40%), chatbots are replacing humans (39%), and it will take longer to reach a human representative (35%). Be sure to address these potential frustrations when deciding on an automation model.¹⁸

CHOOSE THE RIGHT PLATFORM TO CONNECT WITH USERS

With the proliferation of conversational platforms, a bot needs to be conversant across multiple channels and connect where the customer is. These days, multi-channel no longer refers to just telephone and fax. Customers expect interaction through voice, text/SMS, email, social networks, live chat, apps and forums/webboards. [24]7's 2016 US Customer Engagement Index found that the most important factor of great customer service is the ability to "contact the company any way that I want, and get the information and conduct the transaction I need through any channel." Furthermore, 95% of survey respondents use at least three different channels and or devices to engage with a company's customer service.¹⁹

COLLABORATE ACROSS DEPARTMENTS

A company implementing a bot needs to ensure that all departments are aware of the chatbot implementation, especially if it's a solo "front-end bot." Marketing, operations and technology teams must be supportive of and prepared for the project. For example, when KLM instrumented their new Facebook Messenger support channel, they experienced a spike in customer inquiries. However, they had prepared for this influx by incorporating DigitalGenius's AI to power their bot assisted agents.

18. Survata Bots Survey, 2016.

19. Hong, Daniel; PS, Prabhakaran; Raju, Vijayanand B. [24]7 2016 US Customer Engagement Index, 2016.

DISTINGUISH BETWEEN BOT AND HUMAN

In an October 2016 study, LivePerson found that 80% of consumers prefer to be told upfront when they are interacting with a bot. A customer is typically quick to identify that they are conversing with a bot and will feel deceived if they are not initially given this information. The use of visual cues in the user experience, avatar drawings, and other subtle indications are the best ways to show a bot is a bot. Further, LivePerson's study found that 67% of respondents believed that the introduction of a bot is a purely cost saving measure while only 32% believe that bots lead to better customer service.

INTEGRATE WITH EXISTING BUSINESS SYSTEMS

Enable chatbot and VA access to relevant customer databases, knowledge repositories and core functionalities. Customers will lose their patience if bots repeatedly ask for account credentials or are unaware of prior purchases. Furthermore, a fully functioning chatbot should hook into back-end systems such as bill pay. Bill pay accounts to 30-40% of interactions of calls or chats at a call center, and the inability to connect to this core functionality renders the bot half useless.

INSTRUMENT ESCALATION PROCESSES

Chatbots need human oversight to handle complicated situations and difficult customers. A bot should not be deployed without clearly establishing an escalation process to route customer to live human agents. In this transition, also ensure that the communication history is maintained so that the human agent has the context of the prior bot interaction. Continue building the bot's knowledge base over time and the need for escalation will diminish.

“

80%

OF CONSUMERS
PREFER TO BE
TOLD UPFRONT
WHEN THEY ARE
INTERACTING
WITH A BOT

CONDUCT A PHASED ROLLOUT

The bot assisted agent model requires a phased rollout process into the customer service organization. Human agents must feel supported, rather than threatened, by the chatbot technology. For example, start with an internal chatbot pilot with the most creative, innovative and top-performing customer service representatives. If successful, then add the chatbot module to existing employee training and finally into new employee training programs.

SUPPORT WITH ONGOING MAINTENANCE

Implementing chatbots in customer service is not a “set it and forget it” process. Instead, a company needs to allocate resources for maintaining and updating content. Company products, promotions, news, policy and more change over time. A team should constantly review customer-agent-bot dialogues and finetune bots for improved performance over time.

TRACK ANALYTICS ACROSS ALL PLATFORMS

As with any platform or campaign, track results. Common customer service metrics should be paired with bot metrics such as conversational steps, user sentiment and other metrics. Furthermore, as these conversations happen across platforms, ensure that the analytics system can track a customer message across channels.²⁰



HUMAN AGENTS MUST FEEL SUPPORTED, RATHER THAN
THREATENED, BY THE CHATBOT TECHNOLOGY



20. Jia, Marlene. Bots vs. Cyborgs: Which model is best for scaling customer service? TOPBOTS, 2016.

PERFORMANCE RESULTS

PERFORMANCE RESULTS



Image Credit: Shutterstock

A recent Salesforce “State of Service” report looked at insights and trends by surveying over 2,600 customer service trailblazers. AI is becoming a vital component of top sales and service teams. The report revealed that:

- 77% of top service teams excel at leveraging AI as compared with 36% of underperformers.
- Top service teams are 3.9x more likely than underperformers to say predictive intelligence will have a transformational impact on their customer service by 2020.

This is mirrored in the belief of 51% of consumers and 75% of business buyers that by 2020 companies will anticipate their needs and make relevant suggestions before they reach out.²¹

The promise of chatbots, virtual assistants and other AI-based automation schemes is to enhance many aspects of the business including:

1. Increased revenue
2. Decreased operational costs
3. Improved quality of communication and customer satisfaction
4. Greater employee satisfaction

Already, companies are beginning to report results in each of these areas.

INCREASED REVENUE

A 2017 Aberdeen/Inbenta research report found that companies using cognitive technologies report 7.2 times greater annual increase in cross-sell and upsell revenue and that this is reflected in a 34% greater annual growth in revenue.

NEXTIT

A NextIT implementation, Julie, for client **Amtrak** produced a 30% increase in revenue generation which, to a large extent, is credited to AI's consistency in upselling and cross-selling.²²

Charter Communications also implemented a NextIT platform, Alme, in 2012. They reported a five times ROI in the first six months, improved speed of service and a decreased burden on live agents. They experienced an 83% drop in live chat volume.²³

21. Second Annual State of Service: Insights and trends from over 2,600 global service trailblazers. Salesforce Research, 2016.

22. Helping a Railroad Service Conduct Business. Amtrak Case Study. NextIT Research.

23. Charter Communications improves speed of service. NextIT Research.

LIVEPERSON

At LivePerson, founder Robert LoCascio describes a 30 to 35% increase in efficiency through the implementation of an bot-assisted agent model.²⁴

DECREASED OPERATIONAL COSTS

“Hiring” AIs in place of human agents produces considerable cost savings. Indeed, one global telecommunications business reported that a reduction in *one second* of average AHT equates to approximately \$1 million in company savings.²⁵ This is supported by a number of case-studies.

XIAOI

Xiaoi, the leading bot provider in China, powers the **China Merchant Bank** bot on Wechat. Each day this bot processes over 2 million conversations about account balance, payment status, nearest branch location, etc, doing the equivalent work of 7,000 human staff.

NEXTIT

NextIT implementation Julie for client **Amtrak** answers 5 million questions annually, generates 25% more bookings, and shows a year-over-year growth in usage of 50%. This has yielded an 8x return on investment and a savings of \$1 million in customer service email costs in a single year.²⁶

NUANCE

Windstream Communications saw a 45% year-on-year reduction in live chat volume.

Following the implementation of a VA, Jetstar Airways saw a 10% increase in online bookings as opposed to the more expensive phone bookings.

Coca-Cola found that 74% of all interactions with its virtual agent eliminated the need for a call to the contact center.²⁷

24. Zhou, Adelyn. Success Secrets of Customer Service Bots. TOPBOTS, 2017.

25. Witcher, Brendan. Good Alone, Better Together: Integrating Chat And Virtual Agents. Forrester Research, 2014.

26. Helping a Railroad Service Conduct Business. Amtrak Case Study. NextIT Research.

27. Witcher, Brendan. Good Alone, Better Together: Integrating Chat And Virtual Agents. Forrester Research, 2014.

IMPROVED QUALITY OF COMMUNICATION AND CUSTOMER SATISFACTION

LIVEPERSON

LivePerson measures customer satisfaction using an in-house metric called the “Meaningful Connection Score” (MCS). Says founder Robert Locasio: “MCS monitors the bot and the health of the consumer, and we balance automation with live. In traditional voice contacts, MCSs are in the low 80%, in chat, they are in the mid 80s%, and in asynchronous messaging, we see high 80% to low 90%.”²⁸

DIGITAL GENIUS

The airline **KLM** has partnered with Digital Genius for customer service automation and reports that over 30% of cases are now resolved through the power of bot-assistance.²⁹

[24]7

[24]7 found that using chatbots to automate answers to basic customer questions decreases the average AHT by 10% or more.

IPSOFT

A global bank also looking to install IPSoft’s Amelia as a virtual employee reported remarkably quick progress following implementation. Over two weeks, Amelia’s ability to comprehend essential customer questions - even with varied phrasing - and provide the correct response, rose dramatically. At the end of the training period Amelia could answer 120 of the full 160 top questions with an 88% success rate. The speed with which Amelia’s performance improved has now led to the bank to extend the scope of potential scenarios in which she could impact operational efficiency and revenue growth.³⁰

28. Zhou, Adelyn. Success Secrets of Customer Service Bots. TOPBOTS, 2017.

29. Witcher, Brendan. Good Alone, Better Together: Integrating Chat And Virtual Agents. Forrester Research, 2014.

30. Amelia in Action: A selection of stories from organizations adopting IPsoft’s cognitive agent, Amelia. IPSoft, 2016.

NUANCE

Nuance, in particular, has gone to considerable lengths to monitor and quantify the results of their platform, Nina. They find that Nina is typically achieving:

- First Contact Resolution (FCR) rates of 75-85% (the same rates associated with live human agents).
- Deflection rates of 40-70%.

At **Swedbank**, Nina Web averaged over 30,000 conversations per month within just three months of being deployed, and achieved 78% FCR, handling over 350 customer questions and answers, and increasing the personalization of customer experiences.

At **Windstream Communications**, in the first three months, the virtual assistant handled on average more than 24,000 conversations per month, achieved 72% FCR, and deflected 44% of contacts escalating to the company's contact center. 92% of customers report feeling satisfied when they use the live chat feature, a 10% increase since the adoption of AI.

IP Australia's Nina-powered virtual assistant, named Alex, is achieving 80 percent FCR through powerful conversational AI and question-answer capabilities. Through the combination of live agents and Nuance's virtual assistants, customers are seeing a 40% decrease in average handle time.³¹

GREATER EMPLOYEE SATISFACTION

Increased automation leads to greater employee satisfaction which trickles down to all aspects of customer care. A 2017 Aberdeen/Inbenta study found that companies incorporating cognitive technologies, whether to support virtual agents or to support browser-based self-service interactions, attain 81% greater annual improvement in employee engagement rates.³²

31. Make your virtual assistant 'Employee of the Year'. Nuance White Paper, 2017.

32. The Future of Self Service: A closer look at virtual agents and cognitive technologies. Aberdeen Group/Inbenta, 2017.

IPSOFT

IPSoft's Amelia was rolled out internally for SEB, the leading Nordic corporate bank in 2016. Within three weeks, the AI had handled over 700 bank employees and 4,000 conversations. The project met its targets two weeks ahead of schedule. Of her first 4,200 conversations the majority were solved by Amelia, so agents were freed from repetitive employee queries and reported higher job satisfaction.³³

IMPLEMENTATION OF AN AI PLATFORM

The time and complexity involved in implementing an AI platform can vary widely depending on the client, the provider and the level of integration. Estimates range from a few weeks to six or more months.

The first stage of implementation is typically an **evaluation procedure** in which the platform provider analyzes the needs of their client and its customers and develops an appropriate plan. The timeline for this stage is on the order of one month. The second stage is the actual **building and implementation** of the AI. This is the stage that can vary greatly in the time required. NextIT suggests three to four months and IPSoft suggests up to six months whereas Inbenta, described as the fastest to market, can deliver in only a week.



EVALUATION

BUILDING /
IMPLEMENTATION

CUSTOMIZATION

TRAINING /
OPTIMIZATION

33. Amelia in Action: A selection of stories from organizations adopting IPSoft's cognitive agent, Amelia. IPSoft, 2016.

Customization, which follows implementation, is especially necessary for large companies. Most out of the box solutions will not work for large enterprises because there are so many legacy solutions to connect into and build for. Finally, more time must be allotted for **training**. Existing customer service agents must be training in operating the new systems. This is often done by introducing the AI platform as a pilot project to a small group of representatives who can then train the remaining agents. Training is not exclusive to the live agents, however, as the AI too must be trained. New information must be updated, answers must be refined, and flows must be monitored to find ongoing routes to optimization.

PAYMENT COST MODELS

As with the timeline for implementation, costs also depend heavily on the demands of the client and the complexity of the roll-out. There are two primary pricing models in this industry. Some providers offer a payment plan that involves an upfront cost and a base annual licence fee, the software as a service model (SAAS). This pricing scheme is employed by IPSoft. The alternative is to charge an upfront implementation cost with follow-up charges on a per ticket processed or per conversation basis. NextIT, Inbenta, and Pypestream all employ this model.

At Inbenta, this translates to a \$50K minimum base fee for 1 year deployment and ranges up to mid-six figures for larger enterprises. For a simpler implementation, like a basic chatbot, Pypestream can deliver for \$5K with more complex integrations costing on the order of \$75,000 or more. Other integrations such as Nuance and IPSoft can become multimillion dollar deals depending on complexity, integrations and case volumen. In all cases, the per transaction fees are considerably less than would be recorded with live agents.

DEEP DIVES INTO ESTABLISHED PROVIDERS

DEEP DIVES INTO ESTABLISHED PROVIDERS

NEXTIT

NextIT is a leading purveyor of software in the field, delivering a conversational AI platform for use in customer care and HR departments. NextIT focuses on providing independently operating intelligent virtual agents, rather than the alternative bot-assisted agent model, though they are flexible in the solutions they provide. Tracy Malingo, NextIT President, explains that “what we are known for is really being a language understanding technology provider and a solution company”. Known as Alme, the NextIT platform is “the an advanced cognitive interaction platform available for powering personalized and secure digital experiences” which according to the NextIT team, has resulted in this software being implemented within more Fortune 1000 companies than any other competitor. Most of their business lies with contact centers because these have the requisite metrics in place to clearly demonstrate ROI and make a case for funding.

Conversational AI relies upon a massive data library of call and chat transcripts from which the AI can learn to interpret human dialogue. In particular, a library of business intents is needed where an intent is any unique business idea like, “how do I change my password?” NextIT offers clients access to a valuable library of 90,000 intents.

NextIT divides their solution into six primary components of which a company can choose to implement any or all depending on their needs and resources available. These components are conversational insight tools, the platform, language model engines, data libraries, professional services, and response generation. Each component can be integrated with other platforms to best suit the needs of the customer with the most common integrating partners being Oracle Cloud Solutions, Moxy and LivePerson. According to Malingo, “we think we do best for the customer when we can become a part of the ecosystem.”

EXTENDING ALME WITH PLUGINS

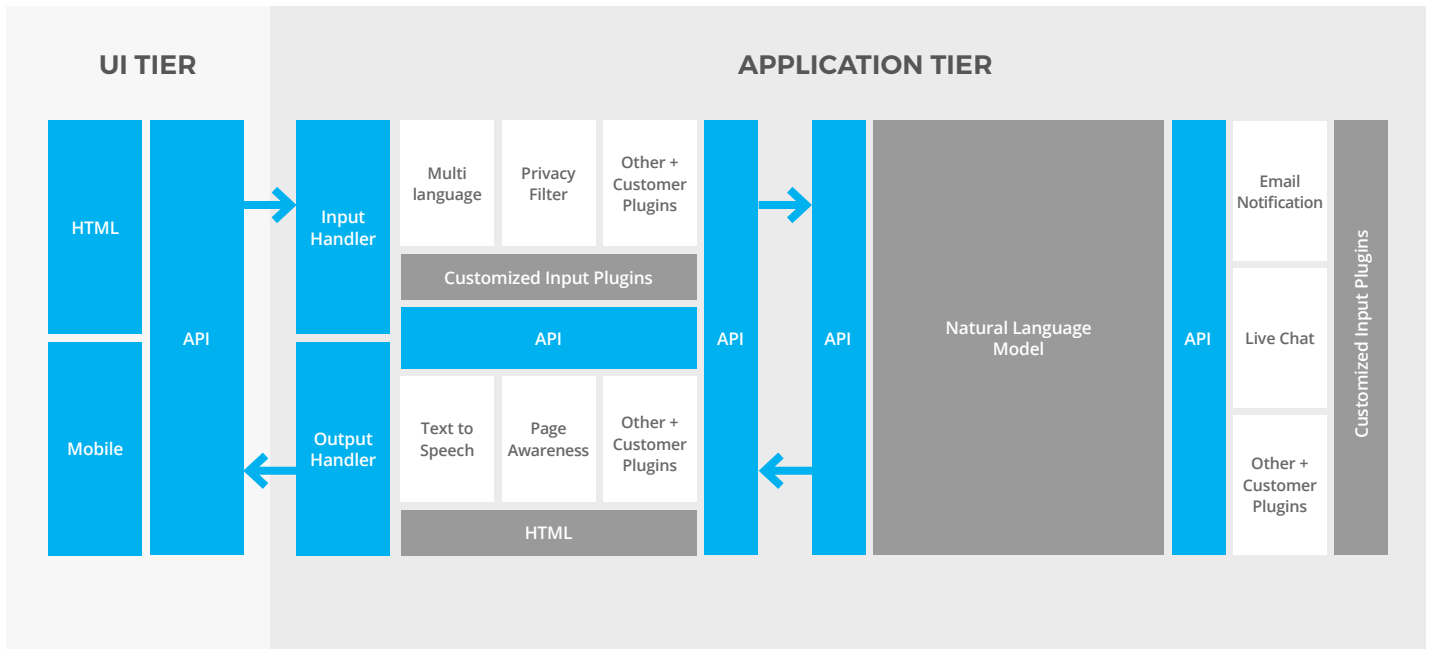


Image Credit: TOPBOTS (Based on NextIT Alme)

NextIT's implementation flexibility allows them to attract high-profile clients from a variety of industries. These include the U.S. Army, Alaska Airlines, Amtrak and Charter Communications.

NUANCE

Nuance offers an intelligent virtual assistant called Nina for use in customer service and customer acquisition. Nuance believes that brands have to meet customers on the channel of their choice, so Nina is available for websites, apps and in text messaging applications. Nuance creates a single AI brain that powers three streams: Conversational AI, Human-assisted AI, and Cognitive AI. Nina is conversational with the ability to understand intent and learn through experience. Nuance promises that interactions with Nina are much more "human" than with a standard chatbot due to the ability to understand complex inquiries, ask clarifying questions, and personalize responses.

While Nina is largely autonomous, it is programmed to be seamlessly integrated into human-assisted transactions. Nuance typically works with large enterprises in industries like telecommunications, banking, insurance, healthcare, hospitality and government. Examples of clients include Coca Cola, Windstream, and ING Netherlands. As compared with IPSoft, Nuance is distinct in offering greater supporting services beyond just a VA.

IBM WATSON

While not explicitly focused on customer care, IBM Watson offers “cognitive computing” APIs which have been widely used to offer automated conversational experiences. Google, Microsoft, and Amazon offer similar developer tools and AI services, but less professional services support.

Customer experience bots on IBM Watson are typically tailor built and require custom implementation by the IBM Consulting Services team. Brands such as 1-800-Flowers, Macy’s, TD Ameritrade, Autodesk, and many others use IBM Watson. Autodesk reported a 90% reduction in service costs and 99% reduction in resolution time after implementing a chatbot powered by Watson.

IBM Watson also offers a self-serve option to build chatbot experiences using the Watson Conversation Service, which connects to Watson’s NLP tools.

XIAOI (小i)

Xiaoi is the leading bot company in China with 90% market share of the conversational AI market in the country and a growing presence abroad.

Founded over 16 years ago, this Shanghai based AI firm has a client list that reads like a “Who’s Who List of China”, including numerous Fortune 100 clients and Chinese governments agencies. They work with all three of the largest Chinese telecommunications companies (China Mobile, China Unicom, China Telecom), 20+ banks (Industrial and Commercial Bank of China, China Construction Bank, China Merchant Bank, Bank of China, PICC, etc.), countless government entities and global multi-nationals such as Samsung, Lenovo, Nissan, Ford, Xiaomi, Volkswagen, Huawei, etc.

Xiaoi has processed over 100 billion conversations in key industries such as finance, telecommunications, and e-commerce. Many of their bots handle millions of conversations each day for clients and save thousands of customer service employees. Their AI technology powers conversations on WeChat, Weibo, QQ, apps, SMS, websites, robots, cars and smart home devices. They are Nuance’s official China partner.

LIVEPERSON

Inspired by a horrific support experience, Robert LoCascio founded LivePerson in 1995 to enable businesses to provide real-time customer engagement online. The company went public on the NASDAQ in 2000 and has since incorporated chatbot technology into their offerings, becoming a global leader in customer care automation. They offer a cloud-based software platform, LiveEngage, that allows brands with millions of customers and tens of thousands of care agents to deliver digital at scale. Explains LoCascio, “What we are trying to do is really change the outcome to millions of interactions that are happening in the contact center. The staff and I are working on how do we change five or ten million interactions to something that can ride upon automation.”

LoCasio is a firm believer in the bot-assisted agent model, stating, “we are looking at ways to make human assistance more leverageable, we are building bots that can tell the agent how to respond best to customer inquiries.” Well-known brands taking advantage of Liveperson’s services include Microsoft, Virgin Atlantic, Vodafone, and Adobe.³⁴

[24]7

[24]7 offers wide-ranging customer service options that seek to leverage AI and machine learning to optimize all aspects of the customer service experience. Using big-data predictive analytics, [24]7’s platform aspires to anticipate customer needs and deliver seamless intent-driven engagements. They track 15 billion events per month across web, mobile and phone; make 6 billion predictions of customer intent annually; and delivered 1.3 billion intent-driven experiences last year for clients like Duke Energy, RBC, and Disney.

[24]7 uses a bot-focused model coupled with seamless escalation to a live agent when the bot is unable to answer. They are applying the principles of AI to virtual agents to give them increasing autonomy and further limit the need for costly live agents. [24]7’s Senior Director of Product Marketing Strategy, Daniel Hong, describes the need to “future-proof business infrastructure” by predicting the evolution of technology. In particular, the availability of multi-channel customer care, including the yet-to-arise channels of the future, will distinguish [24]7 from its competitors.

INTERACTIONS

Interactions builds and delivers hosted Virtual Assistant applications that enable businesses to deliver automated natural language communications for enterprise customer care. Interactions employs a unique, patented Adaptive Understanding™ technology to offer unparalleled natural language comprehension. Initially, Interactions’ platform used primarily the bot-assisted agent model, where a customer would call in, make their intent known, and either have their query answered by a bot or forwarded to a live agent. With advances in NLP, a greater number of calls can now being handled by a virtual agent. Interactions excels on their voice processing and is a replacement for traditional IVR systems.

34. Zhou, Adelyn. Success Secrets of Customer Service Bots. TOPBOTS, 2017.

Like other companies in this space, Interactions promises increased efficiency, decreased costs and greater customer satisfaction. Their platform is multi-channelled allowing customers to interact on their own terms. Businesses taking advantage of Interactions' advanced NLP platform now include health insurance provider Humana and hotel chains Best Western and Hyatt.

INTERACTIONS

Interactions builds and delivers hosted Virtual Assistant applications that enable businesses to deliver automated natural language communications for enterprise customer care. Interactions employs a unique, patented Adaptive Understanding™ technology to offer unparalleled natural language comprehension. Initially, Interactions' platform used primarily the bot-assisted agent model, where a customer would call in, make their intent known, and either have their query answered by a bot or forwarded to a live agent. With advances in NLP, a greater number of calls can now be handled by a virtual agent. Interactions excels on their voice processing and is a replacement for traditional IVR systems.

Like other companies in this space, Interactions promises increased efficiency, decreased costs and greater customer satisfaction. Their platform is multi-channelled allowing customers to interact on their own terms. Businesses taking advantage of Interactions' advanced NLP platform now include health insurance provider Humana and hotel chains Best Western and Hyatt.

INBENTA

Like NextIT, Inbenta is another company offering AI-based customer care solutions. They offer an Agent Assist model which employs a bot to find answers for a human agent, an internal help desk, and a fully or partially autonomous chatbot that is conversant in over 25 languages. Using natural language processing (NLP) and machine learning (ML), Inbenta bots are in a constant state of evolution and can be deployed over a number of channels. The resultant AI is surprisingly human and understands customers' tones and emotions.

Inbenta distinguishes itself not only by offering one of the largest language libraries in the industry, but also by being one of the fastest to market because fewer decision trees are required. Implementation, through API connection into Zendesk or Salesforce, takes only a week. Notable customers include Ticketmaster, Groupon, and Schlage.

SPRINKLR

Sprinklr is the company at the forefront of the social media management (SMM) industry. Their platform, called the “Experience Cloud”, allows brands to prescribe how they are viewed by, and interact with, customers on social media channels.

Sprinklr is building out a focus on the human + bot augmentation model. Their business is subdivided into five categories, all of which are AI-assisted: Marketing, Advertising, Research, Commerce, and Care. Sprinklr has shown itself as the leader in the field by offering an integrated platform targeting each of these categories on over 21 different social networks. Customers in this modern era demand unprecedented access to brands on an unprecedented number of fronts and companies like Sprinklr are at the leading edge of this push. In their own words, “the ability to deliver more human and intuitive experiences, at every touchpoint, for every customer, is the single most strategic investment for the modern enterprise.”

Sprinklr’s high profile clientele include major players like NASA, Cisco, Nike, and Nasdaq.

DEEP DIVES INTO FAST GROWING STARTUP PROVIDERS

DEEP DIVES INTO FAST GROWING STARTUP PROVIDERS



Image Credit: Shutterstock

PYPESTREAM

Pypestream is a start-up company employing AI solutions to automate core business processes and deploying chatbots to manage customer care. Robotic process automation, called Pragmatic AI at Pypestream, promises to increase both customer satisfaction and business efficiency.

Pypestream's chatbots can operate on many channels so as to meet customers in the arena of their choosing. Distinct from many other start-ups in this space, Pypestream offers a secure messaging platform protected by end-to-end encryption so sensitive information can be handled safely. This enables in-message bill payment or the transfer of personal data and distinguishes Pypestream from many competitors.

Their target customers are in the telecom, cable, health, utilities and airlines industries which all have in common the need for a secure platform for the transfer of personal or payment information. They report that the insurance industry is currently the fastest growing space, a common refrain from many companies entering this market.

DIGITAL GENIUS

Digital Genius is contact center software that uses deep learning to generate agent-assisting bots. The bots can analyze incoming messages, predict meta-data, route cases, provide agents with accurate suggestions and automate responses. As with NextIT, companies enlisting with Digital Genius provide historical customer service transcripts which serve as training documents for the AI, which determines the best practices for customer care and routing. Once a bot is trained, an incoming message will generate a prediction of the relevant meta-data for the case and be routed to the best agent along with suggestions for resolution. As with many other companies in the space, high confidence answers can be handled automatically while those with greater complexity are escalated to an agent with assistance from the bot.

Digital Genius has several high profile clients like KLM, Panasonic, HSBC, and BMW.

KASISTO

Kasisto offers another conversational AI platform along the same lines as Nuance. Their platform is called KAI and includes a speech recognition engine, natural language processing, AI reasoning, and natural language generation. It is used to power virtual assistants and bots that operate seamlessly across a variety of channels and with the customer's preferred mode of communication (voice, text, touch). They focus on clients in the finance and commerce industry, but the platform is developed such that it is customizable to any type of business from travel to healthcare to insurance. KAI includes a deep-learning analytical toolset for data collection and analysis, model training, testing, and deployment. Kasisto offers a rapid rollout in weeks rather than months which make it more appealing to businesses who need to demonstrate ROI quickly.

MSG.AI

Msg.ai, helmed by Puneet Mehta, is a start-up offering artificially intelligent messaging bots powered by machine learning to capitalize on consumers' current preference for engagement via text rather than talk. Their software allows brands to manage their messaging presence across all the most popular messaging apps from a single dashboard. They can simultaneously track analytics to reveal new sales opportunities and enhance user engagement. Msg.ai is already working with big brands like Sony who were able to replace 70 live agents with a single chatbot.

CONCLUSION & NEXT STEPS

The use of AI in customer care is here to stay. With a significant number of established companies in the space and an influx of emerging start-ups, automated customer service is a growth market. Major brands from all service industries, from airlines to international banks to insurance corporations, are turning to automation to better serve their customers at lower cost. Whether through use of simple chatbots, human-AI hybrid models, or increasingly smarter virtual assistants, customer service teams of the future will involve both human and virtual employees working in tandem to best serve customers.

HERE'S HOW YOU CAN WORK WITH US

TOPBOTS is a strategy & research firm focused on applied AI for enterprises. Our customers include leading global companies such as L'Oreal, Paypal, and WPP. We advise business leaders, executives, and practitioners on emerging technology trends and help you successfully deploy them in your organization.

- To discuss how you can adopt automation technologies and AI at your own organization, contact us at strategy@topbots.com.
- To get your executive team up to speed on emerging technologies and their impact on your industry, ask us about our corporate education programs by emailing education@topbots.com.
- To raise your AI IQ, read our publication at TOPBOTS.com or subscribe to our newsletter.



TOPBOTS

WWW.TOPBOTS.COM