Intelligent Career Guidance System using Machine Learning

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ABSTRACT

Most students across the world are always in confusion after they complete higher secondary and the stage where they must choose an appropriate career path. At 18, the students don't have adequate maturity to accurately know what an individual must follow to choose a congenial career path. As we pass through the stages, we realize that every student undergoes a series of doubts or thought processes on what to pursue after 12th which is the single tallest question. Then comes the next agony of whether they have the essential skills for their chosen stream. Our computerized career counseling system is used to predict the suitable department for an individual based on their skills assessed by an objective test. If one completes the online assessment w we have created in our system, they will automatically choose an appropriate course, which will also reduce the failure rates of choosing a wrong career path. Chatbots also referred to as chat agents, have drawn a lot of interest from a variety of fields. It consists of the participants' inquiries and the answers given. In this essay, we've spoken about using chatbots in educational settings. Kids must be educated in a supportive environment while contemplating any type of institution, including schools and universities. This implies that the infrastructure should captivate each requirement that the instructors or students in that environment deem essential. The current approach suggests that all the work is done manually and is therefore prone to error. It is foreseeable to have a computer-available, web-predicted system that will monitor the infrastructure allocation taking these aspects into account to reduce errors.

Keywords: - *Chatbots, Web predicted, career path, Skills.*

1. INTRODUCTION

A system called" Chatbot for Efficient Utilization of College Laboratories" is being developed to lessen the workload on the staff members who oversee creating or preparing the infrastructure allocation while considering the variety of factors that are crucial for the particular system. In response to user inquiries, the chatbot functions as an intelligent conversational agent. In this situation, the based chatbot will serve as a go-between between the user and the system. The user will ask questions of the chatbot, and it will react to each one individually. This solution will simplify the infrastructure allocation process and hence cut down on manual labor. Natural Language Processing, usually shorted as NLP, is a branch of ARTIFICIAL INTELLIGENCE that deals with the interaction between computers and humans using Natural language. The ultimate objective of Natural Language Processing is to read, understand and make sense of the human language in a valuable manner. It is A Career Guidance System where students can see various career opportunities. The system shows various fields available after the 12th, for graduation, and also fields available after graduation. It also lists various colleges available where students can search colleges by their courses. This result is then shown to that user and saved. The system also consists of an admin module. The admin can log in to the system and enter colleges along with their specifications.

2. PROBLEM STATEMENT

Artificial intelligence Chatbot is a technology that makes the interaction between man and machines using natural language possible. From the literature, we found out that in general, chatbot function like a typical search engine. These include the spoken language system that integrates speech and natural language.

3. OBJECTIVE

Students need career guidance to explore and plan for future career endeavors based on their interests, skills, and values. Participation in career guidance enhances the linkage of academic and career experiences and thus. improves career preparation and management. The main objective of PCRS is to mimic the role of professional advisors who help students take this hard decision by analyzing their academic and personal profiles.

4. LITERATURE SURVEY

Nowadays, Chatbot for Efficient Utilization of College Laboratories Manasi Ghadge, Anuja Dhumal, Dr. Uttam. D. Kolekar, Prof. Nahid Shaikh Chat agents commonly known as chatbots have gained immense attention from multiple fields. It is the participants' queries and the responses received. Here in this paper, we have discussed having a chatbot in educational institutions. When considering an institution regardless of whether it is a school or university it is consequential that the students are edified in a congruous environment.

An Intelligent Career Guidance System using Machine Learning Vignesh S, Shivani Priyanka C, Shree Manju H, Mythili K. Most students across the world are always in confusion after they complete higher secondary and the stage where they must choose an appropriate career path. At the age of 18, students don't have adequate maturity to accurately know what an individual must follow to choose a congenial career path. As we pass through the stages, we realize that every student undergoes a series of doubts or thought processes on what to pursue after 12th which is the single tallest question. Then comes the next agony of whether they have the essential skills for their chosen stream. Our computerized career counseling system is used to predict the suitable department for an individual based on their skills assessed by an objective test. If one completes the online assessment we have created in our system, one will automatically choose an appropriate course, which will also reduce the failure rate of choosing a wrong career path.

PCRS: Personalized Career-Path Recommender System for Engineering Students. MANAR QAMHIEH, (Member, IEEE), HAYA SAMMANEH, AND MONA NABIL DEMAIDI, (Senior Member, IEEE). Choosing a university specialization is a challenging decision for high-school students. Due to the lack of guidance and limited online resources, students base their decisions on subjective perceptions of family and friends. This increases the risk of high university dropout rates, and students changing their university disciplines. To address the drawbacks, this research paper presents a Personalized Career-path Recommender System (PCRS) to provide guidance and help high school students choose engineering discipline. The design of PCRS is based on the fuzzy intelligence of N-layered architecture and uses students' academic performance, personality type, and extra-curricular skills. The association between personality type and engineering discipline was built using a sample of 1250 engineering students enrolled in seven engineering disciplines at An-Najah National University. PCRS is implemented as a mobile application, and it is tested against an evaluation sample of 177 engineers. The sample consists of graduate or undergraduate engineers who are satisfied with their engineering disciplines. The evaluation examined the agreement between the recommendations generated by PCRS and the 177 actual engineering disciplines of the sample.

Career Guidance System using Machine Learning for Engineering Students (CS/IT). Ankush Daharwal1, Prof. Sandeep Gore2, Aishwarya Bhagwat3, Shraddha Dethe4, Sunny Chavan5. In today's world choosing the right career is the toughest decision. Today many students are confused about their future. They do possess some skills, but they are not able to identify their abilities and a proper domain. Different people suggest different career options but at last, the student must select their career. In this project, we have focused on the problem of students using machine learning. With the help of machine learning, we will help the students decide which is the best career option and domain for them using different machine learning techniques. The career is decided based on some personal and academic information filled in by the student. This project will help the student to get directed towards a specific domain as per their skills.

Game-Based Career Guidance Systems Design Concept. Yen-Ru Shi, Ju-Ling Shih.Although schools and government agencies actively provide career guidance services in Tinaiwan, most college graduates are still troubled about their career choices. This study attempts to design a digital game for career planning. The advantage of digital games is to improve people's motivation and interest in career direction seeking and guide them to explore a career that suits them. This paper aims to assess the feasibility of a career game and propose possible approaches for making a game-based career guidance system.

Intelligent web platform for vocational guidance. Andres F. Cruz *, Laura Orozco, Carolina Gonzales. The vocational guidance process helps students in their career choices, it provides a better understanding and motivates them to do it themselves. The lack of trained professionals to provide career guidance and the need for an organized register system to help them to manage the guidance process, all this allowed the creation of Computer Assisted Career Guidance Systems (CACGS) as a part of the solution, however many of these systems have been developed for people in contexts with different characteristics as Colombian and is difficult to use their outcomes either to give guidance by counselors and to be interpreted by the students specifically from Popayan city.

An Intelligent Career Guidance System using Machine Learning. Vignesh S, Shivani Priyanka C, Shree Manju H, Mithila K. Most students across the world are always in confusion after they complete higher secondary and the stage where they must choose an appropriate career path. At the age of 18, students don't have adequate maturity to accurately know what an individual must follow to choose a congenial career path. As we pass through the stages, we realize that every student undergoes a series of doubts or thought processes on what to pursue after 12th which is the single tallest question. Then comes the next agony of whether they have the essential skills for their chosen stream.

Career path recommendation system for UiTM Perlis students using fuzzy logic. Noorfaizalfarid Mohd Noor, Muhamad Arif Hashim. Recommendation systems are commonly used over the Internet to guide customers to find the products or services that best fit their personal preferences. In Malaysia, choosing career students is significant due to the existence of multiple human abilities. Many students have chosen their career paths without receiving proper advice from suitable professionals or university services. This may potentially cause a mismatch between the academic achievements, personality, interests, and abilities of the students.

5. PROPOSED SYSTEM ARCHITECTURE

Artificial intelligence Chatbot is a technology that makes the interaction between man and machines using natural language possible. In the room literature, we found out that in general, character function like a typical search engine. These include the spoken language system that integrates speech and natural language.

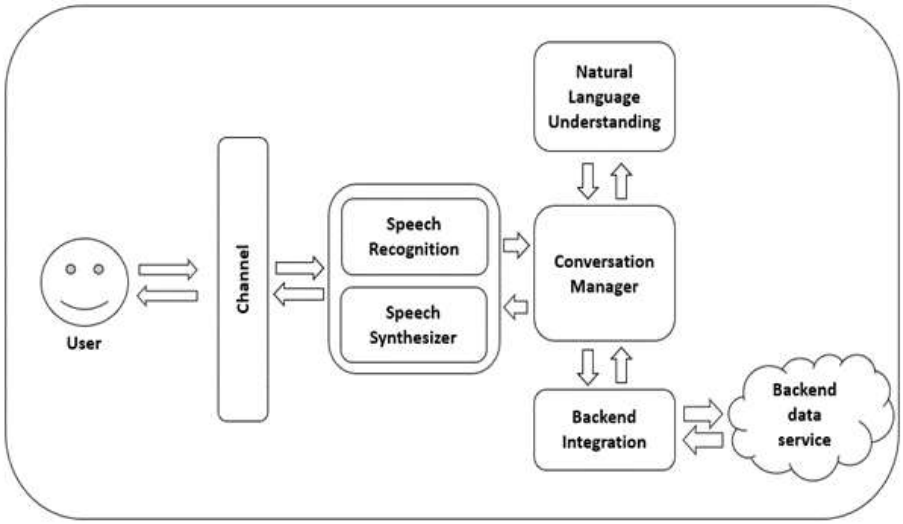

Chart -1: System Architecture

6. CONCLUSIONS

In this research, a Personalized Career-path Recommender System (PCRS) is designed to help future engineering students choose their discipline based on various factors such as academic performance, personality type, and extracurricular activities. These factors are important to generate personalized recommendations based on the profile of students where individual characteristics are taken into consideration. The main objective of PCRS is to mimic the role of professional advisors who help students take this hard decision by analyzing their academic and personal profiles. The main advantage of the PCRS's design is to consider high-school students in developing countries were educational and professional guidance.

7. REFERENCES

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