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A Voice Based Effective Content Mining & Indexing of Local Directory Data: A Review

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ABSTRACT: Research in the field of large amount of multidimensional data and extracting the facts and figures of particular business becomes the ubiquitous in the scientific computer community.

Whenever there is a description of data comes, it is obvious to think that this data is in the form of text and numbers in the format acceptable to the particular Database Management System. But since last few years with the advent of social Media like Facebook, YouTube etc. the process able data has taken the new form, which are Images, Videos and Speeches. E-commerce businesses and Artificial intelligence systems of the running time are heavily dependent on pattern matching and extracting the desired data from multimedia sources like videos, images and speeches. There is a need of time to extend the data mining techniques in a very effective manner for multimedia based content as data source and input queries.

KEYWORDS: Multidimensional Data, Artificial Intelligence, Data Mining, Voice Based Text Extraction, Videos, Images, Speeches, Patterns, Behaviour, Acoustics, Lexical feature.

I. INTRODUCTION

Speech is one of the unique ability of the human being, by which a human can express his Sentiments, Desires and Knowledge transfer to others in this world. There is other common method to express same thing which is widely used in this world is by Writing and Texting in a particular language. But to use this method, there are constraints for the human being to be an educated and qualified to transfer the knowledge and to express his sentiments and desires to others. With the advent of human and machine interaction by programming in text formats, it was realised to use human voice as an input to extract the result in either text format or in audio or video format. When a human being speaks, he performs three activities like, first deliver the words which is technically called as Lexical Feature of speech (Vocabulary), Second he makes some expressions on his face, technically called as Expressions, third he express his emotions by using tones and pitches technically called as Acoustics[1][2][3].

II. RELATED WORK

The task of Data Mining in multilingual Voice based system is to organizing, Retrieving and Indexing the desired Voice results and patterns from very large Audio Repository[1]. Data mining research in areas of knowledge retrieval, Prediction, learning and language understanding of audio become an important part of business process. Essential areas of voice based data mining are Call Centre management, Customer support Services, after Sells services, Voice Retrieval and Indexing for search engines, mining knowledge from noisy Data. Audio mining is has four components, audio indexing, speech processing and speech recognition, audio Classification [5]. In audio, there is the main problem of information retrieval - there is a need to locate the text documents that contain the search key. Unlike humans, a computer is not able to distinguish between the different types of audios such as speed, mood, noise, music or human speech - an effective searching method is needed. Hence, audio indexing allows efficient search for information by analyzing an entire file using speech recognition. An index of content is then produced, bearing words and their locations done through content-based audio retrieval, focusing on extracted audio features. It is done through mainly two methods: Large Vocabulary Continuous Speech Recognition (LVCSR) and Phonetic-based Indexing [4][7][10].



III. CONCLUSION

Data mining techniques in speech recognition helps in the area of driving an intelligent device or software system which can be used by physically challenged people. It is not only useful for physically challenged people but for common people it can reduce time to insert data for desired result instead of inserting data by writing text which is more time consuming than giving instruction by just speaking.

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