

Thoughtful Automation Transforms Customer Care

Optimize digitally enabled humans and humanize digital
in the service organization with AI

Overview

The pace of automation in the contact center is accelerating as it moves from IVR and routing to artificial intelligence and bots. With the digitization of contact center operations, the status quo is being upended. Technological advances in robotic process automation (RPA), AI, and machine learning (ML) for both customer and employee interactions are literally changing the face of customer care.

Simple, repetitive tasks don't need a person to do them anymore. Chatbots and self-service knowledgebases put the control in customers' hands to resolve their own issues quickly. Information from across the business can more easily be accessed, integrated, and analyzed to streamline back-office and customer-facing functions. Companies are creating digital worker factories that leverage AI and ML to improve their business.

But just because you can automate something doesn't mean you should. Knowing which tasks to turn over to a machine is a challenge, as one must balance core service goals with digital worker capabilities and provide exceptional customer experience. In the customer service arena, many people still prefer to speak to an actual human if possible.

According to research from Deloitte, McKinsey, Accenture and others, while as many as 22 percent of task types are expected to disappear because of automation and AI, up to 28 percent of new task types will be created. As the nature of work changes, the key is to evolve human labor alongside digital labor to improve productivity and experience quality.

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Rethink the service experience

Automation in the contact center serves several purposes beyond just cost containment. For example, the most commonly discussed application is to automate simple, repetitive tasks. This shifts the value of human service labor upward to be available for more complex or emotionally charged interactions. But there's so much more possibility. Automation can be used behind the scenes to assist associates, helping them make better, quicker decisions, as well as scale up digital service knowledge capture, codification, and application, to enhance service quality over the long term.

Machine learning and AI can help firms identify patterns in interactions or analytics more easily than humans, for example, giving companies the ability to predict and develop proactive outreach based on service issues customers may not even be aware of. And advanced root cause analysis can lead to new products and services, or uncover opportunities to pursue new markets with enhanced service features, functions, and performance.

The automation transformation in the contact center also increases the demand to recruit, transition, and retool the service workforce with a focus of augmenting human work with smart machines that eliminate repetitive tasks through automation.

There is a lot of chatter about the promise of automation and AI in the contact center. Yet in reality, automation is primarily used in the following ways:

Chatbots and active listening such as natural language processing (NLP) and natural language understanding (NLU) fuel natural language generation (NLG) and conversational UI tool via chatbots or voice assistants during customer interactions.

Robotic process automation (RPA) replaces tier 0 and other simple interactions that are task-oriented and programmable. Rather than deploying individual bots for each task, a digital worker factory model trains a single intelligent virtual agent (IVA) to handle multiple-use cases, and integrate that IVA into multiple channels for a single, consistent, omnichannel experience.

Statistical machine learning continuously improves systems by using algorithms to mine interaction data to identify patterns in associate activity, resolutions, and customer feedback from each interaction. Operations can become faster, more efficient, and more effective the longer ML is in place doing tasks.

Deep learning neural networks take machine learning to the next level by continually learning and drawing conclusions in ways that mimic the human brain. They are starting to be employed in the contact center to classify, learn from, and improve conversations with consumers, but also with associates and the systems they work with.

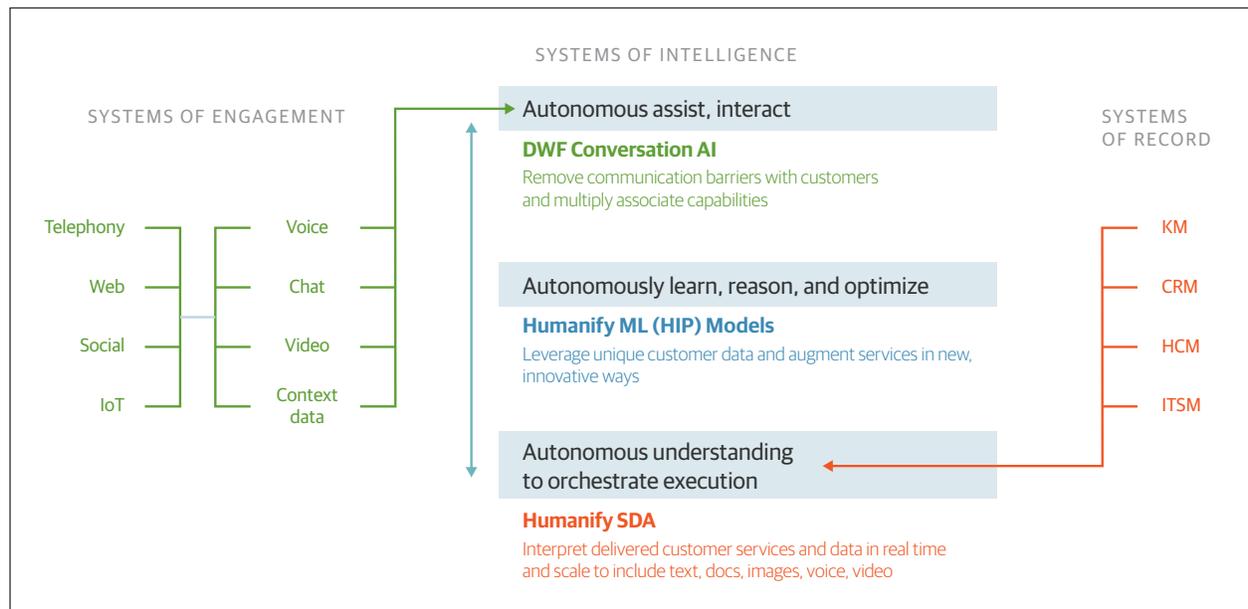


How to do it: AI-enhanced intelligent service systems

The technology to enable automation is super cool and futuristic, but technology alone won't create a successful contact center. We advocate for thoughtful automation, combining the best that technology and humans have to offer. AI tools are now becoming available to make the idea a reality.

Customer service involves a flow between systems of record and systems of engagement. Customers use many engagement channels—voice, web, mobile, chat, social, and in-person—to connect with a company's service organization. They are looking for resolution of issues, and provide data to the company in the form of speech, text, video, or social information. Company associates interact with customers in these channels, using internal systems of record to get information to resolve issues, such as CRM, ERP, knowledgebase, billing, etc. The human associate must work manually within the systems of record to find what they need, then communicate back to customers through the systems of engagement.

This creates a perfect environment for automation and AI tools to bridge the manual, human-intensive gap with AI-enhanced systems of intelligence. It is a closed loop system in which humans help AI to help humans.





Systems of intelligence can be deployed in three ways:

1. Customer Assist: Automatically connects customers to the systems of record via chatbots and voice assistants in whatever engagement channel customers use. It removes communication channel barriers, speeds up resolution, and removes the manual associate responsibility to resolve issues. It uses intelligence so customers can act autonomously, self-serve, and interact directly with the internal systems without human intervention.

2. Learning automation: Expert associates train the AI about what interactions are best to automate and what to keep under human control. This leverages the institutional knowledge of the contact center staff to augment services in new, innovative ways, while maintaining the quality and tone of traditional interactions. Employees are needed to help the AI learn, reason, and optimize different types of customer interactions.

In the competitive contact center space, employees are a company's differentiator. They are brand ambassadors and often have the "secret sauce" of what makes a customer interaction successful. It could be a certain inflection, phrasing, or cadence, or knowing when to push and when

to pull back. These are all insights that human associates can help teach the AI systems to be more thoughtful.

3. Associate Assist: Use automation and AI behind the scenes to help associates. Connect them with the information in the systems of record more quickly and effectively. They can interpret information and data accessed in real time and to scale to help customers resolve issues. The intelligence can serve associates the right information at the right time so they can more easily assist customers through the systems of engagement. For example, it may make sense to overlay the sales qualification phase with the stage where the buyer is trying to understand a product's requirements to evaluate its effectiveness.

This thoughtful approach to automation marries human intuition, creativity, and empathy with a computer's brute-force ability to remember and calculate a staggering number of options and outcomes.

Benefits of thoughtful automation

Adding an AI-enhanced system of intelligence to the contact center provides a number of benefits. It redefines the nature of service value creation at speed and scale. Automation can be turned on when it's needed, and turned off when it's not. Surge events or unexpected issues can be more easily managed with a layer of automation and AI available.

AI also reshapes the transformation of customer experiences and establishes new service models. The stress on employees is reduced, and they can focus their attention on more important or complex issues to serve the customer. With the infrastructure in place, new channels can be added and new ways to serve customers can be considered. The knowledgebase is continuously updated, keeping employees up to date on how best to resolve issues.

And perhaps most importantly, automation changes what success looks like in the contact center. It moves the focus from handle time, calls per hour and other operational KPIs to outcome-based metrics like customer satisfaction, first contact resolution, and NPS. When bots handle the operations, there is no need to measure success on how "hard" the bot worked or how many interactions it facilitated. Instead, the focus can be put on how well the customer was served and if they came away from the interaction with a resolution.





Putting it to work: Adapting service workforce to AI transformation

1. Align the workforce to new service models

New service models are shifting to be customer-outcome-oriented, compared to current models focused on handle time. New service models are customer-experience-centric versus enterprise-efficiency-centric. The workforce must be incented to solve customer problems, not just give out information and move on to the next interaction. The next-gen workforce instead uses appropriate information to improve bespoke selection that service associates make for customers.

2. Recognize new ways of training service workers

New workforce training ways include product expertise training to help solve problems, where AI will present and summarize telemetric data and knowledge articles. Associates will be able to use analytics and other tools to interpret the information presented by AI to help customers. But technology is not the only training employees need. New workforce training ways must include soft skill know-how to be more customer centric. This is an area where humans have the advantage over bots.

3. Organize for agility

Service projects should be organized to solve customer service topics discovered and surfaced by AI and human experts. Teams need to be able to assemble and disassemble quickly. Fluidity is critical. This will allow teams to increase time to value and free up resources to tackle the next hot spots, whatever they may be. Cross-functional expertise and collaboration are important, since it will be difficult to plan too far ahead for unexpected issues.

4. Foster a new leadership DNA

As service projects assemble and disassemble at a quicker pace, leaders are not only managers, as occurs in the current model. They must also be co-creators and collaborators with their people. Reduce the hierarchy that will slow down projects and instead create a cohesive organization of servant leadership with the focus on the customer.

Thoughtful automation use cases

Customer Assist

The most common application of thoughtful automation is customer-facing bots called intelligent virtual assistants (IVA) that help customers self-serve via chat or voice. Yet most customer-facing bots today are highly scripted and limited in their ability to answer only one command at a time. This leads to a frustrating customer experience when the customer goes "off script" that ultimately requires customers to call or chat with a human associate to resolve their issue.

Avoiding these pitfalls means creating a truly hybrid workforce in which a smart IVA simplifies the experience and the human associate engages with customers on higher-value interactions.

Rather than standing up multiple, highly scripted single-use-case bots, we recommend building a Digital Worker Factory in which we train a single IVA to handle multiple-use cases, and integrate that IVA into multiple channels for a single, consistent, omnichannel experience.

A true IVA, born from a Digital Worker Factory, generates personalized responses by combining analytics and cognitive computing based on individual customer information, past conversations, and location, leveraging the corporate knowledgebase and human insight. A Digital Worker Factory sets up companies for long-term flexibility and scalability as they grow, taking advantage of the best that both bots and humans can offer to create value-added support and sales interactions. It is flexible enough to integrate into any client systems rather than a single ACD provider. This further automates human interactions with minimal disruption.

RealPlay™ AI Learning:

Associate skill gaps are a key service challenge, along with proving the ROI on increasing the investment in training programs while maintaining (and ultimately lowering) the cost of training per employee to achieve proficiency.

Our RealPlay™ model addresses the challenges of skill shortage and has a proven ROI benefit. During the training period, associates take turns being "customers" and calling classmates with scenarios to mimic real interactions. But this setup is only half as efficient as it could be, since half the class is playing the part of the customer.

RealPlay AI Learning is a new service training solution framework that takes the proven RealPlay model and increases training effectiveness while reducing the burden on support staff. The training approach uses the power of bots to help prepare associates for production.

AI bots play the role of customers, interacting based on the same scripted scenarios the in-class programs use. This way, all trainees can practice answering real customer issues in a safe environment at the same time. In addition, the program is designed to be self-paced, so each learner can control when and how long to take the training (within trainer guidelines).

After each scenario the learner is provided with a near-immediate scorecard of that training scenario that includes non-subjective feedback such as overall grade, individual strengths and weaknesses that link to transcripts of the call, and suggested changes for future interactions.

RealPlay™ benefits

Cost benefits

Expedite the on-boarding program

The use of Real Play bots will enable learners to self-pace their training, which provides each trainee the opportunity to accelerate the entire process. This gives the facilitator the opportunity to work more closely with the medium and low performers to improve their onboarding. Everyone wins!

Lower the cost to facilitate

Coaching and examples are absolutely critical in achieving the ability to reduce the onboarding and nesting periods by another 10-20 percent due to the real-time feedback. The practice is fantastic. The personalized feedback – even better.

Reduce the need for facilitators and support staff

The RealPlay bot provides multiple actions formerly associated with facilitators (providing instruction), team leaders (providing coaching), and quality (providing evaluations). And it does it real-time.

Quality benefits

Enable asynchronous (anytime) onboarding

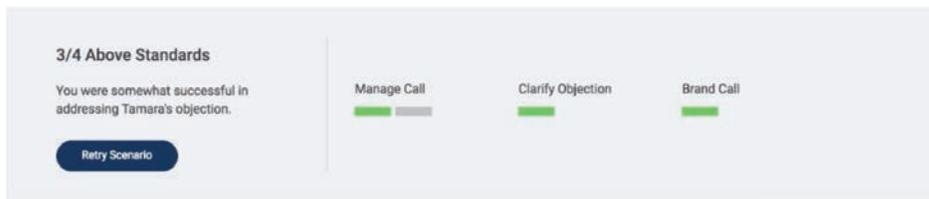
The reduced dependency on facilitators allows learners to train at home and during their desired work hours. This can drive improved attrition and ultimately provide learners to learn at their leisure (a la YouTube, MasterClass, LinkedIn Learning, Coursera, etc.).

Improve operational speed to proficiency

By tying operational performance and quality analytics into Real Play bots, employees will reach desired performance and achieve operational KPIs in less time as a result of being more confident and better prepared.

By using intelligent machines, we help clients meet the quick ramp requirements and rapidly train and can pivot more than 50,000 service associates to be proficient in new service skills every year. The solution is being deployed for ongoing associate training, as well.

RealPlay™ learner scorecard (illustrative)



WEAKNESSES

❌ You failed to assure the customer that the issue would be resolved, which can result in lower satisfaction and lack of faith in your service during the call. Assurance statements are at the core of establishing rapport and building trust with our customers.

Manage Call

STRENGTHS

✅ You asked the customer if you could be of further assistance, which ensures customer satisfaction by allowing for all issues to be addressed during one call.

Manage Call

Suggested Feedback

This is an example conversation between a salesperson in your position and a potential buyer. Consider this next time you encounter this situation.

Salesperson: How can I help?

Potential Buyer: Well, I did some research and the Parasol premiums are significantly higher than your competitor's and I'm wondering why.

Salesperson



Next-Best-Action Assistant

Thoughtful automation can be applied in sales or service-to-sale capacities to determine the best offer to present to customers. It prioritizes next-best-action options across the ecosystem and takes into account why an individual customer is engaging in real time.

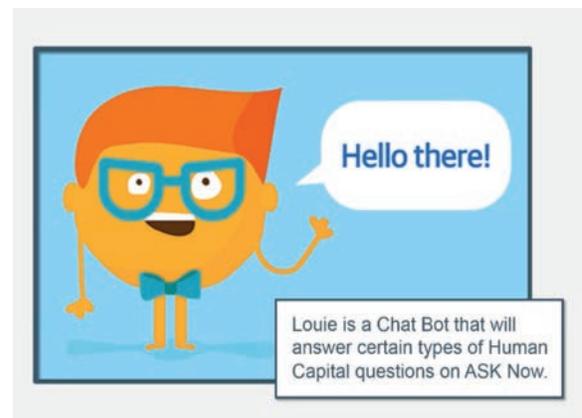
Process, technology, and predictive analytics transform traditional customer care to maximize each customer interaction to provide best service possible while driving topline revenue, increasing share of wallet, and predicting and preventing customer churn.

AI pulls from CRM, product databases, transaction history, and other public information about each customer to apply actionable intelligence in real time. Associates are served up the most relevant offer tailored to the customer's situation at that particular moment. It delivers greater personalization in at specific stages of the customer journey. Besides sales opportunities, the solution can also monitor and proactively act on leading indicators to maximize customer lifetime value and identify drivers of churn while recommending churn reduction activities at key moments of truth.

Employee recruiting and onboarding

In the service arena, finding, hiring, and training new associates is an enormous task. With attrition sometimes over 100 percent, the ability to find the right people and train them quickly and effectively is critical. We are currently piloting AI tools within human capital to automate simple tasks and stay connected with new employees throughout the hiring and onboarding process. We are piloting a human capital chatbot, Louie, to connect with associates via chat and mobile messaging. Louie provides information and updates by tapping into the HC knowledgebase in real-time, 24/7.

For example, employees with questions about maternity leave can ask Louie with NLU chat, who will search the knowledgebase and provide answers. If any forms are needed, Louie will pre-populate relevant fields based on the information it collected in chat session.





Conclusion

The contact center is swiftly moving from a cost center to a channel of strategic customer engagement. Brand ambassadors are replacing “agents” to resolve issues and represent the brand promise in meaningful service interactions. For example, Samsung Electronics customers spend 98 percent of their interactions with the brand after the sale, according to Josh Ives, vice president of customer experience. Creating a positive experience in the contact center will be the difference between brand winners and losers.

Thoughtful automation applies the best of both humans and technology to develop and improve interactions for enterprises at scale. It combines the emotion and empathy that people possess with the speed and accuracy of digital tools. The result is a contact center designed to operate quickly, accurately, and enable the fantastic customer experiences that had previously been out of reach.

Definitions

Thoughtful automation: Automate interactions when they make sense to combine digitally enable humans and humanize digital. Marry human intuition, creativity, and empathy with a computer’s brute-force ability to remember and calculate a staggering number of options and outcomes.

Robotic process automation (RPA): Software that can be easily programmed to do basic tasks across applications just as human workers do. RPA software is designed to reduce the burden of repetitive, simple tasks on employees.

Natural language understanding (NLU): The comprehension by computers of the structure and meaning of human language, allowing users to interact with the computer using natural sentences rather than commands.

Natural language processing (NLP): A field of artificial intelligence that enables computers to analyze and understand human language.

Natural language generation (NLG): A software process that automatically turns data into human-friendly prose.

Conversational UI: Any user interface that mimics chatting with a real human. The idea here is that instead of communicating with a computer on its own inhuman terms—by clicking on icons and entering syntax-specific commands—you interact with it on yours, by just telling it what to do.

Systems of intelligence: Automation and AI tools that bridge the gap between fully automated systems and fully manual systems. It is a closed loop system in which humans help AI to help humans.

Digital worker factory: A single intelligent virtual assistant (IVA) is trained to handle multiple-use cases and integrate into multiple channels for a single, consistent, omnichannel experience.

ABOUT TTEC

TTEC (NASDAQ: TTEC) is a leading global customer experience technology and services provider focused exclusively on the design, implementation and delivery of transformative solutions for many of the world's most iconic and disruptive brands. The Company delivers outcome-based customer engagement solutions through **TTEC Digital**, its digital consultancy that designs and builds human centric, tech-enabled, insight-driven customer experience solutions for clients and **TTEC Engage**, its delivery center of excellence, that operates customer acquisition, care, growth and digital trust and safety services. Founded in 1982, the Company's 50,500 employees operate on six continents across the globe and live by a set of customer focused values that guide relationships with clients, their customers, and each other. To learn more about how TTEC is bringing humanity to the customer experience, visit [ttec.com](https://www.ttec.com).



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