**CHAT BOT PPT**

**EXISTING SYSTEM :**

Dialog flow : A Google-owned chatbot development platform that allows you to create conversational interfaces for websites, apps, and other platforms.

IBM Watson Assistant: IBM Watson Assistant is an AI-powered chatbot platform that allows you to build and deploy chatbots across multiple channels.

Microsoft Bot Framework: A platform for building and deploying chatbots that integrates with various platforms and services such as Skype, Slack, Facebook Messenger, and more.

Amazon Lex: A chatbot development platform that uses natural language processing and machine learning to enable conversational interfaces for chatbots.

Bot press : An open-source platform for building chatbots that provides a wide range of features, including a visual flow builder, AI integration, and analytics.

Rasa: An open-source chatbot development platform that provides advanced natural language understanding capabilities and allows you to build and train custom machine learning models for your chatbot.

1.Not identifying the customer’s use case

A chatbot may not be a one-size-fits-all solution for every business. Businesses often make the mistake of choosing the wrong type of chatbot without considering their needs and use case. In these cases, the chatbot does not prove to be advantageous to the business, causes repeated dead-ends for customers, and results in hemorrhaged money.

You can fix it by carefully choosing the right kind of chatbot after understanding what your use case and business requirements are. This way, you can extract the maximum value from the implemented solution.

2. Not understanding customer emotion and intent

It is as important to express empathy via conversational AI to customers as it is to solve their problems. Users may be approaching the chatbot in a frustrated state, so when the chatbot fails to understand the customer queries, the situation is bound to get worse.

While it is not possible yet to train bots to understand and act on human emotions, you can fix it by laying out and clearing labeling intents using stronger decision-trees or machine learning (ML), Natural Language Understanding, and Natural Language Processing (NLP). This way, you can come as close as possible to interpreting the customer’s emotions and requests.

3. The chatbot lacks transparency

Bot failure and customer frustration are often brought about by not making it clear to a customer that they are interacting with a bot and not a human agent. This can skew customer expectations and cause a poor user experience.

You can fix it by being transparent about using a bot. It can be indicated at the beginning of the chat script along with the assurance that they have the option of switching to a human conversation if they want to. This way, the customer is aware of who they are conversing with and your business will see higher retention.

4. When customers prefer human agents

Chatbots are making great advancements and we are more and more likely to use them. However, most of us still feel most comfortable with human agents over a bot. 54% of US customers [choose to communicate more with human customer support agents](https://blog.qatestlab.com/2018/05/16/artificial-intelligence-adoption/) than with chatbots.

You can fix it by redirecting customers to a human agent when required. While chatbots reduce the load on the customer service agents by answering FAQs, it is vital to provide the option for human intervention. This way, customers will feel more at ease knowing that human help is just a click away.

5. Not able to address personalized customer issues

Chatbots are mostly trained to answer customer FAQs and function based on what information they have been provided using artificial intelligence (AI) and ML. But they are often at a loss when it comes to resolving specific personalized queries.

You can fix it by giving the bot additional training to provide specific answers. This would require regular upkeep and human intervention to identify and understand what the users need, leading to happier and satisfied customers.

6. Lacking data collection and analysis functions

One major reason why chatbots fail is that we forget to regularly analyze them to improve their functioning. The work is not done once it’s launched.

You can fix it by scheduling regular check-ins to see how the chatbot is performing. First-generation bots need to be worked on. Collecting data and matching it against success metrics can help improve conversation flow, customer satisfaction, and the overall effectiveness of this relatively new technology.

7. Not aligning with the brand

Often, the chatbot’s look and conversational personality do not match that of the brand. This can make the customers feel disconnected from the business and ultimately lead to a bad customer experience.

You can fix this by crafting a script and looking for a chatbot that aligns with the brand. This can be achieved by understanding what customers expect, charting out your brand persona, and using appropriate phrases and media elements.

**The workflow of a chatbot generally consists of the following steps:**

Understanding user input: The chatbot receives input from the user in the form of text or voice. The first step of the workflow is to understand the user's intent and extract relevant information from their input.

Processing user input: Once the chatbot has understood the user's intent and extracted relevant information, it processes this information and determines the appropriate response.

Generating response: The chatbot generates a response based on the information it has processed. This response can be in the form of text, voice, images, or other media.

Delivering response: The chatbot delivers the response to the user via the platform or channel it is integrated with. This could be a messaging app, a website, or a voice assistant.

Learning and improving: As the chatbot interacts with more users, it collects data that can be used to improve its performance. This data can be used to train machine learning models that enable the chatbot to better understand user intent and provide more accurate responses.

**Algorithm :**

Chat Bot Algorithm which is been utilized in this project has been developed by Michael Maudlin in 1994 and was first published in the book Julia. He had developed this algorithm for the creation of verbot which was first AI based Chatterbot. - So when user submits its Question, we store that in a variable "query" - After that we bring all the main keywords from question table of the database. - and check if "query" contains any of the main keywords in it. - If No then we say no answer found. - If Yes then we bring all sub-keyword with its answer of that matching Main-keyword. - then we pass "query" through 4 kewyord check procedure \*\* 4 Keyword check is checking all the 4 sub-keywords are in "query" Code : if(strpos($query,$k1) !== false && strpos($query,$k2) !== false && strpos($query,$k3) !== false && strpos($query,$k4) !== false) - If any of the entry matches the keyword then we take its answer and then submit it to the user. - If it does not match then we pass "query" through 3-keyword match algo. International Journal of Engineering Research and General Science Volume 5, Issue 2, March-April, 2017 ISSN 2091-2730 136 www.ijergs.org - If it and so on for 2 and 1 keyword match. - And if we still don't get the output we say No Answer Found

**Lack of Understanding**: Chatbots may fail to understand user queries due to limitations in their natural language processing algorithms. This can lead to frustration for the user, as they may have to repeat their query multiple times or may not receive a relevant response.

**Limited Functionality:** Chatbots may be limited in their capabilities, particularly if they are designed for a specific use case. Users may become frustrated if the chatbot cannot perform the functions they need it to.

**Inflexible Conversation Flow:** Chatbots may follow a fixed conversation flow, which can feel robotic and unnatural to the user. This can make it difficult for the user to communicate effectively with the chatbot.

**Lack of Personalization:** Chatbots may not be able to personalize the user experience, which can lead to a sense of disconnection and lack of engagement. Personalization can include aspects such as using the user's name or providing tailored responses based on their previous interactions.

**Integration Issues:** Chatbots may not integrate seamlessly with the platform or channel they are designed for, leading to technical difficulties or confusion for the user.

**Data Privacy:** Chatbots may collect user data, and users may be concerned about the privacy and security of their information. Chatbot systems should ensure that user data is collected, stored, and used in accordance with relevant data protection regulations.

ALGORITHM:

START

User sends a message or speaks a command

-> Chatbot receives the message and begins processing

IF message is a greeting or introduction

-> Chatbot responds with a greeting or introduction message

ELSE IF message contains a question or request

-> Chatbot analyzes the message and extracts relevant information

-> Chatbot generates a response based on the extracted information

ELSE IF message is a command

-> Chatbot performs the requested action (e.g. booking a table, checking an account balance, etc.)

ELSE

-> Chatbot responds with a message indicating that it does not understand the user's input

-> Chatbot sends the response to the user via the platform or channel it is integrated with

-> Chatbot logs the interaction for analysis and improvement

-> Workflow loops back to start

END