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GLOBAL JOURNAL OF ENGINEERING SCIENCE AND RESEARCHES CHATBOT FOR COURSE APPROACH

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ABSTRACT

Chatbots are one class of intelligent, conversational software agents activated by natural language input which can be in the form of text, voice, or both. They provide conversational output in response, and if commanded, can sometimes also execute tasks. These chatbots are used in various domains such as business, educational purposes or to get required information based on our requirements. In this fast growing world, most of the students get worried about their course selection. This chatbot helps student for their course approach using artificial intelligence. By using chatbots one can achieve collaboration between user and machine. This chatbot enquires about student interest and suggest various courses depending on it. This chatbot contains information about courses, course duration and job opportunities in it. This chatbot helps student to build their career.

Keywords: Chatbot, artificial intelligence, course, alexa, software agents.

1. INTRODUCTION

In this quickly growing world it is necessary to have a different ideology to access the information rapidly in a simple way. Artificial intelligence is a way of making a computer thinks intelligently in the similar manner the intelligent human think. It is a science and technology based on disciplines such as computer science, biology, psychology, linguistics, mathematics and engineering. Artificial intelligence technique is a manner which provides knowledge efficiently in such a way that

- It should be graspable by the people
- The errors should easily detectable and corrected

Artificial intelligence (AI), the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. The term is frequently applied to the project of developing systems endowed with the intellectual processes characteristic of humans, such as the ability to reason, discover meaning, generalize, or learn from past experience. Since the development of the digital computer in the 1940s, it has been demonstrated that computers can be programmed to carry out very complex tasks—as, for example, discovering proofs for mathematical theorems or playing chess—with great proficiency. Still, despite continuing advances in computer processing speed and memory capacity, there are as yet no programs that can match human flexibility over wider domains or in tasks requiring much everyday knowledge.

On the other hand, some programs have attained the performance levels of human experts and professionals in performing certain specific tasks, so that artificial intelligence in this limited sense is found in applications as diverse as medical diagnosis, computer search engines, and voice or handwriting recognition.

To achieve the collaboration between user and machine they have introduced a new conversational entities called as chatbot. Chatbot is computer program capable to carry a friendly conversation the user. A chatbot is an intelligent conversation between human and machine. The term chatbot is a synonym with text conversation but growing through voice communication. The chatbot can have conversation with you through different channels like siri, facebook, Skype, messenger, we chat, telegram, slack and many others. A chatbot can easily understand what you are trying to say and replies with a cogent, relevant message or directly completes the required task for you. Modern chatbot do not rely only on text but also show useful cards, images, links and forms providing an app-like experience. Chatbot is used for different purpose such shopping customer service, news, games and many others. A chatbot is also known as smartbot, chatterbot, imbot, talkbot, bot, interactive agent, conversational interface artificial conversation entities. Chatbot are typically used in dialogue systems for various practical purposes. Some chatbot





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use sophisticated natural language proposing systems but many simpler ones scan for keywords within the input, and then it provide a reply with the most matching keyword. conversational interface artificial conversation entities. Chatbot are typically used in dialogue systems for various practical purposes. Some chatbot use sophisticated natural language proposing systems but many simpler ones scan for keywords within the input, and then it provide a reply with the most matching keyword.

There are various chatbot system rights from the first chatbots like Alexa. Now-a-days it appears that machines such as siri and Alexa have replaced many software applications in case like purchasing trains tickets or to book meetings in our calendars' for us. Chatbots can use visual information, such as facial recognition. The chatbots offers two primary ways to the visitors they are web-based applications and on popular chat platforms such as facebook messenger or slack. In recent times writing topics about chatbot have received increasing consideration from media. At the same time not many potential users know about the existence of chatbot or about areas in which chatbot could be helpful. This topic is equally unknown to developers or users. Whereas the term chatbot commonly used in media, the meaning mostly remains uncertain. There is a need for further analysis to identify well suited applications for chatbot and further explanation of what chatbots are and Additionally to spreading knowledge about the potentials of chatbot and their use cases, more developers should be enabled to create new, innovative chatbot.

Now- a-days students are facing a lot of issues getting a proper education. Choosing an appropriate course is an extremely important step in learning. Choosing an incorrect course would not only waste our money, but your time, interest and passion. Your passion for your course and for future career. Because the secret to happiness is being able to love whatever is you do in life. And what does this all have to do with choosing the right course, at the right university or college and you will be inspired to succeed.

ORGANIZATION OF THESIS

The rest of the thesis is organized as follows: Chapter 2 describes the relevant work on courses approach chatbots. Chapter 3 prefers the artificial intelligence course approach chatbots. Chatbot discusses the procedure and implementation. Chapter 5 computes then follows by references.

2. LITERATURE SURVEY

It is difficult to get all the valuable information you desire from passionate attempt at being shared. Anytime knowledge falls somewhere in the middle, it rarely gets an over the phone or online, surveys can feel impersonal and not of particular value to the customer responder. The most important consideration when choosing your course is asking yourself why you are looking to study.

Do you want to further your career by extending your skill set? If this is the case you should choose a course in a subject that is a natural progression of your existing skills and qualifications. If the aim is to progress further with your current employer selecting a course that is relevant to your work is recommended. Discussing study options with your peers, colleagues or employer can help to determine what qualification will help with your career. Your major in college is your specialized area of study. Beyond general college requirements, you'll also take a group of courses in a subject of your choosing such as Chemistry, Physics, Mathematics, Economic, commerce and some short term courses.

Some students choose a major simply because they love the subject matter. If you love what you're studying, you're more likely to fully engage with your classes and college experience, and that can mean better grades and great relationships with others in your field. If your calling is philosophy, don't write it off just because you're not sure about graduate school, or what the job market holds for philosophers. Many liberal arts majors provide students with critical thinking skills and writing abilities that are highly valued by employers.

It's really important to think about what you are interested in, and what course you want to study.

Is it because you can see your exciting glittering career a head? Or is it because what your parents want?





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By questioning yourself, you can work out the exact path you want your course to take on. chatbots have the ability to replace humans for certain tasks, they also can be used to augment what human agents can offer their clients. In view of present scenario we have introduced a chatbot which makes the student work easier for finding the course. Students nowadays are facing a lot of issues in getting a proper education in traditional colleges and universities which includes higher tuition, budget cuts, and course shortages. These problems have caused many of them to search for alternatives.

Results for 10th standard are just being declared across India. As student or parent, you must be worried about higher education courses after 10th standard. Nowadays, there are fantastic courses available for all students in various parts of the country. You can select any of these courses and look forward for a great career.

Here we are listing some tips on how you can choose online courses in the correct manner

1.Identify missing skills that can help your career grow

You are a working professional. But it's a competitive world. The more skills you have, higher are your chances of scoring a good opportunity. What are the missing skills that are keeping you from the career of your dreams? Identify them. Look for the areas you think you need to build on, where you do not have sufficient or updated knowledge in. Once you have identified these key areas, you will know exactly what new skills you need to learn to improve yourself and add value to your professional capabilities.

2.Look for courses that are best for building these skills

Now that you have identified the gaps in your current skill set, spend some time searching online for courses that will best meet your capability enhancement requirements.

Read about each course in detail and shortlist the key courses that will best augment your career.

Quick tip: Look for a course from a reputed institute, with a pedagogy that augments your career requirement. Many courses are offered for a self-learning pace. Find something that has an engaging pedagogy, with insights from industry experts. Live & interactive classes are a more effective mode of learning as opposed to passive, isolated recorded sessions.

3.Go for courses with technologically advanced pedagogy

There are many firms offering a range of courses, but not all of them will help you grow. Most courses are delivered as recorded sessions. Courses with industry-relevant content and an advanced learning platform that helps you interact live with your faculty are more effective for working professionals.

While you're researching on the right course for your career, find out what resources they have to offer. Also, read up about their mode of delivery and learning platform.

It bodes well to have a technologically advanced platform that aids interactive learning experience. Thoroughly read the course descriptions to understand what you are signing up for.

4. Figure out which institutions those courses are affiliated with and check their credibility

Most of the online learning platforms have affiliations with Private Indian and international institutes/universities for certifications of their respective courses.

Adding a reputed Institute/university to your resume will give you the edge over your peers and positively impacts your career, so be wise while choosing.

5. Check for suitability of cost, duration and flexibility of time

Every course comes with a cost and duration. Do the calculation for how you will manage your job and studies together. How much time you will dedicate to the course and make sure you take all the classes for an enriching experience with a certain sense of commitment in mind.





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Also, it is always a good idea to try & implement the new skills you learn from the course at work and see the difference in an immediate form beyond adding value to your professional profile.

In such a scenario, online education has clearly become one of the most popular higher education alternatives. These days, online learning is being considered just as effective as face-to-face education.

Basically students get confuse to choose the course after SSC as it is much difficult to choose the right course in interest you have. For example, Engineering student could study anything from bio-medical engineering to civil engineering. So if you'd rather build bridges than human body parts, understand before you choose a course. While you are researching, you'll come up with all kinds of different criteria to judge a university or course by. So mak experience and internships, cost of tution, student support services, safety, social life, chance to travel. Our chatbot explains about the courses after tenth something like intermediate, polytechnic, ITI, and some short term courses. And also asks about the student interests. Based on the

student interests the bot moves forward. We have introduced the

Intermediate courses

The following two-year courses can be studied after SSC in order to become eligible for higher studies in the field of Engineering, Technology, Medicine, Law, Agriculture, Science and Veterinary Science, Architecture, Education (Teaching)

etc.:-

Intermediate (MPC) Engineering

Intermediate (BPC) Science

Intermediate (CEC) Commerce

Intermediate (HEC) Humanities

Intermediate (BZC) Zoological

Intermediate (Genetics, Biology, Chemistry) Genetics

Polytechnic courses

Polytechnic courses are a boon for students who want to join jobs quickly after 10 th standard. In this resource I gave an account of the utility of these courses for students who want to enter into job career after completing 10th class various specializations in these courses as well as the scope of career after completing polytechnic course.

Courses and career scope in Polytechnic Diploma in Electronics and Communication

Diploma in Computer Engineering

Diploma in Automobile Engineering

Diploma in Ceramic Technology

Diploma in Electrical and Electronics

Diploma in Mining Engineering

Diploma in Textile Technology

Diploma in Mechanical Engineering





Industrial Training Institute Courses

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I rank vocational courses available from Industrial Training Institutes (ITI) as the best option after 10th standard. ITI courses are recognized by every industry. Also, ITI has some of the best courses after 10th standard that will enable you to find excellent jobs.

ITI courses will give you a diploma certificate. Here are the best courses after 10th standard from ITI.

Short term courses

Digital Marketing Course

Digital Marketing is continuously growing and there are a lot of Job opportunities in this field. If you are looking for Part-Time Job oriented course then This is the best course for You. there are many institutes which offer Classroom Digital Marketing Training program, you can join them and start learning the basics of Digital Marketing. Below are some key points to choosing Digital Marketing as a career.

3. PROPOSED CHATBOT

ARCHITECTURE OF NODE-RED

In the node-red first select the input node inject and give the name as hello, Now from the output node select the debug node and give the name as msg.payload.

- Connect the output of hello to input of msg.payload .The msg called successfully injected will appear on the screen now deploy.
- Now again successfully inject "hi". In the IBM cloud ,go to resource list and create resource. Now drag the assistant from IBM Watson through search filter.
- Edit the injected node hello as "hi" and click on done.
- Now, connect the assistant node to msg.payload and hello. hello input to input of assistant and output of assistant to input of msg.payload by changing the username as apikey and giving password.
- Change the service endpoint and workspace from edit function node copy the function and by clicking on the done it will be done.

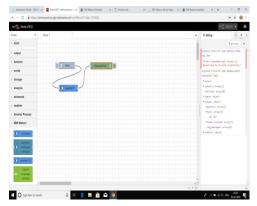


Figure 1: NODE-RED Flow1

- Now drag the function called output parsing and connect it to output of the assistant an dinput of the msg.payload.Now,go to deploy and that go to manage palette.
- After completing the above process go to user settings nodes and select the palette. Now install the nodered dash-board and click on install.
- In the node properties give group as home size as auto and example as text and click on done. Now, drag the form from search filters and click the assistant input to form output. Create a new function and connect the





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new function to form output to input of assistant. Now, again select the msg.payload=msg.payload.text; from the functions.

Now, the two text blocks onto the screen and connect the text blocks with the name you to the output of input parsing and otherone with the name bot to the output of output parsing.

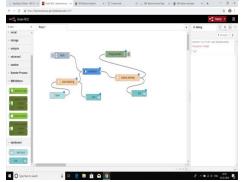


Figure 2:NODE-RED Flow 2

- Now, go to debug and give label as bot and you. Value format as {{msg.payload}} and click on done. After the above process is done create a new block and give it as form. On the right side of the screen click on dashboard and go to layout and click on home. Now, deploy the total block.
- Now, drag the audio out by searching it in the search filter and connect its input to output of output parsing. Now the again deploy the total block.
- Dash board is on the rightside of the screen and go to edit audio out node. Give TTS voice as shown in the figure and click on done.
- After the audio out is connected drag a switch .Edit switch node by giving data base as marriage events. Now, connect the one output of switch to marriage events and other to bot. Now again connect the output of marriage event to input of bot. Debug the above function and edit the function node which is dragged on to the screen by giving the name as database parsing .After the name is given as database parsing then select the function msg.payload=msg.payload events;
- In the node properties give the name as subscribe and click on done. Connect the database parsing to events clock output and output of database parsing to bot input. Now, again deploy the function . Now dialogue box default occurs click on submit.



Figure 3: NODE-RED Flow 3

- Now login into your facebookaccount by giving the user name and password. Then go to the and create a page
- And give the page name as chatbot. Now, select the(...) in the page and click on view as page visitor. By clicking on the visitor we can visit the page.
- You can build a bot that automatically posts content into groups, responds to questions with extra information or takes action when mentioned in comments on a post.





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- You can also build bots that can converse with people in Work Chat, providing information in real time, or handling requests with structured conversation elements like quick replies and persistent menus.
- While in groups, bots are able to consume and share information across a group of people asynchronously, bots in chat are best for direct real-time interaction with a single person or defined group of people.

For instance, a chat bot can be used to send important reminders or notifications to someone based on an upcoming event like an interview or a meeting.

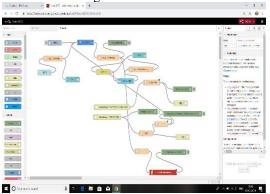


Figure 4:NODE-RED Flow 4

- After visiting the page go to settings on facebook developers and generate a page, Now, the events selected will be completed.
- In the new page subscription give the URL, verify token and select the required columns and click on verify and save. In the new page subscription select the subscription fields as messages and messaging. Postbacks and click on verify and save.
- Now a one more block from facebook page will be presented and select the page and attach it to the nodered and see whether the page is correctly on the flow.
- Paste the flow-2 below the folw-1 see that both the flows are not one on other. Go to layout and click on home add the name, function and click on done.

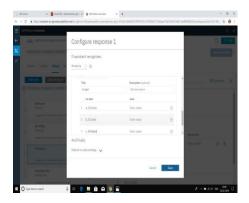


Figure 5: Facebook Integration



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4. RESULTS AND DISCUSSION



Figure 6: Welcome message

IBM Watson assistant is a question-and-answer system that provides a dialog interaction between the conversation system and users. The assistant responds in the following manner. Firstly the greetings are given to the assistant bot when we open the preview link it directly gives that hello welcome to course approach there we can help you to suggest courses depending on your interest. Then you need to give the input as you want the bot identifies the word 'courses' in the input and respond to it .Then bot asks you to give your interested course. Then it gives courses as you requested. And we have to select one among them. After selecting the course the bot gives the information of available colleges in the selected course.



Figure 7: Output for first question

We need to select the courses as per our necessity. Now ,when all the details required for the bot is given, it gives you total information about the courses and colleges based on your interest. Thus the bot make it easy for the student to select the courses.



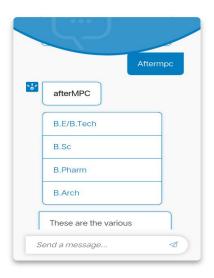


Figure 8:output for second question

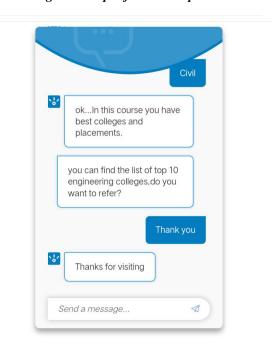


Figure 9: Output for last question

In this way the bot respond to our questions and make student job easy in order to select the course after their respective courses.





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5. CONCLUSION

In today's era, students, with the help of technology, get access to everything instantly. From posyting pictures to sending emails, any task is just a few clicks away. In this fast-paced environment, it becomes highly important for educators, online tutors and educational instructions to up their student communication process. This course approach chatbot Improve communication. increase productivity and minimize ambiguity from interactions. They can thus effortlessly lend themselves to focused, result oriented online conversations- which is precisely what modern educational institutes need in this day and age. Facilitating information access and retrieval is the first step in a series of task that course approach chatbots are mandated to perform.

This chatbots provide instance to students visiting college websites or offices for more information. The technology converts the time-consuming task of replying to each query personally into an automatic one and that too instantly. This not only saves student's time but also reduces the burden on institutions to answer questions manually.

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