

Artificial intelligence: Friend or foe of customer service?

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Artificial intelligence (AI) has arrived. We can see the evidence throughout our lives, with the soaring popularity of voice-activated devices in the home, game-playing machines, chatbots, self-driving cars and much more.

Although the underlying technologies have been evolving for many years—decades, in some cases—AI has reached an inflection point in the past year or two where it can offer real value to consumers and businesses alike. Thanks to advancements in natural language processing (NLP), machine learning and improved algorithms that can make sense of massive amounts of data in nanoseconds, AI-enabled applications and devices can perceive, think, and act more like humans than ever before.

Here are some key findings and predictions from analysts and industry leaders regarding AI in the customer service market:

- Investments in AI technologies are growing 50% per year and will reach \$46 billion by 2020. About 10% of this spend is devoted to customer service automation. (IDC).
- AI-powered self-service, in the form of chatbots and other virtual assistants, are making routine service interactions more conversational and lifelike.
- AI has huge potential to make human-assisted service more effective by streamlining case management and other predictable tasks. AI also can guide agents toward delivering higher-quality experiences.
- Progressive companies will use Blended AI, where humans and AI perform collaboratively, making it easy to shift work from AI to humans and back, as customers require.
- Carefully focused pilot projects will ensure that efficiency gains don’t undermine customer experience objectives.

In short, AI-powered service experiences have arrived. Business leaders are taking advantage of these capabilities to improve customer experiences, enhance employee engagement and boost business performance.

What is artificial intelligence?

If you’re confused about AI, you’re not alone.

To understand AI, consider what it means to be human. We perceive our environment with the five basic senses (sight, hearing, touch, smell, and taste). We think, based on available information, to make decisions. And, we act to change our environment and achieve our goals.

Simply put, AI helps machines perceive, think, and act in a human-like manner.

The self-driving or autonomous car is one of the best examples of what is possible with AI. To get safely from point A to B, an AI-empowered car must see its surroundings and make real-time decisions while in motion. It’s the same concept when applied to business and consumer applications.

AI is a collection of more than a dozen different technologies—each at a different stage of adoption—according to Forrester Research.

- Rule-based “decision management” technologies are relatively mature—with strong market adoption.
- Technologies such as robotic process automation, text analytics, virtual agents, machine learning and AI-optimized hardware are in a “growth” phase.

¹ <https://www.wired.com/2016/12/voice-is-the-next-big-platform-and-alexa-will-own-it/>

² IDC Report “Worldwide Semiannual Cognitive Artificial Intelligence Systems Spending Guide,” September 2017

³ <https://journalistsresource.org/studies/economics/jobs/robots-jobs-automation-artificial-intelligence-research>

Other technologies at earlier stages of adoption, such as biometrics, image and video analysis, and semantic technology, are deployed in industry-specific applications.

Technologies that are popular with consumers, such as speech recognition and natural language generation, drive interest in AI. These technologies are used in smartphones and home devices from Amazon, Apple and Google. Experts consider voice-controlled devices the “next big thing” after smartphones.¹

In a customer experience context, AI technology adds value because it can:

- Understand and generate natural language conversations. For some applications, this provides an easier way to access information and customer support.
- Make decisions, or at least make recommendations, based on increasingly sophisticated algorithms that mimic human intelligence.
- Learn from experience, much like humans do. Machine learning continuously helps algorithms improve over time based on the success or failure of previous interactions.
- Be packaged into easy-to-use chatbots, or virtual assistants, for customer self-service and employee assistance.

Companies are embedding these capabilities into consumer and business applications to make them behave more like humans; this creates tremendous opportunities to improve customer experience.

What’s driving AI use in the business world?

IDC forecasts that worldwide spending on “Cognitive AI” will reach \$57.6 billion worldwide in 2021, up from \$12.0 billion in 2017. Spending is increasing at a compounded annual growth rate of 50.1%, with about 10% focused on customer service automation.²

CustomerThink research found four key factors driving the recent explosion of AI interest and spending:

- Cloud-based applications. Cloud technologies make it relatively easy to launch a new application and take advantage of virtually unlimited computing power and storage—at a low cost. Because of Amazon Web Services (AWS), Microsoft Azure and other cloud infrastructure providers, as well as the growth of microservices, developers can capitalize on rapid increases in computing power, storage and communications.
- Marketing and consumer recognition. IBM gave AI a huge boost in 2011 when their AI platform Watson competed on Jeopardy! Watson is the centerpiece of IBM’s strategy to promulgate the technology. Now, nearly all major enterprise software companies push AI-based messaging.
- Cost savings. With so many new channels and interaction types to support in the contact center, companies are seeking ways to deflect interactions away from live agents and conserve costs. Automating conversations with AI and chatbots is a popular way to do this.
- Customer experience. Outsourcing and IVR are two approaches from the past decade that companies used to pursue cost savings—without taking into account how they affected the customer experience or long-term loyalty. Fortunately, AI has evolved to the point where it can offer meaningful contributions to the contact center without negatively impacting customer experience.

AI investments will disrupt the workplace; routine jobs will be automated and the technology will displace or revamp certain roles. While estimates vary widely, one study finds that automation threatens nearly 47% of jobs. However, IDC predicts that AI will also create 823,000 jobs—more than it will displace. Workers must shift toward jobs that require more creative skills, according to economists.³

Curb your digital enthusiasm

Digital interactions have increased in volume and diversity since the advent of the Internet. Web self-service was a hot technology 20 years ago, and some proponents thought it signaled the end of call center agents. Many wondered if consumers would still call an agent when they could simply go online and get answers immediately.

⁴ IDC Report “Worldwide Semiannual Cognitive Artificial Intelligence Systems Spending Guide,” September 2017

⁵ <https://journalistsresource.org/studies/economics/jobs/robots-jobs-automation-artificial-intelligence-research>

⁶ <http://customerthink.com/the-rise-of-predictive-service-experiences-because-you-you-you-oughta-know/>

Since then, we’ve seen an array of technologies that support digital self-service, including chat, mobile, social and even embedded applications. In 2014, Forrester Research reported that the use of websites as a primary customer service channel hit 76%, surpassing phone usage for the first time. Adding digital channels makes it easier and faster for customers to solve problems. And, because three out of

four customers believe that having a company value their time is the most important thing they can do to provide good service⁴, this addition is imperative.

However, research firm Accenture notes that overreliance on digital technologies can lead to “human-less” or “robotic” customer service. This is especially important for customers who seek advice or help with a complaint, where 73% favored speaking with a human over digital support. And CustomerThink research has found that at least 70% of memorable experiences are based on human interactions.

“Companies need to recognize that digital capabilities are just one facet of a great customer experience,” noted the Accenture report. “Profitability [resides in] optimizing investments across channels, while simultaneously delivering the outcomes that their customers demand.”⁵

In general, the increasing total volume of interactions are moving to digital channels at disproportionate rates, leaving a generally static pool of agents to deal with more complex issues. According to Gartner, by 2020, only 15% of interactions will be with humans. However, human-based service will still have an outsized effect on loyalty, so it must be thoughtfully designed into the service experience—not removed just to save money.

How to improve the customer experience

Most business leaders want to improve the customer experience and place customer service as a high priority. There’s ample evidence that excellent service is a key driver of loyalty that leads to revenue growth over time, while poor service can lead to customer defections.

How can service leaders use AI to deliver better experiences while also watching costs? Follow these guidelines to improve your odds for success.

Do no harm

The first step is simple: Don’t make experiences worse for customers. Think back to what happened in the 1990s outsourcing wave—all to reduce the cost per transaction. Little thought was given to the quality of customer experiences. According to the CustomerThink 2006 Global Customer Experience study, customer dissatisfaction with offshoring reached a net -32% perception. And IVR didn’t fare much better, with a -27% perception.

Fortunately, the customer experience trend gained momentum around the same time. Business leaders began to realize that a better experience had economic value over time, and that cost savings should be analyzed in conjunction with customer experience impact.

Now, nine out of 10 executives claim customer experience is the key to differentiation. While efficiency is still a “must have” for contact center executives, it’s tempered with executive mandates to also deliver loyalty-building experiences.

Match the caller with the right agent

As chatbots take on more routine interactions, calls and other synchronous interactions will become more challenging, but AI can ensure that customers are connected to the most appropriate agent. For example, one financial services firm used analytics to predict—with 86% accuracy—that an incoming call was about a payment, based on the timing between a failed online bill pay attempt and the call. A new process reduced unnecessary steps through authentication, skipped the IVR and routed the call to a dedicated payments team. The result was shorter calls, lower churn and higher spend per customer.⁶

According to Lindsay Frazier, Global Solutions Director for Digital at Genesys, “Customers use predictive routing with machine learning to score the agent pool and choose the right agent based on improving efficiency, customer satisfaction or other desired business outcomes. This has reduced average handle time by 7%, increased first call resolution by 3%, and boosted NPS by 12 points.”

Streamline case management

Getting a call to the right agent is good start. The next step is to help agents excel at handling the customer request, including documenting the incident or case.

Smart case management solutions can “predict” the appropriate classification, priority, products and issues. This provides a starting point for the process—freeing the agent to devote time to value-added interactions. The agent then agrees with AI-based recommendations and applies them into a machine learning loop to improve predictions over time.

Improve call quality

Service requests that go to agents tend to be more complex—sensitive cases that involve an upset customer, high-risk instances that could involve customer defection, or high-value opportunities to upsell the customer. Agents must handle these calls with empathy and skill.

When speech and text analytics are applied to call recordings, contact center managers can coach agents to improve call quality. Applying these insights in real-time is a relatively new capability. Now, businesses can correlate choice of words, speaking cadence, timing of discussion topics and other factors with caller satisfaction and other success metrics. They can use these to coach the agent toward more successful outcomes.

Make self-service chatbots conversational

If a customer can help themselves and avoid a phone call, that can save a lot of money. And if the self-service experience is well designed, it results in happier customers.

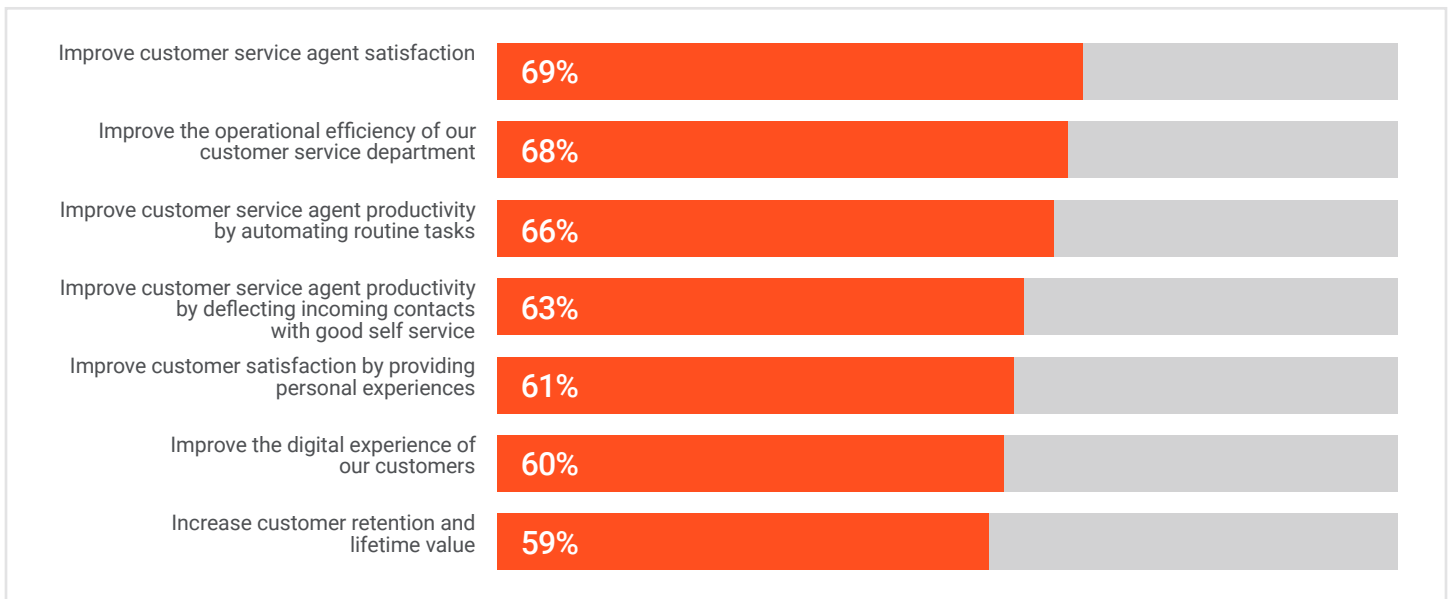
A more usable, natural language-based search is one way to get customers to stop reaching for the phone. Chatbots take this a step further, putting a more flexible and conversational front-end on the intelligent search.

For all of Alexa’s charm, it doesn’t support a dialog over time—where previous interactions affect how it responds. Instead of a series of independent question-and-answer scenarios, conversational chatbots can create a more lifelike dialog by combining awareness of previous interactions with the current situational context.

Chatbots and humans should collaborate—not compete

Both chatbots and humans have a role in delivering a great customer service experience. Service leaders need to design the right handoffs from technology to humans, and vice versa. If a customer is dealing with a chatbot but not getting satisfactory results, they should be able to easily request help from a live agent. That agent should have access to the chat history and take over the conversation without having to ask the customer to repeat anything.

In some situations, after a service professional solves a more complex issue, they could hand the process back to a chatbot to complete the customer journey. More sophisticated scenarios in which humans help chatbots in the background, or vice versa, also could occur. Blending AI with human agents had strong benefits to improve customer and agent satisfaction while increasing productivity, according to a Genesys-commissioned study by Forrester Research.



Blending AI with human agents is incredibly effective in achieving customer service and experience goals

Conclusion: Five tactical steps to implementing AI properly

AI has generated a lot of excitement—and for good reason. However, companies that chase technology without first thinking about their customer experience strategy can find themselves in trouble or, worse, could actually degrade service experiences.

Here are five recommendations to help you focus on AI opportunities:

1. Start with a designed experience.

It's easy to get excited about a new technology and implement a chatbot with the hopes that customers will love it and stop calling. But that chatbot dialog is an experience that should be designed carefully, according to Josh Sutton, Global Head, Data and Artificial Intelligence at consulting firm Publicis.Sapient. What type of personality should your chatbot exhibit? Some companies are hiring script writers to support the intended voice and tone of their chatbots, noted Sutton.

2. Don't focus solely on customer self-service.

In some cases, such as complex interactions, AI is a good choice to make service applications more useful to employees so they can better serve customers. Improving the agent experience also increases employee retention and loyalty. A Blended AI strategy that combines the strengths of AI with the human touch, can transform your customer service organization.

3. Be transparent.

Chatbot technology will continue to mature, and branding your chatbot is acceptable. But don't deceive your customers by making them think they're interacting with a human. Customer experience experts agree: Doing this will destroy trust, and the blowback on social media will be huge.

4. Make sure you have enough data.

You'll need a lot of data to train AI to deliver useful results. Some vendors provide a useful starting point using anonymized multi-client data to minimize this "cold start" problem, thus shortening the time to benefits.

5. Prepare to experiment, thoughtfully.

AI is a collection of technologies, some of which are still in the early stages. This is a great opportunity to experiment and innovate. The key is to take measured risks, learn from experiences and implement the technology widely after you validate that service experience goals are met.

In short, follow the advice of the late Steve Jobs: "You've got to start with the customer experience and work back toward the technology—not the other way around."

The astounding growth of AI in the last few years is a testament to its value, as companies use it to deliver better and more cost-effective customer service. Blended AI and other technological advancements are maturing fast, and they have become essential collaborators and friends, not foes, of customer service. By delivering optimal customer service throughout the entire customer journey, the value of adopting a Blended AI strategy is consistently high-quality customer experience.

About this white paper

This paper is based on information presented at a CustomerThink webinar on Oct. 26, 2017, as part of the virtual "iCXM Summit." It also includes other industry research, as noted.

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Genesys® powers more than 25 billion of the world's best customer experiences each year. Our success comes from connecting employee and customer conversations on any channel, every day. Over 11,000 companies in more than 100 countries trust our #1 customer experience platform to drive great business outcomes. Genesys on-premises and cloud solutions are built to be fluid, instinctive and profoundly empowering. Combining the best of technology and human ingenuity, we work the way you think.

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