CitiusTech

Transforming Member Support Through Generative AI

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Executive Summary

In an era of rapidly evolving healthcare landscape and growing member expectations, healthcare organizations seek innovative ways to enhance member support and improve overall patient experiences.

Payer organizations have a renewed focus on customer service, seeing it as a key differentiator in the value they provide to their customers. The Centers for Medicare & Medicaid Services (CMS) has also been actively focusing on member engagement and has significantly changed the weightage of STAR ratings in evaluating member experiences with health plans. The member experience is now assigned a higher weightage of 4, up from 3 in the latest ratings, reflecting CMS's commitment to enhancing patient-centered care.

Generative AI, powered by advanced machine learning algorithms, promises to deliver personalized, efficient, and cost-effective member support solutions. By harnessing the capabilities of Natural Language Processing (NLP), Deep Learning, and Data Analytics, healthcare providers can leverage Generative AI to offer members tailored guidance, streamline administrative processes, and elevate the quality of care.

However, the successful implementation of Generative AI in member support also comes with challenges and ethical considerations. Healthcare organizations must prioritize data privacy, security, and transparency to ensure member trust and compliance with regulatory requirements.

This paper examines the potential and challenges of Generative AI. It explores use cases of Generative AI in revolutionizing healthcare member support while mitigating challenges.

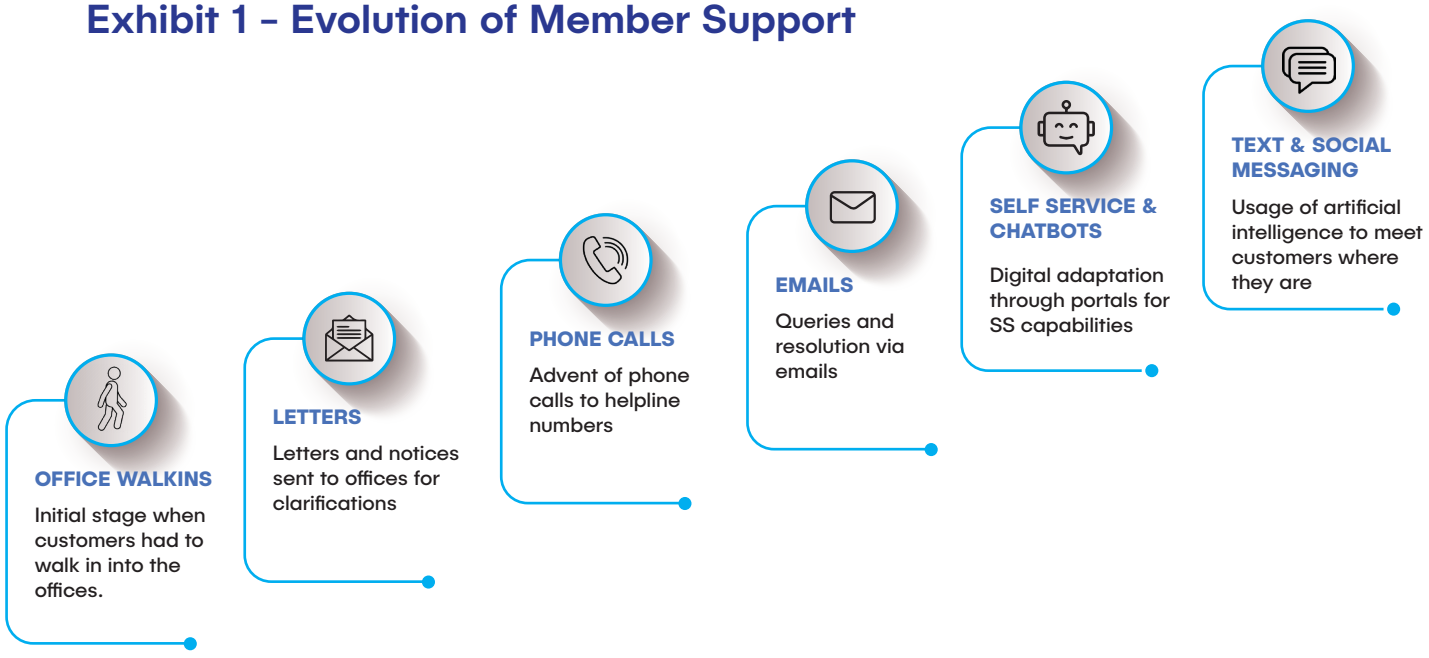
Introduction

The Evolution of Member Support

Payers have come a long way from 9-to-5 business hours-centric customer service centers that solely focus on responding to customer queries. The rise of the internet and consumerization has increased customers demand for multichannel/omnichannel experiences, quick resolution, and personalized service. Businesses have had to evolve to meet these demands by realigning their operating models and improving customer understanding. This started a push towards higher customer understanding, leading to higher personalization. Mandates such as Price Transparency, No Surprise Act, Cures Act, and Star Ratings have also pushed the needle towards enhanced and personalized services.

Before we delve deeper into the details around the transformation of member support, let us explore the evolution of customer service over time.

Exhibit 1 - Evolution of Member Support



While evolution has been consistent and the adoption of this evolution widespread, the challenges have remained. A few of these are highlighted below:

- **Customer Needs and Expectations**

One of the key challenges for the customer service departments is to effectively understand the customer's needs and provide the resolution that meets their expectations. Good customer service requires understanding and addressing customers' requests at the first interaction. This can be achieved with the right data and resources.

- **Member Education**

Members may not fully understand their health insurance plans, which can lead to confusion about their benefits. This is especially challenging for those enrolled in Quality/Utilization Management Programs where support teams need to educate and empower members to make informed healthcare decisions.

- **Staff Training and Turnover**

Customer service jobs are demanding and stressful. Without proper support programs, such as training and growth opportunities, employee turnover can be high. The pressure to meet customers' demands can also affect mental health and well-being.

- **Data Privacy and Security**

The customer service, especially the member support teams, deal with real customer data, which includes PII as well as PHI information. There is a high risk of such data being inadvertently leaked or shared without the proper consent of others. Not having the right guardrails could lead to substantial penalties for the organization.

- **Language and Cultural Competence**

Another major challenge in customer service is language and culture sensitization. Especially when there is a diverse set of member populations. Having a representative who speaks the member's language and understands the cultural differences and nuances during the conversation goes a long way toward customer satisfaction.

- **Long Wait Times and Multiple Call Handoffs**

Teams often face the challenge of insufficient or incorrect information to respond to customer queries. This leads to longer wait times as the support team searches for information or multiple call handoffs to get to the right executive. This can result in delayed query resolution and high customer dissatisfaction.

- **High Call Volumes**

Payer organizations often have large member bases, resulting in high call volumes. Managing a high volume of inquiries efficiently while maintaining quality customer service can be a significant challenge.

Advancing technologies and the emergence of Artificial Intelligence are helping organizations find solutions that can help alleviate these challenges through technology while ensuring prevalence of the human factor in the journey.

The Rise of AI in Customer Service

In recent years, the landscape of customer service in the healthcare payer industry has undergone a transformative shift with the integration of Artificial Intelligence (AI) technologies. AI has revolutionized payers' interaction with their members, providing personalized solutions to complex inquiries. Leveraging AI-powered chatbots and virtual assistants, healthcare payers can offer immediate and round-the-clock support, enhancing member satisfaction and engagement. "According to a 2022 BCG survey of global customer service leaders, 95% expect their customers to be served by an AI bot at some point in their customer service interactions within the next three years."

AI's capabilities today have extended beyond simple rule-based responses. Advanced Natural Language Processing (NLP) algorithms enable chatbots to understand and interpret nuanced member queries. This empowers chatbots to provide accurate and contextually relevant information, aiding in tasks such as explaining benefit plans, clarifying coverage details, and guiding members through claims processes. The maturity of AI-enabled customer service is aptly depicted in the picture below.

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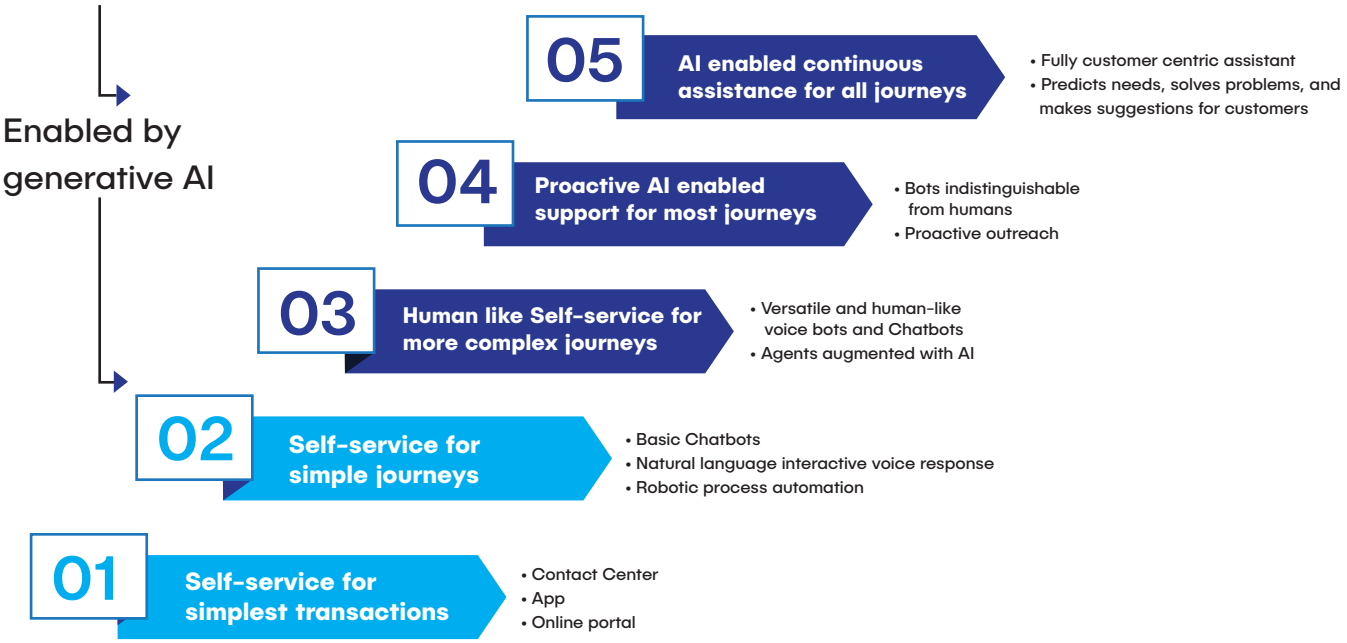
Exhibit 2 – AI-enabled Customer Service is Maturing Rapidly



AI-driven insights provide healthcare payers with a deeper understanding of member preferences and behaviors, enabling the customization of communication channels and content delivery. Whether through web portals, mobile apps, or voice interfaces, AI can help tailor interactions to suit the individual preferences of each member, bringing in a sense of trust and loyalty.

How Gen AI Can Transform Member Support

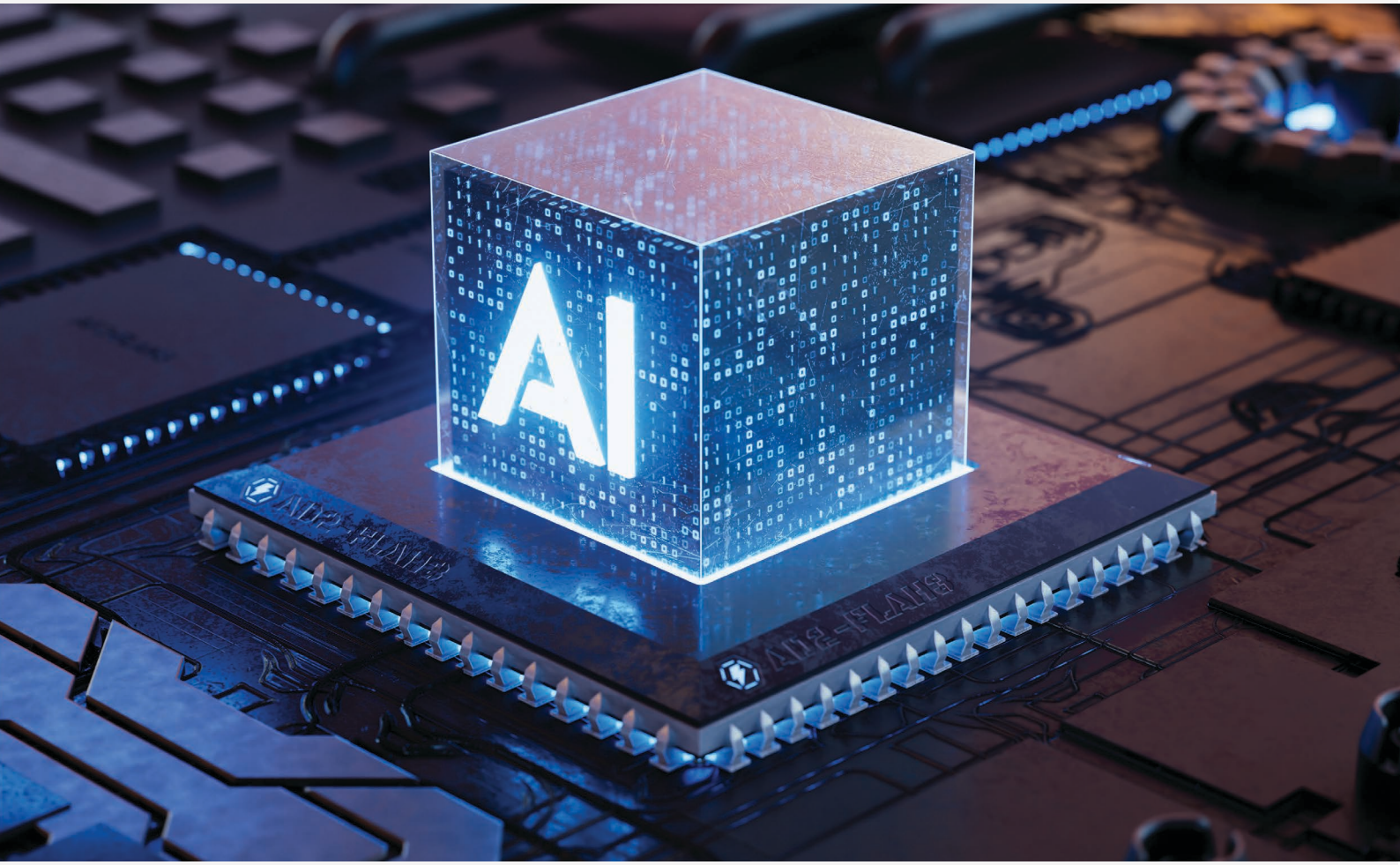
Every payer organization faces the above challenges, but how effectively they can mitigate and resolve them would help them create a clear path to achieving superior customer satisfaction. Technology is a huge enabler to help meet these challenges. As illustrated above, the advancement of Artificial intelligence in general has opened a plethora of opportunities in the customer service space, and Generative AI has accelerated this even further.

Member support often requires a review of large amounts of data. While some of this would be structured and stored in the application databases within the payer landscape, a majority of this is unstructured. Data from benefit plan documents, provider notes and EMR extracts, previous call history, notes, and recordings, etc., are unstructured and in large volumes. Organizations would require systems that can train on such large volumes of the data sets mentioned above and generate tailored responses, recommendations, and explanations.

A critical aspect of these AI systems is that they can simulate human-like interactions and provide real-time answers to questions, clarifications on medical terms, dietary and treatment suggestions, and even emotional support. They can adapt to individual preferences and medical conditions, providing a more personalized and effective support experience. Generative AI can also assist healthcare professionals by generating reports, summarizing medical literature, and aiding in diagnostic processes, thereby contributing to improved patient care and overall healthcare outcomes.

Mitigating Member Support Challenges Through Generative AI – Use Cases

Let us now explore a few use cases on Generative AI and how this technology can help mitigate some of the challenges highlighted above.



GenAI Driven Chatbots and Virtual Assistants

Chatbots have come a long way, evolving from basic text-based platforms to more advanced voice-based and persona-based applications powered by Generative AI. They now assist with routine and complex queries, freeing up agents to focus on higher value activities. Chatbots are useful in various areas, including:

1. Benefit Summarization for Members in Healthcare

Problem Statement: One of the critical challenges members usually face is understanding the benefits and eligibility for procedures, especially closer to the time when they need to get it done. The members seldom have complete visibility of the benefits, charges they might incur, and covered and non-covered services. Even if they do, it is not in an easy-to-understand format.

Challenges Addressed: Customer needs and expectations, member education, call waiting and handoffs, language and culture, high call volumes.

Proposed Solution: Generative AI-driven benefit summarization tools can assist members in understanding their healthcare coverage eligibility by condensing complex insurance benefit information into concise and easily comprehensible summaries. The tool can also help simplify complexterminologies and provide additional details such as out-of-pocket costs that the member is responsible for specific procedures. In addition, it can also be leveraged to suggest providers and book appointments based on member's conditions and geographic areas.

Benefits: Generative AI-powered benefit summarization offers personalized and simplified benefit summaries, empowering healthcare members to make informed decisions about their coverage.

It also provides quick and accurate information with minimum human intervention, enhancing accessibility and improving member experience.

Overall, utilizing Generative AI in benefit summarization drives towards improved member satisfaction and streamlined information accessibility.

2. Personalized Health Information and Support

Problem Statement: One of the key challenges that members face when reaching out to self-service bots is the lack of relevant and, in some cases, detailed information about the member's query. While chatbots can provide basic information, advanced complex queries need human interactions. This creates delays and dissatisfaction for the members.

Challenges Addressed: Customer eeds and expectations, data privacy and security.

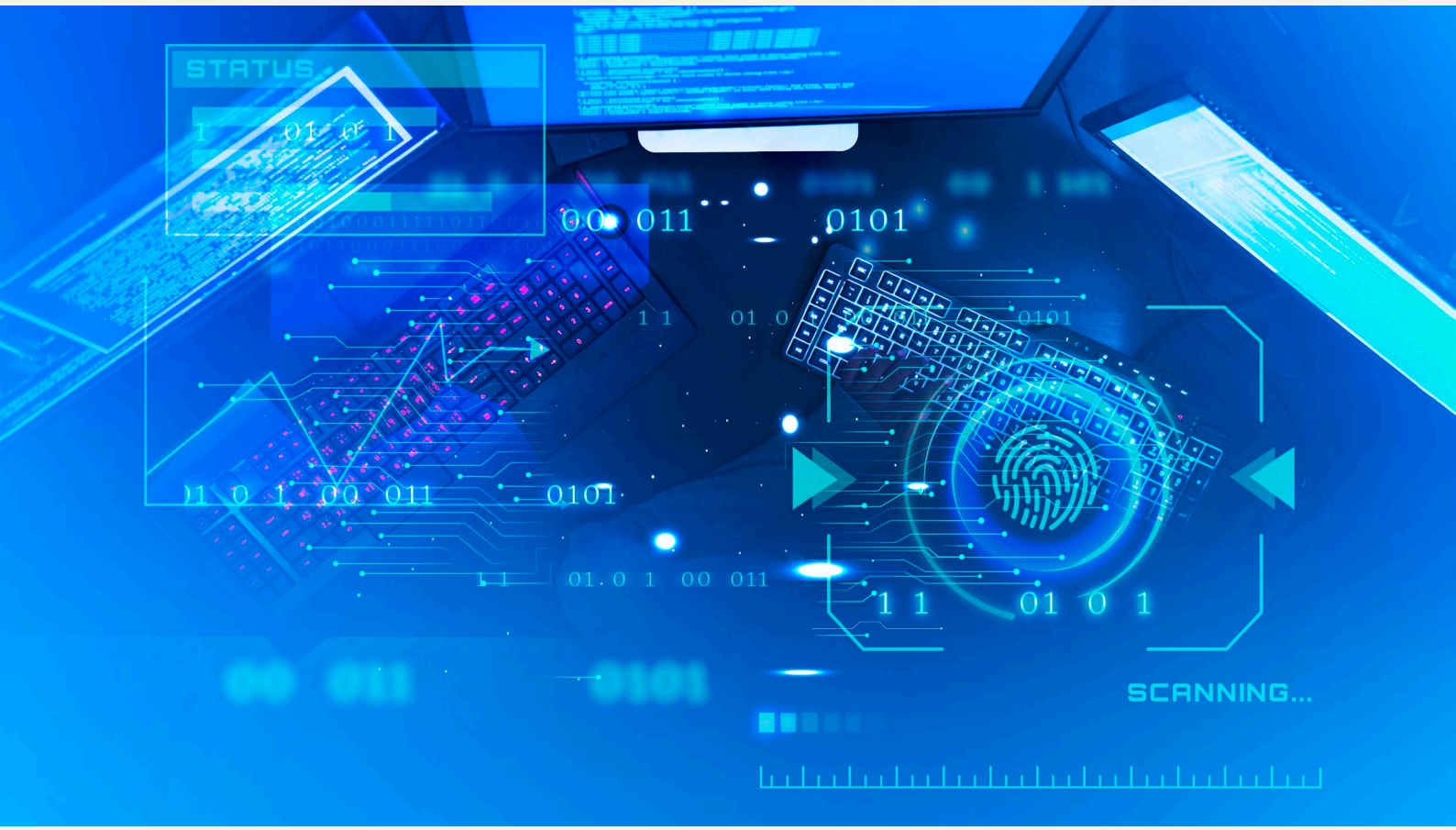
Proposed Solution: A Generative AI-powered chatbot/virtual assistant can provide personalized support to members as a knowledgeable and empathetic assistant, addressing members' questions, concerns, and inquiries related to their journey with the health plan, benefits, care management, health conditions, treatment plans, etc. It helps the members effectively navigate the complex pathways of their journey with the plan.

Benefits: The virtual assistant can retrieve accurate information from internal databases and unstructured data held in documents and notes captured within and outside the systems. They can analyze, understand, and summarize complex medical terminology, procedure details, medications, and treatment options and help in decision-making.

They can access members' health records with consent, enabling them to offer invaluable support. From helping members decipher medical information to facilitating the scheduling of appointments, managing medication schedules, and providing follow-up care instructions, they become indispensable allies in the healthcare journey.

The inclusion of emotional support is an area of significant opportunity, with the chatbots offering coping strategies, stress-relief techniques, and a wealth of resources for managing mental health concerns alongside physical health issues.

Generative AI can also provide wellness tips and recommendations on healthier lifestyles as it continues to analyze members' health profiles.



Dynamic Content Generation: Responses, Recommendations, and Solutions

Generative AI's ability to extract, analyze, summarize, and generate human-like responses will greatly boost content generation and communication. They can bring in the ability to create personalized content and templates based on the recipient. They can be integrated with the communications system to send these back to the requestor. These can also be leveraged in building customized campaigns and educational material based on specific conditions and needs of the individual members.

1. Personalized Member Engagement and Outreach Campaigns

Problem Statement: Healthcare organizations often struggle to effectively engage and communicate with their members to promote healthy behaviors, preventive care, and awareness of available services. Traditional outreach methods can be generic with a one-size-fits-all approach. Non-personalized communication can lead to decreased member engagement, reducing the said campaigns' efficacy. This use case illustrates how Generative AI can create personalized member campaigns and outreach materials that resonate with individuals, increasing their participation in health-related activities and services.

Challenges Addressed: Customer needs and expectations, language and cultural competence, member education.

Proposed Solution: Develop a Generative AI system that utilizes member data, health profiles, and preferences to create personalized outreach campaigns. These campaigns should be tailored to each member's health needs, interests, and communication preferences, promoting relevant services, health screenings, and educational resources.

Benefits: Personalized Member Engagement and Outreach Campaigns can help healthcare organizations deliver messages that greatly enhance their relevance and impact, ensuring that individuals receive information and support that aligns precisely with their unique needs and circumstances. By segmenting members based on demographic data, medical history, preferences, and engagement patterns, healthcare organizations can tailor their communication to specific member groups. This can foster a stronger connection between patients and their care providers, enhancing the effectiveness of outreach campaigns.

This approach fosters continuous engagement, ensuring individuals remain informed and motivated to manage their health actively. Personalized communication facilitates a stronger connection between healthcare providers and their members by meeting patients where they are most comfortable.

Engagement data collected from these campaigns offers valuable insights into member preferences, enabling healthcare organizations to continuously refine and improve their outreach strategies. This iterative process ensures that campaigns become increasingly effective over time, fostering a stronger connection between healthcare providers and their members.

2. Patient Care Management Support

Problem Statement: Healthcare organizations often face challenges in providing personalized and real-time support to their members. Patients with chronic conditions, complex treatment plans, or those transitioning between different stages of care require consistent monitoring, education, and communication. Traditional support methods may lack personalization and, in some scenarios, operate on one-size-fits-all (for e.g., All Chronic Rheumatoid arthritis patients might be considered as a similar set). .

Challenges Addressed: Customer needs and expectations, language and cultural competence, member education, high call volumes

Proposed Solution: Implementing a patient care management support system powered by Generative AI can significantly enhance the value delivered. This system would utilize AI-generated content to offer personalized, relevant, and timely information, education, and guidance to patients, improving their overall care experience.

Benefits: Integrating Generative AI into patient care management support can bring significant benefits. By analyzing patient data, medical history, treatment plans, and individual preferences, the system can generate personalized educational materials, reminders, and instructions. These resources can provide tailored medication schedules, lifestyle recommendations, and symptom management tips.

Generative AI can help simplify complex treatment plans, medical procedures, and potential side effects into easy-to-understand explanations. This clear communication helps reduce confusion and anxiety and aids patients in staying well-informed and engaged in their care.

By delegating routine inquiries and support to the AI system, healthcare organizations can allocate their resources more effectively, focusing on complex cases and delivering higher-quality care.

Enhancing Self-Service: Knowledge Base Expansion and Summarization

Generative AI can help enhance self-service options in healthcare through large language models and their ability to process unstructured data such as notes, documents, and other large data sets. Expanding knowledge base and improved accessibility can empower members, patients, and caregivers to find relevant information, manage their health, and navigate medical services more effectively. Here are some examples of how this can be achieved:

1. Customer Service Agent Support

Problem Statement: Healthcare organizations often receive many inquiries and support requests from members. Customer service agents may find it difficult to provide accurate and timely responses, especially when faced with complex healthcare queries. This use case aims to leverage Generative AI to provide intelligent support to customer service agents. It enables them to deliver accurate information, answer member queries effectively, and enhance overall member satisfaction.

Challenges Addressed: Customer needs and expectations, language and cultural competence, member education, high call volumes, long wait times and multiple call handoffs, staff training and turnover.

Proposed Solution: Develop a Generative AI system that assists customer service agents by providing relevant information, suggested responses, and explanations for complex medical questions. The AI system should be integrated into the customer service platform and offer real-time support to agents during interactions with members. The system can also help build customized training material based on the agent's response patterns, which can be leveraged for continuing education and become a part of the agent onboarding.

Benefits: Contextual Search is pivotal in enhancing Customer Service Agent Support. It enables customer service agents to access relevant, accurate, and personalized information about the member from the vast pool of structured and unstructured data available within the organization. This empowers agents to provide more informed and precise assistance during customer interactions, resulting in quicker issue resolution and higher member satisfaction. It also streamlines the agent's workflow, making their tasks more efficient and effective.

Advanced technologies and data-driven approaches are crucial to providing effective customer service agent support. Healthcare organizations can segment members based on demographic data, medical history, preferences, and engagement patterns to enable more efficient query resolution.

Generative AI can be leveraged to develop/update training materials, scholarly articles, and videos that can be used for agent onboarding. Additionally, FAQs and scripts can regularly modify the agents' call handling and response patterns to cater to varied customer requests.

This technology has great potential to enhance efficiency and consistency in responses significantly. AI-generated responses are consistent and can expedite response times, reducing the need for agents to spend valuable time searching for information.

Challenges of Generative AI and Considerations

Like any other new technology, Generative AI, while bringing numerous benefits, has its pitfalls that, if not considered and mitigated, can create substantial issues in its effective usage. For a healthcare organization, these challenges can lead to much more significant implications. Hence, ensuring that these challenges are considered while implementing Generative AI in this area is critical.

- **Data Privacy and Security Concerns:**

Data security is a major concern in the healthcare industry. This is amplified when these training and models are run external to the organization's network. Organizations must ensure stringent security measures for both data at rest and in transit. Data privacy is another key challenge facing organizations. The data fed into the system for training needs to be anonymized and clear of any sensitive member information.

- **Ethical Use of Generative AI in Member Interactions:**

Ethical considerations are essential when implementing Generative AI in member support for a health plan. By addressing these concerns proactively, organizations can maximize the benefits of AI while minimizing potential ethical risks and ensuring that customers receive responsible service. Some of the key considerations for ethical use are:

1. Transparency and Accountability

Customers should be made aware of and, subsequently, their consent taken before interacting with the bot. This ensures transparency for the customers and allows them to choose the interaction. Organizations need to be accountable for the decisions based on the generated data.

2. Fair and Unbiased Data

The models need to be trained on diverse and representative data that helps remove algorithmic bias, which could lead to discriminatory responses. The organizations must also regularly monitor the models to proactively identify and remove biases that could creep in over time. The models also need to be culturally and linguistically sensitive to ensure there is no unintended bias leading to inappropriate information being shared.

3. Ethical Framework

Clear ethical guidelines need to be developed and aligned with the organization's mission and values.

- **Balancing Automation with Human Touch:**

Trust is crucial in healthcare, and human oversight is necessary for key decision-making based on AI-generated insights. This is particularly important for customer care and member support, where empathy and nuanced understanding are essential. However, balancing automation with the human touch in healthcare using Generative AI presents a multifaceted set of challenges, even on the technology side:

1. Seamless Integration

Ensuring a seamless transition between automated AI interactions and human interventions is challenging. Abrupt shifts can disrupt the patient's experience and create confusion.

2. Patient Trust and Acceptance

Building and maintaining trust in AI systems among patients is crucial. Patients may be wary of technology making critical healthcare decisions, necessitating transparent communication and education about AI's role.

3. Resource Allocation

Balancing cost-efficiency with patient care is vital. AI can reduce costs, but decisions on resource allocation between AI and human healthcare providers need careful consideration.

Conclusion

As we conclude our exploration, it is evident that the adoption of Generative AI in healthcare is not a mere technological trend; it represents a strategic imperative for organizations committed to delivering exceptional member support. However, it is essential to approach this transformation with a strong focus on data privacy, security, and ethical considerations to ensure member trust and regulatory compliance.

In the coming years, successful healthcare organizations will embrace Generative AI as a tool for innovation, efficiency, and member-centric care. As we move forward, let us harness the potential of Generative AI to build a healthcare ecosystem that truly puts members at the center of every decision, revolutionizing healthcare for the better.

Authors

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About CitiusTech

Our vision is to inspire new possibilities for the health ecosystem with technology and human ingenuity. At CitiusTech, we constantly strive to solve the industry's greatest challenges with technology, creativity, and agility. Together with the world's leading Healthcare and Lifesciences organizations and our partners, we aim to accelerate the transition to a human-first, sustainable, and digital healthcare ecosystem.

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