

Whitepaper

# Use of Large Language Models (LLM) in Contact Centres



## Abstract

Customer experience continues to be a key competitor differentiator for businesses of all sizes. Contact centres play a vital role in this effort, acting as the front line of customer service for many businesses. To meet the rising expectations of customers, contact centres must adopt innovative solutions and technologies that can improve efficiency and streamline processes. The contact centre stakeholders can enhance human abilities and capability via the use of LLMs i.e., large language models. This generation also can examine performance facts and provide suggestions on a way to optimize metrics for supervisors. The whitepaper provides five use cases that illustrate how LLMs can help deliver higher client reviews and improved outcomes for contact centre directors.

## Key Takeaways



Abstract



Introduction to  
the Buzz



The Use  
Cases

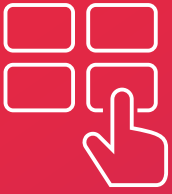


Common  
Queries



Conclusion





## Introduction to the Buzz

Large language models (LLM) have the potential to enhance customer service by augmenting human effort rather than replacing the human force. They can assist contact centre agents in drafting professional, effective emails in real-time, help agents respond to chat inquiries with personalized messages and improve performance metrics by providing targeted suggestions on how to optimize them. LLM can also be used in new hire training to provide a more personalized learning experience. Contact centre key performance indicators (KPIs) such as agent satisfaction scores, emails per agent per day, average chat time, resolution scores and user feedback can be improved with the implementation of LLM technology.

For those following technology and its evolution, they may have encountered the hype surrounding artificial intelligence (AI) enabled tools like ChatGPT, Bard, and LLM. It's quite possible that most people have come across these terms at some point, either through LinkedIn, messaging apps or while browsing the web. It's understandable if someone has seen these terms and thought that it's just

another Silicon Valley hype. The only difference is it's not just that.

Predictions of a fully automated future for customer service, made in the early 2010s, were often outrageous and have fallen well short. In time, however, people have come to appreciate that instead of technology replacing humans, we have evolved (or continue to evolve) into a model where technology augments human effort. That's where these buzzwords have the potential to make a meaningful impact and enhance the way the contact centre teams interact with LLM technology and each other. With Google serving up around 1,120,000,000 search results for the term "Large Language Models," it's clear that there's a lot of interest in this technology. So, what's the potential of Large Language Models in the contact centre space? Are they just the latest tech trend, or do they offer the real transformative potential for customer service?

Further, let's delve into the specific use cases where these models can help deliver better customer experiences and improved outcomes for Contact Centre Directors.





# The Use Cases

If an individual works in any capacity running a Contact Center, whether on the buyer or seller side, as a Director, Head of Operations, or in another role, there are five use cases provided to help them understand the potential benefits.

## 1. Use Cases

Real-Time Email Drafting Assistance for Contact Centre Agents

### This happens Today

(Before - with limited use or no use of any form of AI Capabilities)

Agents receive prepared responses for common inquiries but are trained to create customized emails with a standard structure and without errors for more intricate or personal concerns. However, new agents undergo email review by a QA or team leader before sending to customers.

### This is what could be achieved in 2023/ 2024

(After - Using the Generative AI Capabilities)

No more relying on outdated canned responses or struggling with proper grammar - LLM acts like a personal writing coach, suggesting language and phrasing to help agents craft professional, effective emails. It's a win-win for everyone: agents get the support they need, customers get better, quicker responses, and QA teams can focus on other things

### Contact Centre KPIs can improve this

- Emails Per Agent Per Day
- AHT Per Email
- Agent Satisfaction Scores
- Email SLAs

## 2. Use Cases

Real-Time Chat Response Assistance for Contact Centre Agents

### This happens Today

(Before - with limited use or no use of any form of AI Capabilities)

Live chat agents require crucial multitasking skills to provide prompt, effective, and culturally appropriate responses using pre-written and real-time typing. Avoiding canned responses is important to prevent an impersonal and robotic tone. Managing multiple chats, maintaining a good chat time, and keeping response speed in check can be challenging.

### This is what could be achieved in 2023/ 2024

(After - Using the Generative AI Capabilities)

LLM technology offers real-time suggestions for responses based on customer messages, making it easier for agents to reply. Agents can effortlessly edit, copy and paste suggested responses into the chat window, saving time and effort.

### Contact Centre KPIs can improve this

- Agent Satisfaction Scores
- Average Chat Time (inc. After Chat Work)
- Chat Concurrency
- Resolution Scores
- Average Speed of Answer



### 3. Use Cases

Enhance Performance Analysis

#### This happens Today

(Before - with limited use or no use of any form of AI Capabilities)

Contact centre monitors performance metrics such as AHT, sales conversion and other metrics are monitored via a dashboard, but supervisors need analytical skills to identify areas of improvement.

#### Contact Centre KPIs can improve this

- Adoption Rate of the Model
- Time savings
- Accuracy of Insights
- Improvement in performance
- User Feedback

#### This is what could be achieved in 2023/ 2024

(After - Using the Generative AI Capabilities)

An LLM-powered performance analysis tool offers real-time insights and targeted suggestions to improve performance. It analyzes performance data and provides specific recommendations. For instance, a team leader can ask the model how to boost their team's performance, and the model can suggest setting a higher goal for a select group of agents and provide the names of the agents who could take on the challenge.

**Note:** Currently, the model's full mathematical potential is being explored. Tech giants continue to push the boundaries and enhance the model's abilities.

### 4. Use Cases

New Hire Training

#### This happens Today

(Before - with limited use or no use of any form of AI Capabilities)

Contact centre training hasn't kept up with the growing demands on advisors. It still relies on a mix of:

- Mock interactions assessments (around 4-6 of them)
- Experienced agent helping out a new agent (peer-to-peer style)
- Practicing simulated customer scenarios with another human
- Learning how to handle objections through on-the-job experience
- And ultimately, a learning model that heavily depends on people's availability.

#### Contact Centre KPIs can improve this

- Training to OJT Ratio
- OJT to Production Ratio
- Learning Retention
- Training Completion
- Rate Time to proficiency
- Early Life Involuntary Attrition

#### This is what could be achieved in 2023/ 2024

(After - Using the Generative AI Capabilities)

The integration of LLM in the training process can revolutionize how new contact centre agents get up to speed. They can now benefit from:

- Way more assessments, accessible whenever they need them
- AI-powered support with human oversight
- AI-led objection handling simulations, still monitored by human experts
- Objection handling made easier and more effective with AI assistance
- A cutting-edge tech-enhanced approach to training.

Some examples where a new agent can practice and learn with the help of an AI assistant include

- How to securely validate a caller before sharing PII and Account related information
- How to explain the unbilled charges
- How to explain queries related to bill shock Handling Complaints

## 5. Use Cases

AI-augmented Recruitment Assistance for Recruiters

### This happens Today

(Before - with limited use or no use of any form of AI Capabilities)

Recruiters would typically rely on their own experience and knowledge to screen and assess the job candidates. This would involve manually reviewing resumes and conducting interviews to evaluate the candidate's skills, experience, and fit for the role. The process would be time-consuming and prone to human error.

### Contact Centre KPIs can improve this

- Reduce time taken to Recruit
- Profiles screened per Recruiter per day

### This is what could be achieved in 2023/ 2024

(After - Using the Generative AI Capabilities)

AI-led candidate screening and assessment can benefit recruiters by reducing the time and effort required for manual review and allowing for more accurate evaluations of candidates. The technology will assess language and communication skills through chat-based interactions that simulate real-world customer interactions, evaluating the candidate's ability to communicate effectively, handle challenging situations, and resolve customer issues. Evaluations will produce consistent and objective results, reducing the subjectivity of manual evaluations.

## What are the essential elements for these use cases to be realized?

These language models have come a long way and are now way more advanced than ever before. So, to make the most of them for contact centres, it is believed there are two essential things:

**Integrate the LLM capabilities into the systems people use every day** - This is critical because the more information and context a language model has, the better it works. To get the most out of these models, it's key to build them right into the tools we're using. It's only a matter of time before live chat platforms, CCaaS providers, and CRM software providers make this a standard feature of their offerings.

**Keep refining the model using content moderators and SMEs** - This is important because even the most advanced language models need to be customized to work best in the specific environment, they're used in. Think of it like teaching someone to ride a bike - it takes some fine-tuning to get it just right. That's why continuous improvement through feedback from content moderators and process experts is so crucial.

As the key question about the essential elements for these use cases is understood, it becomes possible to fully leverage the capabilities of these models. However, it's important to also address any common concerns and limitations that may exist.





## Common Queries about Contact Centres and Large Language Models (LLMs)

When it comes to contact centre stakeholders, there are several **pressing concerns** that they need to address, which **might take precedence over getting caught up in the hype surrounding new technology**. However, this doesn't mean that their priorities will change. They still need to improve customer experience, reduce agent attrition, empower agents to have better conversations, and improve sales, among other things. The potential use of new technology simply adds another dimension to achieving these priorities and accelerates their efforts. This gives them an opportunity to work with their platform providers and BPO service providers to bring forward improvement plans that use technology augmentation to achieve their goals.

**How do we 'trust' it when it is known that it confidently regurgitates information** which is factually incorrect?" Well, it's important to note that we have learned to coexist with humans who confidently regurgitate misinformation. However, on a more serious note, it's important that the model isn't used unsupervised. Moderation by content experts and process specialists is crucial to ensure the accuracy of the information provided. Furthermore, in contact centre use cases, the risk of inaccuracies can be greatly reduced since the model works within the bounds of the enterprise's knowledge base or data set. This is in contrast to querying the whole web, which is where the issue of incorrect information originally arises.

Could we be **creating an echo chamber where AI is being used to create content**, which is then used to retrain the same AI? It's possible (shrugs shoulders). However, within the context of the contact centre industry, we're simply using content that's been created by experts and stored in a knowledge base. Our aim is to find a faster and more efficient way to use this content, not to make it worse. While I understand why some may be skeptical, it's important to consider the specific use cases for contact centres. These operations work within certain boundaries and parameters, and this technology of LLM has the potential to solve long-standing problems.

## Conclusion

Contact centres rely on three elements: people, processes, and technology. While historically, the focus has been on people and processes due to numerous limitations in technology, recent advancements in technology have

shown rapid progress. Therefore, it implies that the limitations in contact centre experiences won't be due to technology, but rather our ability to think creatively and enhance outdated processes.

## Authors



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Kaushik is an experienced professional in the Telecommunications Vertical with over two decades of industry experience. He has a strong background in contact centre and customer experience-related topics. In his current role, Kaushik has two primary areas of focus: He works closely with clients to solve their business problems using a combination of technology, process, and

people. Kaushik collaborates with his core team (sales, operations, and technology) to grow partnerships with product partners.

Currently, one of Kaushik's main areas of focus is exploring the use of technology to enhance the experience, performance and engagement of contact centre agents.

