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ANALYSIS OF WOMEN SAFETY IN INDIAN CITIES MACHINE LEARNING ON TWEETS

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ABSTRACT:

Women and girls have been experiencing a lot of violence and harassment in public places in various cities starting from stalking and leading to sexual harassment or sexual assault. This research paper basically focuses on the role of social media in promoting the safety of women in Indian cities with special reference to the role of social media websites and applications including Twitter platform Facebook and Instagram. This paper also focuses on how a sense of responsibility on part of Indian society can be developed the common Indian people so that we should focus on the safety of women surrounding them. Tweets on Twitter which usually contains images and text and also written messages and quotes which focus on the safety of women in Indian cities can be used to read a message amongst the Indian Youth Culture and educate people to take strict action and punish those who harass the women. Twitter and other Twitter handles which include hash tag messages that are widely spread across the whole globe sir as a platform for women to express their views about how they feel while we go out for work or travel in a public transport and what is the state of their mind when they are surrounded by unknown men and whether these women feel safe or not.

Keywords: *Instagram, Twitter, face book.*

1. INTRODUCTION

Twitter in this modern era has emerged as a ultimate microblogging social

network consisting over hundred million users and generate over five hundred million messages known as ‘Tweets’ every day.

Twitter with such a massive audience has magnetized users to emit their perspective and judgemental about every existing issue and topic of internet, therefore twitter is an informative source for all the zones like institutions, companies and organizations. On the twitter, users will share their opinions and perspective in the tweets section. This tweet can only contain 140 characters, thus making the users to compact their messages with the help of abbreviations, slang, shot forms, emoticons, etc. In addition to this, many people express their opinions by using polysemy and sarcasm also. Hence twitter language can be termed as the unstructured. From the tweet, the sentiment behind the message is extracted. This extraction is done by using the sentimental analysis procedure. Results of the sentimental analysis can be used in many areas like sentiments regarding a particular brand or release of a product, analyzing public opinions on the government policies, people thoughts on women, etc. In order to perform classification of tweets and analyze the outcome, a lot of study has been done on the data obtained by the twitter. We also review some studies on machine learning in this paper and research on how to perform sentimental analysis using that domain on twitter data. The paper scope is restricted to machine learning algorithm and

models. Staring at women and passing comments can be certain types of violence and harassments and these practices, which are unacceptable, are usually normal especially on the part of urban life. Many researches that have been conducted in India shows that women have reported sexual harassment and other practices as stated above. Such studies have also shown that in popular metropolitan cities like Delhi, Pune, Chennai and Mumbai, most women feel they are unsafe when surrounded by unknown people. On social media, people can freely express what they feel about the Indian politics, society and many other thoughts. Similarly, women can also share their experiences if they have faced any violence or sexual harassment and this brings innocent people together in order to stand up against such incidents. From the analysis of tweets text collection obtained by the twitter, it includes names of people who has harassed the women and also names of women or innocent people who have stood against such violent acts or unethical behaviour of men and thus making them uncomfortable to walk freely in public.

2. SURVEY OF RESEARCH

[1] J.-J. Wang, N.-N. Zhao, and J.-H. Li, "Current situation of marine microplastics pollution and prevention proposals in China,"

China Environmental Science, vol. 39, no. 7, pp. 3056-3063, Jul. 2019, doi: 10.19674/j.cnki.issn1000-6923.2019.0360.

Garbage classification has always been an important issue in environmental protection, resource recycling and social livelihood. In order to improve the efficiency of front-end garbage collection, an automatic garbage classification system is proposed based on deep learning. Firstly, the overall system of the garbage bin is designed, including the hardware structure and the mobile app. Secondly, the proposed garbage classification algorithm is based on ResNet-34 algorithm, and its network structure is further optimized by three aspects, including the multi feature fusion of input images, the feature reuse of the residual unit, and the design of a new activation function. Finally, the superiority of the proposed classification algorithm is verified with the constructed garbage data. The classification accuracy of the proposed algorithm is enhanced by 1.01%. The experimental results show that the classification accuracy is as high as 99%, the classification cycle of the system is as quick as 0.95 s.

[2] W.-B. Li, G. Ma, E.-Q. Yang, Y.-M. Cai, Z. Chen, R.-f. Gao, J.-H. Yan, X.-F. Cao, and E.-J. Pan, "Study on characteristics of electric

dust removal fly ash and bag fly ash in circulating fluidized bed waste incineration system," Proceedings of the CSEE, vol.39, no.5, pp.1397-1405, Mar.2019, doi: 10.13334/j.0258-8013.pcsee.181110.

Trash grouping has consistently been a significant issue in ecological assurance, asset reusing and social occupation. To improve the productivity of front-end trash assortment, a programmed trash grouping framework is proposed dependent on profound learning. First and foremost, the general framework of the trash container is planned, including the equipment structure and the versatile application. Besides, the proposed trash grouping calculation depends on ResNet-34 calculation, and its organization structure is further enhanced by three angles, including the multi highlight combination of info pictures, the component reuse of the lingering unit, and the plan of another enactment work. At long last, the predominance of the proposed grouping calculation is confirmed with the built trash information. The arrangement exactness of the proposed calculation is improved by 1.01%. The exploratory outcomes show that the grouping precision is pretty much as high as 99%, the grouping pattern of the framework is just about as fast as 0.95 s.

[3] D. Porshnov, V. Ozols, and M. Klavins, "Thermogravimetric analysis as express tool for quality assessment of refuse derived fuels used for pyro-gasification," *Environmental Technology*, vol. 41, no. 1, pp. 39-35, Mar 2020.

The development of pyro-gasification technologies makes necessary the development of new express analytical methods that are able to deal with the variability of feedstock and problems arising from it. Thermogravimetric proximate analysis of refuse derived fuels is a very fast, cheap and simple method for the determination of proximate and fractional composition. Development of this analytical approach may result in a very cost-effective method to describe wholesome composition and characteristics of feedstock used for pyrolysis and gasification processes in real time. The aim of this study was the development of such analytical method. Refuse derived fuel samples produced in Latvia and Estonia analysed during this study with thermogravimetric proximate analysis and standard methods. Equations for determination of gross calorific value and elemental composition from thermogravimetric proximate analysis were developed. Furthermore, results show that also signals pointing to excessive proportion

of chlorine and fluorine can be obtained, using this method. The results obtained during this study can help to develop the automatic feedstock quality control systems for modern thermal processing technologies used in waste management.

[4] P. Kellow, R. Joel J P C, D. Ousmane, D. Ashok Kumar, d.- A. Victor Hugo C, and K. Sergei A, "A Smart Waste Management Solution Geared towards Citizens," *Sensors (Basel, Switzerland)*, vol. 20, no. 8, pp.1-15, Apr.2020, doi:10.3390/s20082380.

Global industry is undergoing major transformations with the genesis of a new paradigm known as the Internet of Things (IoT) with its underlying technologies. Many company leaders are investing more effort and money in transforming their services to capitalize on the benefits provided by the IoT. Thereby, the decision makers in public waste management do not want to be outdone, and it is challenging to provide an efficient and real-time waste management system. This paper proposes a solution (hardware, software, and communications) that aims to optimize waste management and include a citizen in the process. The system follows an IoT-based approach where the discarded waste from the smart bin is continuously monitored by sensors that inform the filling level of each compartment,

in real-time. These data are stored and processed in an IoT middleware providing information for collection with optimized routes and generating important statistical data for monitoring the waste collection accurately in terms of resource management and the provided services for the community. Citizens can easily access information about the public waste bins through the Web or a mobile application. The creation of the real prototype of the smart container, the development of the waste management application and a real-scale experiment use case for evaluation, demonstration, and validation show that the proposed system can efficiently change the way people deal with their garbage and optimize economic and material resources.

[5] Y.-G. Cheng, N. Chen, and H. Zhang, "Coal Fly Ash as an Inducer to Study Its Application in the Production of Methane Gas from Domestic Waste," *Fresenius Environmental Bulletin*, vol. 29, no. 2, pp. 1082-1089, 2020.

Fly ash is a major waste of coal-power generation and its management is a major environmental and economic challenge, and it will become even more critical with a projected increase in the reliance on coal for power generation. The authors discuss how the unique physicochemical properties of ash

can be strategically employed to ameliorate acidity and sodicity, and physical and fertility constraints, in agricultural soils. They show that with careful selection of ash type and methods and rates of application, mutually compatible with the soil and crop type, the often reported phytotoxicity due to high concentrations of certain trace metals can be avoided while maintaining the quality of produce and minimizing risk to the environment. Specific examples are presented to demonstrate where it is economical to use fly ash as a low-cost alternative to certain fertilizers and liming materials on farms. The authors also propose criteria for the selection of ash and for regulatory parameters that would ensure the safe and routine utilization of ash in plant production systems.

1EXISTING SYSTEM :

People often express their views freely on social media about what they feel about the Indian society and the politicians that claim that Indian cities are safe for women. On social media websites people can freely Express their view point and women can share their experiences where they have faced abuse harassment or where we would have fight back against the abuse harassment that was imposed on them . The tweets about safety of women and stories of standing up

against abuse harassment further motivates other women data on the same social media website or application like Twitter. Other women share these messages and tweets which further motivates other 5 men or 10 women to stand up and raise a voice against people who have made Indian cities and unsafe place for the women. In the recent years a large number of people have been attracted towards social media platforms like Facebook, . It is a common practice to extract the information from the data that is available on social networking through procedures of data extraction, data analysis and data interpretation methods. The accuracy of the Twitter analysis and prediction can be obtained by the use of behavioral analysis on the basis of social networks.

DIS ADVANTAGES:

- Twitter and Instagram point and most of the people are using it to express their emotions and also their opinions about what they think about the Indian cities and Indian society.
- There are several method of sentiment that can be categorized like machine learning hybrid and lexicon-based learning.
- Also there are another categorization Janta presented with categories of

statistical, knowledge-based and age wise differentiation approaches

Proposed system:

As People communicate and share their opinion actively on social medias including Facebook and Twitter, Social network can be considered as a perfect platform to learn about people's opinion and sentiments regarding different events. There exists several opinion-oriented information gathering and analytics systems that aim to extract people's opinion regarding different topics. Since Twitter contains short texts, people tend to use different words and abbreviations. These phrases are difficult to extract their sentiment by current NLP systems easily. Therefore, many researchers have used deep learning and machine learning techniques to extract and mine the polarity of the phrases.

IMPLEMENTATION

The present study investigated a method to identify the bird species using Deep learning algorithm (Unsupervised Learning) on the dataset (Caltech-UCSD Birds 200) for classification of image. It consists of 200 categories or 11,788 photos. The generated system is connected with a user-friendly website where user will upload photo for identification purpose and it gives the desired output. The proposed system

works on the principle based on detection of a part and extracting CNN features from multiple convolutional layers. These features are aggregated and then given to the classifier for classification purpose. On basis of the results which has been produced, the system has provided the 80% accuracy in prediction of finding bird species.

Implementation:

In this paper author is describing concept to analyse women safety using social networking messages and by applying machine learning algorithms on it. Now-a-days almost all peoples are using social networking sites to express their feelings and if any women feel unsafe in any area then she will express negative words in her post/tweets/messages and by analysing those messages we can detect which area is more unsafe for women's. Author implementing following modules to analyse women safety.

In propose work author using TWEETPY package from python to download tweets from twitter but every time INTERNET will not available to download tweets online so we downloaded MEETOO tweets on women safety and safe inside dataset folder. Application will read this tweets to detect women's sentiments. Author using NLTK (natural language tool kit) to remove special symbols and stop words from

tweets and to make them clean. Author using TEXTBLOB corpora package and dictionary to count positive, negative and neutral polarity and the tweets which has polarity value less than 0 will consider as negative as and greater than 0 and less than 0.5 will consider as neutral and polarity greater than 0.5 will consider as positive.



Fig.1. Home page.

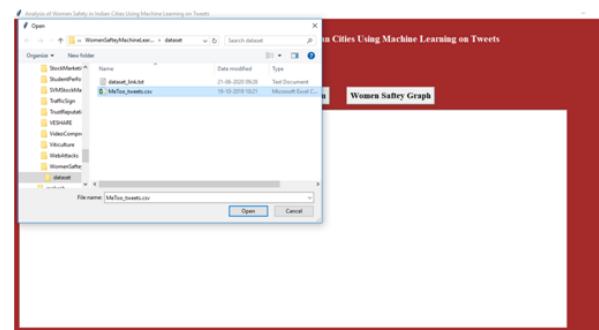


Fig.2. Data set.

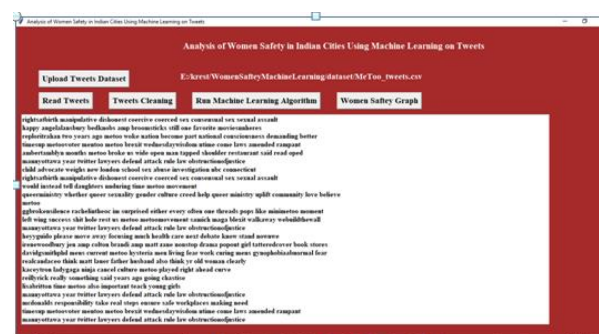
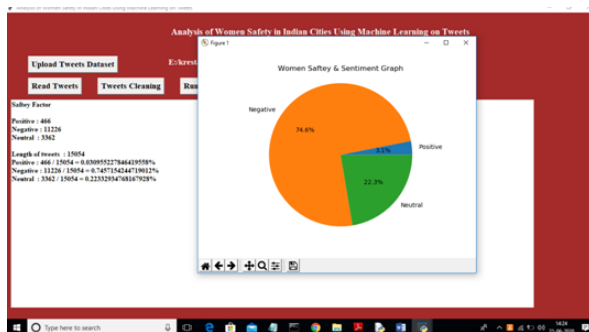


Fig.3. Output results.



In above screen 0.74 multiply by 100 will give 74% which means 74% peoples are talking negative and area is not safe and only 22 and 3% peoples are talking positive and neutral.

CONCLUSION

Throughout the paper various algorithms have been discussed about deep learning and machine learning which can help in analyzing huge amount of data accumulated via tweeter to help determine the safety of women in the society. The machine learning algorithms used are very effective and work efficiently on various platforms when it comes to handling the large amount of data from social media platforms. These algorithms can really help make a dent in women safety and extracting information and create various datasets to work with. We look forward to work more and tweak it to work even more efficiently in the coming near future.

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