Conversational AI:

The Definitive Guide

gupshup

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Introduction

2020 highlighted the importance of customer service as brands worldwide faced numerous calls from their distressed customers. There was also a widening range of issues, thanks to the disruption of their operations. Customer care was tested like never before during the global pandemic, and brands were pushed to try new ways to enhance the digital experiences for their current and prospective customers. More than the products and services, the customer care offered by the brand defined customer acquisition and retention.

Though the shift to automation may have been born out of necessity, customers quickly grew to like automated messaging. In December 2020, only **18% of customers** had a negative view of conversational chatbots, and a majority preferred bots for simple services like changing address or balance enquiry etc.

Today, **conversational AI** is the secret ingredient for brands to communicate with their customers and significantly change their relationships. It is a secret, not because many are unaware of it, but because people know how it works and its impact on your brand once it is appropriately integrated. Considering that the conversational AI market is expected to grow to **$13.9 billion by 2025,** it's clear that many organisations have already recognised its value and potential.

Enterprises that can best leverage the power of conversational AI are positioned to drive customer retention, customer satisfaction, and business efficiency, resulting in increased competitiveness and resiliency.

> **So what is conversational AI?**
> **How does a conversational AI platform work?**
> **How is it helping brands offer a personalised experience to their customers?**

In this guide, we will walk you through what conversational AI is, how it works and how it benefits the brands to serve their customer better. Whether you're interested in a conversational growth strategy or focused on conversational customer support, or simply someone who is interested in learning more about this cutting edge technology, we'll break things down for your success. Hope you find this useful.

What is Conversational AI?

Conversational AI refers to technology that allows machines to understand and process human language inputs and respond to them in a near-human manner with the right context and smooth flow. **Chatbots or virtual agents** play a crucial role in conversational AI. Using emerging technologies such as Machine Learning (ML) and **natural language processing (NLP)**, AI imitates human interaction, recognises speech patterns and text inputs. Then, by storing and analysing the conversations between the bot and the customer, action-oriented meaning is derived, based on which steps are taken to convert the user into a long-term customer.

With synthetic brainpower to enhance the machine's processing and responding to human messages, conversational AI blends natural language processing with traditional software like **chatbots** to bring about intelligent, automated interactions.

A simple and typical example of conversational AI is the digital personal assistant on your smartphone or a **chatbot** you see when you visit a website. They prompt you to ask a question and indulge in two-way conversations with customers.

New and upcoming brands are utilising this technique to get in touch with their customers. It has helped them expand their marketing strategies, communicate their brand message and offer effective customer support. Old and well-established brands are adopting this technology to revamp their communications and brand outreach.

The idea that a brand is a faceless entity has been constantly challenged due to the adoption of conversational AI. Before this, businesses were notorious for making customers wait for them to reach out for any assistance. Today, brands are becoming aware of consumer's needs, which are far more demanding. The new customer is mindful of the quality of products and doesn't shy away from giving public feedback via reviews. In such a scenario, conversational AI can help you revamp your customer reach and communications for good.

Key findings

50%
of decision-makers currently implement or plan to implement or expand their implementation of a conversational support solution in the next year.

58%
of support leaders believe customers will prefer conversational, messenger-based engagements with brands.

71%
of customer support leaders believe that scaling conversational support will allow their organisation to stay competitive or make them an industry leader.
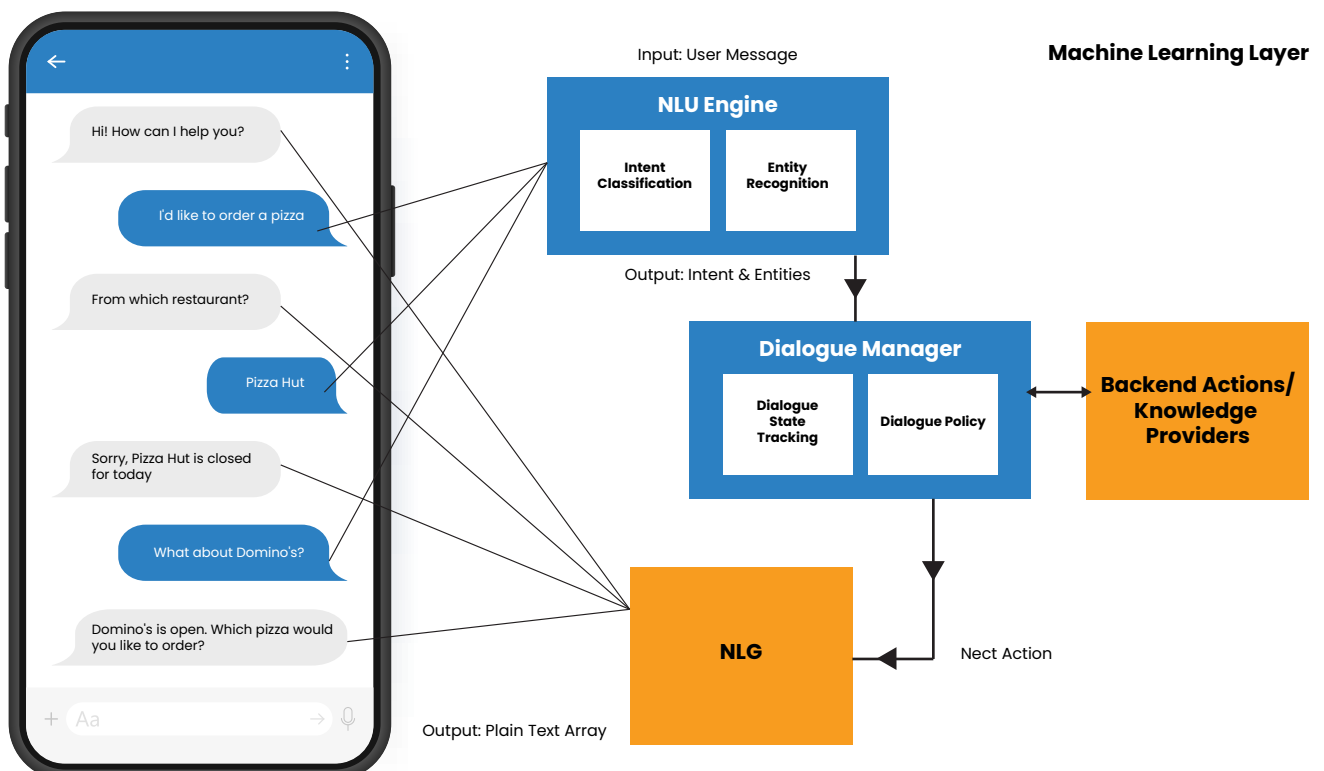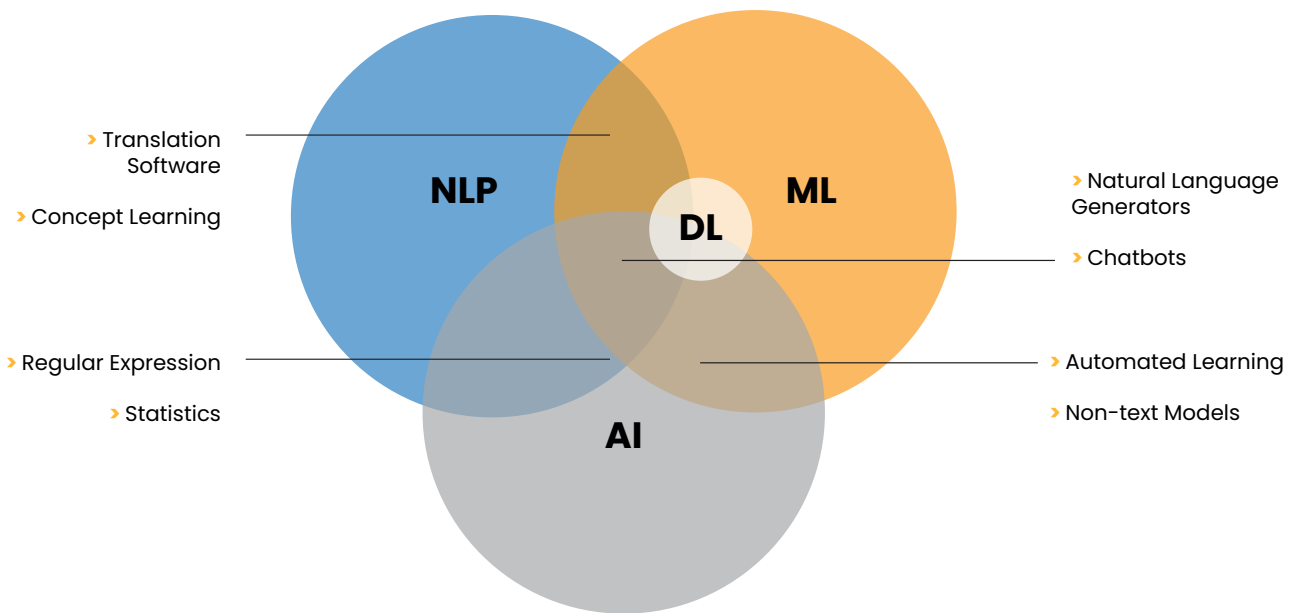
47%
of brands consider customer satisfaction as their most important metric for measuring the success of a chatbot strategy, rather than cost or efficiency.

Evolution of Conversational AI

The terms chatbots and **conversational AI** are often interchanged, but they are not the same thing. But it does not mean that they are not related. Computer programs that 'chat' with the visitor are known as 'chatbots.' They are rule-based or flow-based and operate via a chat interface on either a web browser or an app. They replicate the pre-written answers and cannot deviate from them to respond accurately if the questions do not match.

This proved to be a spanner in the wheel as customers were not satisfied with the automated responses received. Thus came the evolution of conversational AI. The need for intelligent and personalised answers created a host of AI-based technologies to empower computers to converse in an 'intelligent' manner. AI, NLP, ML, Deep Learning and intelligent analysis are examples of such technologies. (See figure 1 and 2 below to understand the concept better)

> **NLP:** Empowers machines to understand what is spoken by humans in their natural language.

> **ML:** Enables machines to learn from these interactions and better the conversations.

> **AI:** Is used for prediction and natural language generation type features

> **Deep learning:** Is leveraged for creating self fulfilling models for NLP and ML to use

> **Intelligent analysis:** It empowers the machines to analyse the given information and provide suggestions for better communication.

> Translation Software

> Concept Learning

NLP

ML

DL

> Natural Language Generators

> Chatbots

> Regular Expression

> Statistics

AI

> Automated Learning

> Non-text Models

Input: User Message

Machine Learning Layer

Hi! How can I help you?

I'd like to order a pizza

From which restaurant?

Pizza Hut

Sorry, Pizza Hut is closed for today

What about Domino's?

Domino's is open. Which pizza would you like to order?

NLU Engine

Intent Classification	Entity Recognition

Output: Intent & Entities

Dialogue Manager

Dialogue State Tracking	Dialogue Policy

Backend Actions/ Knowledge Providers

NLG

Nect Action

Output: Plain Text Array

Before ML became part of the strategy, the evolution of language processing was the journey from linguistics to computational linguistics. Predictive NLP based on transformer models is the next evolution on top of Statistical NLP. With deep learning, NLP possessed realistic comprehension of what transpired between the brand and the customer. Instant messaging became critical to enhancing customer experience, and conversational AI evolved to deliver the same.

As AI technology matures, forward-thinking enterprises are plugging in conversational AI in their strategic investment roadmaps to leverage it for their customer service function. In fact, Gartner predicts that 'conversational AI-first' will supersede 'cloud-first, mobile-first' as the most important, high-level imperative for the next six years.

Over the last several decades, customer service and customer experience have been all about customers seeking help from call centres, websites, emails, applications, and so on. However, in the last couple of years, especially in the pandemic, the way we started interacting with technology has changed incredibly, and the good old days of mouse-icon-click are now ending.

Types of Conversational AI

Chatbots are among the most popular applications of conversational AI. Thus, it's not a question of conversational AI vs chatbot. Rather, chatbots are based on conversational AI technology.

A conversational AI chatbot enables companies to automate some part of their customer communications setup for marketing, promotions, support, and many other use cases. It can be implemented on the company's website or other channels like Facebook Messenger, WhatsApp, Slack, etc.
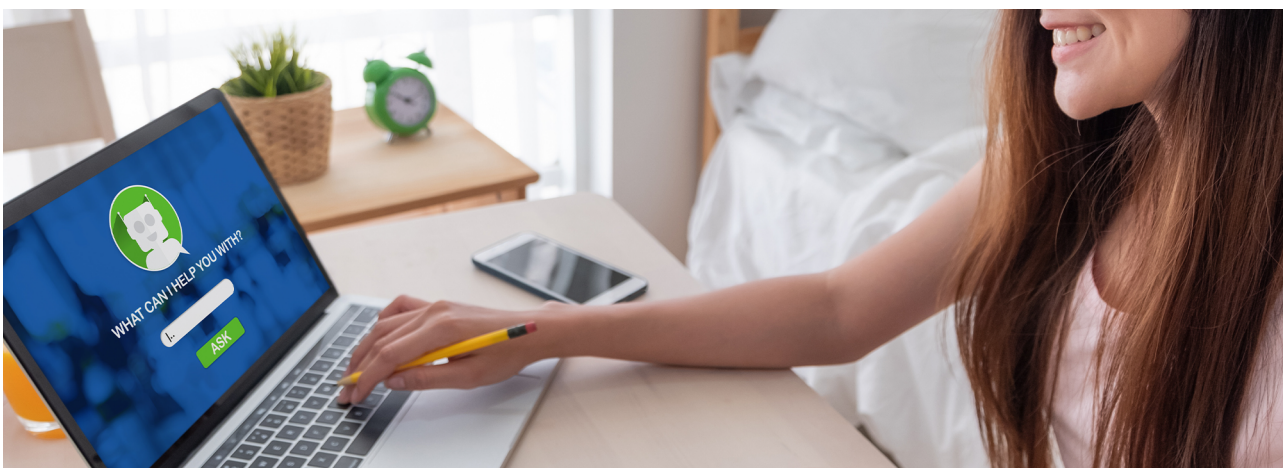
The easiest and fastest way to design and deploy a **chatbot** is with a low-code **bot-builder platform like Gupshup.** This user-friendly conversational AI platform provides numerous bot-builder tools, pre-built templates and conversation flow designers so even non-technical users can deploy chatbots in just a few hours, rather than several days or weeks. It also supports developers with many development tools, a cloud-based Integrated Development Environment (IDE) and a Conversational AI API (REST) for NLP.

Apart from chatbots, organisations can also leverage the power of conversational AI platforms to create many other kinds of applications. Here are some popular conversational AI examples:

Mobile Assistants

Two of the most well-known mobile assistants are Google Now and iPhone Siri. Users use them to perform certain functions quickly, either because their hands are full (e.g. while driving), or because they want to avoid the hassle of typing. These include sending text messages, asking for weather updates, and asking for the results of a search query.

Voice Assistants

These voice-enabled devices support users with non-transactional queries such as playing music, setting alarms, providing weather reports or sports updates, creating shopping lists, making phone calls, sending text messages, etc. Google Home and Amazon Alexa are great examples.

Conversational AI vs Traditional Chatbots

Traditional chatbots have conversational capabilities, but humans have to write scripts and dialogues behind the scenes. They are useful for handling repetitive and non-complex tasks. The traditional chatbot uses rule-based programming to match user queries with potential answers, typically for basic FAQs.

Conversational AI-based chatbots provide free text, multilingual user interfaces that take the onus of extracting, transforming, and loading the user's information back to the computer programs while users remain free to use natural language and multiple intents to achieve an end result. Moreover, AI-based chatbots reduce issue resolution time significantly while becoming increasingly accurate with machine learning. It also enables automated form filling, automatic entity mapping and flexible intent expression in a free text environment.

Traditional	Chatbots	Conversational AI-led
Scripted code	**How do they work?**	Machine learning/ Natural language processing
Not scalable, predictable answers	**How scalable are they?**	Scalable and capable of predicting user intent to match with underlying entities omni-channel presence
Must be trained explicitly	**How are they updated?**	Deep learning enabled
Button-focused interaction	**How do customers interact with them?**	Text and voice
Only if it is pre-trained. Not intelligent, can lead to frustrating customer experience	**How much can they understand?**	Deep understanding of customers, thanks to Automatic Semantic Understanding

How does Conversational AI Work?

Conversation AI uses NLP, automatic speech recognition (ASR) and text-to-speech with voice synthesis to understand the customer's need no matter how they phrase it. The customer requests the system either via text or voice. ASR technology recognises the request and unpacks the language and context behind it. Then NLP cleans up the request so it can be understood by the NLU and responded to by TTS and voice synthesis. The system's underlying ML algorithms learn from the data collected over time to improve the accuracy, performance and response quality of the conversational AI system.

NLP and ML are particularly important in the system. NLP helps analyse the user's request and takes it towards a logical conclusion. ML training models enable the system to constantly learn and improve, even without explicit human programming.

The combination of NLP and ML allows conversational AI applications to recognise speech and text inputs from users, decipher language syntax, nuances, and context, understand user intent, translate their meanings, and imitate human interactions to answer queries and address concerns and resolve issues.

Why Brands Need Conversational AI

Consumers miss the human touch. According to a PwC report, 59% of consumers feel companies have lost touch with the human element of their customer service. Customers want to engage with businesses the same way they engage with their peers in their daily lives.

Conversational AI helps understand your customers, their tasks and their preferences better. A study by Salesforce shows 52% of customers expect personalisation. Brands can leverage conversational AI to converse with a better understanding of what they need, what they like and what they dislike. Moreover, brands can also enjoy scalability, cost efficiencies, better engagement and a smoother sales process, while customers can receive answers to their queries naturally, with low effort, quickly and efficiently, 24x7 hours a day.

How Conversational AI Can Help Brands Communicate With the Customers

Customers, especially during challenging times like today, are more likely to stay with the brand they trust, especially when there are unpredictable changes in the market. This trust is built when the brand makes an effort to regularly communicate with the customer, help introduce products/services to new customers and assist with the decision-making process for the existing ones.
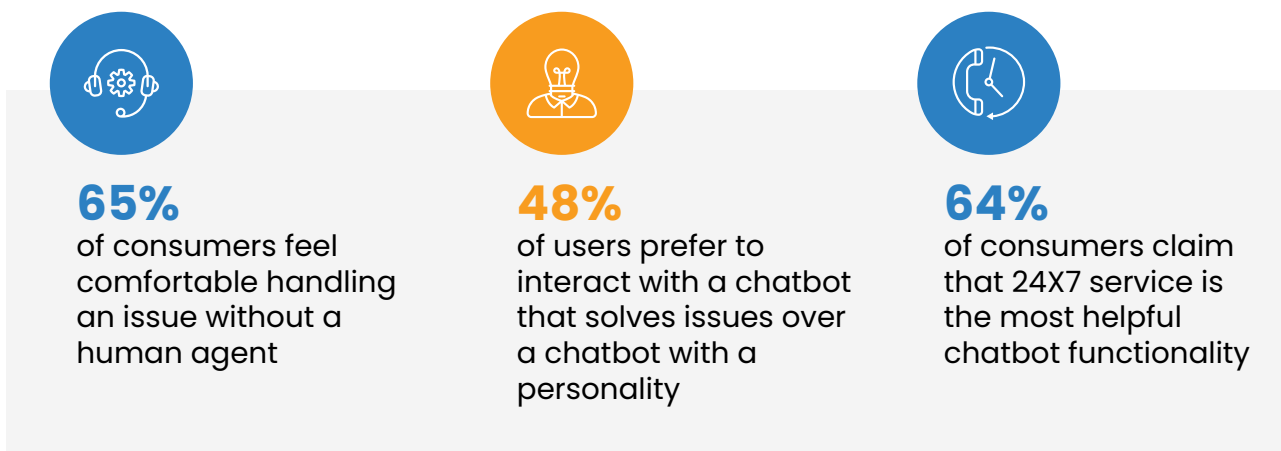
AI and ML play a vital role in evolving the relationship between the brand and its customers, across the globe. While conversational AI on one hand helps the brands understand their customers, their preferences, their requirements and their choices, on the other hand it provides the most efficient platform to the users to interact with the brand on their choice of channel at their preferred time, language and availability.

Conversational AI has proven to be a truly beneficial way of bringing personalised experiences to the customer. Communicating with the customer using **Single Messaging API** for engagement across channels has the following benefits:

Cost-effective

Relevant marketing

Scalability

Increased customer engagement

Enhanced sales

Furthermore, conversational AI can improve the quality of service, efficiency, and customer journey with the correct information. By assigning repetitive tasks to artificial intelligence, brands have embraced not only a cost-effective solution but also reduced possible human error and improved customer's decision-making process. When customers connect with human-like bots and get their doubts clarified instantly, an enriched and meaningful customer experience is delivered. With increased accessibility and enhanced productivity, brands are slowly moving towards conversational AI as the first level of customer care.

65%
of consumers feel comfortable handling an issue without a human agent

48%
of users prefer to interact with a chatbot that solves issues over a chatbot with a personality

64%
of consumers claim that 24X7 service is the most helpful chatbot functionality

Conversational AI Use Cases and Industry Applications

Many conversational AI platforms like Gupshup are so versatile that they can be adapted for use in any industry and a wide range of use cases and business functions.

These includes:

BFSI

Research suggests that by 2022, **90% of the banking sector's interactions** will be automated. With Conversational AI applications, banks and other financial services providers can make it easy for their customers to:

> Keep track of their finances (e.g. salary credits)

> Send and receive money

> **Receive reminders on bill payments**

> **Apply for loans or mortgages**

> Check Balance

> Request cheque book

> Request FD / RD/ New card / Block card

> **Download credit card bill payments or statement**

> Download insurance premium payments, statement

> Update nominee

> **Buy and sell stocks,** mutual funds, gold bonds, CFD

> Avail offers and deals

> Upgrade of existing sold instruments

Some of the use cases of a **BFSI conversational AI solution:**

> **Cross-sell and upsell**
You can convert credit card payments or payment-due reminder messages into upselling a personal loan.

> **Generate leads**
A chatbot can take probable prospects through different financial instruments, from loans to investments to insurance.

Marketing Use Cases

Try it yourself

Try it yourself
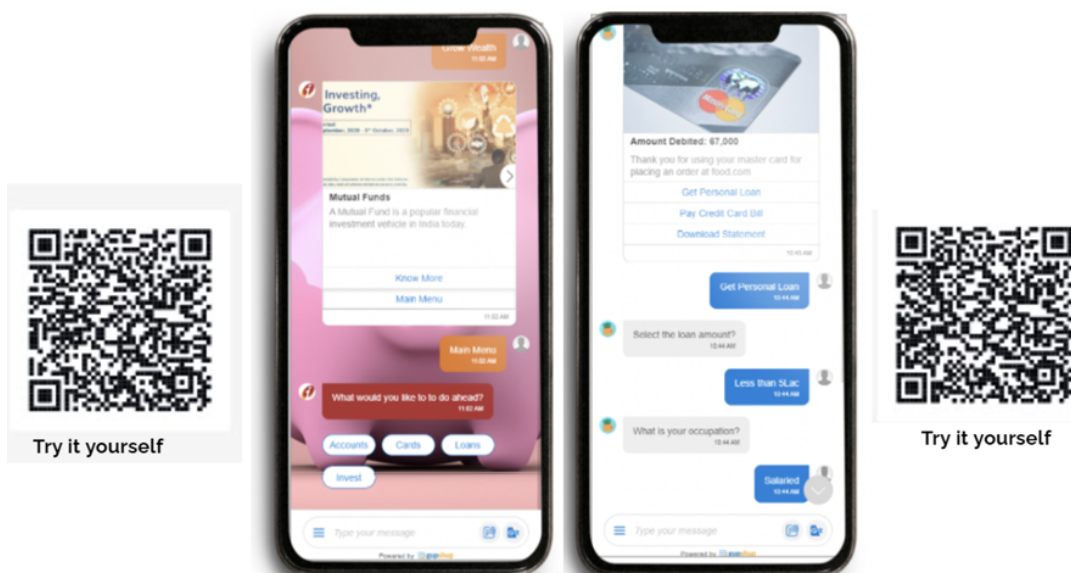
› Automate frequently asked questions

Support chatbots can answer frequently asked questions. This will reduce the overall load on human agents. Chatbots can hand over to agents at the appropriate time when there is a complex question to be answered.

› Better manage the portfolio

With the chatbots in place, customers can track or add to their portfolio. They can even buy and sell through the bot.

› Buy and renew cards

Chatbots can ask customers to sign for a new credit card or even suggest existing credit card customers to renew their cards. The chatbot can manoeuvre and take the customers to the right page.

› Capture and process customer feedback

Chatbots can help run surveys, capture NPS, record customer feedback. This reduces the load on human agents and provides the information and data that can be further used for reaching out to customers and providing them with need-based assistance.

Commerce Use Cases

Try it yourself

Try it yourself

Retail and e-Commerce

The Conversational AI market for retail and e-commerce is growing. In fact, by 2023, chatbots will account for **$112 billion in retail sales.** This is because such solutions enable retailers to deliver personalised, low-friction shopping advice, recommendations, communication and experiences. By enhancing the shopper's journey, they can boost their conversations, revenues and profits.

Conversational AI tools like intelligent chatbots and virtual assistants help brands to indulge customers in the way they expect. Gupshup for **D2C & e-Commerce** is the conversational solution that enables online brands to provide instant, personalised shopping experiences. Using a chatbot-based interface, your customers can

› **Discover products**

› Place orders

› **Pay for the orders**

› Track purchases

› Get real-time support over channels like WhatsApp and Instagram without switching user interface

Explore products, add to cart, buy with your own retail bot
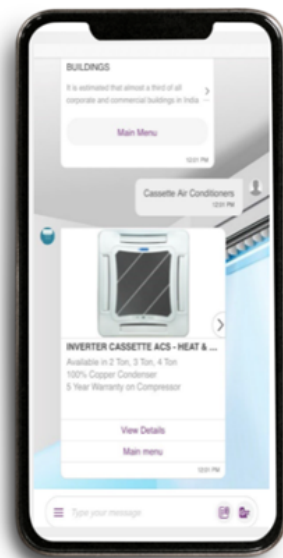
Up-sell / cross-sell more products based on purchase history
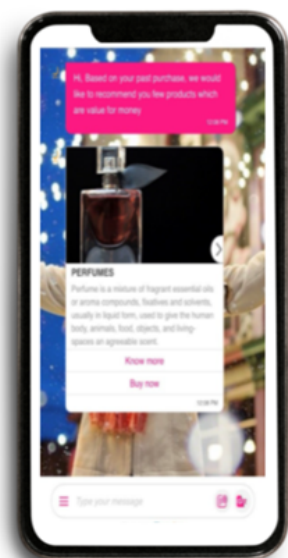
Some of the use cases of a retail and e-commerce conversational AI solution:

› **Improve lead generation**
On collecting details and contact information from prospects while taking them through a conversational journey, you get a higher chance at improving lead generation and follow-ups.

› **Get a scope for remarketing**
You can launch campaigns on 30+ messaging channels, including SMS, WhatsApp, Instagram, GIP, RCS.

› **Offer personalised deals**
You can make suggestions and customise deals based on customers' past purchases, preferences, shopping behaviour, and demographics.

Convert visitors to first-time shoppers with attractive offers and deals

Scan This

> **Enable product discovery**
You can understand your customers' requirements better and help suggest relevant products.

> **Offer live chat support**
You can amply reduce the load on live agents by using support bots to answer frequently asked questions and generic queries.

> **Collect customer feedback**
Deploy chatbots that can run surveys, capture NPS, and record customer feedback for further processing by human agents.

Restaurants and Food services

Some **food brands** are experimenting with voice-based ordering and other types of Conversational AI solutions to enhance diners' experiences. **Gupshup's restaurant chatbot** is a versatile application that enables restaurants to manage several aspects of their business on auto-pilot, from order-taking and contactless dining to billing and payments.

They can simplify the service process for both **dine-in and takeaway customers,** increase repeat business, manage inventory, offer special or limited-time promotions, and do a lot more to grow their business. Gupshup is one of the very few companies offering such a cutting-edge chatbot in India, making it one of the best conversational AI companies in India.
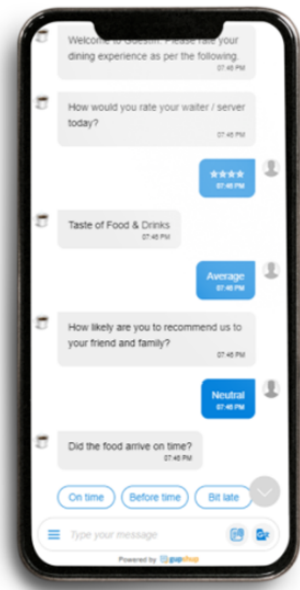
## QSR - McDonald's

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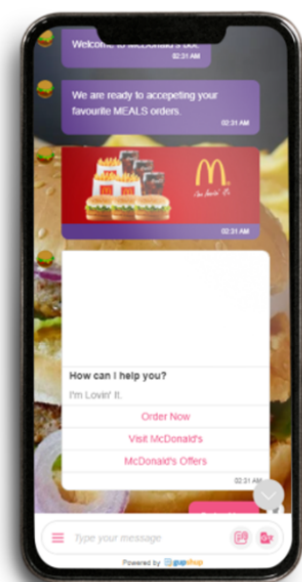
Dining Feedback

Scan This

Edtech

The educational sector has witnessed tremendous growth in the past year. As the world went digital, the education sector was the fastest one to undergo major technological developments in its operations. By 2025, the online education market is expected to **top $350 billion.** Technologies like the cloud, mobile computing, Virtual Reality, Artificial Intelligence, and Machine Learning are among the key drivers of these trends. Chatbots are also helping to usher in the golden age of Edtech. With conversational AI, edtechs can:

> Stimulate a dynamic learning environment

> Facilitates rich interactions and 24×7 learning even outside the classroom

> Share educational resources to match the learning styles and needs of different students

> Encourages real-time communication between teachers and students, and teachers and parents

> Foster collaboration between students so they can learn better together

> Provide a familiar, comfortable interface that students love to use for learning

Edtech chatbot can be used in numerous ways in the education sector, not only by students and teachers but also by marketers, administrators, alumni liaisons, registration or enrolment staff, student support staff etc.

Try it yourself
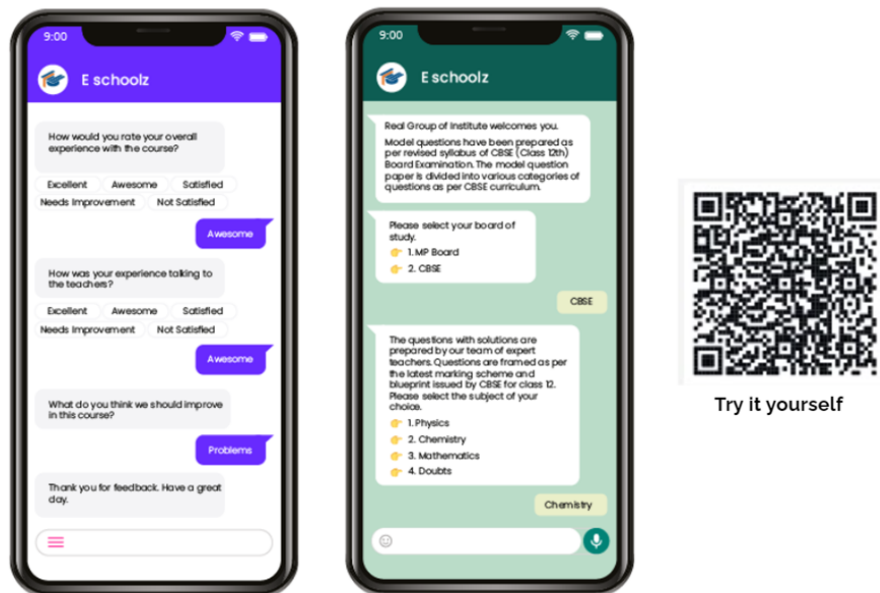
Edtech chatbot can be used in numerous ways in the education sector, not only by students and teachers but also by marketers, administrators, alumni liaisons, registration or enrolment staff, student support staff etc.

Some of the use cases of a Edtech conversational AI solution:

> **Course purchase**
Share a conversational workflow to help choose and pay for the right course.

> **Consultative selling**
Upsell, cross-sell and make purchase suggestions when answering doubts.

> **Doubt solving**
Trained AI models handle FAQs with context changes and pass advance level queries to human counsellors

> **Student feedback**
Run surveys, capture NPS, record student feedback through a conversational workflow

> Collect contact information of students and parents who access your website/app

> Create one-on-one communication and remarketing campaigns for users on a platform of their choice

> Product up-sell like courses, supplements, tests

> QR code for offline to online print marketing

> Class scheduling and rescheduling use cases

> Doubt clearing sessions in a 1:1 setting on chat channels

Try it yourself

Try it yourself
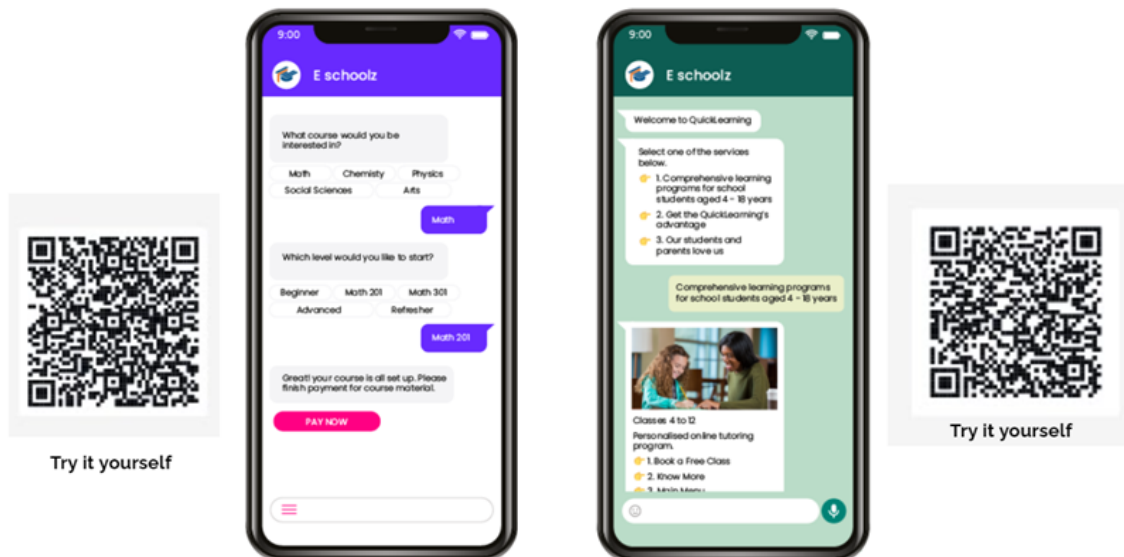
Travel and Hospitality

About **85%** of travel companies already use Conversational AI technology in some form. Chatbots and other applications make it easy to deliver the right answers and information to customers on the device they feel most comfortable with. They can also help users with many other tasks, such as **flight**, **train**, cab or **hotel bookings**, checkouts, upgrades, postponements and billing.

Travel - Yatra

Travel - Booking

Scan This

Scan This

In addition to these five sectors, Conversational AI use cases include:

| Government	Fintech	Healthcare
Telecom	**Automotive**	**Internet of Things (IoT)**
Energy and Utilities	**Media and Entertainment**	**Outdoor Advertising**

Conclusion

According to an MIT survey, **90% of businesses** reported measurable improvements in complaint resolution speeds with Conversational AI chatbots. Other industry research suggests that by 2022, up to **90% of customer service** queries will be handled by virtual agents, and by 2023, Conversational AI will enable businesses to save **5 billion hours.** Considering that the conversational AI platforms are set to become a $17 billion market by 2025, it's clear that many organisations have already recognised its value and potential.

Brands have realised that conversational AI platforms have the power to completely redefine the entire customer interactions across marketing, commerce and support, and are using this to their advantage through conversational AI platforms like Gupshup.

Gupshup, one of the foremost leaders in the space of conversational AI, enables you to converse with your customers on their preferred messaging platforms and collects valuable information that helps you understand their requirements better. Gupshup implements AI, ML and Analytics to understand and process human language inputs, and respond to them in a near-human manner with the right context and smooth flow. We have predefined verticalized and industry specific templates with domain knowledge to enable ease in building intelligent, interactive bots.
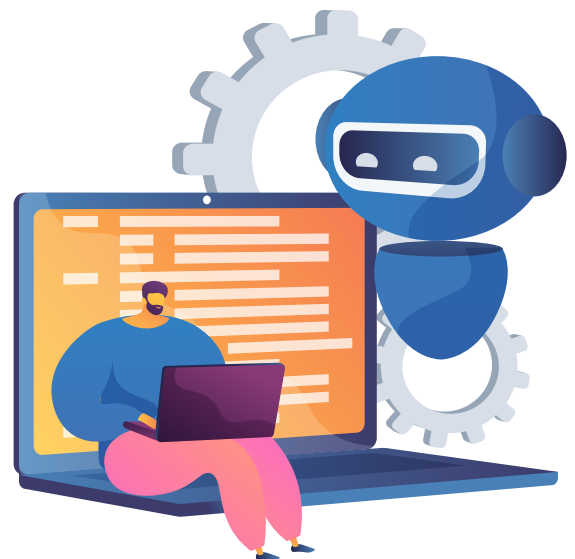
With a full fledged bot deployment, we have been able to automate the complete customer support experience for our clients. From Kotak Bank, ICICI Lombard, Bajaj Housing Finance Ltd, DBS, Khan Academy, TVS Credit, Lakme, to Zomato. We have seen significant increment in customer experience, more leads generated and more efficiency across marketing and sales verticals across all industries.

Furthermore, Gupshup prefers having product innovation and research be driven in house. However Gupshup continuously supports and sponsors academia in premier institutions across the globe. The need to sync innovation and product release cycles is pressing now more than ever. Product innovation and development being driven in house allows speed, flexibility and scale.

If you are a brand looking to revamp its brand interaction journey, you can give Gupshup a try. Explore the plethora of conversational solutions we have at our disposal. With Gupshup, businesses have made conversations an integral part of their customer engagement success. Join the bandwagon.

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