

Customer Care Practice

Technology and innovation: Building the superhuman agent

The latest tools have the potential to transform the performance of contact center agents. Understanding how to apply these technologies before, during, and after customer contact is the first step.

by Felix Kalkum, Becca Kleinstein, Damian Lewandowski, and Julian Raabe



Researchers, academics, and innovative organizations have produced a seemingly never-ending wave of tech-based breakthroughs that keep resetting the bar for customer care. The use cases for artificial intelligence, automation, and analytics in the contact center are increasingly expanding, making these technologies fixtures in virtually every executive boardroom discussion.

Many companies are implementing targeted digital technologies in their contact centers. At the heart of this approach is embedding the right tools in the contact center to create impact: routing calls to the agents best equipped to handle them and ensuring that agents can focus on human interaction and show empathy. The recent transition to remote working adds another category of digital tools to consider (see sidebar, “Virtual workforce: Choosing effective solutions to improve productivity”). These cutting-edge technologies can help agents investigate customer issues and solve queries efficiently while capturing lessons to continuously improve.

Weaving all of these technologies together to support customer engagement is tremendously complex, and the wide array of available tools further clouds the path forward. Best-in-class organizations are differentiating themselves by taking a holistic view on how to improve the user experience and then selecting the technology that can deliver specific capabilities. Collectively, these applications and use cases represent a future state, in which technology is woven into operations to support human agents at every step.

The contact center agent of the future

Technological advancement is the key to enabling personalized assistance for each customer—the ‘care of one.’ This concept is based on data collected before, during, and after an interaction and requires the aggregation and use of data across channels, journey flows, and systems. Both humans and

technology are needed to provide personalized customer care. In the coming years, technology won’t completely replace humans but rather facilitate and support intense human-machine interaction and collaboration.

For example, each contact center agent could be supported by a virtual agent-assistant, a behind-the-scenes bot that actively supports the conversation. This intelligent bot, powered by natural language processing (NLP) and next-generation machine-learning techniques, will be quietly monitoring every call or chat and equipping the agent with personalized advice: What are the customer’s intent and past actions? What is the customer feeling? What is the best next action? What are the most relevant insights and guidance from our knowledge management system? By supplying information from different systems and handling administrative tasks, these technologies will free up agents to fully focus on applying judgment, solving problems with creativity, and creating a connection with the customer.

The road to enablement

Despite daily advances in computing power, algorithms, and data volume, the sheer size and complexity of incorporating these technologies into the contact center mean that it will take time to achieve this future state. In the near term, organizations can start capturing value by harnessing the full functionality of existing technology and redirecting resources to focus attention on the care of one. The recent proliferation of digital customer care capabilities—for example, digital self-service tools such as apps and chatbots, interactive voice response (IVR) systems, NLP, real-time coaching, and augmented reality—makes it possible for companies and agents to adopt the care-of-one mindset without sacrificing cost and revenue targets. We highlight how specific technologies can be applied before, during, and after the call to improve agent performance.

Virtual workforce: Choosing effective solutions to improve productivity

The COVID-19 pandemic forced customer care organizations to rapidly move agents to remote work. This disruption has the potential to significantly lower costs, improve innovation, reduce processing times, and increase employee satisfaction. To realize this potential, customer care leaders must find ways to create a supportive environment for agents while facilitating coaching, engagement, and collaboration. Organizations can foster virtual collaboration using a variety of tools:

Communication. This category of tools supports synchronous and asynchronous communication activities such as real-time remote discussions and presentations, desktop sharing, mobile screen mirroring, virtual team meetings, channel- and group-based instant messaging, whiteboard use, and email.

Team collaboration. Companies can organize teams and their work product by using tools that support activities such as file sharing, especially for large documents and version control; project planning and management; task management; single-source documents; tracking of issues and bottlenecks; real-time project updates; group calendars; and event scheduling.

Writing and editing. These tools help teams work together to create, publish, and manage documents. They include wikis and online document-processing tools, joint whiteboarding, and central knowledge spaces.

Engaging and networking. A number of sites and tools support social media, networking, and fun activities, including office pools, surveys, forums, ideation platforms, retrospective tools with features

such as upvoting, interactive team quizzes, and interactive Q&As.

Benefits

1. **Innovation and virtual teams.** Collaboration tools can boost productivity and unlock innovation by enabling virtual teams to work together across geographies, functions, and organizations.
2. **Human-to-human collaboration.** Video conferencing has been one of the most important enablers of collaboration over distance. However, interoperability across video systems has been a headache for some organizations. To solve this issue, organizations are increasingly moving toward solutions that do not rely on proprietary systems (such as Zoom).
3. **The right answers at the right time.** AI-enabled search tools or the search features of collaboration tools are critical in large organizations. Without search, organizations can find it challenging to provide the right data to the right people to enable productive working sessions.
4. **Speed, convenience, and flexibility.** Tools such as instant messaging increase efficiency by eliminating the need to travel for in-person meetings. These tools also offer added convenience for employees who have flexible hours and work remotely.

Risks

1. **Potential decrease in productivity by increasing multitasking and context switching.** Frequent notifications and flashing or beeping lights can interrupt productive working sessions.

Employees can also feel overwhelmed by information coming through too many channels.

2. **Difficulty managing and protecting information.** Collaboration tools (especially instant-messaging tools such as SMS and WhatsApp), by their nature, make it easy to share information. However, issues can arise when confidential data is generated in these channels but no clear owner has been designated to archive, store, or delete information.
3. **Blurred lines between work and personal time.** Employees who are working from home and staying constantly connected through virtual communications channels can find it challenging to keep work from infringing on their home lives.

Effective collaboration will continue to be an important factor for increasing workforce productivity and innovation. Consequently, finding efficient ways to deliver better collaboration tools will remain a priority for customer care leaders.

Before the contact

Live touchpoints with customers—such as call, chat, or messaging—will always be important, but those conversations are most effective when agents can focus on complex interactions. To ensure that agents concentrate on the highest-value voice interactions, customer care leaders should first implement auto-response and self-service options to handle the most frequent, transactional interactions.

Quickly address root causes

When trying to address an issue, 66 percent of customers begin with self-service before reaching out to an agent or virtual agent. Organizations should provide their customers with the technology to solve their problems via continuous updates of self-service channels such as the web knowledge base, FAQs, community forums, apps, and websites. Advanced analytics, machine learning, and speech and text analytics can be used to dynamically analyze large volumes of contacts and generate insights about contact drivers, self-service leakage, repeated interaction bursts, and channel switching. Companies can then use these insights to efficiently update self-service information and functionality.

Reach out before customers do

Proactive conversational AI platforms can resolve requests before the customer even feels the need to reach out. Modern solutions integrated with various data systems can analyze large quantities of internal and external data and identify triggers to start proactive and personalized conversations through a customer's preferred channels. For example, a leading telco was able to eliminate 50 percent of unnecessary service calls and inbound calls related to repairs by using robotics to proactively contact customers and resolve issues as soon as remote monitoring detected a malfunction.

Deflect with cognitive agents

Two-thirds of customers believe service through online channels and mobile devices should be faster, more intuitive, and better able to serve their

needs.¹ Organizations should seize the opportunity with improved front-end robotics or “virtual agents” to handle repetitive, transactional requests as well as to guide customers through a logical menu of topics and intentions to address issues. Companies that have incorporated such technologies are seeing significant returns: in fact, effectively deploying conversational AI can create a twofold improvement in customer experience; reduce cost to serve by 15 to 20 percent; improve churn, upsell, and acquisition by 10 to 15 percent; and result in a fourfold increase in employee productivity.²

During the call

Even though the industry is rapidly evolving to prioritize digital modes of communication, the majority of customer respondents still prefer to use voice channels to resolve more complex issues. Retaining the human element and striking the right balance between human and digital customer service will lead to more satisfied customers. To increase efficiency and overall service quality, top organizations are enabling agents to focus their entire attention on value-added tasks while optimizing costs.

Match ‘alike’ personalities

Instead of assigning customers to agents automatically or through simple rules, organizations are using advanced analytics and machine learning to route calls. Modern techniques draw on data about individual callers (for example, from external databases and internal CRM data) and agents (such as past performance and call history) to match calls with the best-suited agent. This approach results in more successful interactions, improved agent performance, and, ultimately, better call outcomes.

Know your customers

Knowing a customer's history is no longer a competitive advantage, but a must for organizations that want to keep their customers satisfied. More than three-quarters of customers expect a service representative to be familiar with them, the

¹ McKinsey research on customer digital preferences, 2019.

² McKinsey & Company, “Conversational AI ‘chatbot’ in banking: Delivering differentiated customer experience,” December 2019.

product, and their service history and information.³ Next-generation agent desktops and knowledge management systems start by combining multiple communication channels (for example, web chat, email, and SMS) with internal and external customer databases into one simplistic view. Organizations then layer in AI-enabled customer analytics, suggestions for next best actions, recommendation engines, product and offer analytics, conversation profiling, and risk identification. A single portal provides all the information and context that agents need to provide fast service and ensure smooth cross-channel transitions.

Boost emotional connection in the moment

People skills have never been more critical for agents. With robotic and cognitive technologies handling simple queries, the agent should focus exclusively on consultative conversations with the customer. To support these interactions, many organizations are using real-time coaching and training tools powered by deep learning and behavioral science. Such tools measure hundreds of quantitative and qualitative metrics in real time—tone of voice, speed, pauses, volume, keywords, compassion, and more. AI analyzes the conversation and nudges the agent on screen with recommendations if it detects an issue. For example, the AI coach may suggest that the agent show more empathy or speak at a different speed to build a better connection. This support can help agents come across as more confident and empathetic, which in turn can improve customer experience, sales, and retention. According to research, while it's impossible to control the customer's actions, a fully engaged phone professional who listens and expresses a genuine interest in resolving the situation will foster the type of partnership with customers that is necessary to ensure more engaging and successful conversations.⁴

See what your customers see

Computer-vision AI and augmented-reality software are transforming the contact center's approach to

customer care. Modern organizations are applying the latest algorithm innovations and overlaying information from the customer's smartphone screen directly to the agent's desktop.⁵ This software empowers agents by providing additional visual guidance to improve the accuracy of real-time decisions, support, and recommendations.

After the call

Once a call is completed, agents often have a few minutes of downtime that they typically spend on administrative tasks. However, contact centers could improve efficiency by implementing back-end robotics to handle simple tasks, freeing agents to spend more time enhancing their skills through quick, personalized training sessions.

Monitor and optimize agent performance

The biggest cultural and organizational changes of next-generation performance management will be based on personalized, real-time coaching with near-constant feedback for agents. Modern performance management operating systems use AI and NLP to visualize role-based data, identify improvement areas, and continuously monitor performance at the individual and team levels. These insights are used to tailor coaching and training to an agent's personality, skills, and motivation. Next-generation systems also include personalized targets for agents, gamification to spur healthy competition, and self-learning recommendation engines. Collectively, these tools motivate and train agents while they wait for their next call.

Understand your back-end operations

Several capabilities, such as process discovery or process mining, offer process insights that can reduce the burden on agents and improve performance and overall customer service by quickly identifying nonintuitive opportunities for digitization and automation within contact centers. For example, managers can use computer-vision applications to determine how much time agents spend on specific activities and to untangle the

³ McKinsey research on customer digital preferences, 2019.

⁴ "The state of empathy in the call center," Cogito.

⁵ A customer must have to download an app and agree to terms before sharing their smartphone screen with an agent.

granular workflow of tasks, activities, and events that agents perform. Who is responsible for high-priority processes? Are people engaged and productive? What are the sources of lost productivity? These applications can answer all of these questions and others.

Let robotic process automation (RPA) tools handle all non-value-added back-office tasks

Automation can replicate human work in a cost-efficient way by handling repetitive processes and tasks through virtual rule-based robots. Data integration, manipulation, and analysis can be facilitated by converting unstructured analog data flows into structured digital flows. This exercise can improve customer experience by enhancing the quantity and quality of data inputs, which accelerate analytics.

Selecting the right technology to support agents

Creating superhuman agents requires a huge number of technology solutions. This presents a key challenge for organizations intent on achieving this vision. Each tool provides only a small part of the solution, many functionalities overlap, and tools must be integrated and able to exchange data. Customer care organizations should select a few tools as a starting point and prioritize implementation based on each tool's contribution to well-defined business goals. The following five-step process has proved effective for a range of customer care organizations:

1. ***Define business success in hard numbers.***
Organizations should select key performance indicators (KPIs) that are most relevant to their business, such as cost to serve (CtS). Executives can set ambitious goals, but they must be sure

to focus on metrics that can actually influence business outcomes.

2. ***Build a driver tree to highlight which factors influence those KPIs.*** For example, companies can segment CtS into front-office, back-office, IT, and nonpersonnel activities. These drivers can in turn be broken down further into metrics such as average handle time.
3. ***Simulate different interventions by applying them to the driver tree and determine which changes will have the greatest impact.*** For example, if average handle time is found to be a key driver, then an optimized agent workspace, knowledge management tools, and other support can have a large impact on overall success and should be prioritized.
4. ***Scan the market to stay current on cutting-edge tools—but don't let the latest products shape strategy.*** Instead, companies should define their problem as described above and then seek out solutions.
5. ***Track business KPIs before, during, and after implementation of the prioritized tools.*** This is critical to measure the impact of investments.

Ushering in the era of superhuman agents won't be automatic or easy: a comprehensive solution has too many moving parts. For companies that get it right, the benefits will be well worth the investment. And, at a time when the world is reeling from the pandemic, customer care volumes have spiked, and remote working has suddenly become standard practice for contact centers, organizations have a unique opportunity to make significant progress.

Felix Kalkum is an associate partner in McKinsey's Cologne office, **Becca Kleinstein** is an associate partner and **Damian Lewandowski** is a specialist in the New York office, and **Julian Raabe** is a partner in the Munich office.

The authors would like to thank Michael Könnig, Maurice Obeid, and Grant Riewe for their contributions to this article.

Copyright © 2020 McKinsey & Company. All rights reserved.