



# International Journal for Innovative Engineering and Management Research

A Peer Reviewed Open Access International Journal

www.ijiemr.org

**COPY RIGHT**



**ELSEVIER**  
**SSRN**

**2023 IJIEMR.** Personal use of this material is permitted. Permission from IJIEMR must be obtained for all other uses, in any current or future media, including reprinting/republishing this material for advertising or promotional purposes, creating new collective works, for resale or redistribution to servers or lists, or reuse of any copyrighted component of this work in other works. No Reprint should be done to this paper, all copy right is authenticated to Paper Authors

IJIEMR Transactions, online available on 07th Jan 2023. Link

[:http://www.ijiemr.org/downloads.php?vol=Volume-12&issue=ISSUE-1](http://www.ijiemr.org/downloads.php?vol=Volume-12&issue=ISSUE-1)

**DOI: 10.48047/IJIEMR/V12/ISSUE 01/53**

Title **Twitter-Based Self-Education And Machine Learning For Analyzing Women's Safety In Indian Cities**

Volume 12, Issue 1, Pages: 572-578

Paper Authors

**Mr. A.NagarjunaReddy, CH. Manisree, B. Vaishnavi, J. Sindhu Priya**



USE THIS BARCODE TO ACCESS YOUR ONLINE PAPER

To Secure Your Paper As Per **UGC Guidelines** We Are Providing A Electronic Bar Code

## Twitter-Based Self-Education And Machine Learning For Analyzing Women's Safety In Indian Cities

**Mr. A.NagarjunaReddy**, Associate professor, Dept. of Information Technology, Sridevi Women's Engineering College, Hyd. [anr304@gmail.com](mailto:anr304@gmail.com)

**CH. Manisree**, B.Tech., Dept. of Information Technology, Sridevi Women's Engineering College, Hyd.

**B. Vaishnavi**, B.Tech., Dept. of Information Technology, Sridevi Women's Engineering College, Hyd.

**J. Sindhu Priya**, B.Tech., Dept. of Information Technology, Sridevi Women's Engineering College, Hyd.

**ABSTRACT**-The harassment and abuse of women and girls in public spaces has increased in recent years, starting with stalking and moving on to sexual harassment in certain places. Partner abuse. This research focuses on women's safety on social media platforms like Twitter and Facebook, as well as the broader impact of social media on India's rapidly growing urban centres. The research also delves into how a heightened awareness of social responsibility in India might improve the quality of life for the majority of the country's population without jeopardising the safety of the women in their midst. Twitter posts, which often incorporate both textual and visual material, may be interpreted amid the turmoil of Indian cities; these posts typically have statements and phrases that stress the safety of women. Teaching young Indians to stand up for harassed women and see that they are given justice is an important part of changing the culture of India. Twitter and other twitter handles with hash-tagged messages are widely disseminated as a platform for women to voice their opinions and thoughts about their experiences using public transportation to get to their destination, whether for business or pleasure, and whether or not they feel safe when riding alone.

**Keywords:-** Keywords: hashtag, sexual harassment, women's protection, and interpretation based on feelings.

### INTRODUCTION

It's unfortunate that disgusting actions like staring down others and making snarky

comments are often recognised as part of city life and might make victims more susceptible. In many major Indian cities, researchers have looked at claims of sexual harassment from women and their explanations for shifting the responsibility to

other, unnamed parties. It's important to note that the research was conducted in the countries where the. The capital city of Delhi, as well as the city of Mumbai, are two of the most populated and significant urban areas in all of India. Despite the fact that 60% of women in Mumbai and Pune feel unsafe on their way to or from work or while riding public transportation, women have the legal right to travel freely throughout the city for any purpose, be it a personal errand, a school assignment, a visit to a higher learning institution, or anything else. Nonetheless, women suffer anxiety while visiting public places like supermarkets, department shops, and shopping malls, due to the many unknowns they encounter on their way to and from work. It's evident that the men who engage in this kind of harassment and body shaming don't take into account the fact that women are, on average, safer than men and face less penalties for such behaviour. When young women were more vulnerable, such as in the past when male neighbours frequently harassed them while they were commuting to class or when supplies were low, adults took steps to ensure their safety that ultimately backfired, causing emotional distress for young women who may never recover from the trauma of having been

sexually harassed by a stranger or having been pressured into doing something they later regret.

The most secure neighbourhoods consider women's safety from the perspective of eliminating all forms of discrimination, including the danger of physical damage that comes from women's participation in local politics. Acknowledging the need of keeping women and girls safe in New York City, but also recognising their equal rights to men, we should not place restrictions on society's authority to impose its standards on them. The identities of specific Twitter users who are exemplary of women who speak out against sexual harassment and assault are also included in the analysis of the gathered messages. Males in metropolitan India are restricted in their mobility as a result of the widespread problem of sexual harassment and unethical conduct. For the machine-processed members of Indian society, women's security meant learning data smoothing techniques through, utilising Laplace's and Porter's theory, which involves ignoring zeros, to create a system for analysing data and culling out duplicates and retweets so that the resulting dataset is more useful.

## **RELATED WORK**

**The proceedings of ACL Europe, the 12th annual conference on computational linguistics. The Linguistics Society of Computer Science.**

With this collection, we are glad to make accessible the papers presented at EACL 2009, the 12th Conference of the European Chapter of the Organization for Computational Linguistics, which took place in Athens, Greece, from March 30 to April 3, 2009. With 360 acceptable entries, EACL 2009 surpassed the previous records set by EACL 2006 (264) and EACL 2003 (181). The new EACL guideline on presenting techniques resulted in a higher acceptance rate than in either 2006 (20%) or 2003 (27%), and we expected to get a total of 100 papers (of which 2 were withdrawn). In fact, in 2009, the EACL meeting will modify its format by permitting the main hall papers to be presented either as normal talks or as posters, with posters receiving both a ten-minute rapid-fire demonstration within a thematic session and a one-hour discussion duration together in traditional poster session. Therefore, there will be 57 talks and 41 posters at EACL 2009, with both forms of contributions being given the same amount of time and consideration. We think this move toward a combination of

conventional speeches, lightning presentations, and poster sessions will boost contact among scholars and contribute significantly to a much livelier scientific interchange, and it will help us retain a reasonable acceptance rate. Since the number of submissions—and hence the number of reviews—has increased dramatically, we owe a debt of gratitude to the eleven regional seats that coordinated the hiring of 449 reviewers. After three reviewers had a chance to go through the papers and discuss their differences, the area chair made his or her final decision. Following review of all reports and discussion with region chairmen, the final decision was reached by the programme co-chairs.

**Sentiment identification using customer feedback datasets: noisy data, vast feature space, and the relevance of language analysis. Association for Computational Linguistics. Sessions of the 20th annual conference on Computational Linguistics.**

We show that it is possible to do automated sentiment classification even in the extremely confusing environment of customer feedback data. We show that by using large feature maps in combination with feature reduction, it is feasible to train linear support vector machines to high

accuracy on data that offers classification challenges even for a human annotator. We also show that a remarkable improvement in classification accuracy is achieved by combining a set of shallow word n-gram features with rich language use of there.

## METHODOLOGY

Many different Twitter sentiment studies have been conducted by developers, with the service being put to use in a wide range of settings and in real time to examine the emotional tweeting about events that are generating widespread interest across the globe. As the methodology demonstrates, there are several routes to connecting to the Twitter API and retrieving tweets. This is followed by sanitising the tweets by eliminating stop words, classifying them based on the polarity of each tweet, and then delivering the final findings.

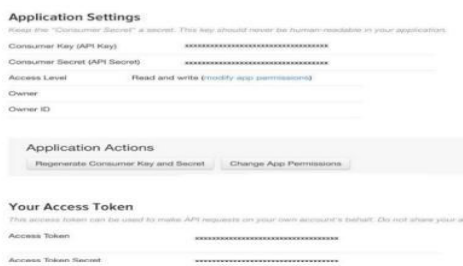


Fig. 2. Twitter API application website

A significant volume of neutral tweets shows that its users are less involved in the topic and less willing to have a conversation about the pros and cons of the idea. Moreover, think about this: the answer to

that question will depend on the results of the experiments we do, varying outcomes since public opinion is susceptible to a wide range of circumstances, including, for instance, rape headlines, which were among 2017's most discussed occurrences. There are more positive than bad tweets in certain circumstances; this is a Restriction on sight. The above analysis has led us to the conclusion that Chennai is, in fact, the safest major metropolis in the world, whereas Delhi is the most hazardous.

## RESULT AND DISCUSSION

It's sad that looking at a woman or making derogatory comments about her is commonly tolerated, particularly in urban settings, where it might constitute harassment and assault. There have been a lot of research done on this topic. According to the data gathered in India, women also described experiencing various types of abuse in addition to the sexually-related ones.

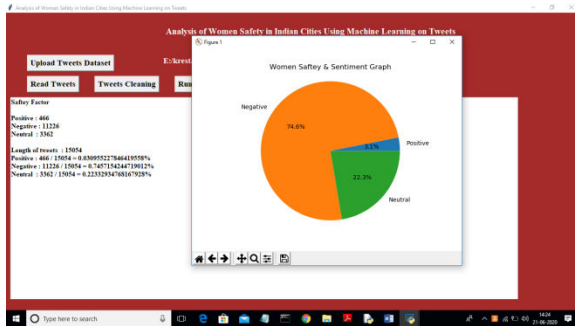
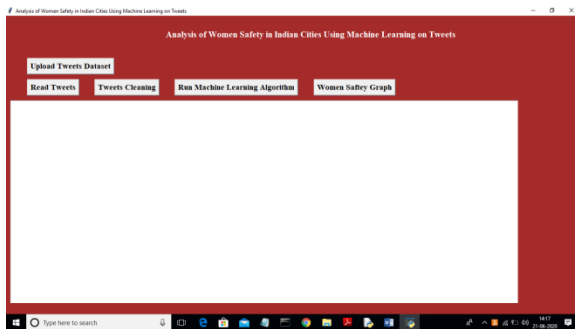
These studies have also shown that most women report feeling dangerous when you are in a group of strangers in several of India's main cities, including Delhi, Pune, Chennai, and Mumbai. Social media has created a forum where Indians may freely

express their opinions about the country's governance, culture, and history. Women may also share their stories regarding their own experiences with violence. Sexual harassment, which threatens the safety of innocent bystanders, has galvanised a sizable group into action. Analysis of the content of tweets has uncovered a list of Males Who Have Harassed Women, including the accounts of women and bystanders whose voices have been heard in protest of violent or immoral conduct committed by men, making them feel unsafe in public.

here, while just 22% and 3% disagree.

## CONCLUSION

The millions of tweets and messages sent and received every day are only one example of the huge amounts of data that can be collected, sorted, and analysed using algorithmic techniques to machine learning, which we have discussed at length in this article. Modern machine learning algorithms, such as the SPC method and the linear algebraic factor theory means, help divide the data into meaningful clusters and are therefore very effective for processing large datasets. As an additional point, it's important to remember that support vector machines aren't the only form of the machine learning technology that has found widespread application in extracting useful insights from Twitter and saving time with regards to the safety of women in urban India.



74% of the population, or 0.74 multiplied by 100, thinks it's dangerous to walk about

## References

[1] Apoorv Agarwal, Fadi Biadisy, and Kathleen R. Mckeown . "Lexical affect analysis of phrase-level context for polarity n-grams and syntactic scoring" "Discussions from the 12th Annual Meeting and Conference of the Association

for Machine Translation. Computational Science and Engineering 2009, linguistics.

Specifically,

[2] Luciano Barbosa and Junlan Feng. "Optimism that is strong twitter data bias and noise detection "The Acts of this is the 23rd annual meeting of the International Association for Computational Linguistics posters. For the 2010 Conference on Empirical Methods in Computational Linguistics.

[3] As cited in Bermingham, Adam, and Alan F. Smeaton. "Classifying Feelings on microblogs: does space count? "Proceedings conference proceedings of the 19th Annual ACM Symposium on Information and Systems .In charge of knowledge. ACM, 2010.

[4] Gamon, Michael. "Client Opinions Categorized data feed back the function of dissection of language "The 20th Anniversary International Conference Proceedings gathering devoted to the study of language by computer processing. The Organization of Linguistics, Computational, 2004.

[5] coo-Min Kim and Eduard Hovy. "Recognizing the emotional tone to express

one's own point of view "Collection of papers presented at the 20th Annual International Conference about Computational Linguistics. Computational Science and Engineering Years 2004 for linguists. Source:

[6] Klein, Dan, and Christopher D. Manning. "Accurate interpretation without the use of a dictionary "This volume contains the Meeting Proceedings from the 41st Annual Meeting. with the Association for Computational Linguistics-Volume 1. For the ACL 2003 Conference on Computational Linguistics.

[7] Charniak, Eugene, and Johnson, Mark. "n-best coarse to fine the use of parsing and MaxEnt's discriminative reranking "The Acts of association for computational linguistics. Published in 2005 by the Association for Computational Linguistics.

[8] Gupta, B.; Negi, M.; Vishwakarma, K.; Rawat, G.; Badhani, P. (2017). (2017). Analysis of machine-read Tweet sentiment developing a proficiency in Python's algorithmic framework. Publication Intended for a Global Audience: Technology and Society, 165(9), 0975-8887. To cite:

[9] Sahayak, V.; Shete, V.; and Pathan, A. (2015). Sentiment information gleaned from



Twitter under the microscope. The International Review of the New and Different Int. Journal of Innovative Research in Applied Engineering, Volume 2 Number 1 (IJIRAE), Pages 178–183.

[10] Mamgain, N., E. Mehta, A. Mittal, and G. Bhatt. (2016, March). A sentiment study of India's finest educational institutions this is Twitter's data. Information Theory and Computation, edited by the 2016 International Conference on Computer and Telecommunications symposium on (pp. 525-530). IEEE.