INTERNATIONAL JOURNAL OF ADVANCE RESEARCH, IDEAS AND INNOVATIONS IN TECHNOLOGY

ISSN: 2454-132X
Impact factor: 4.295
(Volume 5, Issue 6)
Available online at: www.ijariit.com

Chatbot for college using Google Actions

Ayushi Turkar
turkarayushi@gmail.com
Vidyavardhaka College of Engineering, Mysore, Karnataka

Bhuvana K.
bhuvanak703@gmail.com
Vidyavardhaka College of Engineering, Mysore, Karnataka

Zeba Ali
zebaali789@gmail.com
Vidyavardhaka College of Engineering, Mysore, Karnataka

Syeda Ameena Kouser
syedaameenakouser786@gmail.com
Vidyavardhaka College of Engineering, Mysore, Karnataka

Ravi P.
ravip@vvce.ac.in
Vidyavardhaka College of Engineering, Mysore, Karnataka

ABSTRACT

The project Chatbot for college using Google Actions is a mobile application that presents a solution to the query of the users. Users just must question the bot and Chatbot will answer users' queries. Students can ask questions about the usage of any English textual content or Voice. There is not any precise layout, the consumer has to follow. The System uses AI to answer the query supplied via Google moves for the student questions. The gadget replies using a powerful technique which is a Graphical User Interface which implies that as if an actual character is speaking to the person.

Keywords— *Google Actions, Artificial Intelligence, Machine Learning, Dialog Flow, Query*

1. INTRODUCTION

Chatbot for college answers to student question that is related to college. The first bot analyzes a person's queries and apprehend user's message, primarily based on bot know-how bot provide answers to the queries of the students. Students will just have to select the class for the branch queries and then ask the questions to the bot in order to be used for chatting. Student can question related to admission, faculty details, fees structure and so on. Student gained must visit the university to make the enquiry. If any new candidate enquirers for admission and the information about any branch of the college this bot will assist to get the answer of a query of the candidate and even as getting the solution the bot will study out the solution to the candidate.

2. RELATED WORK

Vera [1] Have used log data from a subject deployment of a question and answer conversational agents, signify the wealthy kinds of conversational interactions users had with the agent. The wealthy alerts in conversational interactions for inferring user pride, which may be applied to expand agents that can adapt algorithmic performances and interaction styles.

Dahiya [2] implemented using pattern comparing, in which the order of the sentence is recognized and a saved response pattern is acclimatizing to the exclusive variables of the sentence.

Vera [3] AIML is used, which is an XML based language and can be used for interaction between chatbot and humans. The basic unit in AIML is the class whose attributes square measure pattern and example. We have tried to implement a website specific information system to deliver an answer to commonly asked queries in University settings.

Harsh [4] has proposed 2 modules online enquiry and online chatbot. in online enquiry, a student can enquire about faculty and placement related activities. In online chatbot, the result can be shown in images, card format.

Guru [5] has implemented automatic response to query asked by students using AI and ML. it extracts for a proper keyword from the query and produces the response if the data is not available in static database it fetches data from an online source.

Tarun [6] in this system will help the student to be updated about college-related activities. It replies using effective GUI which implies as a real person is talking. Its architecture integrates language models and conversational algorithms to emulate information online communication between humans and computers. It also provides a user with proper links to the queries. DB storage includes information about questions, answers, keywords and logs.

Bayu [7] the author proposes that the systems are approaching human activities such as decision support systems, robotics, natural language processing, expert systems.

Bayan [8] the author says that a chatbot system is to simulate a human conversation, the chatbot architecture integrates a language model & computational algorithm for emulating

informal chat communication between a human & a computer using natural language.

S.J.du Preez [9] the writer says that communication is an assimilation of records wherein you can actually create variations & similarities throughout communique length.

Sameera [10] Chatbot layout strategies in communication between the human and the laptop are supplied

[11] This chatbot stores information about exam time tables and upcoming events in the college database. This chatbot uses NLP and Python language. To store information MySQL database is used and by NLP the AI bot understands the message sent by the user and replies to that with the matched key value. The first user needs to login using the college roll number. When the pattern matching is done, and the information gets retrieved from the database updated.

Anjana [12] Dialog generation using machine learning and artificial intelligence is important in natural language processing. This project uses Google's Neural Machine Translation (NMT) Model, this is basically a sequence to sequence model which has encoder and decoder. Where these encoding and decoding architecture will use recurrent Neural Network with bi-directional LSTM.

Sorna [13] This chatbot is built for library resources; it helps students to access the university library inconvenient way without going to the library. This facility is provided to students in such a way that they can be connected with the library anytime and from anywhere. Chatbot uses Dialog flow and also integrated with Facebook messenger which can reach through laptops and mobile phones.

T. Mounika [14] Chatbot is a software agent activated by natural language input. They perform tasks as instructed by the user. As Chatbot was developed long back now it has become easy to train and implement. The chatbot is helpful in spreading rumors or attack people in posting their thoughts online. In this paper quality assessment, approaches are reviewed and AHP is proposed

Ram G Athreya [15] The writer says that the DBPEDIA CHATBOT has been utilized by over 1400 customers with an average verbal exchange duration of sixteen messages. These statistics suggest that there's a real hobby for customers to interact with the DBPEDIA CHATBOT the bot becomes designed for integration into a network software program to facilitate the answering of recurrent questions. Four essential demanding situations have been addressed when building the Chatbot, particularly, expertise user queries, fetching applicable information based on the queries, (three) tailoring the responses based at the standards of each output platform (i.e. Web, Slack, Facebook) in addition to growing next person interactions with the DBPEDIA CHATBOT

Merav [16] The author says that Chatbot has been a core measure of AI since Turing has presented his test for intelligence, and are also widely used for entertainment purposes. He presents a method of collectively detecting malicious users and using the commands taught by these users to further mitigate the activity of future malicious users.

Edwin [17] In this paper, the author Edwin Friesen discusses the vision of OTF computing which enables end-users to describe their software needs. CORDULA detects and compensates deficits in UR by means of predefined strategies and is effective in case of occurring lexical ambiguity and incompleteness in UR.

Varvara [18] In this paper, the author Varvara Logacheva converses the first Conversational Intelligence Challenge (ConAI) which aimed at evaluating the performance of the chatbox system. And, we acquired a dataset of human-to-bot conversations as a byproduct of this evaluation.

The human evaluation round unraveled problems with the evaluation process, flaws of dialogue-level evaluation and the uselessness of contexts

Honghao WEI [19] The author aims at the venture targets at generating dialogues now not most effective appropriate at content degree, however additionally containing precise feelings. To tag emotion categories, we follow sentimental analysis at the dataset and pick up speak with strong emotion

Francesco [20] he fundamental intention of this paper is to describe a software module prototype, referred to as workflow manager, who is answerable for the control of the float of communication between a Chatbot and a consumer, applied at a real case

3. LITERATURE SURVEY

Table 1 states the detailed literature survey.

Table 1: Literature Survey

S. NO.	TITLE	AUTHOR	METHOD	PARAMETERS	JOURNAL
1	A Tool of Conversation: Chatbot	M. Dahiya	Chatbots are referred to as virtual assistants. It is a rudimentary form of artificial intelligence software that can mimic human conversation.	Chatbot, Communication, Pattern Matching, Request, Response.	JCSE
2	An Intelligent Web-based Voice Chatbot	S. J. du Preez1, M. Lall2, S. Sinha3	Using the modular design for all its components a distributed environment facilitating the transparent and high performance of the overall system has been created.	AI, XML, JAVA, AIML, ALICE	IEEE-2009
3	An Intelligent Behaviour Shown by Chatbot System	Vibhor Sharma, Monika Goyal, Drishti Malik	ELIZA helped us understand how reframing the questions will make the conversations more human-like. ALICE helped us understand how we can make use of AIML in our system.	AIML, artificial intelligence, chatbot, natural language processing, Turing Test	IJNTR-2017
4	All Work and no Play? Conversations with a Question-and-	Vera Liao1, Muhammed Mas-ud Hussain.	By studying log data from a field deployment of a question and answer conversational agent, we characterize the	Conversational agent; chatbot; dialog system; human-agent	ACM-2018

	Answer Chatbot in the Wild		rich forms of conversational interactions users had with the agent.	interaction; playful; adaption; user modeling	
5	Chatbot Using Gated End-to-End Memory Networks	Jincy Susan Thomas, Seena Thomas	Proposed an attempt of incorporating an iterative memory access control to an end-to-end trainable memory enhanced neural network architecture. It showed the advantage of dynamic regulation of memory interaction, but it is still a lack in some areas.	Intelligent, natural language, rule-based, gated end-to-end memory networks, supervision, dialogue system	IRJET-2018
6	College Enquiry Chatbot Using Knowledge in Database	Harsh Pawar, Pranav Prabhu, Ajay Yadav	The Development of this chatbot is done using Microsoft bot framework, which is using Microsoft cognitive service	Microsoft Bot Builder, Luis.ai., Microsoft Bot Emulator, Mongo DB	IJRASET-2018
7	Chatbot for the education system	Guruswami Hiremath, Aishwarya Hajare	Automatic response giving system which will give a reply to the student's questions. The use of artificial intelligence and machine learning is used for implementing this system	Pattern Matching, NLP, Machine learning, Response generation.	IJARIIT-2018
8	Implementation of a ChatBot System using AI and NLP	Tarun Lalwani, Shashank Bhalotia, Ashish Pal,	It is often impossible to get all the data on a single interface without the complications of going through multiple forms and windows	Artificial intelligence, chatbot, knowledgebase, lemmatization, natural language processing,	IJIRCST-2018
9	Chatbot Using A Knowledge in Database	Bayu Setiaji, Ferry Wahyu Wibowo	The chatbot consists of core and interface that is accessing that core in relational database management systems (RDBMS).	bigram; chatbot; database; sentence; similarity	IEEE-2016
10	A Chatbot for Psychiatric Counseling in Mental Health Care	K. J. Oh, D. Lee, B. Ko, and H. J. Choi	Emotional changes have been observed sensitively and the ethical judgment model gives a suitable response to clinical psychiatric counseling. In this NLU is used.	Employee welfare, emotion recognition, medical services, NLP, analytical models, monitoring.	IEEE-2017
11	AI-Based Student Bot for Academic Information System using Machine Learning	Vijayakumar R, Bhuvaneshwari B, Adith S, Deepika M	Artificial intelligence (AI) is the simulation of human intelligence processes by machines, especially computer systems. AIML is one of the most commonly used algorithms for artificial intelligence in NLP processing.	NLP, AI, Chatbot, MySQL	IJSRCSEIT-2019
12	Intelligent Chatbot using deep Learning	Anjana Tiha	Google's Neural Machine Translation (GNMT) module is used for building dialogue generator	Deep Neural Network (DNN) and Deep Reinforcement Learning DRL), GNMT	Spring, 2018
13	Hexabot: A Text-Based Assistive Chatbot To Explore Library Resources	Sorna Shanthi D., Keerthana S.	The Library Chatbot is built using the intelligence that analyses user requests and responds accordingly. Dialogflow is used as a platform to build user queries and responses.	Artificial intelligence, neural network, dialog flow, Facebook messenger	IJEAT-2019
14	Chatbot-Intelligent Conversational Agents	T.Mounika, Akshita Sangam, Shivani Lakhane	Chatbot systems that originated with programs like ELIZA were intended to demonstrate the NL conversation with a computer. The system passes the Turing Test.	intelligent agents, usability, quality attributes, Analytic Hierarchy Process (AHP), conversational agents	JASE-2019
15	Enhancing Community Interactions with Data-Driven Chatbots – The DBpedia Chatbot	Ram G Athreya Axel-Cyrille Ngonga Ngomo	Growing domain-specific communities (e.g.,DBpedia community)are often characterized by new users asking previously answered questions upon joining the community.	DBpedia, chatbot, knowledgebase, question answering	IW3C2-2018
16	"Did I Say Something Wrong?": Towards a Safe Collaborative Chatbot	Merav Chkroun Amos Azaria	Safebot is a collaborative chatbot that learns its responses directly from its users and allows them to detect responses injected by malicious users. Safebot uses data from users tagged as malicious to improve its likelihood to detect malicious users in future interactions.	Safebot, AI, NLP	Association for the Advancement of Ar-ti_cial Intelligence-2018
17	CORDULA: Software Requirements Extraction Utilizing Chatbot as Communication Interface	Edwin Friesen, Frederik S. Baumer	unidirectional compensation approach CORDULA (Compensation of Requirements Descriptions Using Linguistic Analysis) [BG18] application in OTF computing is able to detect and compensate deficits in UR by means of predefined strategies and indicators [BG18] but does not support the interaction with end-users.	OTF, CORDULA, RESI	IEEE-2018
18	A Dataset of Topic-Oriented Human-to-Chatbot	Varvara Logacheva Mikhail Burtsev Valentin Malykh	Conversational Intelligence Challenge (ConvAI) aimed at evaluating the performance of chatbot systems. The	ConvAI, SQuAD dataset	IEEE-2018

	Dialogues		development of dialogue systems is hampered by the inability to evaluate them automatically.		
19	Building Chatbot with Emotions	Honghao WEI, Yiwei Zhao	The token ratio for unigrams and bigrams in generated response, as evaluation for our model. train a recurrent neural network to predict the sentiment category with labeled data from Live Journal.	Perplexity, BLEU	Copyright-2018
20	A Conversational Workflow Model for Chatbot	Francesco Colace, Francesco Pascale	The initial purpose has focused on the design of the specific model to manage communication and propose the most suitable tires for users. For this aim, it has been used the Petri Net.	Petri Net, AI	SEKE2017-2018

4. SYSTEM DESIGN

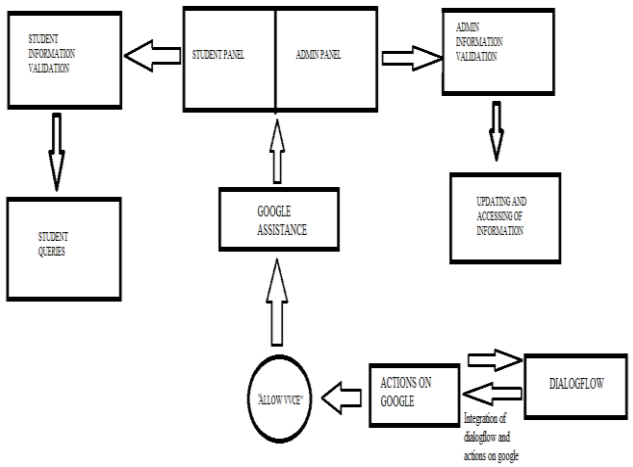

Fig. 1: System Design

5. PROPOSED METHODOLOGY

The proposed system will have the following modules:

5.1 Online Enquiry

- Student enquires about college and questions related to tests.
- Students can also ask questions about placement activities.

5.2 Online Chatbot

- The end result can be displayed in pics and cards format
- The query will be replied on the basis of the question asks upil.
- Users need not ask admission-related questions in the office.
- and language version built-in LUIS and responses keep.
- The first sort of customers will college p*System Architecture*

In this system, actions on Google are used which is nothing but a platform for development for the Google Assistant. It allows the third-party development of "Actions", applets for the Google Assistant that provides extended functionality.

6. CONCLUSION

The Development of this chatbot is done using actions on Google. Training language model that is employed to spot the intent of the user associates degreed fetch an applicable response. The user can ask the query in any format and get an appropriate response on the basis of the pattern matching algorithm in AI. It is typically not possible to induce all the information on one interface while not the complications of probing multiple forms and windows. The college chatbot aims to remove this difficulty by providing a common and user-friendly interface to solve queries of college students and teachers. The purpose of a talk larva system is to simulate a personality's conversation. Its design integrates a language model and procedure algorithmic rule to emulate data on-line communication between a personality's and a laptop victimization linguistic communication. The college student and workers will freely transfer their queries. The chatbot provides a fast and efficient search for answers to the queries and gets the relevant links to their question.

7. REFERENCES

[1] Harsh Pawar, panav prabhu, Ajay, Vincent and Joyce Lemos, "College enquiry chatbot using knowledge in database"
[2] Guru Swami, Aishwarya, Priyanka, Rasika and Dr K Swagh "International journal of advance research, ideas and innovations in technology".
[3] Tarun, Shashank, Ashish, Shreya, Vasundhara "Implementation of a chat bot system using AI and NLP"
[4] Vibhor Sharma, Monika Goyal , Drishti Malik " An Intelligent Behaviour Shown by Chatbot System" *published in April 2017 International Journal of New Technology and Research.*
[5] M. Dahiya " A Tool of Conversation: Chatbot" *published in April 2017 International Journal of New Technology and Research.*
[6] Vera Liao1, Muhammed Mas-ud Hussain " All Work and no Play? Conversations with Question-and-Answer Chatbot in the Wild".
[7] Bayu Setiaji" Chatbot Using A Knowledge in Database" published in 2016 7th International Conference on Intelligent Systems, Modelling and Simulation
[8] Tarun Lalwani, Shashank Bhalotia, Ashish Pal, "Implementation of a Chat Bot System using AI and NLP" published in IJIRCST-2018
[9] Bayu Setiaji, Ferry Wahyu Wibowo, "Chatbot Using A Knowledge in Database" published in IEEE-2016
[10] K. J. Oh, D. Lee, B. Ko and H. J. Choi, "A Chatbot for Psychiatric Counseling in Mental Health Care", published in IEEE-2017.
[11] Vijayakumar R, Bhuvaneshwari B, Adith S, Deepika M, "AI Based Student Bot for Academic Information System using Machine Learning", published in IJSRCSEIT-2019
[12] Anjana Tiha, "Intelligent Chatbot using deep Learning", published in Spring, 2018.
[13] Sorna Shanthi.D, Keerthana.S, "Hexabot: A Text-Based Assistive Chatbot To Explore Library Resources" published in IJEAT-2019.
[14] T.Mounika, Akshita Sangam, Shivani Lakhane, "Chatbot-Intelligent Conversational Agents" published in JASE-2019.
[15] Axel-Cyrille Ngonga Ngomo, "The DBpedia Chatbot" published in IW3C2-2018.
[16] Merav Chkroun Amos Azaria, "Did I Say Something Wrong?": Towards a Safe Collaborative Chatbot"

published in Association for the Advancement of Artificial Intelligence-2018.

[17] Edwin Friesen, Frederik S. Baumer, "Chatbot as Communication Interface" published in IEEE-2018.

[18] Varvara Logacheva Mikhail Burtsev Valentin Malykh, "A Dataset of topic oriented human to Chatbot Dialogue" published in IEEE-2018.

[19] Honghao WEI,,Yiwei Zhao, "Building Chatbot with Emotions" published in Copyright-2018.

[20] Francesco Colace, Francesco Pascale, "A Conversational Workflow Model for Chatbot" published in SEKE2017-2018

