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Contextual Customer Support – An Outlook

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Introduction

Machine learning and Artificial Intelligence (AI) developments are happening at a prompt speed! Post the soaring usage of AI in customer care and support, the most apparent reason behind why users seek contextual help is – 'Convenience'. Support teams can conveniently solve their queries without waiting for any assistance or referring to a user manual and different system support while saving on a lot of time. According to a research report, approximately 65% of customers say that valuing their time is the most important thing a company can do to provide good and swift service. However, apart from this, there are many more reasons as to why the users direly want to seek contextual help. Tech giants are investing heavily in both applications and R&D, with an objective to stay ahead of the curve of what many believe to be an inevitable AI-led paradigm shift. At the forefront of this resurgence are the fields of conversational interactions (personal assistants or chatbots) and computer vision and autonomous navigation (in IVR (Interactive Voice Response)), with advancement in hardware, data availability, accessibility, and radical machine learning techniques that have enjoyed tremendous progress within the span of just a few years.

With the advent of AI-powered 'Customer Responses' in IVR, chatbots, and email-bots, the long-lasting problem has a possible solution. Despite a few disagreements on this notion, chatbots possess the potential to provide more natural, smoother, and better customer experience (CX).

Responsive and good customer services are all about bringing customers back as they are the lifeline for business. As the number of calls / emails / chats on contact centre increase, organization deploys IVR to reduce the human-cost and deal with the primary customer service functions.

Notwithstanding the above strategy of deploying IVR, everyone understands the exasperation upon interacting with them. One can come up with the simple question and then routed to the endless options until you press "0" to talk to someone who could understand your query in a precise way. With the advent of AI-powered IVR, this long-standing problem has a possible solution. Despite a few disagreements on this notion, AI-powered contextual IVR possess the potential to provide more natural, smoother, and better customer experience (CX).

IVR systems work in a directed manner. They navigate the static options to stream the conversation with customers and do not allow to deviate from the actual flow. This flow does not influence the customer as compared to the natural one. Once the contextual IVR is developed with business rules, then upon collecting the further subscriber information on journey path by context or mix of contexts AI can be applied. This objective of context-aware IVR with an aim to provide a first-time resolution to customer queries will reduce repeat calls and improve customer satisfaction. The purpose of context-aware IVR is to collect relevant information available pertaining to the customer and provide a contextually aware and personalized self-care experience to end users calling to the organization's IVR.

Getting the correct context and determining the proper goal of customer's query is the primary goal of any customer service. Real-life conversations are not always linear. Chatbots are flexible and natural. If customer switched the context of discussion from meeting to the timing of the branch, BOT kept the context and responded back accurately. Later on, when the customer just wrote 6 PM right before the confirmation so the BOT need not to require going back and come again with all the questions in a linear way. This is another unique feature of chatbots compared to the traditional IVR.

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Likely Smart-Sales with Predictive Analysis

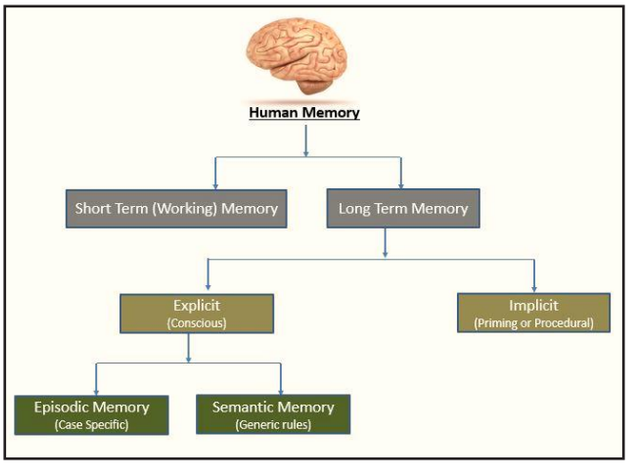
IVR navigates the user to the point that is already there in its option set and takes up the conversation from thereon. IVR systems do not use any AI or machine learning to suggest something else based upon the customer's objective or discussion.

In contrast, based upon having the context, non-linear dialogue communication capability and AI-powered chatbots have a feature to recommend something useful or informative to the end users. For example, if you're trying to book a movie in a theater, it suggests you some good dinner deals based upon your taste in nearby food outlets. As they is power of machine learning as a backend system, they do not only suggest or recommend the best possible options, but also learn and improve themselves continuously for forthcoming communications.

Generally, chatbots are flexible and give the consumer a feel of real person communicating with them because of the power of natural language understanding, contextual information management, and so on. However, IVRs are obstinate and do not allow customer to deviate from its context which do not maintain a natural composition during conversation. Despite the slow adoption of this change among customer services platforms, chatbots are still growing and getting improved by the time with easy handling capability of the first encounters of the customers.

Combinations of Multiple Disciplines

We are still in the early stages of the AI-powered conversational revolution, and it is fair to assume some problems that seem undefeatable today will likely be solved in the forthcoming years. We are quickly moving towards a ecosphere in which one will be able to have long and multifaceted interactions with AI support, which will not only understand what one wants to say, but will also know your preferences and tailor your experiences accordingly. To do so, the need is to combine multiple disciplines, including deep learning, applied statistics, and others, building technology that blends consumer preferences, environment, and language into one piece of intelligent, and flexible software; however, today's date system architects are already gearing towards that integrated approach.



One of the main drivers behind this wave of novel AI applications is deep learning, an area of machine learning that, despite existing for many decades, has recently revolutionized the fields such as computer vision and natural language processing (NLP). Nonetheless, despite its incredible performance, deep learning alone is not sufficient to solve the challenges faced by chatbots. Understanding context, disambiguating between subtle differences in language that can lead to wildly different meanings, employing logical reasoning, and most crucially, understanding the "preferences and intent of the consumer", are just a few of the many challenging tasks a system must be able to perform to sustain conversation with a human behind the machine. If a modern conversation engine hopes to go beyond answering simple, one-level questions, it must blend the most prominent techniques emerging from the field of deep learning with solid statistics, linguistics, other machine-learning techniques, and more structured classical techniques, such as semantic parsing and program induction.

The first building block in building an intelligent conversational system is information richness. In particular, deep learning is disreputable for needing vast amounts of high-quality data before it can unleash its true potential. However, while we live in an era where endless streams of data are constantly being generated, most of it is too raw to be of immediate use for machine learning algorithms. Unsupervised Learning, the subfield of machine learning dedicated to extracting information from raw data unaided by humans, is likely a promising alternative. Among its many uses, it can be utilized to build

an embedding model, which allows data to be represented in a less complex form, allowing patterns to be discovered more easily. While unsupervised learning is already omnipresent in machine learning, deep learning offers additional innovative ways to build — such embedding models — providing the state-of-the-art performance. Optimization of these techniques can alleviate the need for a lot of high quality and expensive labelled data, which is essential in getting AI chatbots to perform well.

Scientists are constantly (and usually subconsciously) checking every new piece of information we receive from our surroundings against an internal model of the world — a model of what is normal and what is not, of how entities are related, how we can make logical inferences involving said entities, and so on.

Finally, the ability to put it all together is yet another edge waiting for a solution. Unlike a search engine where the user is content with being presented a list of matches ordered by relevance, a conversation engine must be more specific. Simply using NLP to identify a set of relevant information is insufficient. It should be able to parse the input, break it down, and present a response to the user that is not only clear and concise, but is also highly relevant to their taste — solution and repeat.

As one embarks on the transition from multichannel to omnichannel, contextual with consistent connections with customer approach would help getting customers the experiences they're seeking as they go about their busy lives. It can also put the employees with a central set of cross-channel tools that gives them the integrated customer history, joined-up processes, and consistent answers they need. With these, employees will emerge more enabled, more empowered, and well positioned to deliver efficient customer service that meets and exceeds customer expectations.