



MOOD DETECTION WITH CHATBOT USING AI-DESKTOP PARTNER

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ABSTRACT

Emotion recognition plays very important role in recent days to improve both openness and effectiveness of Human-computer interaction. Emotions include the interpretation, perception and response of the feelings related to the experience of any particular situation. Emotion recognition is the task of recognizing a person's emotional state such as anger, sad, happy, neutral, etc. Emotion recognition consist of the classification of emotion from different approaches such as speech, text, face and body pose of person. The applications of emotion recognition are monitoring, law, entertainment, e- learning, medicine and many others. In proposed system the Chat bot is built using an artificial intelligence algorithm. The bot chats with you as a real person, with entertaining replies which doesn't make the user know he is really talking to a bot. In this paper, we present a new approach for building desktop application for chat bot using text and gestures. Our application is not only to recognize text or keywords but also recognize the mood of a user through camera. For example, if the user is feeling sad, then system will automatically fetch a joke from database and send it to the user on the window terminal. The system is able to make a conversation through chatting application. System is able to send some links, web pages or information by recognizing response from user. For this whole system, we are using technologies like Machine learning, AI, and Data mining.

Keywords: Artificial intelligence, Chatbot, Face Expression.

I. INTRODUCTION

Mood of person describes the inherent emotional meaning. Detection of mood play a significant role in human dialogue. The Chat bot is built using an artificial intelligence algorithm. The bot chats with you as a real person, with entertaining replies which doesn't make the user know he is really talking to a bot. In proposed system, we are presenting a new approach for building application for chat bot using text and gestures [1].

Our application is not only to recognize text or keywords but also recognize the mood of a user through camera. For example, if the user is feeling sad, then system will automatically fetch a sad songs and from database and send it to the user on the window terminal. The system is able to make a conversation through chatting application. System is able to send some links, web pages or information by recognizing response from user.

The human body is premeditated to know-how stress and reacts to it. Stress can be encouraging such as a getting a job promotion or being given superior tasks keeping us prepared and set to avoid danger. Stress becomes opposing when a person faces nonstop challenges without relief or relaxation between challenges.

The effects of stress can be sensitive, emotional, and somatic. Signs of stress are changed in everybody, with some people expressing more physical signs, like tiredness or high blood pressure, and others expressing more emotion or psychological signs, like touchiness or depression.

II. EXISTING WORK

Mood analysis can be done by using facial expression, body pose, handwriting or text and speech of human. In proposed system we used facial expression for sentiment analysis.

Facial recognition is type of Biometric software application that can recognize a specific individual in a digital image by analyzing and relating pattern. Every system of sentiment recognition requires a dataset. Dataset is the most significant portion for the judgment of the facial portion. For dataset preparation features are extracted from face portion. Then that features are stored in database and then database is used for detecting the emotions by applying different algorithms. Features of image are extracted through preprocessing, Feature Extraction and then classification [2].

In paper [3], the author has implemented well-organized method for creation of database in which face and emotion features are stored further this database is used for sentiment recognition of person. In this paper they uses two algorithms namely Viola Jones for face detection and KNN classifier algorithm for emotion recognition. In Viola Jones algorithm first step is to change input image into integral image. Tentative efficiency of the suggested system for face and emotion recognition was 94.5 to 97 %.

In paper [4], the author proposed a new approach to model the sequential dynamics of an order of facemask. For this purpose, Sequence of face image descriptors (FID) was used for output of a Linear Time Invariant (LTI) system. This system descriptors was signified by Henkel Matrix. Dynamics-based Emotion Representation method was used for face emotion detection. By experimental analysis it is found that average accuracy is increased nearly about 18%.

In paper [5], the writers Study was on software in which fooling face detection is achieved in which they mainly focused on analysis part of information of the face image. They remove the Chroma component from face image which was very essential to detect original emotions rather than fake one. They proposed the approach for problem of anti-spoofing from the color texture point of view. The Writer examined that in what way dissimilar color image illustrations can be used for relating the basic differences in the color texture between frank faces and fake ones. In addition, they aimed to develop situation scenario precise facial color illustrations and consider person-specific training for face fooling detection.

In paper [6], author has applied a Sentimental analysis from facial expressions. This analysis is completed by using three steps like detection of face, extraction of features and expressions classification. There are two arguments on which they focused: First focus was on to design a geometric based approach for extraction of features. This geometric based method is used to calculate a distance of face which will give a facial expression. Secondly, the focus was on to design an automatic supervised machine learning method known as decision tree. Decision tree algorithm is applied on two different databases namely JAFEE and COHEN also They improve the accuracy and uses new combination of parameters which mainly focused on eyebrows, eyes, mouth and nose of face. They achieved facial recognition accuracy rate nearly of 89% and 90% for JAFFE and COHEN database respectively.

In paper [7], the author proposed approach for Harris corner point. Which is considered as most important feature which is improved by using Bezier curve? It produce low dimension feature was used in image recognition. They design a model for feature extraction from face image to solve the problem of sentiment recognition in minimum time period. To achieve execution in minimum time period they execute the process efficiently and logically by use of improved and stable combination of straightforwardness and cleverness of finding features points. In this design they detect the Harris corner points on various parts of face and on the basis of that point the Bezier curve is formed. By using this curve they removes less significant corner point and present the combination of human and computer intelligence by means of Bezier curve. This method is used finding facial features of main facial parts and then drawing Bezier curve to decreases the complexity.

I. TECHNOLOGY TO BE USED

Blob Detection Algorithm:

This algorithm helps to draw rectangles around defect part. Methods are aimed at detecting regions in a digital image that differ in properties, such as brightness or color, compared to surrounding regions. Independently detect corresponding regions in scaled versions of the same image. A blob is a region of an image in which some properties are constant or approximately constant; all the points in a blob can be considered in some sense to be similar to each other.

Haar Cascade Algorithm:

Haar-cascade is an object detection algorithm used to trace faces, perambulators, objects and facial languages in an image, and mainly used for expression detection.

In Haar-cascade, the system is provided with several numbers of positive images and negative images and the feature selection is done along with the classifier preparation using Ad boost and Integral images.

Canny Edge Algorithm:

The Canny edge detector is an edge detection operative that uses a multiple stages algorithm to detect a wide range of edges in images. Canny edge detection is a method to abstract valuable structural info from various vision objects and dramatically reduces the amount of data to be processed. It has been widely applied in several computer vision systems.

The general criteria for edge detection include:

1. Detection of edge with minimum error rate, which means that the recognition should precisely catch as many edges revealed in the image as possible
2. The edge point sensed from the operator should precisely localize on the middle of the edge.

3. A given edge in the image should only be noticeable once, and where probable, image noise should not make incorrect edges.[8]

II. PROPOSED SYSTEM.

Proposed system uses some algorithms and technologies such as Haar cascade, Canny edge, Blob detection. In the system pictures were taken and according to that mood get detected. Inputs like face and emotions are taken from picture, and system will be providing chat box to give response.

Proposed system uses Artificial intelligence techniques to provide Chabot which provides chatting interface to communicate with user. System provides automatic interface for pop up of jokes, songs according to the user's mood. The proposed algorithm in this involves an emotion music recommendation system that provides the generation of a customized playlist in accordance to the user's emotional state.

System present a new approach for building desktop application for chat bot using text and gestures. The system is able to make a conversation through chatting application. System is able to send some links, web pages or information by recognizing response from user.

Our Proposed system Detects smile and stress. If smile is detected than jokes pop-ups will be shown on the screen, if stress is detected than inspirational quotes pop-ups will be shown on the screen. On detection of smile happy songs are played. On detection of stress inspirational songs are played.

III. CHATBOT

A Chatbot is a computer program which conducts a chat via hearing or written methods. Chatbot are specially used in dialog systems for various practical purposes including client service or info gaining.

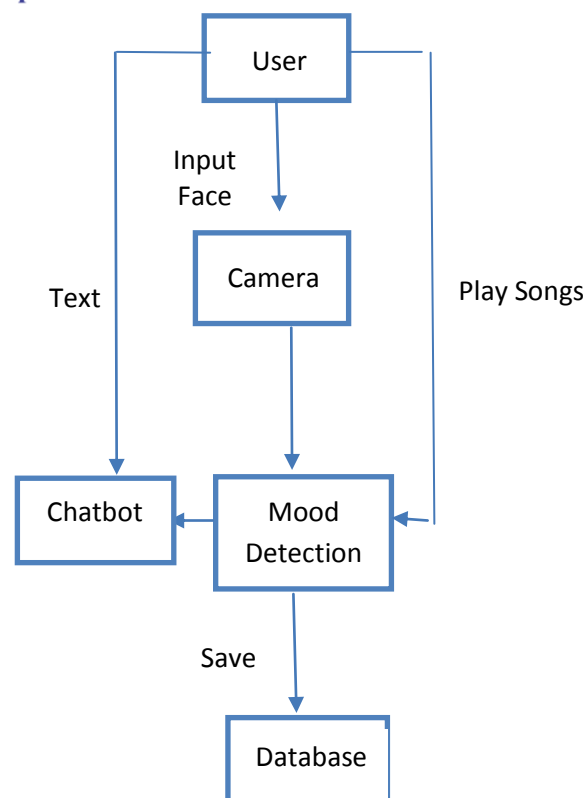
IV. AI DESKTOP PARTNER

The AI desktop partner comes with a real life person simulated System designed in 2013 for pushing forward a real time intellectual chatting assembly for users. The algorithm used here has a perceptively built in logic and is designed to better chat with Indians since its dictionary is better constructed as per Indian approach.

A desktop partner bot who chats with you when you are tired. The bot is built with an artificial intelligence process. It chats with you as an actual person with amusing answers which doesn't make the user know he is really talking to a bot.

Music plays a very important role in enhancing an individual's life as it is an important medium of entertainment for music lovers and listeners and sometimes even imparts a therapeutic approach. In today's world, with ever increasing advancements in the field of multimedia and technology, various music players have been developed with various features. This proposed system based on facial expression extracted will generate a playlist automatically thereby reducing the effort and time involved in rendering the process manually. Thus the proposed system tends to reduce the computational time involved in obtaining the results and the overall cost of the designed system, thereby increasing the overall accuracy of the system. Facial expressions are captured using an inbuilt camera.

Block diagram of proposed system is below

**Fig1. Block diagram of proposed system**

Function of proposed system is able to detect smile and stress. If smile is detected then system will automatically fetch jokes, pop-ups will be shown on the screen. If stress is detected than inspirational quotes pop-ups will be shown on the screen. On detection of smile happy songs are played. On detection of stress inspirational songs are played. System provides chatting application for conversation. System is able to send some links, web pages or information by recognizing response from user

II. FUTURE WORK

By using proposed system we can monitor performance of employee's in MNC's. We can develop user and admin system for control. Employee analysis result can be generated in graphical form like pie chart, bar graph, etc.

V. CONCLUSION

If the user is feeling sad, then system will automatically fetch a joke from database and send it to the user on the window terminal. The system is able to make a conversation through chatting application. System is able to send some links, web pages or information by recognizing response from user. It will help to decrease level of stress on mind. Also support stress management.

VI. REFERENCES

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