Automatic Wave To Lip Syncing

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Abstract- *In this project, we propose a technique to detect the rumor news in the speech of common people using logistic regression. The spread of rumor will reduce the efficiency of communication and may leads to unnecessary threats in the common mass. Manual verifying the validity of the information is not possible all the time. Thus our system proposed a machine learning based verification technique to detect the rumor data in the context. It is becoming even more important yet quite challenging. Rumors spread a large quantity of misinformation on almost every platform. We detect rumors as a type of misinformation propagation. We explore the problem using a standard data set.*

Keywords- lip syncing, video generation, Speech Recognition, Rumor Detection.

I. INTRODUCTION

Effective communication among people has been used for information and news gathering, and they are very valuable in many applications. However, they also lead to the spreading of rumors and fake news.

Many efforts have been taken to detect and debunk rumors on common platform by analyzing their content and social context using machine learning techniques. This project proposes an effective technique that outperforms the existing methods and recent studies in the rumor detection field. Analysis of a comprehensive list of datasets used for rumor detection, and the review of important studies based on what types of information they exploit and the approaches they take is also undergone in this project. With the help those evaluation, we present new direction for present research. Rumors sometimes may spread very quickly over common platforms, and rumor detection has gained great interest in both academia and industry recently. Government authorities and social media platforms are also taking efforts to defeat the negative impacts of rumors. Different publications may have different definitions for rumor. It is hard to do a head- to-head comparison between existing methods due to the lack of consistency. In this survey, a rumor is defined as a statement whose truth value is true, unverified or false. When a rumor's veracity value is false, some studies call it "false rumor" or "fake news". However, many previous studies give "fake news" a stricter definition: fake news is a news article published by a news outlet that is intentionally and verifiably false. The focus of this project is spread of rumor among common mass, not fake news. There are also different definitions for rumor detection.

II. OBJECTIVE

Following are the objectives that we wish to achieve with this project:

- To detect the rumor information in order to avoid the spread of fake data among people.
- To implement machine learning technique to determine the presence of rumors in real-time recorded speech data.
- To improve the automatic detection of fake news by employing logistic regression algorithm.

III. EXISTING SYSTEM

In this technique, the rumor detection will be done based on the pre-stored words in the system. The presence of certain words that are pre-defined as fake in the dataset will be detected and thus categorize the information as rumor. And if those are not present in the context, the information will be considered as true and categorized in non-rumor data. Since the system checks for the presence of only the pre-stored words in the context, the system will fail in predicting the rumor content in the context if it has meaning of rumor without the presence of pre-stored words. Also this technique has no alert system to warn the user about the rumor content in the analyzed information.

IV. PROPOSED SYSTEM

In this system, there are two major steps;

1. Speech Recognition - Camera will be initialized and the speech generated in the field of view will be listened and recorded for recognition.

2. Rumor Detection – The recognized speech that is recorded will be analyzed using Logistic regression in order to classify the data as rumor and true data.

The rumor data will detected and assigned with certain value as 0 and the true data will be detected and assigned with certain value as 1 which is beneficial in detecting the fake information in the recorded context of the speech. On the detection of fake information in the context, our system will send the mail alert to the cyber-crime department as "rumor news detected" using IMAP protocol.

V. MODULES

A.USER INTERFACING MODULE:

In this module, the user will access the executable file which is designed using qt Designer in which the user can activate the system to start the required process.

B.CAMERA INITIALIZATION MODULE:

This module will initialize the camera for real-time detection of fake or rumor content by using speech recognition technique which is explained in next module.

C.SPEECH RECOGNITION MODULE:

In this module, along with camera input (video), the voice input (audio) will also be obtained. Here the voice In this module, the converted text will be compared with the text in the server. The server will have common words and by comparing the related words, the system will provide results of text conversion with high accuracy without false results.

D.TEXT MINING MODULE:

Further, the system uses logistic regression to determine the fakeness in the content of the information which is based on text mining approach. The Database will contain both negative and positive content. According to the content of the text mined from the obtained information, it will be categorized under positive (true) or rumor (fake) content.

E.REPORTING MODULE:

If the fake news is detected, the system will report the presence of rumor data to cyber-crime department through mail using input will be converted into Text by PyAudio library in python.

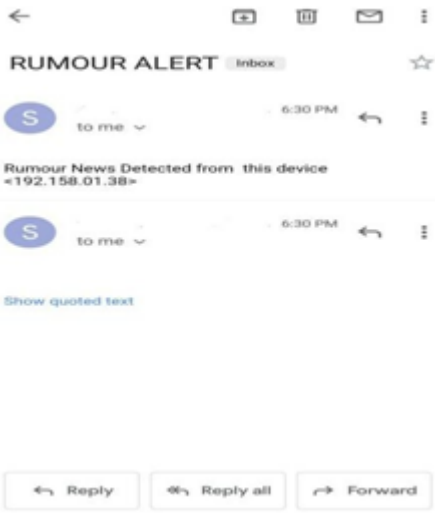
F.GOOGLE-API MODULE:

IMAP protocol. It will help them to take immediate action to avoid the spread of rumor to great extent. And if the fake content is not detected, the system continues to perform the monitoring procedure without any interruption.

VI. CONCLUSION

Our proposed technique successfully detected the presence of rumor in the given context with maximum precision. Google- API server is used to avoid false results in converting the speech signal into text by comparing the input data with the data stored in the server that has the common linguistic words. Text mining and logistic regression technique is implemented in the system to detect the presence of rumor content in the converted text data. Automatic detection of fake content by using machine learning can be use everywhere in order to prevent spread of Rumors and thus avoiding miscommunication that may lead to major confusion in common problems. Further the reporting of the detection through to the cybercrime department is helpful in control the spread of fake news in great scale. Therefore, our system shows better results in detection and reporting procedure regarding the fake news in the context of the data obtained.

VII. RESULTS



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