

Generative AI Will Enhance — Not Erase — Customer Service Jobs

Companies should start looking now for creative ways to tap the power of human-machine collaboration. **by Paul R. Daugherty, H. James Wilson, and Karthik Narain**

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The potential for generative AI like ChatGPT to disrupt how humans interact with computers, change how information is retrieved, and transform jobs across industries has left a lot of [company leaders](#) scratching their heads. As with other breakthroughs in AI, ChatGPT and similar large language models (LLMs) raise big questions about their

impact on jobs and how companies can apply them productively and responsibly.

We believe that leading companies should neither attempt to automate human jobs out of existence nor cautiously wait on the sidelines until the well-documented [shortcomings](#) of generative AI are ironed out. Instead, in areas where the application of generative AI shows promise, companies should take a more strategic tack. First, they can break down jobs into underlying bundles of tasks. Then they can determine how the introduction of generative AI might affect each of those tasks. They will find, as we did in [our research](#), that the net effect on jobs will be to create a new set of human work tasks — many of them of higher value.

Breaking Down Job Tasks

Customer service, a vital activity in almost every industry, provides an instructive case in point of the ways generative AI will enrich — not erase — jobs. For example, we found that the bulk of work for customer service representatives could be broken down into 13 existing tasks. We then analyzed how the introduction of generative AI might affect each of those tasks. Four of the tasks remained unchanged and could be performed entirely by humans. Four tasks could be fully automated. Five tasks could be augmented to help humans work more effectively. And five new, high-value tasks emerge. Human, automated, augmented, and emergent tasks — these are the ingredients of a new mix of tasks around which companies should redesign jobs to get the maximum advantage from generative AI.

The four human tasks, unaffected by generative AI and performed entirely by customer service personnel, included such activities as the arrangement of customer-facing environments and directing organizational operations, activities, and procedures. The four customer service tasks that could be fully and effectively automated included

such repetitive structured tasks as determining the prices of goods and services and collecting payments. And the five augmented customer service tasks that needed to be reinvented around collaboration between customer service reps (CSRs) and generative AI included such activities as responding to customer problems or inquiries, providing information to guests, clients, or customers, and promoting products or services.

Despite the [media narrative](#) to the contrary, generative AI will not wipe out entire categories of jobs, such as those in customer service. Automation is ideally about unlocking human potential to do tasks differently and do different, higher-value tasks.

In our book, [Human + Machine: Reimagining Work in the Age of AI](#), we detailed how leading companies were using artificial intelligence to augment human capabilities, not replace them. The same dynamic will drive the use of generative AI as companies find even more creative ways to tap the power of human-machine collaboration.

For example, the ability of generative AI to put massive amounts of information at the fingertips of CSRs greatly increases their capacity to resolve the customer's problem more thoroughly and quickly than either a chatbot alone or a CSR following a rote script. But because conversational AI can sometimes produce plausible sounding but nevertheless incorrect, irrelevant, or nonsensical responses, a human must remain in the loop to ensure the accuracy and trustworthiness of machine-generated suggestions and information.

Putting a Premium on Human Expertise

A creative mix of human, automated, and augmented customer service tasks can give organizations a leg up on less imaginative competitors. But we believe that in order to tap the full potential of

generative AI, customer service personnel will need to perform new and unprecedented tasks that put a premium on distinctively human tasks.

This is consistent with our findings in our most recent book *Radically Human*, where we detailed the ways in which even newer approaches to AI, fast-forwarded by the pressures of the pandemic, were upending assumptions about the role of people in the emerging technological ecosystem. Instead of being dominated by intelligent machines, people are now guiding them based on human experience, perception, and expertise. In fact, ChatGPT and its predecessors were trained with a technique called reinforcement learning from human feedback (RLHF), and its developers are continuing to refine it based on how people are using it online. As one of ChatGPT's developers told *Technology Review*, "This is ChatGPT's secret sauce. The basic idea is to take a large language model with a tendency to spit out anything it wants...and tune it by teaching it what kinds of responses human users actually prefer."

In the domain of customer service, the advent of generative AI, guided by humans, will require such higher-order cognitive work as judgment, insight, moral reasoning, and innovation. This is a far cry from following scripts or handing off customers to other, more knowledgeable CSRs. Much of this higher-order work will be focused on maintaining, monitoring, and improving the performance of the generative AI itself. As CSRs simultaneously use the system and evaluate its performance, their internal radar must always be on. Because these activities are of a higher order, they seem less like discrete tasks than like ongoing responsibilities, requiring great sensitivity, new behaviors, and insight. In our analysis, we found at least five such new tasks that will need to be incorporated in the customer service jobs of the future.

Pursuing continual improvement.

Because generative AI is rapidly evolving, customer service organizations will need to continually find new and more powerful ways to use it. This is not just a task for designers but for CSRs as well, who know first-hand what is working, not working, or could be improved. Their insight and experience could be invaluable in such areas as self-service, automated response, and personalization. Leaders of customer service organizations will need to create pathways or processes for CSRs to provide their input.

Making sure the system aligns with the customer.

Determining whether a generative AI-driven system is accurately gauging human intent, is solving what the customer wants solved, and doing it in a way that aligns with the customer's values will be an ongoing human task. Customer service personnel will need to be able to evaluate customer interactions in those terms, continually make sure that machine output is aligned with them, and have a means for reporting misalignment.

Testing and evaluating avatars for customer interactions.

Mimicking human features and characteristics in avatars of a conversational AI can be a valuable way of creating rapport with users. But customer service personnel must continually monitor and evaluate the many risks such representations run such as unconscious biases embedded in an avatar's appearance, gender, and tone of voice. These are moving targets, and keeping up with them will require sensitivity on the part of customer service workers.

Monitoring data privacy and minimizing data bias.

Companies should always be mindful of how much data they are collecting and whether its use is replicating the biases of the AI system. Customer service representatives can learn to spot issues of data privacy and elevate them to supervisors quickly. They can also test new uses of

the system for potential biases, a task for which their testing of avatars should help prepare them.

Assuring ethical machine behavior.

Conversational AI can increase trust and engagement, [assuage loneliness](#), and has even [shown promise](#) in helping children with autism disorders and people recovering from trauma. But such abilities also generate a host of ethical and compliance issues. Conversational AI can be extremely persuasive, which in combination with its ability to engender trust, can be used to sell products and services customers don't want or need. Moreover, conversational AI can profile users at scale and exploit their emotional and cognitive biases — a practice explicitly forbidden under the European Union's Digital Services Act. Customer services personnel, especially those involved in selling products and services, are uniquely placed to understand both when the machine is on its best behavior and when it steps over an ethical line.

The Path Forward

Customer service, while illustrative, represents only a small slice of the impact generative AI will have across your entire organization — and soon. Unlike other major innovations where the technology was a relatively stable “product” when business started adopting it, the evolution of generative AI and LLMs will happen in parallel with adoption because the breakthrough is so big. Companies can't afford to wait. Leaders must begin now to do the hard work of reinventing jobs and creating the most effective mix of human, automated, augmented, and emergent tasks in the context of the company's specific business.

Because adoption and evolution of the technology will take place almost simultaneously, generative AI will be continually disruptive. But it will also unleash human creativity and empower people to solve problems that were unsolvable before. Imagine, for example, a generative AI

system that is continually trained, in part, on customer interactions and uses what it “knows” to suggest previously unimaginable products and services. Going far beyond data mining and other product development and marketing tools, such a system might generate product ideas with a nuance and specificity that includes design details, the size of the market, and the path of the new product’s continuing evolution and enhancement.

This power of generative AI and large language models to understand all the history, context, nuance, and intent of a business offers a once-in-a-generation opportunity. With the power to draw from anything that is conveyed through language (documents, emails, chats, video and audio recordings, as well as your applications and systems), you can come out the other side knowing everything your organization has ever known to drive next-level innovation, optimization, and reinvention.

The speed of development will continue to be breathtaking. We’re at the start of an incredibly exciting era that will fundamentally transform the way information is accessed, content is created, customer needs are served, and businesses are run. Companies that act first and most aggressively stand to create an outsize advantage over those who hesitate, elevating employee capabilities, delighting customers, and introducing powerful new business models.

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