



# Chatbots: A Complete Guide

2020



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# Introduction

The popularity of chatbots has soared in recent years. One of the most well-known examples of Artificial Intelligence (AI) and automation, businesses across the globe have found numerous purposes for chatbots – in customer support, sales, marketing, HR, and other services.

Let us now dive a little deeper to understand what chatbots are, what they can do for us, and how they are built.



# What is a Chatbot?

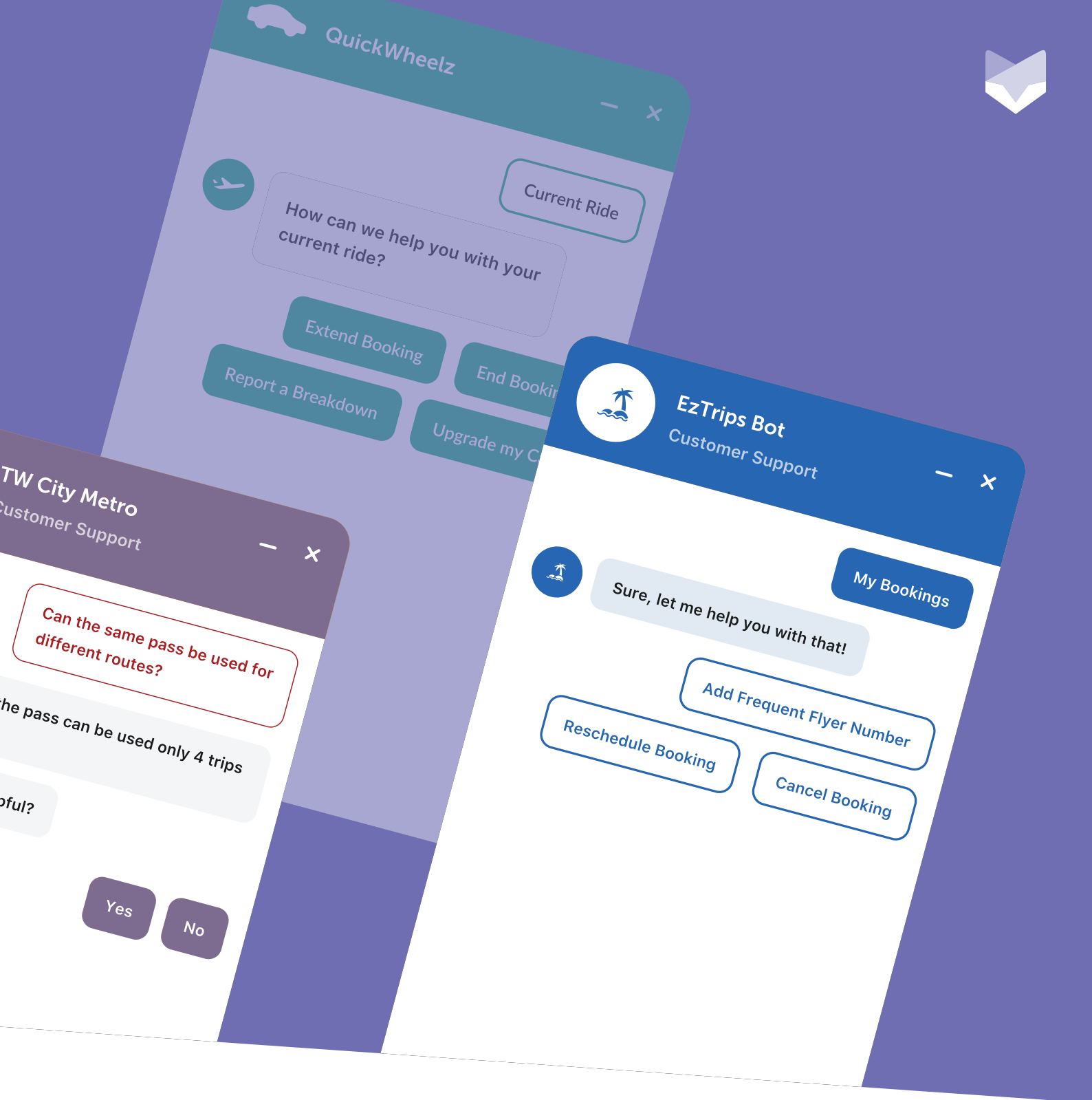
Chatbots are software programs that interact with visitors, providing them with answers while sifting through chunks of data. There are two broad varieties of chatbots - one that is created with a manual set of predefined rules and the other type that leverages the power of machine learning, and Natural Language Processing (NLP) to understand the intent and context of the visitors' input, providing them with quick resolution in real-time.

Much of the data that we have suggests the rise of chatbots in various aspects of customer experience. In a paper published in The International Conference on Internet Science, one participant described the chatbot experience as:

“

*It saves me the hassle of having to place a call, have to wait to speak to a person, then trying to get the information from that person. It also saves time in having to look through tons of text to find answers.*

According to Gartner, AI chatbots will handle up to 85% of customer service interactions within just a year. 95% of the consumers believe 'customer service' is going to be the major beneficiary of Chatbots. 60% of millennials say they have used chatbots. 70% of them say they had a positive experience.



# Benefits of Chatbots



## Benefits of Chatbots

Chatbots are meant to complement an organization's live agent team. Companies are rapidly undergoing a digital transformation and intelligent chatbots are disrupting the industry. While there are countless use cases, here are some of the most obvious and best chatbot benefits.

### **Most Common Usecases of Chatbots**

- Quick issue resolution to simpler queries
- Buying products, renewing subscriptions
- Making reservations, booking tickets
- Speaking to an agent without being on phone calls
- Check inventory, get recommendations, find out about the latest products
- Track order status, shipping
- Returns and refunds
- Access important forms like Credit Card Authorization.
- Provide company feedback
- Promotions, quizzes, contests
- Opening and closing accounts, setting up utilities



## Benefits of Chatbots



### **Chatbots streamline various customer interactions with your services while enhancing customer satisfaction.**

Providing remarkable customer service can help differentiate businesses in today's market. Chatbot comes in handy in delivering customer responses quickly, accurately, and efficiently, leading to higher customer satisfaction and greeted brand loyalty. A bot can drive conversations and provide answers to simple questions and if a conversation gets complex for a chatbot, it can be handed over to the human support agent seamlessly.



### **Chatbots help you scale customer service with fewer employees.**

Customers demand answers, and they demand it now. With more and more customers turning to e-commerce for their shopping needs and the proliferation of social media, customer needs are growing exponentially overnight! The complexity and volume of customer inquiries are increasing constantly. Chatbots help process basic inquiries without involving human support agents, leaving them free to deal with more complex issues. The greater the inquiries deflected the greater the time and money saved.



### **Chatbots help in decreasing overall ticket volume.**

70% of customer queries are usually the same repetitive questions that can be easily handled and resolved by a chatbot. At a basic level, chatbots deflect common queries by redirecting the customers to support articles. But a custom chatbot solution can also automate common transactional and custom interactions – anything from checking an account balance, changing a seat on a flight, to ordering food. A chatbot solution reduces the volume of service tickets and creates a more efficient customer service process.



## Benefits of Chatbots



### **Chatbots help in lowering the wait times for your customers and creates more engaged agents.**

Your customers will love you if you could lower their support wait times. Shorter wait times mean shorter resolution times. And everyone loves quick resolution. With chatbots deflecting common customer queries, your human agents have time to handle higher-value customer queries. Your agents will tackle the more complicated matters faster and easier than ever before.



### **Chatbots help you leverage your current self-service content – FAQs and Knowledge Base.**

As mentioned above, 70% of customer queries are usually the same repetitive questions that can be easily resolved by redirecting the customer to any self-service content like FAQs and support articles in your knowledge base. Chatbots can prove helpful in providing instant customer care by making these FAQs more accessible.



### **Chatbots help overcome shopping cart abandonment.**

In today's world of short attention spans, a customer is at risk of forgetting to check out the items that they added to their shopping cart. A chatbot could automatically message customers who have abandoned their purchases. Chatbots are also helpful in driving sales as they can be a very subtle and comfortable place to upsell or cross-sell various products, without being pushy!

“

*eCommerce stores adopting Facebook Messenger along with an abandon cart chatbot have started to boost revenue by 7–25%.*





## Benefits of Chatbots



### **Chatbots help you to convert more website traffic.**

By proactively assisting customers in need and by answering common queries, a chatbot can help you convert more of your inbound website traffic by pointing customers to the correct web page.



### **Chatbots help you generate more qualified leads.**

Landing pages have been in a state of stagnation for many years now. Adding a chatbot to a landing page is a great way to ensure that your potential leads can get their questions answered when they are evaluating your business. It's a great way to take advantage of all the effort that you put into promoting your landing page.



### **Chatbots work 24/7.**

Running an uninterrupted support channel with only human agents can be a pricey affair. Chatbots can process customer inquiries during offline hours, assist shoppers from any time zone, and continue to operate unassisted even when you are out of the office. They do not need vacation days and reduce the need for hiring, training, and other staffing needs during rush hours.



## Benefits of Chatbots



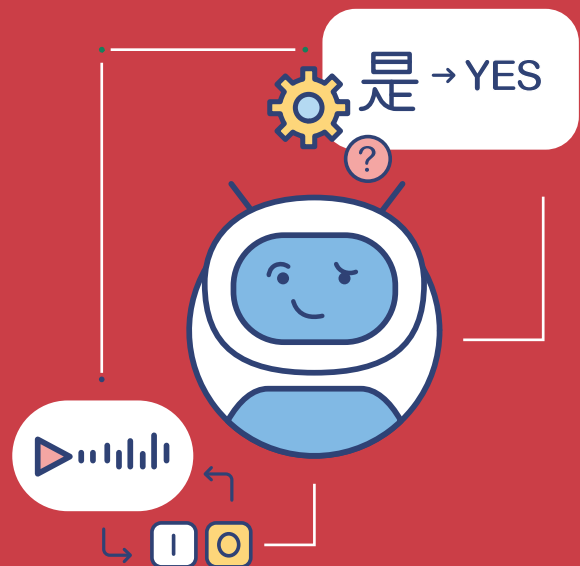
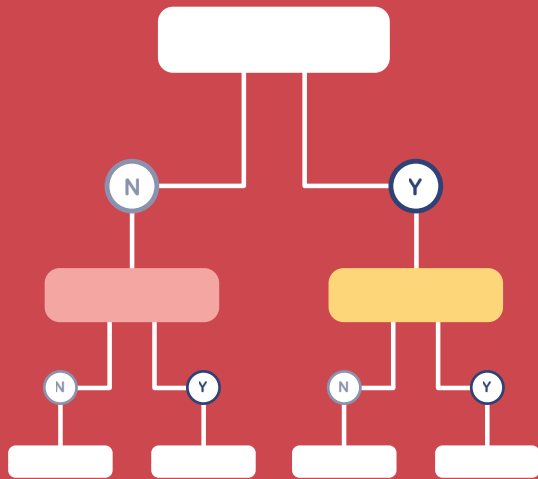
### **Chatbots ultimately help improve cost savings and drive up revenue.**

Chatbots directly benefit your bottom-line by providing uninterrupted services and more efficient human resource allocation. There is a cost-saving as your team's time and energy are better utilized. A study published by Business Insider shows chatbots cut customer service costs up to 29% – 46%, depending on your business.

At the same time, opportunities for revenue increase as your agents shift their focus from reactive to proactive and jumping on opportunities for upsells or special offers. Chatbots can also automate up-sell and targeted promotions. As customer satisfaction (CSAT) grows, the benefits of greater customer retention will also be seen on the bottom line.

“

*Convince and Convert reports that 15% of American adults have used a chatbot last year; 37% see themselves using one to get a quick answer in an emergency.*



# Types of Chatbot



## Types of Chatbot

Chatbot software is broadly divided into two types: Decision-Tree and Natural Language Processing-based chatbots. Let's see what these two mean:



### Decision-Tree based Chatbots

Often also referred to as "Rule-Based" chatbots, these entail a set of rules and if/then dialog structure that drives visitor conversation to find answers to pointed questions. Allowing easy customization and setup, they have found popularity amongst the industry for excellent customer engagement.



### NLP-based chatbots

This type of AI bot leverages machine learning and context detection to provide visitors with accurate answers and a top-notch conversational experience. These are also a very sought after type of chatbots as they are continuously learning from their user interaction through natural language understanding, resulting in a reduction of manual intervention.

FEATURE	DECISION TREE CHATBOT	NATURAL LANGUAGE PROCESSING
FUNCTIONALITY	Keyword-driven	Context-driven
MECHANISM	Acts on manually created rules	Training from quality data
EASE OF SETUP	Quick to setup	Longer setup
SCALABILITY	Harder to scale as bots get complex	Easier to scale with as it learns continuously from user interaction
COST	Lower, especially for simpler bots	Higher
RESOURCE EFFICIENCY	Requires human intervention for logical tweaks	Requires heavy and quality initial training but easier to maintain in long run without human intervention
PERSONALIZED EXPERIENCE	Less personalized experience	More personalized experience



# How to Build a Chatbot?



## How to Build a Chatbot?

Chatbot applications have been demonstrated to not only boost customer service and customer satisfaction but also increase sales. Due to the growing demand, there are many chatbot builders available in the market today that can help businesses automate their customer service. The following instructions are designed to guide you to plan and build a customer service chatbot.



### **Determine the Goals of the Chatbot**

The most important step of implementing a chatbot for your organization entails understanding why you need one. The key is to identify a list of questions and queries that make up 80 percent of the volume of incoming inquiries.

Determine whether you want your chatbot to interpret questions very narrowly – deflecting fewer questions from the contact center but being highly precise – or broadly, creating a higher rate of deflection at the risk of answering incorrectly.



### **Evaluate and Choose a Support Channel**

Text-based chatbots can live on any communication channel. Whether that's a traditional mobile carrier channel (SMS), a messaging app (Facebook Messenger, WhatsApp), social media like Twitter, or Amazon Alexa, or a live chat widget embedded on a website or mobile app. Whichever channel you choose, the chatbot's capabilities are limited to what the channel offers.

Sometimes the right channel of communication opens up new perspectives for better customer service. One of the best practices is that the tone of the chatbot must remain constant across all channels.



## How to Build a Chatbot?



### **Apply the principles of Conversation Design**

Chatbots are about a continuous conversation workflow that allows for any number of responses between the chatbot and the customer. When compared to the user experience of mobile apps or websites, the messaging channel is story-based or flow-based, where all previous interactions are always visible to both parties.

This means the customer's queries and chatbot's responses can never be analyzed in isolation – they are always part of a larger conversation. What Information Design is to mobile apps and websites, Conversation Design is to designing chatbots.



### **Add Personality to your Chatbot**

When looking to implement chatbots, adding a touch of personality to the machine can take your customer's experience to a higher level. Ensure that your visitor has a bot experience that is similar to real-time interaction with a human agent. This leads to a memorable experience.

Making sure you design your bot to tap into your target audience is the most essential step of this process - must the chatbot be playful or should it have a more serious tone? Another way you can add personality to your bot is by including empathy and emotions in your responses or even just giving a familiar or catchy name to your bot.

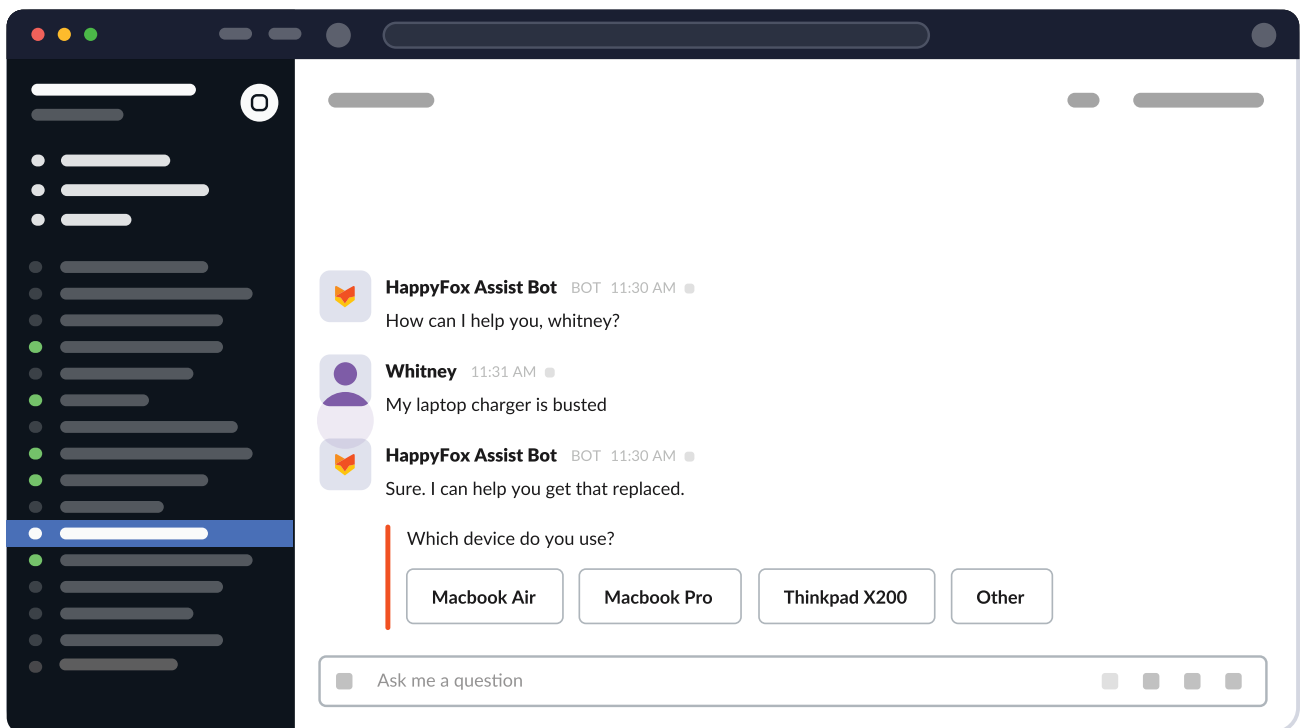


# How to Build a Chatbot?



## Design Chatbot Integrations

Integrations open up endless possibilities for the chatbot. If you are already using a self-service or help desk platform (web or voice), you may want to integrate it with the chatbot. Business communication platforms such as Microsoft Teams and Slack are also top-rated integrations with chatbots to ease customer service.



For example, if your CRM (Customer Relationship Management system like Salesforce) identifies your customer and provides order status information, then this information (via API calls) can add context to the customer's queries. Similarly, your chatbot can integrate with your help desk software to automatically create a ticket for unresolved queries.

Another popular chatbot integration is with meeting scheduling. The chatbot can collect the necessary information and schedule a meeting with the customer. Calendar invitations are sent to the respective parties and kept in sync.





# How to Build a Chatbot?



## Building a Chatbot for your Business

An interaction with a chatbot involves two stages:

- 1. Analysis of the user's request** – a computer program breaks down the incoming message to identify user intent and match it with relevant information or an action to be performed.
- 2. Respond to the input** – based on the previous analysis, appropriate action is taken and a response message is delivered to the user.

If you do not have an existing data set to train your chatbot, you are better off with the decision-tree based approach that also comes with templates and a drag-and-drop interface to create specific actions as per defined rules. The latter also allows you to retain more control over how a question is interpreted, which matters in customer service, as you want to minimize the probability of giving out a wrong answer.

If you selected a platform based on Machine Learning (ML) and deep learning, you will provide this platform with your example sentences for every possible customer intent. The more examples you provide, the better the ML algorithm will learn, and the better it will learn how to distinguish between different customer intents. This learning can be a continuous process. As more customers use the chatbot, their inputs can be fed to the machine learning algorithm for further improvement.

While both types of virtual assistants – Decision Tree and NLP-based chatbots have their advantages and disadvantages such as ease of setup, pricing, etc; the hybrid model seems to work for a majority of organizations. Most companies try to get up and running with the decision-tree based chatbots, often adding layers of conversational AI to their setup slowly. This enables businesses to use the best of both of these models, to their advantage - higher flexibility and speed but also breaking the linguistic barriers.



## How to Build a Chatbot?

A chatbot's responses can take the form of:

- **A static text**
- **Information retrieved from a knowledge base or other resource**
- **Link or reference to a page where a person could learn more**
- **Custom programmed actions. E.g. signing up for a newsletter, scheduling a meeting etc**



### **Iterate and Refine your Chatbot with Analytics**

Work on the chatbot is never fully complete. To get the most out of a chatbot, it is important to monitor customer queries and refine the chatbot's responses frequently. Typical revisions include rewording certain responses as you review follow-up clarification questions from your customers that wouldn't have been necessary if the bot's answer had been clearer. If you're using an NLP-based bot, lifelong feedback based continuous and interactive learning is an ongoing process.

You may need to add new use cases if the designed use cases do not cover the majority of customer requests. To ensure continuous customer satisfaction it is important to view the chatbot design as an iterative process: Gather data, review it, and apply it to your chatbot's design.

70% of customer queries are usually the same repetitive questions that can be easily handled and resolved by a chatbot.



# Analyzing Your Chatbot Data



## Analyzing Your Chatbot Data

The successful implementation of a chatbot rarely ends at going live. One of the most crucial steps to ensure your bot truly provides exceptional service to your customers is by continuously improving - Iterating and Refining. But how can enterprises make continuous improvements easier? By actively measuring the success of their chatbots.

Analyzing chatbot data not only helps in strategizing logical and tactical ways of improving messaging for the ultimate customer experience and forging deeper brand loyalty but also helps businesses understand their market better to grow their business.

Here are some of the top metrics that can help you understand your consumer base -



### Total Chats

Know exactly how many conversations your bot engages in with your visitors over a specific period – daily, weekly, monthly!



### Overall Rating

Get a snapshot of how your customers score your chatbot. This KPI gives you an average score of all the feedback ratings captured when a visitor interacts with your



### Top Issues

See what questions are your customers asking and use this information to develop your products and services.



### Hard Deflection

A tangible indicator of how helpful the chatbot is in providing service to your user without any human intervention.



# Key Factors to consider before choosing a Chatbot Platform



## Key Factors to consider before choosing a Chatbot Platform



### Chatbots Capabilities

Enterprises should look for the ability to deploy not only single-purpose chatbots, e.g. newsletter sign-up, meeting scheduling, etc., but also multi-purpose chatbots that can communicate with multiple systems and complete a variety of tasks like lead generation, customer support, answering FAQs, etc.



### Multiple Channel Support

Another key step in considering the right chatbot platform is to understand the channel you'd be interested in implementing your chatbot on. Some common channels where the bots can be deployed are websites, mobile apps, Slack, Facebook Messenger, Telegram, Skype, and other potential customer touchpoints.



### Natural Language Processing Support

NLP based chatbots can truly help enterprises move forward in leaps and bounds. One should look for AI Chatbot platforms like IBM's Watson Assistant and HappyFox Chatbot that support Natural Language Processing (NLP) to provide the best results in understanding the user intent and responding with the relevant information while also continuously learning on its own.



### A Ready-to-use Repository of Bots

A strong and powerful platform provides companies with a large and diverse collection of ready-to-use chatbots for common functionalities and templates, without the need to create one from scratch.



## Key Factors to consider before choosing a Chatbot Platform



### Ability to Integrate with other Platform

Integrations can help businesses increase the productivity and quality of their operations. The chatbot platform should offer the ability to integrate and exchange data with 3rd party systems - HappyFox HelpDesk, Salesforce, Slack, etc. This can enable fetching of useful information about the customer to serve them better. Also, any information collected during a bot interaction can be recorded to external services for future analysis.



### Industry Experience and Domain Knowledge

Lastly, we need to ensure that platform providers have considerable industry and domain knowledge. While there are several bot-building platforms out there offering a whole lot of features, enterprises need to identify which feature will matter to them. HappyFox is a leading Help Desk and Live Chat platform. HappyFox Help Desk has been rated as the best Help Desk platform for 5 years in a row.

“

*Chatbots cut customer service costs up to 29% – 46%*

– Business Insider



# Key Takeaways from this Guide





## Key Takeaways from this Guide

Chatbots are software programs designed to proactively engage with website visitors, providing them instant and accurate access to information about your products and services.

The benefits of using chatbots are manifold - increasing sales, generating leads, streamlining customer support, overcoming shopping cart abandonment, and can even automate various business process activities.

The best customer service set-ups are a hybrid of automated solutions with personal human interactions. From the customer's perspective, the journey is a smooth series of easy-to-use questions and responses with easy-to-access off-ramps to jump to a real person.

**HappyFox Chatbot** makes it incredibly easy to launch a fully custom chatbot solution personalized to your unique business needs. **Talk to our Product Specialists** to learn more about our unique product offering.



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