A Survey of Chatbot creation tools for non-coder

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Chatbot is a natural language conversation which is considered a major revolution in customer service automation. Chatbot is an application of artificial intelligence that has a big role in saving time and effort by automating different aspect of human life. AI framework has several tools that help the non-coder to develop the Chabot for the organization. The Chatbot becomes good solution for many organizations to communicate with their customers and to increase their productivity by serving the customers for 24x7. This will help the organization to achieve customer services with low cost. This paper give glimpses on different AI framework tools, a survey is conducted to facilitate the non-coder to select the tools from the array of open source and proprietary tools. There are a lot of open source tools, each one has different features. Additionally, some of them are useful for coder and others do not require any coding experience also they are capable to be used in different devices with different operating systems. The flexibility that is within using tools to develop the Chatbot without coding knowledge and integrated in different platform is attractive concept for each one. Thereby this survey will help the non-coder to develop the Chabot without undergoing to learn the programming aspect of developing the Chatbot

1. Introduction

The modern technology is one of the main factors that develop all life aspects. Artificial Intelligence is one of the best current techniques that has big role in facilitating the live for humans begins. Artificial Intelligence is " the sciences of making machines do things that would require intelligence if done by men"[1]. In 1956 term of Artificial Intelligence was produced by John McCarthy. In addition, WABOT-1 was the first intelligent humanoid robot and that was for solving the mathematical problems and geometrical theorems and was found in Japan in 1972. Furthermore, Artificial Intelligence applications are used in daily life for example using AI in transportation so AI autopilots is an example of that, using AI in Email as an example for that is spam filters, grading and assessment for instance robo readers and use AI in banking as mobile check deposits. In addition, communication is conceder as fundamental part of our daily lives and there are many ways to communicate for instance by using sign language, facial expressions and natural language. Moreover, natural language is part of Artificial Intelligence that clarifies the way that human and computer can interact with each other and it will has the ability to bridging the gap between human communication and digital data. In addition to that the machine learning is branch of artificial intelligence which means "field of study that gives computers the ability to learn without begin explicitly programmed".

2. Chatbot: Definition, Benefits and Challenges

A. Definition

The current generation for the customer service is through AI technology. One of the applications of AI technology is chatbots. Chats are client server based applications that uses AI technology & natural language processing to communicate with user replacing humans. It is more like virtual assistant to respond to the customer queries or information. A well-defined chatbot should

understand customer questions as they ask in natural language. The chatbot should match asked by the customer and analyze the correct answers to the question based on its learning and understanding. The machine learning the context and selecting the better answer from those questions in future.

B. Benefits:

The current generation needs information on their finger tips and quick responds to their needs. The organization needs to improve the customer experience. As the customer expect immediate and accurate this may not be possible all the time from the human. Because of this reason the organization needs to adopt the chatbots. The organization in order to increase should move their customer's interaction to Chatbots. This will provide the following benefits

1. Increase their user access to information there by high conversion rate of visitors.
2. Chatbot provide perfect answer to the customer question even high number users.
3. Chatbots are AI base as they work round clock interacting with the user i.e 24x7 this will help the customer to get information anytime.
4. The chatbots are integrated with social media messenger and website there by easy access to the user.

C. Challenges

Currently the developer of the chatbots facing challenges related to design and technical challenges. As the developer may be a coder or non-coder. The developer may end up creating irrelevant use cases; too many functions in one Chatbot and Chatbot lack of have human escalation. The technical challenges, non-coder lack good knowledge of NLP, The chosen tool should have a good NLP technique. The user can reframe the same question in hundreds of different ways. There may be multiple themes in the same sentences of user questions. That may technically challenge to search for the right match.

3. Tools to Develop Chatbot

Currently there are many numbers of tools available in the market to develop the chatbot. For a coder or non-coder it is very important to choose the right tools to develop the chatbot in order to release for their organization. We conducted the survey on the tools for creation chatbot for non-coder and we found that each tool has different features. The tool that we survey based on Open source and proprietary. Most of the tools provide common functionalities to develop chatbot without any skills in programming language. But for some strong functions the developer needs better tool that could be a proprietary and pay specific amount of money. Here we have listed the most commonly used chatbot development tool as development platforms for specific or custom chatbots. The commonly used tools for non-coder are IBM Watson assistant Microsoft Bot Framework, Botsify, , chattyPeople, verloop and amazon lex. All of them are providing essential functions to start so that developer can try the tools without need for high level functions.

4. Sample survey of chatbot tools

The following descriptions shows our sample survey of tools for non-coder based on open source and proprietary in order to choose the right tool based on the functionalities, features and supported platforms.

Tool Name: IBM Watson

Features: Anyone can build. Powered by natural language understanding. Connect to anything.

Deploy Anywhere.

OS supported: Windows & Android

Devices: Smart Phone and Desktop PC

Presentation Platform: Website and Messenger

Open Source or Proprietary : Proprietary

Tool Name: Microsoft Bot Framework

Features: Skype Bots, Bots on Bing, Bots for Teams Skype for business bots, Bot smarts, Language understanding, Payment request API, Analytic

OS supported: Windows

Devices: Smart Phone and Desktop PC

Presentation Platform: Website and Messenger-Skype

Open Source or Proprietary : Proprietary

Tool Name: Amazon lex

Features: High quality speech recognition And natural language Understanding. Multi-turn conversations. Connect to Enterprise Systems. Building conversational interfaces Into any application using voice And text. Available to any Developer. Quickly

OS supported: Windows & Android

Devices: Smart Phone and Desktop PC

Presentation Platform: Website and Messenger-FB

Open Source or Proprietary: Proprietary

Tool Name: Api.ai

Features: User friendly, Cross platform Multilingual support and high Performance

OS supported: Windows & Android

Devices: Smart Phone and Desktop PC

Presentation Platform: Website and Messenger

Open Source or Proprietary: Open source

A survey of AI framework tools has been conducted to differentiate between the open source and paid tools. We found out that the Watson Assistant is the best tool due to IBM cloud provide very helpful online course that teach the developer all required functions to create perfect chatbot. Watson tool is very popular at the moment. There are several areas that chatbot used in for example enterprise business application , healthcare, life sciences, tech support , customer support services and government and education sector. At the moment, it is easy and anyone can use it.

Watson tool have many features including it can powered by natural language understanding, it can understand language and intent of user, anyone can build it, used without any coding. It is capable to be used in any device with any operating system and it almost used for all domains. Finally you will be able to in integrate it in any websites or application.

Conclusion

It is easy for the non-coder to create a chatbot through the AI framework tool. The non-coder has to choose the right tool according his requirement and level of functionalities. As per our survey we found out that IBM Watson Assistant is most popular tool for the non-coder.

Acknowledgements

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