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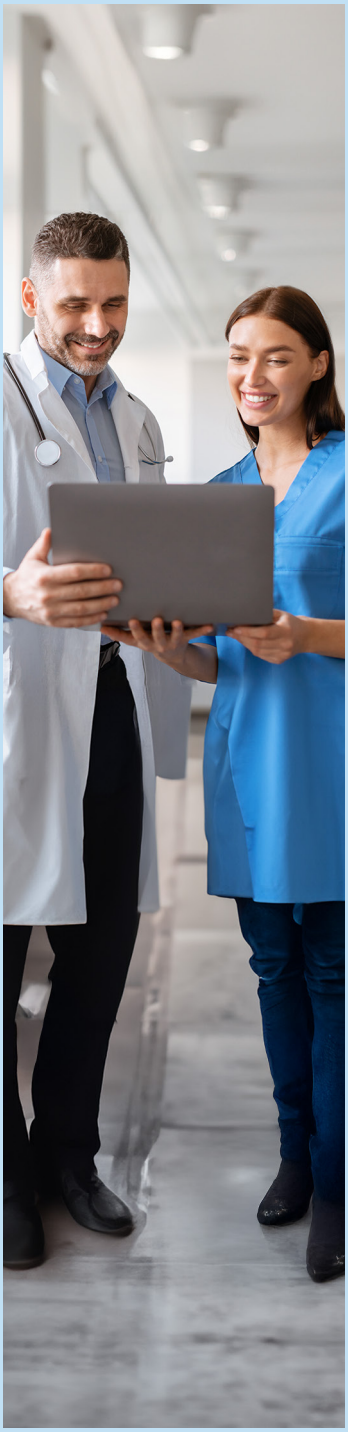

APPLICABILITY OF GENAI FOR HEALTHCARE CUSTOMER EXPERIENCE TRANSFORMATION

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> “You’ve got to start with the customer experience and work back toward the technology, not the other way around.”
>
> **- Steve Jobs**

Customer experience (CX) is how a customer perceives their online and offline interactions with a system or organization. Poor customer experience can lead to patient attrition, which can result in revenue loss, negative reviews, and increased administrative costs. This is reflected in the healthcare sector, where on the payer side, 49% of patients reported switching healthcare payers due to poor experiences, including issues like inaccurate information and unsatisfactory digital tool usage.[1] Similarly, on the provider side, nearly 80% of people who switched doctors cited problems like hard-to-use services, negative experiences with staff, and poor digital tools as their reasons for leaving.[1] The use of Artificial Intelligence in customer experience improves customer satisfaction and identifies data patterns which help to build a seamless experience. In this white paper, we are covering in detail some of these pain points in the customer experience and try to provide recommended solutions using GenAI that would enhance the applicability of customer experience across the supply chain.

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Key Impediments in Improving Customer Experience through Customer Service Function

Healthcare contact centers face several challenges that impact their efficiency and are unable to provide automated and personalized experience. Let's explore some of these challenges:

Data Access Delays
Customers often feel frustrated when they are passed to various channels and must repeat information before their issue is resolved, while 83% of customers expect complex issues to be resolved through one person.[2] To improve this, healthcare contact centers need better data integration and streamlined processes.

Complexity
Passing through various channels and navigating healthcare services can be overwhelming, especially for customers who are vulnerable due to health issues. Transforming omnichannel strategies will enable businesses to deliver more personalized, consistent, and engaging experiences across all customer touchpoints.

Agent Burnout
Having numerous call volumes, where conversations have emotional and complex queries can lead to agent burnout. Ensuring proper support, training, and workload management is essential.

Compliance with Regulations
Healthcare contact centers must safeguard sensitive customer/provider data while complying with stringent regulations. Balancing data security with efficient service delivery is a challenge.

Long Waiting Experiences
About two-thirds of consumers have reported cutting ties with a brand over a single poor customer service experience.[3] Delayed diagnosis and treatment causes customer stress, dissatisfaction, higher healthcare costs, and provider may experience burnout due to high customer volume.

Preferred Communication
More than seven out of 10 customers still prefer phone conversations for immediate response and solution.[4]

Adapting to Evolving Technologies
With new technological and technical advancements emerging continuously, integrating them seamlessly into contact center operations is a very difficult task.

The Imperative for Enhancing Customer Experience

Genesys Cloud™ data reveals a significant surge in interaction volumes for healthcare providers during the COVID-19 pandemic. A comparison of May-July 2021 with the same timeframe in 2020 shows a doubling of SMS and MMS interactions, a tripling of call and email volumes, and a growth of over 150% in social, web messaging, and chat interactions. In a Genesys survey, one-third of healthcare leaders identified managing this increased volume and channel complexity as major customer experience challenges for their organizations.

Voice and email are the leading customer interaction channels for healthcare businesses, according to the survey, followed by web chat, video calling, and messaging. Despite the emphasis on self-service options like mobile apps and 24/7 availability, the healthcare industry has room to grow in enhancing the customer experience.

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Leveraging GenAI as a Catalyst for Customer Experience Transformation

GenAI has been making significant strides in the healthcare industry, transforming customer experiences and operational efficiency. Here are some emerging use cases for GenAI in healthcare:

Streamlined Healthcare Operations: Automating administrative tasks, such as note-taking and data entry, improves efficiency.

Personalized Treatment Recommendations: GenAI is transforming omnichannel strategies by enabling businesses to deliver more personalized, consistent, and engaging experiences across all customer touchpoints. GenAI analyzes customer data, medical history, and symptoms to provide tailored treatment options. GenAI recommends treatment plans based on individual customer data, optimizing outcomes by understanding individual needs, it ensures more effective and personalized care.

Customer-Centric Communication: By harnessing GenAI, healthcare providers can create personalized interactions tailored to each customer's unique medical history, condition, and preferences. This customer-centric approach improves communication and engagement.

Health Information Summaries: GenAI serves as a customer communication channel, providing detailed summaries of health information and customized treatment recommendations. It can address specific health concerns and enhance customer understanding.

Medical Training and Simulations: GenAI simulates realistic scenarios for training healthcare professionals.

Prompt Assistance: GenAI interprets customer inquiries, chats, and emails, responding with accurate information. It bridges communication gaps and ensures prompt assistance. AI-powered IVRs use NLP to understand and process natural language, and let the customers speak in their own language naturally rather than giving specific commands. NLP can extract the information from various data sources like clinical notes, patient records, and lab reports, where the information is aggregated in large volumes of data into measurable data sets.

Automated Appointment Scheduling: GenAI can streamline appointment booking, reminders, and rescheduling. Customers receive timely notifications, reducing no-shows and improving overall satisfaction.

Virtual Assistants and Chatbots: GenAI will strengthen conversational interfaces for customer queries and appointment scheduling.

Virtual Health Assistants: These AI-powered assistants offer 24/7 support, answering common health queries, providing medication reminders, and guiding customers through post-treatment care.

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Customer Advocacy for Agents

Call Issue Prediction: Predicting call issues using GenAI involves the use of advanced data analysis and machine learning techniques to identify patterns and anticipate potential problems before they occur. Using data aggregation and analysis techniques, GenAI can investigate vast amounts of historical call data to identify common issues and patterns.

Sentiment Analysis: AI helps to analyze the sentiment of customer interactions to find their emotions which will help to predict potential call issues by identifying customers who are likely to experience problems.

Automated Desktop Customization: These systems can route tickets to the appropriate customer based on predefined rules. This can ensure that urgent issues are addressed promptly and repetitive tasks, such as updating customer records or sending follow-up emails, are automated. Thus, reducing the need for manual intervention and keeps your desktop organized.

Clinical Customer Service

Automated Clinician Notes: GenAI can streamline the process of creating structured notes from customer interactions. For instance, a clinician records a customer visit using an AI platform's mobile app. The platform adds real-time customer information, identifies gaps, and prompts the clinician to fill them in. The result is a structured note that can be edited and submitted to the customer's electronic health record (EHR) in seconds.

Medical Imaging Analysis: GenAI helps radiologists in fast and accurate diagnosis of diseases from X-rays, MRIs, and CT scans. GenAI has shown great potential in enhancing medical imaging tasks such as data augmentation, image synthesis, image-to-image translation, and radiology report generation. This commentary aims to provide an overview of GenAI in medical imaging, discussing applications, challenges, and ethical considerations, while highlighting future research directions in this rapidly evolving field.

Predictive Analytics: GenAI predicts disease progression, identifies high-risk customers, and recommends preventive measures. This proactive approach enhances customer outcomes.

Symptom Checkers: AI-powered symptom checkers and triage systems are transforming clinical customer service by providing efficient, accurate, and accessible customer healthcare solutions. AI-powered symptom checkers are available 24/7 to the customers to access their symptoms and the tools used provide accurate assessments and give appropriate suggestions as it uses advanced algorithms. Customers can provide their symptoms in the natural language and the AI is able to interpret and process the information.

Virtual Triage: AI triage systems can easily identify the severity of a customer condition and provide the level of appropriate care immediately. The wait time can be reduced by automating the initial assessment which is improving the customer flow in healthcare. Implementing AI-powered symptom checkers and triage systems can significantly enhance the efficiency and effectiveness of clinical customer service, leading to better patient outcomes and satisfaction.

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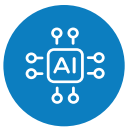
Challenges in GenAI Implementation

Implementing GenAI in the healthcare industry presents some key challenges.

Data Privacy and Security: Healthcare data is extremely sensitive, containing personal information about customers. Ensuring robust data privacy measures is crucial when deploying GenAI to avoid breaches or unauthorized access.

Fairness, Inclusivity, and Equal Access: AI algorithms, including GenAI, can inherit biases from historical data. If not carefully monitored and managed, these biases can lead to disparities in healthcare delivery.



Transparency and Explainability: GenAI's predictions and recommendations must be accurate to gain trust from healthcare providers and customers. Ensuring transparency in how the AI arrives at decisions is essential for building confidence.

Regulatory Compliance: The integration of GenAI in regulatory compliance is not just about automation but also about transforming how compliance is managed, making it more proactive and strategic. GenAI can analyze large datasets to identify and assess potential compliance risks, allowing for proactive adjustments and mitigation strategies.

Applying Responsible GenAI Principles in Customer Touchpoints

Improving Care Accessibility through Automated Compliance Handling: GenAI assists in managing customer consent forms, ensuring compliance with privacy regulations. By analyzing customer data, GenAI can personalize interactions between providers and customers using Chatbots. GenAI accelerates referral letter generation, streamlining communication between providers and specialists. This reduces the long waiting time.

Empowerment through Transparency and Explainability: Customers struggle with medical jargon, treatment details, and insurance policies. GenAI enables a customer-centric experience by tailoring interactions to everyone's unique medical history, condition, and preferences. Virtual GenAI-powered chatbots can offer personalized guidance based on specific needs, especially for customers with chronic conditions. This is helpful in achieving the preferred communication.

Ensuring Customer Data Safety and Security, to Build Trust: Handling large datasets while abiding by data privacy regulations can be a challenge. Utilizing Software-as-a-Service (SaaS) solutions for scalable deployment of AI models can help address this, while sovereign clouds can enhance data protection and security. This resolves the pain points related to privacy and compliance.

Ensuring Transparency and Understanding of AI-generated Insights: Developing methods for explaining AI-generated results, such as visualizations or step-by-step reasoning can help. Incorporating interpretable AI techniques into model design can enhance transparency. Guidelines for explaining AI decisions to healthcare professionals and customers play a key role in reducing the overall complexity here.

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Conclusion

GenAI refers to the next generation of AI models that can generate creative and novel content. GenAI enables conversational chatbots and virtual assistants that understand context and respond naturally. These interfaces can assist customers/providers with queries, appointment scheduling, and medication reminders. By analyzing customer data, GenAI can predict potential health issues, allowing proactive interventions. GenAI offers a significant opportunity for the healthcare industry to tap into a substantial portion of the estimated $1 trillion in potential improvements that remain unrealized.[5] Customer experience applications demonstrate Gen AI's potential to enhance customer care, streamline processes, and take the healthcare experience to the next level.

References

1. https://www.medicaleconomics.com/view/patients-are-leaving-your-practice-because-you-provide-a-lousy-experience
2. https://www.salesforce.com/service/customer-service-principles/#:~:text=Remember%20%E2%80%93%20every%20second%20counts,consistently%20deliver%20an%20excellent%20experience
3. https://www.invoca.com/blog/healthcare-marketing-statistics
4. https://cfigroup.com/wp-content/uploads/CFI-contact-center-satisfaction-index-2019.pdf
5. https://www.mckinsey.com/industries/healthcare/our-insights/tackling-healthcares-biggest-burdens-with-generative-ai

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Yogesh Puranik is a Healthcare Consultant and Program Manager with over 19 years of experience in the US and UK healthcare IT industries. He possesses extensive knowledge across multiple healthcare modules and a strong track record of assisting clients in defining and achieving their strategic business and technology goals. Yogesh is adept at implementing solutions aligned with these initiatives, leveraging both traditional waterfall and agile frameworks for project delivery.

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Minal Avachat brings 10 years of IT experience to her role as a skilled Business Analyst specializing in healthcare. She excels at analyzing complex business requirements and translating them into effective technical solutions. Her experience spans key areas such as Provider Data management, Contact Center optimization, Enrollment processes, and Data Integrity initiatives across Medicaid, Medicare, and Marketplace lines of business.

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Krithika Rajasekaran is a Business and Quality Analyst, and Developer with nearly 8 years of experience in the IT industry across various domains. She has dedicated 3 years to the healthcare sector, specializing in omnichannel solutions, Salesforce integration, and Product Data Management (PDM). Krithika is currently focused on developing a Value-based Care (VBC) model applicable to all lines of business.

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