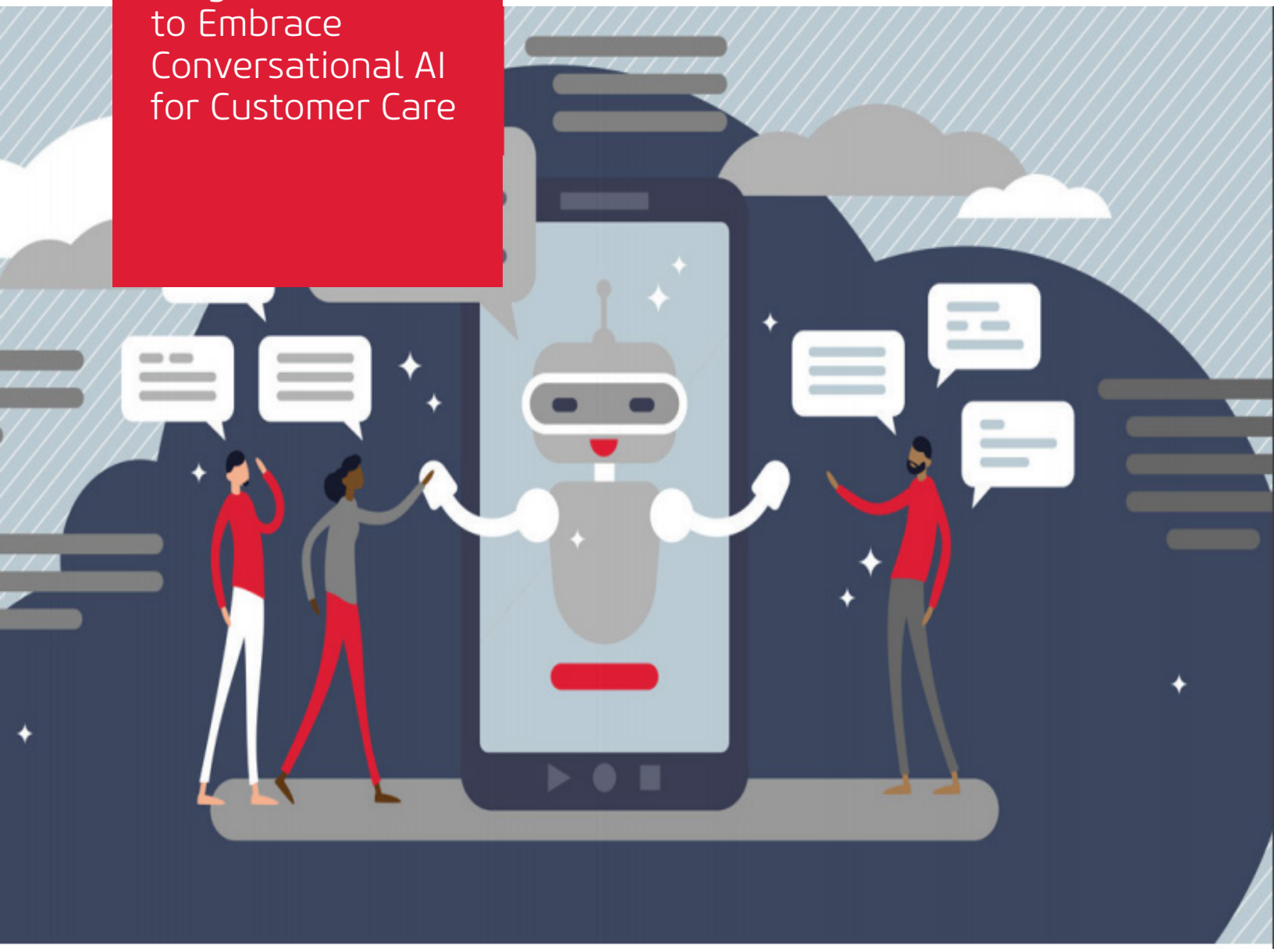
CUSTOMER EXPERIENCE

Why You Need to Embrace Conversational AI for Customer Care



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THE TREND TOWARDS AI POWERED CUSTOMER SERVICE

Ask your CMO or your CRO whether customer success is key to thriving in this digital era. Then ask them how artificial intelligence is going to redefine how customers can achieve success.

Gartner has already done these surveys and its findings are that artificial intelligence (AI) technologies are poised to dramatically raise the table stakes for customer engagement.

84%

of respondent companies indicated they were investing in customer experience technologies.

A quarter expected to have deployed chatbots by the end of 2020. Overall, 30% expected to be using AI technologies by the same year to augment at least one of their primary sales processes.

Data shows the benefits to using AI in sales and customer success programs include **better customer outcomes** and **improved customer satisfaction** while realizing **significant cost-savings**. Companies that provide highly effective and customized customer experiences are going have an important competitive advantage, particularly as younger generation populations move more and more of their commercial activities online and through social media.

Back in 2011 Gartner predicted that by 2020, 85% of customer interactions would be via some kind of chatbot or virtual assistant technology. The world likely won't hit that level of adoption because, as it turns out, AI projects are difficult, and it is challenging to find capably skilled technologies and properly defined projects.

That said, AI-driven customer experiences are achieving such dramatic results that enterprises are highly motivated to move these projects forward.

99%

reduction in customer service-time and 10-point improvement in customer satisfaction.

The challenge for most enterprises is figuring out how to get in the game in a way that de-risks the investment and quickly produces tangible results. First, a quick and simple description of the technologies enabling AI.

CONVERSATIONAL AI DEFINED

Artificial Intelligence (AI) as a field has been around for many decades. It has arrived, so to speak, because processing and storage have gotten dramatically less expensive, while useful data has become more widely and deeply available. Machine learning (ML) is the subset of AI that has woken up in this decade to enable data-rich customer experiences. In a nutshell, ML scientists build a mathematical model for predicting outcomes, then feed data to that model so it improves overall predictive accuracy. This activity is more colloquially known as "training the model" for machine learning. Because the science and compute power have improved dramatically, ML has gotten very good in the last few years.

Major League Baseball is all over machine learning, using it and the copious data that is tracked from every at-bat, to fundamentally change the way the game is managed. From defensive positioning to pitch selection to lineup selection. Similarly, the real estate company Zillow uses ML and its vast database of user interactions to predict what houses a specific shopper might want to see, adjusting as that shopper clicks through each offering. Companies are also using ML to train autonomous vehicles, improve manufacturing productivity, and to improve fraud detection in financial transactions.

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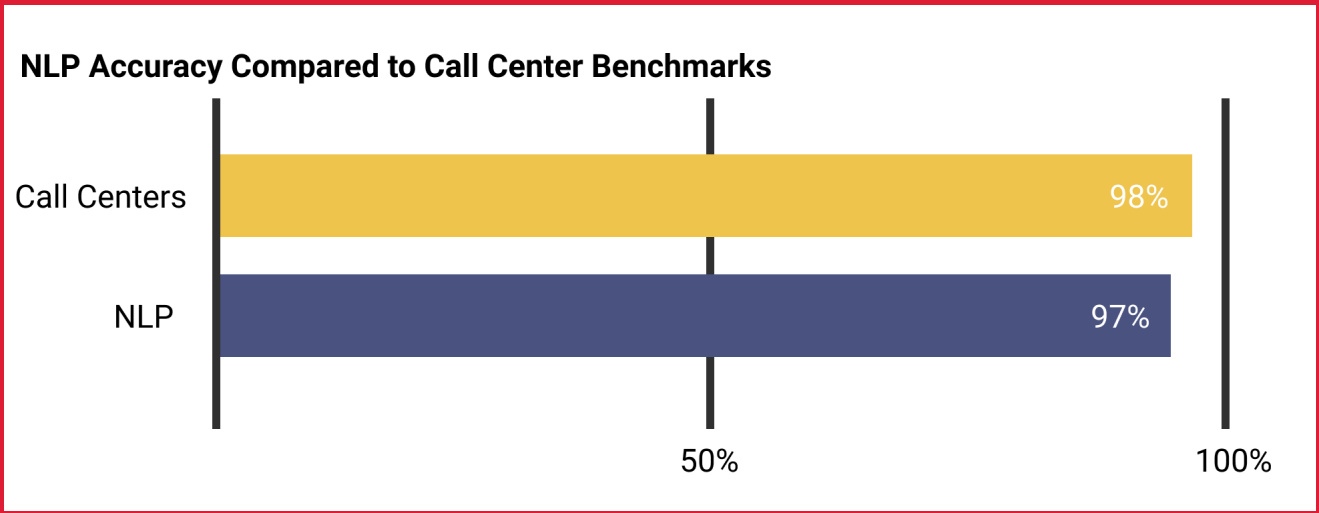


97%

accuracy is common, which is close to the accuracy of call centers.

In other words, NLP allows people to talk or write to devices and for devices to understand what that person has said.

NLP has also gotten very good in the last few years, to the point where 97% accuracy is not uncommon, close to call center benchmarks. The specific subset of NLP that deals with the spoken voice is called speech recognition, which itself is approaching 95% accuracy. In customer scenarios, NLP, speech recognition, and ML hybridize together to provide services via automated call centers and digital assistants such as smart speakers and phones.

The speech recognition module processes and rationalizes the spoken word and the ML module figures out how to handle and respond to the verbal input. These technologies get better as they are fed more data.

The advent of cloud computing and the growth of powerful API libraries have provided enterprises an agile and efficient way to build or integrate AI into their sales processes. It is also the cloud that enables multiple technology platforms and service providers to support a variety of economic models (i.e. build vs. buy vs. subscribe).

The cloud, NLP speech recognition, and ML are the key technologies behind Garter's prediction that AI has arrived and by 2020 will change the game for customer engagement. They have arrived. And everything is changing.

WHATS DRIVING ADOPTION?

Forbes commented on a recent study suggesting that $62 billion annually was lost, calling these results “scary”.

$62 billion

lost annually due to poor customer engagement.

Scary is right, as data suggests, a third of American consumers will dump a company, if they can, after just one unsatisfactory customer service experience. Forbes also reported that in another test, 41% of companies failed to respond at all to a simple customer email query, and 99% of companies failed to follow-up with the customer. For what was really a routine question (“where is your price list”) the average response time was 15 hours.

A five-minute response time is a competitive game-changer when everyone else is taking 15 hours.

Cutting response time leads to improved customer satisfaction and competitively better sales results.

A very large number of customer contacts involve the transmission of routine information that is a little more than a listen-search-retrieve activity (e.g. where is your location, what are your hours, where is my order, is this in stock). For these activities, speed and accuracy are paramount. Contextual information, such as proactively identifying the customer, the customer’s location, or open orders, usually adds to the quality and time-to-resolution of the overall engagement.

Competently automating these routine tasks for call centers, chatbots, and email using AI would improve customer outcomes. It would also create a real-time environment of rich data for analyzing trends and identifying emerging opportunities and problems while better recording and understanding customer interactions.

FROM IVR TO INTELLIGENT VIRTUAL AGENT

This new technology is so much better than the traditional IVR, where a customer can feel trapped in a press-key or voice-response matrix. Conversational AI, whether through voice or chatbot, allows the customer to ask her question or present his problem immediately and directly in a natural interaction with the system. Where the AI cannot resolve the query, the matter is escalated.

Already almost half of US households own a smart speaker which is helping drive acceptance of Conversational AI interactions. Nearly all smartphone users now accept driving directions from GPS-controlled navigation bots.

98%

would prefer not to have to interact directly with a person.

It has already been observed that Millennials will abandon a brand rather than make a telephone call because they loathe the time and effort it takes to navigate an IVR or even deal with a front-line person. They have already mastered the art of online ordering and are looking to continue the relationship online if possible.

67%

of respondents in the US, UK, France and Germany have already used AI or social media to engage for customer service.

Eighty-nine percent of consumers say that a quick response was a competitive differentiator when making a buying decision. Less than half will wait an hour for a response, and 10% will wait less than five minutes before moving on. Contrary to conventional wisdom, ninety-eight percent would prefer not to have to interact directly with a person.

In this context, the advantages of having **Conversational AI as Tier 1 support** are many:

- Multi-modal, supporting SMS, speech-to-text, chatbots and voice interactions —allowing customers to engage however they prefer
- Speed and scalability
- Information accuracy and consistency
- 100% call acceptance with consistently polite and correctly informed interaction
- In-call sentiment analysis, with automatic escalation where appropriate
- Real-time social media monitoring of trends/news
- Better lead generation
- More informed escalations, with intelligent routing to best Tier 2 person
- Lower CSR turnover as routine interactions are now automated
- 7x24 operation in a data center rack instead of an office
- Automatic language detection and conversation in customer's native tongue
- Automatic customer follow-up
- ADA and/or HIPAA compliance
- More robust metrics and reporting

100%

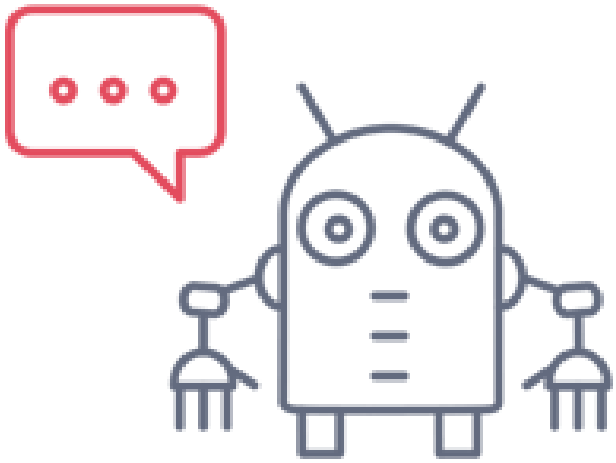
call acceptance with consistently polite and correctly informed interaction.

In addition, quick and always-on Tier 1 support will lower customer abandonment rates and interaction complaints. Moreover, every single customer interaction adds to the predictive power of the supporting models and automatically highlights new and recurring problems.

Even in centers manned by people, background Conversational AI that "listens in" to the call can offer the customer service representative options and/or solutions they may have missed or do not know.

Background Conversational AI can also automatically evaluate CSR performance (including call sentiment) and suggest alternative service solutions. These services would also apply to Tier 2 and Tier 3 scenarios.

As farfetched as Conversational AI might seem, in fact that technology is already here. IBM Watson and Google's Contact Center AI both provide robust solution sets for customer self-service and automatic interactions. Numerous cloud providers offer pre-configured templates for TensorFlow, MXNet, Cffe, CNTX, and Torch machine learning environments.



SOLVING THE BIG PROBLEMS

But pulling this together is difficult, can be expensive to develop and requires specialized talent for model building, data handling, machine learning, and predictive analytics. Maintaining all the moving parts- plus getting them to integrate with existing legacy or cloud apps- is complicated and also expensive. In order to streamline these costs and simplify development, IT teams often commit to a structured framework that is neither agile nor adaptable.

85%

of these projects are failing....What to do?

So, the situation is that companies seeking a competitive advantage in customer engagement want to bring AI to bear but doing so is expensive, complicated, and risky.
What to do?

Five9 Intelligent Virtual Agents provides a platform alternative for companies looking to quickly deploy Conversational AI that provides most of the benefits and avoids the pitfalls.

The approach is interesting- they maintain a library of apps and functions that can be dragged and dropped to develop robust virtual agents that can handle routine transactions themselves or assist human agents during their customer interactions. These can be used in a call center or chatbot environment.

The platform provides a robust set of connectors to independent AI services such as NLP, speech recognition, and sentiment analysis.

As these services (from IBM Watson, Google AI, etc...) improve and change, we take care of updating the apps and functions that comprise the Intelligent Virtual Agent, resulting in a dramatic drop in management and maintenance costs.

The platform approach does not require specialized AI personnel and the platform enables rapid deployment. We offer a series of services templates that simplify the architecture and design phase of deploying Conversational AI solutions, making these solutions accessible for SMB enterprises looking to differentiate the quality of their customer engagement. For larger enterprises wanting more customization, the Inference platform enables that as well, either in the platform itself or via the services that are integrated through the Inference platform.

Because the platform is a cloud-based solution, it is highly scalable and provides robustness, reliability, and security that is only available from hyperscale cloud providers.

$23,200

potential savings of using a virtual agent over a human agent.

Most enterprises think about the cost savings of using a $4,800 virtual agent versus a $28,000 human agent. There is that—but another way to think about the cost savings would be to compare the cost of a pre-packed class of virtual agents delivered through the carrier network, with the development expense that would be required to build and operate a home-grown solution from the ground up. Additionally, as the costs of AI and DevOps staff soar and the competitive market leads to increased employee churn, standardizing on the Inference platform supports process coherency through its event-driven architecture and its API enabled interfaces.

While the cost savings are significant for enterprise grade customers, small and medium size businesses also benefit. Most SMBs struggle with the costs and churn of their customer service agents; creating and paying for the DevOps team is often beyond their means. But the Inference platform enables an SMB to get into the virtual agent game at a very low financial and technical cost.

Bottom line: Conversational AI is the future of customer engagement and that future is now.

Homegrown solutions are difficult, expensive, and prone to fail. A platform approach de-risks the project, vastly simplifies the deployment, and is dramatically less expensive.

ABOUT THE AUTHOR

Joseph Williams is an analyst with BC Strategies. A seasoned telecommunications veteran, at Microsoft Dr. Williams ran the telco partner engineering team for the 2010 launch of its Lync product. Joseph subsequently ran the Lync hosting channel program for Microsoft and then its entire $500+million Office hosting channel program. Prior to his Lync years, Dr. Williams was the CTO of Microsoft's $24 billion enterprise sales division. Dr. Williams has also had a long academic career where he specialized in telecommunications and networks. His ongoing research in the fields of decision analytics and artificial intelligence in enterprise UC stretches back to 2012; his work on AI/UC has been presented at a number of UC summits and in BC Strategies blogs. Joseph is currently the technology policy advisor to Washington Governor Jay Inslee.

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Our unsurpassed delivery, our people, and the Online culture of loyalty, trust and commitment to mutual success set us apart.

Five9 is the clear choice for organizations wanting to streamline contact center operations and empower agents to provide exceptional customer experiences. A highlight of their services is their Intelligent Virtual Agent solution, that uses advanced natural language and automation to make it easier for customers to self-serve over the interaction channel of their choice.