THUNDERBIRD
SCHOOL OF GLOBAL MANAGEMENT

A09-23-0018

William E. Youngdahl
Kannan Ramaswamy

HBP# TB0704

The Digital Transformation of CX at Albright Cancer Centers: The Generative AI Journey*

"If patients and their families can't call us and get the information they need, we can't claim to provide world-class cancer treatment."

– David Smithson, Vice President, Customer Service and Business Operations

Lisa Mitchell, Deputy Vice President, Tech Operations, at Albright Cancer Centers (ACC), sat in her office, looking out the window at a view of the Denver skyline. The challenges she faced at ACC weighed heavily on her. The recent issues with the customer service system, the frustrated voices of patients and their families, and the evident strain on her team were all foremost in her thoughts. Each problem was like a puzzle piece, and she was determined to find a way to make them fit together seamlessly. The calling challenge, in particular, was a pressing concern. The cloud-based system's frequent freezes and the need for patients and their families to restart their narratives when calls escalated were more than simple technical glitches; they were barriers to providing compassionate and efficient care.

Yet, as she contemplated the potential of cutting-edge AI solutions, another concern surfaced. Did they even have the in-house talent to deploy such advanced technologies? The world of AI is vast and rapidly evolving, and merely deciding which technologies to invest in would be a challenge. The thought of recruiting or training a team with the necessary expertise added another layer of complexity to the situation.

Taking a deep breath, she tried to draw inspiration from the cityscape before her. Denver, with its blend of historic charm and modern innovation, was a testament to overcoming challenges and evolving with the times. As the city lights began to twinkle, Mitchell felt a renewed sense of purpose. Despite the uncertainties and the looming technical challenges, she was committed to finding a way forward. She was ready to tackle the issues head-on, to find solutions that would not only address the immediate concerns but also pave the way for a brighter future for ACC.

Albright Cancer Centers

ACC was established in 1988 by Robert L. Albright, a prominent financial entrepreneur and philanthropist. The passing of his daughter, Shawna Albright, due to bone cancer in 1984, motivated Albright to devise a care model that would revolutionize the approach of oncologists, surgeons, and other medical professionals toward cancer patients. He understood that every patient embarks on their health journey with distinct needs, obstacles, preferences, and aspirations. The ethos, embodied in the Guardian Standard of Care, emphasized treating each individual as he or she would expect their family members to be treated—with kindness, honor, and compassion. Albright's founding vision was to offer the caliber of treatment and care he hoped his daughter would have experienced. By 2023, ACC, a private entity, boasted over 2,800 staff members and a consortium of healthcare facilities and outpatient centers in cities like Chicago, Boston, and Denver.

The Guardian Standard of Care necessitated a cutting-edge, holistic approach to cancer treatment, supplemented with therapies aimed at enhancing physical and mental well-being, as elucidated by Dr. Emily Friedman, CHS's Head of Holistic Medicine. A significant number of patients often don't realize the profound impact cancer can have on them, both physically and mentally. Common side effects of cancer treatments, such

**The organization and characters presented in the case have been drawn from multiple individual events. Therefore, identities have been disguised.*

as nausea, peripheral neuropathy, and dry mouth, can be managed with supportive care therapies, including nutritional guidance, oncology rehabilitation, and mental health services. A comprehensive approach to cancer care addresses the ailment using surgery, chemotherapy, and other traditional methods, while simultaneously bolstering patients' vitality, endurance, and overall life quality with evidence-based therapies.

Friedman was insistent that the Guardian Standard of Care also meant empowering patients in their treatment journey. Such empowerment demanded access to information and the capability to influence decisions made by caregivers. By providing channels for transparent sharing of information, combined with an ethos of mutual respect and empowerment of the patient, families felt that they were an integral part of the care that the medical team provided. Dr. Fernanda Rivera, the CEO, echoed ACC's eagerness to engage with patients and act on their feedback: "Every piece of patient feedback is presented at the board level, detailing the steps our team took in response. It's astounding how much insight we gain by recognizing that we aren't the end-users, and only they can genuinely mold our operations and our path ahead."

The Patient and Family Call Experience

Mitchell walked through the bustling customer service office, her attention focused on the representatives as they managed incoming calls. The hum of conversations filled the air, but a recurring issue quickly became evident. Time and again, she saw representatives wince, apologize, and press the hold button. The cloud-based system, which should have been a tool for efficiency, kept freezing up, disrupting the flow of communication instead.

The challenges didn't end there. As Mitchell leaned in to listen to a few interactions, she realized that the system wasn't just unreliable in its performance; it was also providing inaccurate information. Representatives, trying to maintain their composure, had to navigate through misleading data and attempt to piece together accurate details for the distressed callers on the other end.

What pained Mitchell the most was witnessing the ordeal patients and their family members had to endure when calls escalated. Instead of a seamless transition to a higher authority or a specialized department, these individuals had to start their narratives from scratch. The emotional toll of recounting painful details, combined with the frustration of system-induced delays, was palpable in their voices.

As she continued her observation, Mitchell felt a growing determination. She recognized the gravity of the situation and the impact it had on both the representatives and the callers. The system's inadequacies were more than just technical glitches; they were barriers to providing compassionate and efficient care. Mitchell decided she would spearhead an initiative to rectify the issues. She was committed to ensuring that both staff and patients received the support and efficiency they deserved.

Later that afternoon, Mitchell sat across from her boss, David Smithson, Vice President of Customer Service and Business Operations. "David, I know that we share the belief that each family member and patient we interact with is not just another caller on the line. They are precious customers, individuals entrusting us with their concerns, fears, and hopes during some of the most challenging times of their lives. Their experience with us, every call they make, and every interaction they have, should reflect our commitment to them. We must prioritize their customer experience above all else." Smithson nodded, taking in her words. He had always respected Mitchell's insights and her dedication to the patients and their families.

She continued, "In this digital age, we have so many new tools at our disposal. We need to be proactive in harnessing these technologies to enhance our customer service. I've been reading up on generative AI and its potential applications in customer support. Perhaps it's time we explore how such digital approaches can be integrated into our system. If done right, they could revolutionize the calling experience for our patients and their families, ensuring that they always feel heard, valued, and cared for."

Smithson leaned back in his chair, pondering her suggestions. "You have a point, Lisa. We need to be at the forefront of these technological advancements. Let's delve deeper into this and see how we can make it a reality."

The Guardian Level of Call Initiative

Just a week after her initial meeting with David Smithson, Mitchell came prepared with a detailed presentation outlining the challenges that patients and their families encountered when trying to connect with the center over

the phone. System glitches dropped calls, and the recurring problem of callers having to reiterate their situations multiple times were causing distress and dissatisfaction.

Mitchell, emphasizing the importance of addressing these issues promptly, proposed a "Guardian Level of Call" initiative. She asserted that this wasn't just about fixing the current problems. The initiative was about elevating the entire calling experience. She spoke about the potential of modern digital tools, especially the capabilities of generative AI. By integrating such technology, the center could not only streamline the calling process but also provide personalized responses, ensuring that each caller felt genuinely heard and assisted.

Smithson listened carefully to Mitchell's insights and suggestions. He recognized the significance of the issues she raised and the potential impact of her proposed solutions. After some consideration, he gave the green light for an exploratory phase. This phase would involve a deeper dive into the current calling process. He tasked Mitchell to map out the customer journey for three distinct caller groups—new patients, those who had been with the center for a while, and the family members advocating for them. This analysis would pinpoint where the system faltered and where improvements could be made. It would serve as the foundation upon which the "Guardian Level of Call" initiative could be proposed to the COO to seek funding. The funding would require CEO and board-level approval, so it was important for Mitchell to lay the groundwork for a much more substantial proposal.

Two weeks later, Smithson called a kickoff meeting in one of the larger conference rooms, ensuring there was ample space for the group of six customer service representatives from three different ACC medical facilities. As everyone settled into their seats, the room was filled with a mix of anticipation and curiosity.

Smithson began with a brief introduction to the initiative. "Thank you all for being here. The 'Guardian Level of Call' initiative isn't just another project. It's a strategic move to redefine how we communicate with our patients and their families. Our reputation, our commitment, and our future growth hinge on getting this right." He paused, letting the weight of his words sink in, then continued. "Every call, every interaction, is a reflection of our dedication to those we serve. We need to ensure that from the moment they dial our number to the moment they hang up, they feel valued, understood, and cared for."

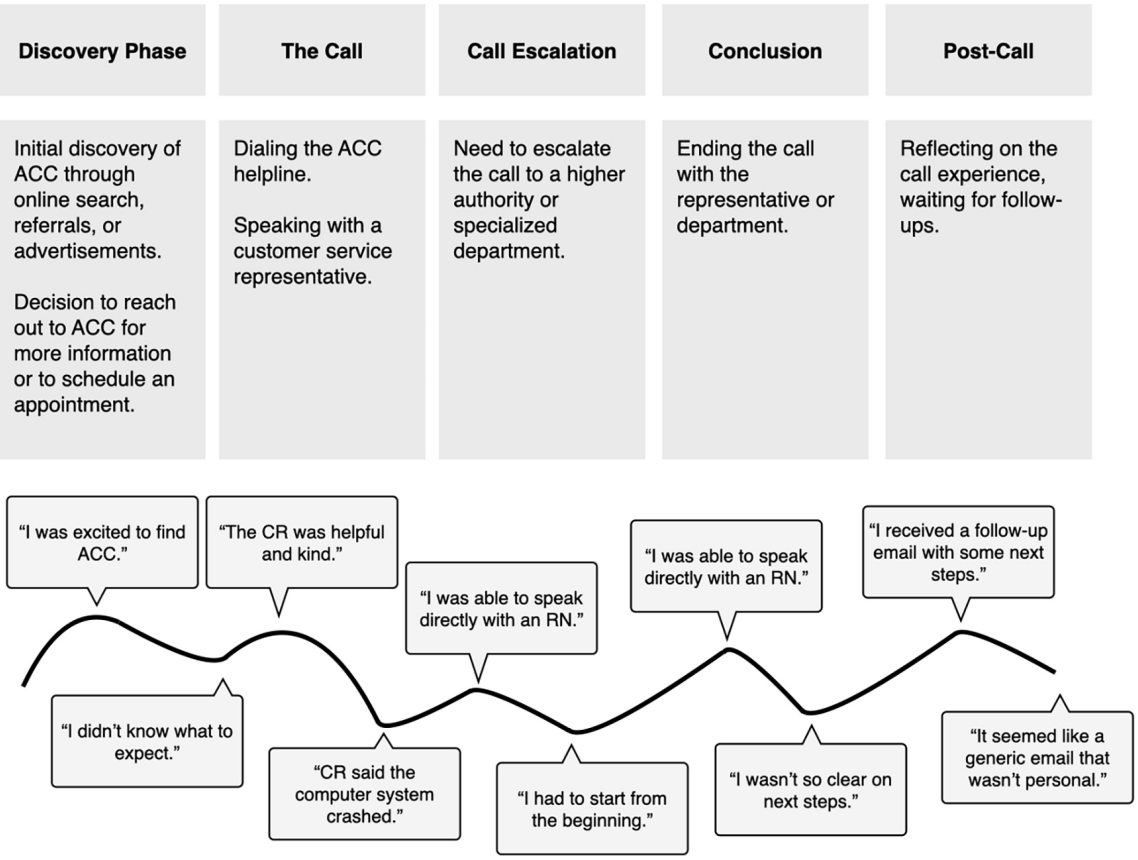
Mitchell then took the floor, a projector screen behind her displaying the words "Customer Journey Mapping." She began, "I'm sure some of you are wondering what 'Customer Journey Mapping' is. In simple terms, it's a visual representation of every experience our callers have with us. It's not just about the call itself but every touchpoint, every emotion, and every challenge they face." One of the representatives raised a hand, "So, it's like walking in their shoes?" Lisa smiled. "Exactly. Imagine you're a new patient, nervous and unsure, calling us for the first time. Or an existing patient with a pressing concern. Or a family member seeking updates. We need to understand their emotions, their needs, and their pain points at every step. Our goal is to create a detailed map for each group: new patients, existing patients, and family members. By understanding their journeys, we can identify where we excel and, more importantly, where we need to improve." Another representative chimed in, "And that's where the digital tools come in?" Mitchell nodded. "Precisely. Once we have a clear picture, we can determine how technologies, especially generative AI, can enhance the experience. But first, we map." She added, "And it's important to realize that we have a lot to learn, and we will likely learn from some mistakes along the way. That's OK. In fact, it's a good thing since it shows that we are willing to put ourselves out there to innovate for our patients and their families." The customer service representatives, equipped with a clearer understanding of their mission, were eager to dive into the process.

Recognizing the complexity of the task ahead and the need for specialized expertise, Mitchell decided to bring in an external consultant. She hired Alex Sanches, a local expert in customer journey mapping. Sanches had a track record of successfully guiding organizations through the intricate process of understanding their customers' experiences. Sanches wasted no time. He organized a series of workshops with the customer service representatives who had attended the kickoff meeting. These sessions were designed to delve deep into the intricacies of each caller's experience, ensuring that no detail was overlooked.

Working closely with the reps, Sanches began with potential patients. They mapped out the journey from the initial moment of discovering ACC, the emotions and questions that might arise, to the actual call and the aftermath. They discussed potential patients' apprehensions, their need for clear information, and their hopes for a compassionate response (see Exhibit 1). Next, they shifted their focus to current patients. The reps shared insights into the myriad of reasons current patients might call, from appointment queries to medical concerns.

Sanches guided the group in charting out the various touchpoints, ensuring they captured both the logistical and emotional aspects of the journey (see Exhibit 2). Lastly, they tackled the journey of family members who often called with a mix of anxiety, hope, and a need for updates (see Exhibit 3). The reps, having interacted with countless family members over the years, provided invaluable insights. Sanches and the team mapped out the unique challenges faced by this group, from seeking medical updates to understanding treatment options and providing emotional support.

Exhibit 1. Customer Journey Map for a Potential Patient Calling ACC



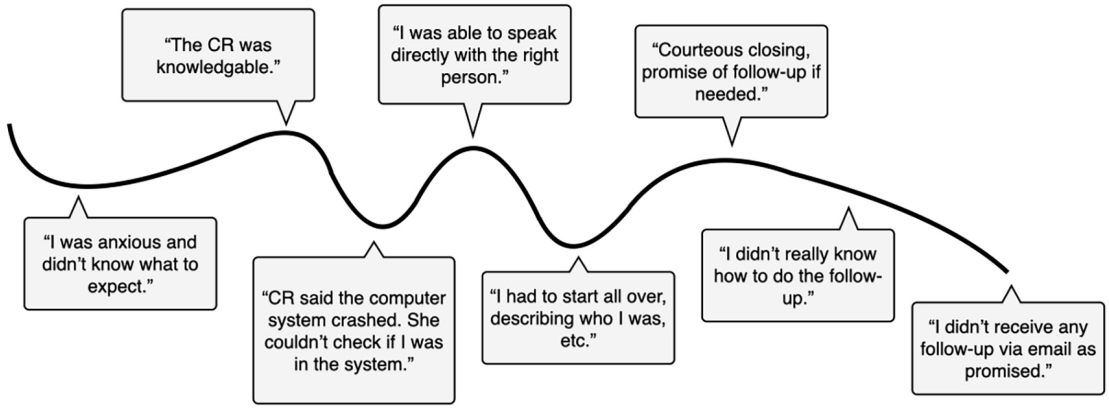
Throughout the process, Sanches emphasized the importance of empathy. He often said, "We're not just mapping processes; we're mapping emotions and experiences. We need to feel what they feel to truly understand." To emphasize the importance of emotions, Sanches had the group assign smiley or frowning emojis to areas of excellence and issues at each touchpoint. With Sanches' guidance and the reps' firsthand knowledge, the team successfully completed detailed customer journey maps for each group. These maps served as a foundation, highlighting areas of excellence and pinpointing opportunities for improvement in ACC's call experience.

Mitchell was a staunch advocate for the power of inclusion. She recognized that to genuinely elevate the customer service experience, it was crucial to engage the ideas of her team members and find ways to bring them up to speed on emerging digital technologies (see Appendix). Mitchell gathered her team in a conference room. She began, "The landscape of technology is rapidly evolving, and we need to be at the forefront of this change." She continued, "I want each of you to immerse yourselves in the emerging technologies out there. To aid in your research, I encourage you to use GPT-4, Bard, and any other AI tools. It's essential that we use the technology to understand the technology."

Jane, one of the representatives, raised an eyebrow in intrigue, "So, you're suggesting we use GPT-4 to research how we can further enhance our customer service?" Lisa nodded. "Exactly, Jane. It's a hands-on approach.

Exhibit 2. Customer Journey Map for Current Patient Calling ACC

Need for Info/ Support	The Call	Call Escalation	Conclusion	Post-Call
Decision to reach out to ACC for more information or to schedule an appointment.	Dialing the CHS helpline. Speaking with a representative.	Need to escalate the call for specialized queries or concerns.	Ending the call with the representative or department.	Reflecting on the call experience, waiting for follow-ups.



By using GPT-4, you'll not only understand its capabilities but also how it can be integrated into our current system." Mark, another representative, asked, "And what's our end goal with this research?" Lisa replied, "In two weeks, we'll reconvene. I want to hear your insights on how these technologies can empower our customer service representatives to provide Guardian Level of Calls. Remember, it's not just about understanding the tech; it's about envisioning its practical application in our day-to-day operations."

Two weeks had passed since Mitchell's directive, and the conference room was once again filled with the customer service team, each member eager to share their findings. The atmosphere was charged with anticipation.

Mitchell began, "I trust you've all had a productive two weeks diving into the emerging technologies. Let's hear what you've discovered."

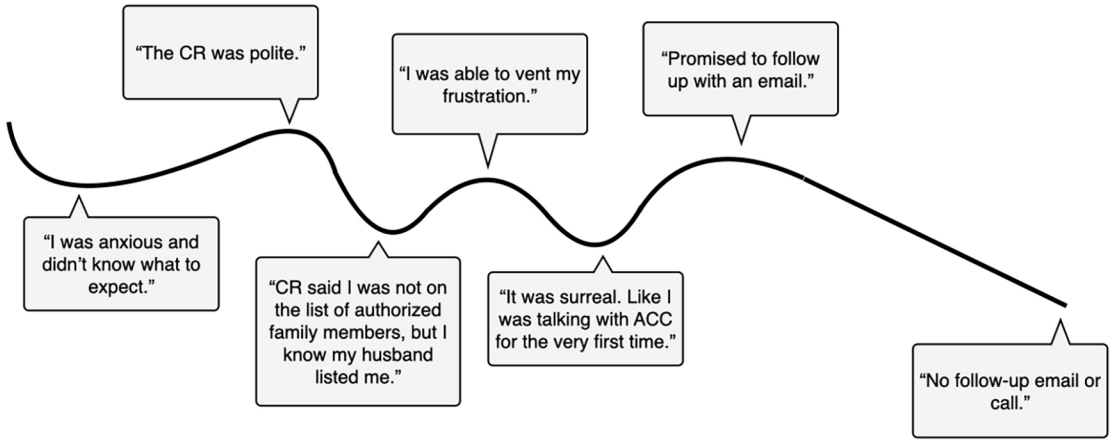
Jane was the first to speak, her enthusiasm palpable. "I focused on generative AI, specifically GPT-4. Its ability to understand and produce human-like text is remarkable. Imagine a system where our callers interact with an AI that can provide instant, accurate, and empathetic responses. It could handle routine queries, allowing our human reps to focus on more complex and emotionally charged calls."

Mark added, "I looked into sentiment analysis. It's a tool that can detect and categorize the emotions of our callers in real time. By integrating this with our current system, we can immediately identify if a caller is distressed, frustrated, or happy. This real-time feedback can guide our representatives to tailor their responses, ensuring every caller feels genuinely heard and understood."

Carlos, ever the tech enthusiast, shared, "I delved into predictive analytics. By analyzing our past calls and other data points, we can anticipate potential issues or concerns our callers might have. For instance, if a patient

Exhibit 3. Customer Journey Map for Patient's Family Members Calling ACC

Need for Info/ Support	The Call	Call Escalation	Conclusion	Post-Call
Decision to call ACC for updates, support, or queries related to their loved one's treatment.	Dialing the CHS helpline. Speaking with a representative.	Need to escalate the call for specialized queries or concerns.	Ending the call with the representative or department.	Reflecting on the call experience, waiting for follow-ups.



frequently calls about medication side effects, we can proactively provide them with information during their next call. It's about being one step ahead, always."

Sophia, with a keen interest in human-AI interaction, said, "Natural Language Processing, or NLP, caught my attention. It allows computers to understand and respond to human language in a way that feels intuitive. Integrating NLP means our system can better comprehend the nuances of our callers' queries, ensuring more accurate and personalized responses."

Layla, who had a background in CRM systems, remarked, "The integration capabilities of these technologies with our current CRM system could be seamless. By having a unified system, our reps can have a holistic view of each patient's journey. Every interaction, every concern, every feedback—it would all be there, allowing us to provide a truly Guardian Level of Call."

Mitchell responded to the team. "Your insights are invaluable. Each technology you've explored has the potential to take our customer service to the levels envisioned by Mr. Albright when he first coined Guardian Level of Care. Our next step is to share our findings with David Smithson so he can pursue funding. We'll likely need the help of a consulting organization to help us pull together the different technology providers. It will be a significant investment, but you've created a great foundation for guiding the rest of the initiative."

Later that afternoon, Mitchell caught Smithson in the hallway for a brief update. "David," she began, "we've finished mapping out the customer journeys, and the team researched various technologies to address the issues we identified. I plan to have a proposal ready for you by the end of next week that outlines our recommendations." Smithson nodded. "Great work, Lisa. I'm looking forward to seeing what you come up with."

That afternoon, as Mitchell was starting to work on her proposal for the next phase of the Guardian Level of Call initiative, her phone rang. Recognizing Smithson's number, she answered promptly. "Lisa," Smithson's voice came through, "can you come to a meeting tomorrow morning? Fernanda Rivera wants to hear about your findings." Mitchell's heart rate quickened. She hadn't anticipated presenting to the CEO so soon, especially before she had a detailed proposal in place. Sensing her hesitation, Smithson quickly added, "Don't worry. You only need to report on what you've found so far. Fernanda just wants to be in the loop." Taking a deep breath, Mitchell replied, "Of course, David. I'll be there." She hung up, feeling a mix of excitement and anxiety about the unexpected turn of events.

Dr. Fernanda Rivera had long been a respected figure in the medical community. Her tenure as the head of surgical oncology had solidified her reputation. Not only was she known for her precision and expertise in the operating room, but she also demonstrated a natural ability to lead and mentor her team. Her colleagues often spoke of her dedication to her patients and her commitment to advancing the field of oncology. It was this blend of surgical skill, leadership, and passion that caught the attention of the ACC board, leading to her promotion to CEO just two months ago. Rivera had also been responsible for bringing AI to ACC's Cancer Center, where it was being used in both diagnostics and formulating treatment plans. However, she was acutely aware that leading an entire organization required a different set of skills than heading a department. With the foresight to understand the complexities of her new role, she made the proactive decision to further her education. She enrolled in an executive education program at a well-regarded business school in Cambridge, Massachusetts. This wasn't just any program; it was designed to challenge its attendees, offering them exposure to the latest in management strategies, leadership philosophies, and real-world business scenarios. She engaged in rigorous coursework, participated in group discussions, and collaborated on projects with a diverse group of leaders from various industries.

Upon her return, it was evident that the program had a profound impact on Dr. Rivera. She came back not only with new insights but also with a renewed sense of purpose and a clear vision for ACC. Her goal was ambitious: she wanted to transform ACC from a reputable institution into a leading, globally recognized cancer center. This vision encompassed advancements in research, patient care, and treatment methodologies.

Mitchell knew that it would be a long night as she began crafting a PowerPoint deck for the meeting with Dr. Rivera and her boss, David Smithson. She had anticipated including her team members when sharing findings with Smithson, but he made it clear that they should not attend this meeting with Dr. Rivera.

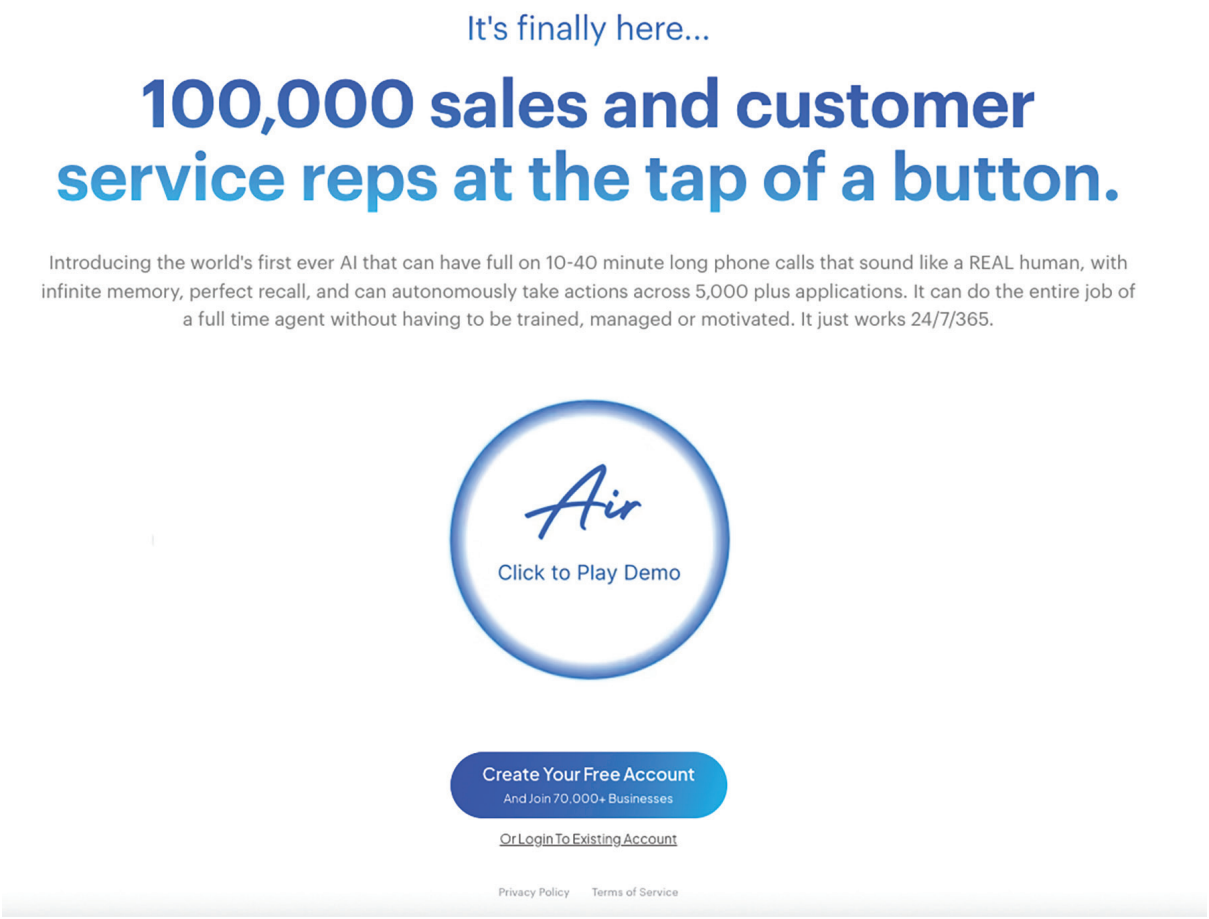
Sharing the Findings and Rethinking the Guardian Level of Call Initiative

After preparing late into the evening, Mitchell began the meeting the next morning by detailing the process they had followed for the customer journey mapping and the key discoveries they had made. But just 10 minutes into her presentation and before she was able to discuss digital applications, Rivera interrupted. "Lisa," she began, "I appreciate that you did not have any customer service reps join us in this meeting since I need to share something that they might not appreciate." She paused and then asked, "Have you heard of Air.ai?" Mitchell caught slightly off guard, shook her head and admitted that she had not. Rivera continued, "They've developed a generative AI system that can potentially replace customer service reps. When in Cambridge, I came across a demo video of a call handled by their AI for Tesla. It was impressive." Rivera then encouraged Mitchell to do a quick Google search on "Tesla AI sales call" so they could watch the demo video. As the video played, the AI's capability to handle a sales call seamlessly was evident. (See Exhibit 4).

Convinced of its potential, Rivera said, "This could be a game-changer for us. If Air.ai's system can handle sales calls, it could certainly be trained to take calls from our patients and their family members. Replacing our customer service reps with AI could significantly improve the quality and consistency of our customer service." Mitchell, processing the sudden pivot, nodded. "I'll look into it," she replied, recognizing the potential benefits and challenges of such an implementation while also dreading the implications for her team. Rivera concluded the meeting with a sense of urgency, "Let's explore this avenue and what it would take to implement it at ACC. And Lisa, I'm counting on your discretion as we explore this possibility." Mitchell left the meeting with a sense that her options had just been crystallized into a single mandated solution. It was an uncomfortable reality.

Back in her office, Mitchell sank into her chair. She replayed the meeting in her mind. She hadn't even gotten through her presentation before Rivera introduced the idea of Air.ai. Mitchell appreciated Rivera's forward-

Exhibit 4. Air.ai



Source: Screenshot of Air.ai's landing page taken on 10/18/23

thinking approach, but the abrupt shift to a potential solution left her feeling a bit sidelined. The concept of AI replacing customer service representatives was intriguing and daunting. Mitchell pondered the implications. Could a machine, no matter how advanced, truly replicate the empathy and understanding required to deal with the emotional complexities of cancer treatment? Patients and their families were often in vulnerable states, seeking not just answers but also comfort and reassurance. Could AI provide the level of empathy needed for Guardian Level of Care, the cornerstone of ACC? Mitchell was in favor of using generative AI to enhance the abilities of customer service reps rather than replace them. This seemed a more balanced approach, leveraging technology to aid human representatives in providing better service.

Amidst all these considerations was the lingering issue of the basic customer relationship management system. The frequent freezes and glitches were a significant pain point. If they were to integrate advanced AI, wouldn't it make sense to first ensure that the foundational system was robust and reliable? Mitchell sighed, recognizing that while the path ahead was filled with challenges, it also held the promise of transformative change. At the same time, Mitchell didn't know if she even had the luxury of weighing the pros and cons of different options. Rivera seemed to be pretty clear that she wanted Air.ai implemented at ACC.

Mitchell was left with a heavy sense of unease. The sudden introduction of Air.ai's AI system was not something she had seen coming, especially not at this exploratory stage of the initiative. Her team had been deeply involved from the get-go, meticulously analyzing the current system's flaws and brainstorming potential solutions. They had dedicated themselves, pouring their expertise and passion into the initiative. Now, with Rivera's new direction, it felt as though all their efforts were being overshadowed. The looming presence of an AI system that could potentially replace them was not just a technical challenge but a deeply personal one. Mitchell could

vividly recall the enthusiasm and commitment her team displayed during their brainstorming sessions. They had been so engaged, so eager to contribute, and the idea of their roles being made redundant by technology was a hard pill to swallow.

While Mitchell understood the potential efficiencies and advancements the AI system could bring, she also deeply valued the human element her team provided. She didn't believe AI could replicate customer service reps' abilities to empathize, understand nuances, and offer a personal touch. The thought of sidelining such dedicated professionals in favor of automation was deeply unsettling.

She found herself in a challenging position, caught between the undeniable promise of technological advancement and the very real human contributions of her team. The balance was delicate. Mitchell knew that moving forward, she would need to ensure that her team's morale and sense of value weren't sacrificed. She pondered ways to integrate the AI without completely sidelining the team, ensuring they remained a crucial part of the customer service process. The road ahead was uncertain, but Mitchell was determined to navigate it with both innovation and empathy.

Appendix

AI Technologies

Technology	Definition	Application
Generative AI	Applications typically utilized foundation models. These models contained expansive artificial neural networks inspired by the billions of neurons in the human brain. They processed vast and varied sets of unstructured data and performed multiple tasks.	Applied to innumerable sectors, from customer operations and marketing to software engineering and R&D. Supported interactions with customers, generated creative content for marketing and sales, drafted computer code based on natural-language prompts, and more. Had the potential to add trillions of dollars in value to the global economy.
Foundation Models (including Transformer Model)	Formed a part of deep learning and contained expansive artificial neural networks. Unlike earlier deep learning models, they processed vast amounts of unstructured data and performed multiple tasks. Transformer models, a type of foundation model, used attention mechanisms to weigh the significance of different input data.	Powered generative AI applications, enabling them to write text, compose music, create digital art, classify, edit, summarize, answer questions, and draft new content. Transformer models, in particular, played a pivotal role in the success of many NLP tasks and became the backbone of LLMs.
Deep Learning (including NLP)	A subset of machine learning that utilized deep neural networks, which were layers of connected "neurons" whose connections had parameters or weights that could be trained. NLP (Natural Language Processing) was a field within deep learning focused on the interaction between computers and human language.	Powered numerous advances in AI, especially in understanding and generating human language. NLP techniques, powered by deep learning, became instrumental in tasks like sentiment analysis, language translation, and chatbot development.
Large Language Models (LLMs)	A class of foundation models that processed massive amounts of unstructured text and learned the relationships between words or portions of words, known as tokens. This enabled LLMs to generate natural-language text, performing tasks such as summarization or knowledge extraction.	LLMs like GPT-4, Bard, and LaMDA captured the imagination of people worldwide due to their broad utility and ability to communicate and create. They performed routine tasks and also generated creative content.
Machine Learning (ML) & Predictive Analytics	ML was a subset of AI where a model gained capabilities after being trained on numerous example data points. Machine learning algorithms detected patterns and learned to make predictions and recommendations by processing data and experiences. Predictive analytics involved using ML to predict future outcomes based on historical data.	Traditional machine learning algorithms proved highly effective at performing numerical and optimization tasks such as predictive modeling. Predictive analytics found applications in various industries for forecasting, risk assessment, and decision-making.

Source: Adapted from Chui, Michael, et al. "The economic potential of generative AI." McKinsey Quarterly, June 2023.