RAILWAY TWEET ANALYSIS USING MACHINE LEARNING

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ABSTRACT : In this day and age with such higher crime percentage and severe wrongdoing occurring, there must be some security against this wrongdoing. In this going to take some datasets for wrongdoings and import pandas and numpy information outlines. Grouping will be done dependent on places where wrongdoing happened, posses associated with wrongdoing and the planning wrongdoing occurred. This will assist with foreseeing wrongdoing which will happen in future. To be more ready to react to crime, it is critical to comprehend designs in wrongdoing. In our venture, we break down wrongdoing information , scratched from freely accessible dataset.

At the beginning, the assignment is to foresee which class of wrongdoing is well on the way to happen given a period and spot. The utilization of AI and AI to distinguish wrongdoing through sound or cameras presently exists, is demonstrated to work, and expected to keep on growing. The utilization of AI/ML in foreseeing wrongdoings or a person's probability for carrying out a wrongdoing has guarantee however is still a greater amount of an obscure. The greatest test will most likely be "demonstrating" to legislators that it works. At the point when a framework is intended to prevent something from occurring, it is hard to demonstrate the negative. Organizations that are straightforwardly engaged with furnishing governments with AI apparatuses to screen zones or foresee wrongdoing will probably profit by a positive criticism circle. Upgrades in wrongdoing anticipation innovation will probably prod expanded all out spending on this innovation. We additionally endeavor to make our grouping task progressively important by consolidating numerous classes into bigger classes. At last, we report and consider our outcomes with various classifiers, and harp on roads for future work.

INTRODUCTION

Sentiment analysis is one of the trendy research domains in natural language processing (NLP). Sentiments or opinions can be defined as a mental situation or feeling of a person in certain circumstances and conditions [1]. These feelings may be a reflection of joy, sadness, discomfort or nervousness. Present world is full of technology and smart devices. Moreover, availability of fast internet and huge storage capability with social media platforms, people can share their feelings online. Twitter [2] is one of the biggest online social media platform followed by billions of people across the world.

The personal account of individual on Twitter may be considered as a microblog [3]as it provides a limited text of 140 characters to share the views. There are a lot of studies on sentiment analysis which takes into consideration air travel, tourism, stay in hotels, restaurants, movies, politics etc. [4–8]. Trains are also one of the popular modes of transport which are time consuming (in comparison to air travel) but more convenient and comfortable for long routes.

India is a country with second largest population in the world after china [9]. In India, people mostly prefer trains to cover the long distances because of convenience of comfort, low fare etc. However, travel in trains may not be always comfortable due to various reasons i.e. food quality, cleanliness, number of people in the coach, quality of Sentiment analysis is one of the trendy research domains in natural language processing (NLP). Sentiments or opinions can be defined as a mental situation or feeling of a person in certain circumstances and conditions [1]. These feelings may be a reflection of joy, sadness, discomfort or nervousness. Present world is full of technology and smart devices. Moreover, availability of fast internet and huge storage capability with social media platforms, people can share their feelings online. Twitter [2] is one of the biggest online social media platform followed by billions of people across the world.

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The key development challenge was to improve transportation services. To do this, the ministry needed to create a communication platform to help Indian Railways quickly resolve passenger problems and complaints. Prior to this initiative, there were no real-time mechanisms for railway customers to communicate problems to the railway. The use of grievance registers at train stations could only capture incidents that had already occurred and could not provide immediate solutions to problems as they were happening. In the past, customers had given feedback through means such as complaint books, letters, e-mail, and phone calls. The Indian government had more recently introduced the Centralized Public Grievance Redress and Monitoring Management System Portal and the IR's Complaint Management System Portal to receive feedback from rail users and the public at large. These interfaces, however, still did not offer an opportunity for real-time responses. The railway minister realized that better communication would improve accountability, convenience, and the travel experience for passengers.
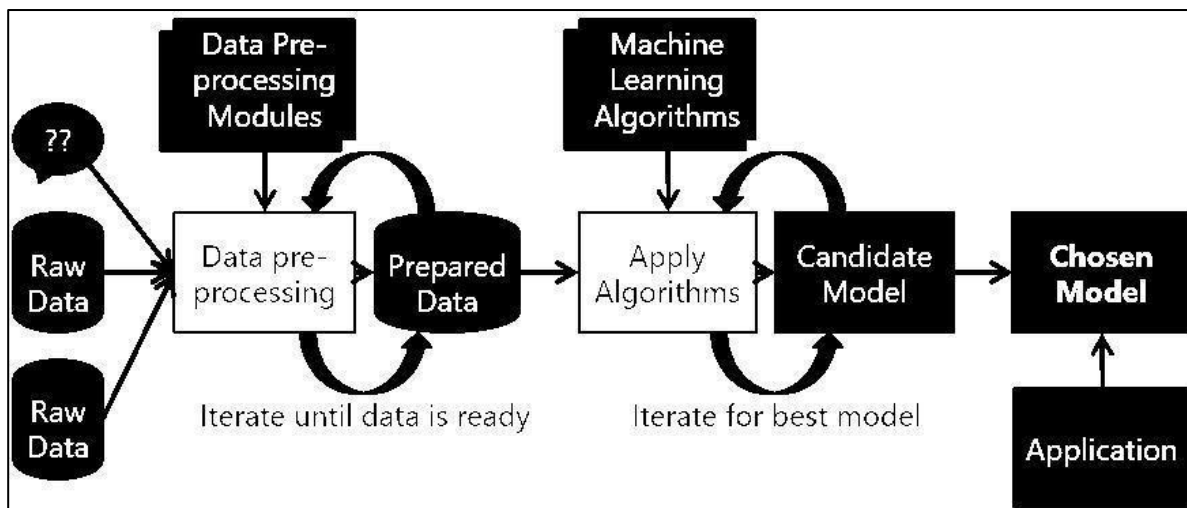
Existing system:

The general managers of each zone report to a central railway board consisting of seven members, the chair of which reports to the Ministry of Railways (Ministry of Railways 2015). This case study examines how Indian Railways implemented a social media-based approach to respond effectively to customer feedback and complaints. The railway served a diverse group of passengers, operating various classes of service and of trains. The complaints received and problems reported were numerous and diverse, ranging from dirty coaches and late trains to more immediately pressing issues such as medical emergencies and crime.

Proposed system:

With the advent of Artificial Intelligence, it is not so far that in near future the AI Assistants will be doing most of human tasks with much more efficiency and accuracy. With the help of machine learning model, we have classified the posts in two major categories – Feedback and Emergency. We have made a website. The user can directly complain any issue related to railway by log and they will receive the reply in real time.

Architecture:

Future Scope

The machine learning model will be flexible and can be applied on various other local authorities like Nagar Nigam, State electricity board and various other authorities. We just have to filter the posts on the basis of that particular authority.

Conclusion

With the advent of Artificial Intelligence, it is not so far that in near future the AI Assistants will be doing most of human tasks with much more efficiency and accuracy. With the help of machine learning model, we have classified the posts in two major categories – Feedback and Emergency. We have made a website. The user can directly complain any issue related to railway by log and they will receive the reply in real time. This project will reduce the manual work and the actions against the complaint can be taken fast. We believe this project if properly utilized will save time, reduce the

amount of work the administration has to do. It will replace the stationery material with electronic apparatus. The system should also serve as a major tool in improving the efficiency of action taken against the complaint. Hence a system with expected results has been developed but there is still room for improvement. In terms of experience gained through the duration of this project study, we have been able to acquire broader knowledge about the management of complains in railway and how the actions are taken. We believe this project will serve the customers efficiently.

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