

## Virtual Community Using Cloud Technology “Unitalk”

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**Abstract** - Social networks provide a useful basis for enabling collaboration among groups of individuals. This is applicable not only to social communities but also to the Educational Community. The proposed system can be used in college to reduce the processing work load. This project's main idea is to developed an online web portal connected to cloud which will maintain notice information, public posts related to education and college, online notes and student queries. This system will also help the college administrator, will able to get information about student and faculties who are registered with the system. Admin panel will also able to edit display panel of users. Admin can add user, delete user if he finds the abusive contents uploaded by user and can give special permission for uploading the data. The system is also proposing the Chatbot for easy and flexible access to the common questions ask by the user. it will allow the user to simply ask questions in the same manner that they would address a human. A Chatbot can be used as an "Assistant" to live users, increasing the users efficiency.

**Key Words:** Cloud Computing, Communication, Chatbot, Social Connectivity

### 1. INTRODUCTION

The purpose of this monograph is to provide readers with information that teachers, students, and staff can use for develzMLoping virtual communities using cloud technology. Teachers, students, and staff can develop a community of learning while sharing information and data. Cloud technology can be an asset for the storage of data and information that teachers, students, and staff can use since space may be limited on the schools servers. Information that has a focus on big data can become increasingly difficult to manage so data and the cloud may be considered a symbiotic pivotal technology for managing a large amount of data.

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### 2. CLOUD COMPUTING

Cloud Computing is the use of Internet-based technologies for the provision of services, originating from the cloud as a metaphor for the Internet, based on depictions in computer network diagrams to abstract the complex infrastructure it conceals. It can also be seen as a commercial evolution of the academic-oriented Grid Computing, succeeding where Utility Computing struggled, while making greater use of the self-management advances of Autonomic Computing[3]. It offers the illusion of infinite computing resources available on demand, with the elimination of upfront commitment from users, and payment for the use of computing resources on a shortterm basis as needed. Furthermore, it does not require the node providing a service to be present once its service is deployed. It is being promoted as the cutting-edge of scalable web application development, in which dynamically scalable and often virtualised resources are provided as a service over the Internet, with usersc having no knowledge of, expertise in, or control over the technology infrastructure of the Cloud supporting them. It currently has significant momentum in two extremes of the web development industry, the consumer web technology incumbents who have resource surpluses in their vast data centres1, and various consumers and start-ups that do not have access to such computational resources. Cloud Computing conceptually incorporates Software-as-a-Service (SaaS), Web 2.0 and other technologies with reliance on the Internet, providing common business applications online through webbrowsers to satisfy the computing needs of users,while the software and data are stored on the servers[3].

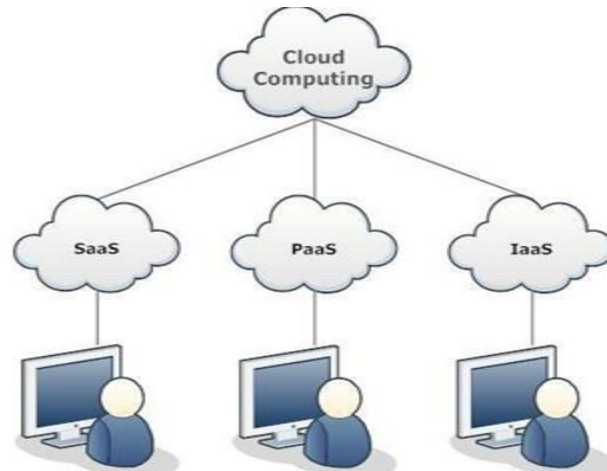


Fig -1: Cloud computing

3) Software-as-a-Service (SaaS) : At the consumer- facing level are the most popular examples of Cloud Computing, with well-defined applications offering users online resources and storage. This differentiates SaaS from traditional websites or web applications which do not interface with user information (e.g. documents) or do so in a limited manner. Popular examples include Microsoft’s (Windows Live) Hotmail, office suites such as Google Docs and Zoho, and online business software such as Salesforce.com[2].

### 3. COMMUNITY CLOUD

C3 arises from concerns over Cloud Computing, specifically control by vendors and lack of environmental sustainability. The Community Cloud aspires to combine distributed resource provision from Grid Computing, distributed control from Digital Ecosystems and sustainability from Green Computing, with the use cases of Cloud Computing, while making greater use of self- management advances from Autonomic Computing[3]. Replacing vendor Clouds by shaping the under utilised resources of user machines to form a Community Cloud, with nodes potentially fulfilling all roles, consumer, producer, and most importantly coordinator.

### 4. CHATBOT

A conversation is an assimilation of information where one creates differences and similarities during the duration of a conversation[4]. Depending on the level of intelligence the experience would be enjoyable and a true emulation of a virtual entity. The gradient of intelligence is not the number of correct and incorrect statements but the ability to learn and add to its knowledge base. To create a more user accessible chat system; a simpler input method using voice is introduced; creating and catering for a more personal and convenient experience[4].

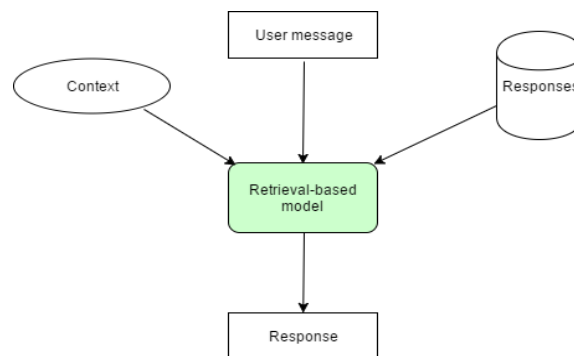


Fig -1: Chatbot System

The process of an online chat system would follow a client server approach which acquires the signal and streams it to a server. The input voice is then processed and a response is generated. This process places a large processing requirement on the server's processor and memory resources. This limitation is even more evident when a large number of users are to be simultaneously accommodated on the system[4].

## 5. FUTURESCOPE

As cloud computing continues to grow, there will be more areas to consider as part of future development, planning, and growth. Arutyunov suggested that cloud computing is a reflection of global trends on the transition to outsourcing and external services. This has created not only a new technology but also opportunities for the development of new Internet options and ways to access information using outsourcing and other external available services.

## 6. CONCLUSION

The main objectives of the project were to develop an algorithm that will be used to identify answers related to user submitted questions. To develop a database where all the related data will be stored and to develop a web interface. The web interface developed had two parts, one for simple users and one for the administrator.

A background research took place, which included an overview of the conversation procedure and any relevant chat bots available. A database was developed, which stores information about questions, answers, keywords, logs and feedback messages. A usable system was designed, developed and deployed to the web server on two occasions. An evaluation took place from data collected by potential students of the University. Chatbots, or conversational interfaces as they are also known, present a new way for individuals to interact with computer systems. Traditionally, to get a question answered by a software program involved using a search engine, or filling out a form. A chatbot allows a user to simply ask questions in the same manner that they would address a human. The most well known chatbots currently are voice chatbots: Alexa and Siri. However, chatbots are currently being adopted at a high rate on computer chat platforms.

The technology at the core of the rise of the chatbot is natural language processing ("NLP"). Recent advances in machine learning have greatly improved the accuracy and effectiveness of natural language processing, making chatbots a viable option for many organizations. This improvement in NLP is firing a great deal of additional research which should lead to continued improvement in the effectiveness of chatbots in the years. Most commercial chatbots are dependent on platforms created by the technology giants for their natural language processing. These include Amazon Lex, Microsoft Cognitive.

## REFERENCES

1. Ashfaq M. Thaufeeg, Kris Bubendorfer, Kyle Chard, Collaborative eResearch in a Social Cloud, Social networks provide a useful basis for enabling collaboration among group of individuals, 2011 IEEE.
2. Alexanderos Marinos, Gerard Briscoe, Community Cloud Computing, Community cloud computing offers an alternative architecture for virtual communities, December 2009 LSE.
3. Alexanderos Marinos, Gerard Briscoe, Digital Ecosystem in a Clouds: Towards Community Cloud Computing, Digital lives and the potential environmental consequences, 5 October 2009 IEEE.
4. S.J. du Preeze, An Intelligent Web-Based Voice Chat Bot, Design and development of an intelligent voice recognition chat bot, 2009 IEEE.
5. Chaitrali S. Kulkarni, Amruta U. Bhavsar, Savita R. Pingale, Prof. Satish S. Kumbhar Bank Chat Bot An Intelligent Assistant System Using NLP and Machine Learning.

6. Aditya Deshpande Alisha Shahane Darshana Gadre Mrunmayi Deshpande Prof. Dr. Prachi M. Joshi A Survey of Various Chatbot Implementation Techniques.
7. Sagar Pawar, Omkar Rane, Ojas Wankhade, Pradnya Mehta published A Web Based College Enquiry Chatbot with Results.