

ChitChat

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Abstract:-

Multimedia bot is an effective mini communication device helps to interact between the user and the bot. It records the previous conversations to help user give a better answers and upgrading itself too. Multimedia bots were designed by the idea of giving answers and interacting with users in a friendly manner that is (friendly bot) satisfying their needs either by chat or by voice.

In recent years, Multimedia bot has got immense popularity due to their ability to give or work according to users needs. This type of bots can be used in different sector according to their working abilities. Hereby with this research we look and explore the history of multimedia bot, their applications, challenges faced by the people by building or developing it. We also propose a methodology and system framework for designing and developing effective chatbots, and highlight some of the latest research and trends in the field.

Keywords:- Multimedia Bot, previous conversations, interactions, ability to work, methodology, system framework, effective development, research and trends.

I) Introduction:-

Multimedia Bots are a computer designed bots implemented by humans. They have the ability to talk and speech through text and voice to help user find what they are finding about. In the 1993 first edition of *Multimedia: Making It Work*, Tay Vaughan declared "Multimedia is any combination of text, graphic art, sound, animation, and video that is delivered by computer. A lot of technologies have emerged but this is something else. It's a user friendly device that helps user providing the answers making things easy for user and completing their task in a simplest of manner. There have had a lot of problems faced by people who were building it. Since it is AI (Artificial Intelligence). It should be able to recognize what the user requires from it, it cannot generate random answer. It should not be a weak AI, it should be strong enough AI to recognize what the user wants from it. It should be well trained bot, it should generate answers according to questions. The data is trained using machine learning and NLP. Dataset should be embed to bot to recognize question.

Main aim should be that the bot should be able to understand the language of user to give accurate

answers. The development of Multimedia Bot requires the knowledge of programming languages, that code the bot in python and then to make visible the answers on website it requires html, css and javascript for a simple bot. This advanced type of bot in the era provide such an accurate answers that there is no difference between bot and user as such both are talking as person to person. It should be that advanced that if in case user is not able to search for specific keyword it should provide it. The voice can referred to as a alexa type machine that we can any question and can expect it give accurate responses. It can even share knowledge and emotion as it a part of communication. It should not be limited to answer. It can give infinite response to the question. The main idea is not build a bot the aim is to create a bot that functions well and satisfies users questions.

II) Literature survey:-

Research on Chatbot has prime focus on their development and how it is implemented. Several studies has been made according to their use in different sectors.

For example ,

A) Amtrak , an IT company made a bot for customers feedback, their chat system was next IT, and they named the bot 'Ask Julie', it provided the customers with best suggestions.

<https://www.amtrak.com/home>, in 2012.

B) Anymail finder, its an online company , they made a bot which can give cutomers answers to any of their queries within seconds. Their chat system was Intercom,

And they named the bot 'Operator Bot'.

Upscope blog in 2017.

C) Rapid Miner , an IT company made a bot that would filter the question give optimized answers to the users, their chat system was Drift, and they named the bot 'Lead Bot'.

<https://rapidminer.com/>

D) Mongoddb , an IT company made a bot for customers that infinity communicate with customers, their chat system was Drift. Earlier the company was only able to answer finite questions but with the help of mongoddb they made it infinite queries.

<https://www.mongodb.com/>

III)Proposed methodology:-

A)_Define the Multimedia Bot's purpose and scope of use:-

The main purpose of the bot is that it should be able to answer to the questions of users either in a text or voice in a friendly manner. It should be abl to understand the language of the user in order to give accurate answers to the particular questions. It should not give random answers. It a specialized bot very handy and useful to the users. Its an advanced bot and can be very useful for coming generations.

B)_Identify the target audience and their needs:-

The can answer variety of question , but it should be according to the audience, such as children , adults, men, women, old people such as age categorization. The problems and their solutions can be different depending on the age group. Such children would ask about cartoons , adult can ask about practicals and assignment questions, men can

ask about job opportunities where to apply and the requirements, they may also ask for tourist spots and etc. women can ask about shopping markets and beauty products. Old people can ask about fitness and health tips and to be happy etc. All age people have different requirements to their solutions. Our bot should be able answer all the queries.

C) Develop a persona for the chatbot and create a conversational flow:-

Persona is imaginary character that acts like a bot. It is the design of the bot, that how it should look, color scheme and all the styling part. It makes a bot more a user friendly kind that is user thinks that he is talking with another person only. It's a humanized bot.

Conversational flow is how friendly is bot being to user. The communication used good between bot and the user. We can create a healthy atmosphere between the bot and user so that the user does not feel dejected. By creating

Conversational flow we can create a engaging atmosphere.

D) Choose the appropriate platform and development tools:-

The choice of platform depend on the project and on various aspects such as budget, development team, how much data we have. We categorize them as:-

1) **Platform:-** There are many platforms where we can use our bot such whatsapp messenger, facebook messenger, Instagram messenger, discord, telegram. We need target the platform according to user's choices.

2) **Development tools:-** The bot can be developed using chatfuel, vscode, Jupiter, we need take care how much does each platform cost. We cannot extend our budget due to that, since many platform cost is very high.

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While creating we also need to upon ml and nlp, that is dataset and the language.

E) Train the chatbot using machine learning algorithms and natural language processing.

However for an engaging chat with bot, the first we should keep in mind is to train the bot. The bots can be trained using the already existing dataset that is csv file or we can manually create the data. If we want to create a simple bot we can take simpler rather than a complex dataset. Such as a bot for only greeting that would interact with only 'hi', 'hello' etc. If we want a complex bot to answer all the queries then we would require a larger dataset and we need to train. Training can be done in two ways, machine learning algorithm and natural processing language. It can be limited to rule or can be conventional to the user. We can train clusters of dataset, more the dataset wide will be range of answers that will given by the bot. Sometimes creating huge datasets can create confusion so we can instead choose a csv file for convenient practicing.

F) Test and evaluate the chatbot's performance and make necessary improvements.

Next, comes an important task that is testing because it determines the quality of our bot. Testing can be multiple times to be risk free. More the testing more will be ensured about the performance of the bot. We can run various scenarios to test it

such greetings, news content, games played across nations and check whether the user gets the answer that he wants. If we get some incorrect answer then we need to analyse the mistakes in system and correct so that the bot provides accurate enough answers. The bot used able to understand the language of user and provide answer in the same language too. Filtration of the bot should be done in regular intervals so that the bot does not give errors to the user

One more important thing is the feedback. Feedback is very important from the developers perspective. Users should be able to give feedback and let us know that they are facing any problem or not. If facing any kind issues we will fix them at ease for them. We can make necessary improvements so that the customers need are satisfied.

IV) System Framework:-

Our proposed system framework includes the following components:

A) User Interface:- It is the design of the bot. Can be termed as communication of user with the bot. The interface can be made in a very effective manner that the user might think to talk with the bot more than frequent.

B) Natural processing language:- The bot should be able to understand the language of the user so that it can provide the answers the language the user wants the bot to tell. It's the understanding between the user and the bot.

Healthy relationship means they talk quite often.

C) Machine learning algorithm:- In this we train the dataset required for the bot.

We train the bot in clusters of dataset so that it is able to answer in situation and any answer asked by the user. It is used to improve the performance of chat by regular testing.

D) Knowledge base:- The bot should be able to answer variety of questions. It should not say not found. It should be able to answer all queries asked by the user. It should have ample knowledge of answers. It should provide accurate answers from its dataset that is it should have well managed and trained data.

E) Analytics:- It analyses the communication between user and the bot. Friendly atmosphere should be created for safe feel.

V) Conclusion:

Multimedia Bots will be widely used technology in the new or the upcoming era due to its ability to satisfy users' needs for their questions through text or by voice. They will be very useful for the human race. It can offer user support with very ease by answering their question making them happy. They target all types of audiences and clear their doubts. Provides best user experience. By following the technologies it can become more advanced and with a good interface it creates a user friendly atmosphere to make them feel motivated.

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