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Let me predict your emotions

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Abstract -This As the working of the project the process of speech recognition based on the human emotions or the speech prediction based on the different kinds of the human emotions. It takes the audio file where it contains single line of sentence that in the form of audio signals and then it translated into text by using python library called speech recognition and after converting into the text, we can get to know what is that audio file and apply the masking over it. masking is a technique that clean the background sound in the audio.As a sample of input where in a form of audio which is recorded by the expert or a trainer for the prediction of the model and accuracy level of the information in which form of emotion that audio has been recorded based on the machine and debt learning algorithms the main purpose of developing this kind of project is to predict the emotion of human under the critical situations such as automatic car emotion prediction.Fields such as integrative speech based-agents or caller interaction analysis. The best example of this kind of system used to talk or caller- agent conversation analysis where caller-agent never communicated in same manner where the way of predicting the pitching/commination way of talking is to be consider by one customer to another customer. How is to predict it so we have implemented the system to solve this kind of problem's where the SEP (speech emotion prediction) system, based on the different type of feature extraction models have been used and developed such as MFCC (Mel-frequency cepstrum coefficients, chroma and Mel and the MLPClassification classification model which we developed in our project to map the suitable predicted emotions and gives the predicted emotion as a result. Where there are different type of feature extraction method and classification models also valuable in the python but using MLPClassification is based on the classification and more suitable so the MLPClassification is the best one and feature extraction models as well with the high accuracy. By using python library called speech recognition and after converting into the text, we can get to know what is that audio file and apply the masking over it. masking is a technique that clean the background sound in the audio. Speech emotion prediction is a system that take a set of audios as the input and predict the emotion based of the sound and pitch and tells the emotion based on the audio recorded for a particular audio have predicted particular results by using different methodologies from machine learning and deep learning algorithms

Key Words:*Speech Emotion Prediction, Machine learning, Chroma, Mel, Deep Learning, MLPClassification.*

1.INTRODUCTION

Emotions are to be in considered because the human behavior and feelings are too been depends on the human emotions and those emotions are too been main key points of the future prediction and the technology which is implemented based on the human interactions are to be in consider this kind of projects such as speech emotion prediction will help to reduce the accident levels and consider based on the human emotions the future cars or automatic cars which they are implementing are too been entire this kind of applications so we can predict the human emotions based on the speech and the researchers are most probably users are prefer the speech are tone emotion prediction compared to images. And you can identify different emotions like happy, sad, surprised, angry, etc. based on the different type of feature extraction models have been used and developed such as MFCC (Mel-frequency cepstrum coefficients, chroma and Mel and the MLPClassification classification model which we developed in

our project to map the suitable predicted emotions and gives the predicted emotion as a result. Where there are different type of feature extraction method and classification models also valuable in the python but using MLPClassification is based on the classification and more suitable so the MLPClassification is the best one and feature extraction models as well with the high accuracy. By using python library called speech recognition and after converting into the text, we can get to know what is that audio file and apply the masking over it. masking is a technique that clean the background sound in the audio. Speech emotion prediction is a system that take a set of audios as the input and predict the emotion based of the sound and pitch and tells the emotion based on the audio recorded for a particular audio have predicted particular results by using different methodologies from machine learning and deep learning algorithms.

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Our SEP system consists of four main steps.

1. Collecting of data or a wise sample a data set which we have collected from resources.
2. Second the future extraction based on the deep learning algorithm are a model which be used in a project for identification of emotion based on the audio.
3. Third stage that determination of a particular emotion of a different audio and in a form of matrix output and mapping those audios to the particular emotion.
4. Those classification based on the deep learning algorithm and analysis of a result based on the accuracy level of model.

2. LITERATURE SURVEY.

The field of artificial intelligence combined with cognitive science is rapidly growing. It includes design and development of various real-time applications such as speech recognition, decision making, face recognition, and DNA analysis. Recently, voice biometrics have been utilized to authenticate individual identification. Human voice is the most useful medium of communication due to its features of simplicity, uniqueness, and universality. In comparison with other biometric verification systems, the benefits of speaker identification are as follows: 1. Voice is easily accessible, easy to use and costs are low. 2. Voice is very easy to obtain and comparatively simpler for users to recognize people. As speech prediction systems need to operate under a wide variety of conditions, therefore, such systems should be robust to extrinsic variations induced by a number of acoustic factors such as transmission channel, speaker differences and background noise. In order to enhance classification performance, most of the speech applications perform digital filter, where the clean utterance estimation is learnt by passing noisy utterance through a linear filter. With such concept, the subject of noise reduction becomes how to design a best filter that can considerably remove noise without noticeable loss of useful information.

[1] Huang huiqin, et al. [Speech Emotion Recognition in Web based Service]. With the rapid development of Internet and the popularization of e-service, kinds of new technology were applied in this area. Aiming at emotion deficiency in present Web-based service system, speech emotion recognition system is proposed in the paper. A corpus of emotional speech from various subjects, speaking different languages is collected for developing and testing the feasibility of the system

.**[2] Mingmin Gong, et al.** [Speech emotion recognition in web-based education]. With the rapid development of the network technique and the prevalence of the Internet, Web based education has become the major trend. Aiming at emotion deficiency in present Web based education system, a lot of negative effects were analyzed and corresponding countermeasures were proposed. Basing on it, we combined affective computing with the traditional Web based education system.

3. PROPOSED METHODOLOGY.

This section describes in detail the methodology (Figure 1) The Machine learning and the deep learning technologies have grown fast and have the knowledge of thinking like human so it is kind of the advantages to improve and one of the best solution to the real world problems and using the

library packages of the python and performing the operation and reducing the work thinking and applying to machine and deep learning by using it feature and implementing one of the best solution to solve and increase the future goals and objective of making future advance. Implementing the deep learning system by using python library's such as MLPClassifier and feature extraction methods MFCC, Chroma, Mel and the other technology such as Librosa, soundFile and sklearn and apply on the dataset. Speech emotion prediction, Is the process of the or take a part of speech as the input and then determines in what emotions the speaker is speaking? And you can identify different emotions like happy, sad, surprised, angry, etc. based on the different type of feature extraction models have been used and developed such as MFCC (Mel-frequency cepstrum coefficients, chroma and Mel and the MLPClassification classification model which we developed in our project to map the suitable predicted emotions and gives the predicted emotion as a result.

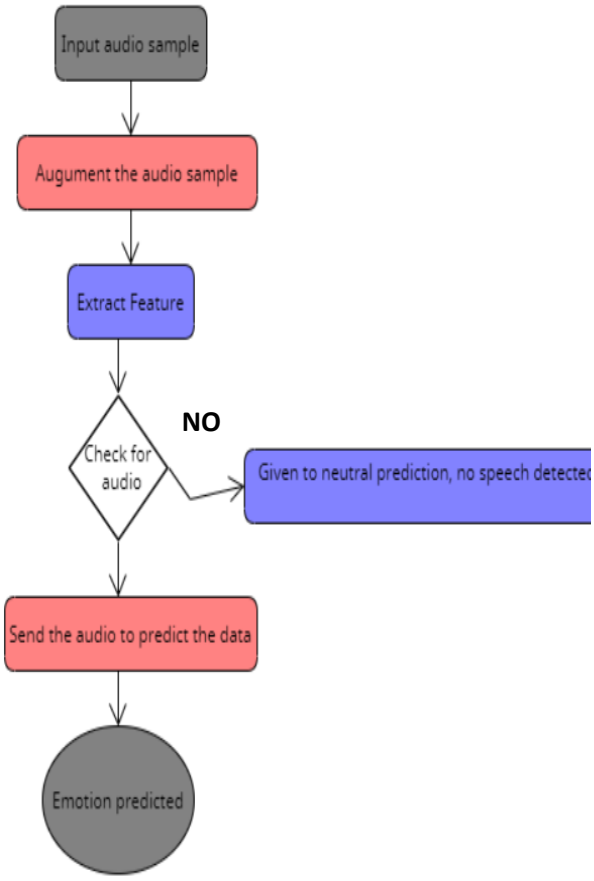

Figure 1 METHODOLOGY

A Dataset

Data set has been recorded from the experts where in a different emotion such as happy sad calm and discussed based on the audio voice and emotion the amplitudes and the frequency has been recorded then it will be converted to other processing steps.

B Speech Processing

In speech processing the amplitudes and the frequency which is got from the audio files there based on the model prediction values in a form of matrix has been converted and then each curve is the frequency,amplitude value has been assigned and based on those values the operation gets performed.

C Feature Extraction

In feature extraction method the machine learning algorithms has been used such as MFCC, chroma, and other algorithms for the direction of or the conversion of speech into Matrix format based on the pictures which is converted into frequency and tones in what tone it will be the output has to been predict based on those pitch, energy and tones.

D Proposed MLPClassifiction model

There is no objection in saying that Classification is one of the most popular Machine learning problems across the entirety of Data Science and Machine Learning. We humans have been so fixated on making machines learn to classify and categorize things, whether it be images, symbols or whatever form that data can take. Artificial Neural Networks or shortly ANN's are widely used today in many applications and, classification is one of them and also there are many libraries and frameworks that are dedicated to building Neural Networks with ease. Most of these frameworks and tools, however, require many lines of code to implement when compared to a simple library from Scikit-Learn that we are going to learn.

4. CONCLUSIONS

Speech emotion prediction are let me predict your emotions is a system of a future work way the development of technology in artificial intelligence the robotics and their own sense of sensing is to be improved according to the deep learning algorithms have their own working mechanism and have their own processing of data to enhance those technology in a future the project is to be in satisfied the working mechanism of thinking and sensing of a human emotion

FUTURE ENHANCEMENT:

As per the future evolution in the technology based on the consideration the future enhancement of the artificial intelligence and robotics based on the machine learning and deep learning technology the feature okay good understanding and bond between the technology and humans are to be in improved and based on the performance of a future technology is to been considered as a best interaction between the robotics and humans and for the future studies. And the automatic cars and other technologies are too been embedded together with using this kind of technology and methodologies to improve in a future are too been enhance the future work.

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