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CyberGuard - An AI-Enabled System for Cyberbullying Detection and Real-Time Cybercrime Alerts

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ABSTRACT: Artificial Intelligence (AI) plays a significant role in analyzing large volumes of unstructured data in cybersecurity applications. This paper presents an AI-driven system for detecting cyberbullying and generating automated cybercrime alerts in real time. The proposed system integrates Machine Learning (ML) and Natural Language Processing (NLP) techniques to classify harmful textual content effectively.Text data is preprocessed using tokenization, normalization, stop-word removal, and transformed into numerical features using TF-IDF. Supervised learning algorithms such as Support Vector Machine (SVM) are employed for accurate text classification. The system also supports multilingual input, enabling detection across diverse user interactions.A browser extension is used to capture user-generated content, which is then analyzed by the detection module. Upon identifying abusive or harmful language, the system triggers alerts to notify users or concerned authorities. Additionally, the system leverages modern language models to enhance contextual understanding and improve detection accuracy.This solution aims to provide a scalable and efficient approach to monitor online interactions and mitigate cyberbullying, contributing to safer digital environments.

KEYWORDS: Artificial Intelligence, Machine Learning, Natural Language Processing, Cyberbullying Detection, Text Classification, Multilingual NLP, Browser Extension, TF-ID, Online Harassment Monitoring, Chrome Extension.

I. INTRODUCTION

The rapid growth of social media and online communication has increased the prevalence of cyberbullying, leading to serious psychological and social impacts. Cyberbullying involves the use of digital platforms to spread abusive or harmful content, which traditional moderation techniques like manual review and keyword filtering often fail to handle effectively due to scale and contextual complexity.

To overcome these limitations, Artificial Intelligence (AI) techniques such as Machine Learning (ML) and Natural Language Processing (NLP) are widely used for automated content analysis. These methods include preprocessing steps like tokenization, normalization, and lemmatization, along with feature extraction techniques such as TF-IDF to convert text into machine-readable formats. Supervised learning models like SVM, Logistic Regression, and Random Forest are commonly applied for classification, though they may struggle with sarcasm and contextual understanding. Recent deep learning and transformer-based models improve accuracy by capturing deeper linguistic context.

The proposed system introduces an AI-based cyberbullying detection framework with real-time monitoring using a browser extension. It captures user-generated content, processes it through a backend module, and classifies it to detect harmful text. Alerts are generated instantly for abusive content, and multilingual support enhances adaptability across different languages. The goal is to build a scalable and efficient system for real-time cyberbullying detection and prevention.

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II. LITERATURE SURVEY

Syed Sihab-Us-Sakib *et al.* [1] proposed a cyberbullying detection framework for resource-constrained languages using transformer-based models. The study combines traditional feature extraction techniques such as TF-IDF with deep contextual embeddings to improve classification accuracy. The transformer models demonstrated superior performance in capturing semantic relationships in text compared to conventional machine learning approaches

Fawzya Ramadan Sayed *et al.* [2] developed a cyberbullying detection system using Natural Language Processing and multiple machine learning classifiers trained on a large dataset of nearly 40,000 labeled Twitter posts. The study evaluates models such as Random Forest, Support Vector Machine, Logistic Regression, Naive Bayes, and KNN & Random Forest.

Muhammad Ahmad *et al.* [3] introduced a multilingual hate speech detection framework using pre-trained transformer models such as mBERT and XLM-RoBERTa. The study utilizes a manually annotated dataset (UA-HSD-2025) and shows that transformer models outperform traditional and embedding-based methods in capturing contextual and cross-lingual patterns.

Omkar Horate *et al.* [4] proposed a machine learning-based cyberbullying detection system integrated with a browser extension for real-time monitoring of online platforms. The system uses NLP techniques and classifiers such as LinearSVC, Logistic Regression, and Naive Bayes, with LinearSVC achieving the highest accuracy. A hybrid approach combining rule-based filtering and ML classification improves detection efficiency.

D.V. Divakar Rao *et al.* [5] presented an AI-driven cyber harassment surveillance system that integrates machine learning-based detection with a centralized dashboard for real-time monitoring and analysis. The system classifies user interactions and provides alerts along with visualization tools for administrators.

III. PROBLEM STATEMENT

The rapid growth of social media and online communication platforms has significantly increased instances of cyberbullying and online harassment, exposing users to harmful and offensive content that affects mental well-being. Existing moderation systems often rely on manual review or rule-based keyword filtering, which are inefficient for large-scale data and fail to capture contextual meaning, sarcasm, and implicit abuse. Additionally, many machine learning-based approaches are trained on static datasets and lack the ability to process real-time user-generated content effectively.

Furthermore, challenges such as multilingual diversity, slang usage, and informal expressions make accurate detection more complex. Many existing systems have limited multilingual support and high computational requirements, restricting their deployment in real-time environments like browser-based applications. Therefore, there is a need for a scalable and intelligent solution that supports real-time detection, improved contextual understanding, and automated alert mechanisms. The proposed system addresses these issues by integrating NLP, machine learning, and browser-based monitoring to enhance online safety.

IV. RESEARCH METHODOLOGY

The proposed system adopts an AI-driven approach for detecting cyberbullying and generating automated alerts in real time by integrating Natural Language Processing (NLP) and machine learning techniques. User-generated text such as comments, chats, and posts is captured through a browser extension and transmitted to the backend server. The collected data undergoes preprocessing steps including tokenization, stop-word removal, normalization, and lemmatization to convert raw text into a structured format suitable for analysis.

Following preprocessing, feature extraction is performed using TF-IDF to transform text into numerical representations. These features are then fed into supervised machine learning models such as Logistic Regression and Support Vector Machine (SVM) for classification. Based on the prediction, the system determines whether the content is harmful or non-harmful, generates alerts for high-risk content, and enables further actions such as complaint registration and dashboard-based monitoring.

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V. SYSTEM ARCHITECTURE

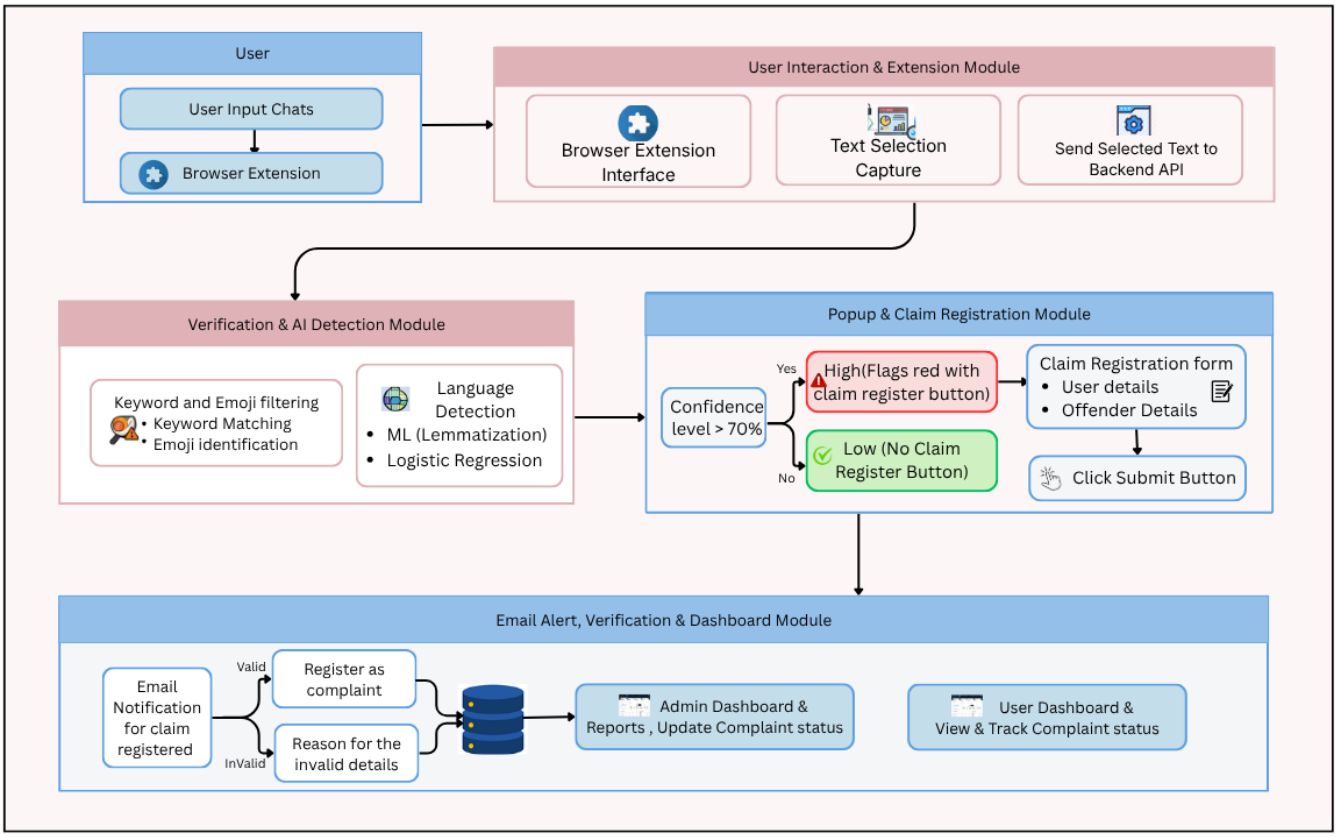

Fig.1. System Architecture

The system architecture follows a continuous workflow for real-time cyberbullying detection and response. It begins when users interact on web platforms, where a browser extension captures textual content such as chats or comments and sends it to the backend via an API.

The system processes the input using AI-based analysis to detect harmful content and assigns a confidence score to determine risk level. If the content is high-risk, a popup alert is triggered with an option to file a complaint; otherwise, the system proceeds without escalation.

When a complaint is submitted, the details are stored in a centralized database, and notifications are generated. Email alerts are sent, and both user and admin dashboards are updated for tracking and management. This ensures a smooth pipeline of capture → analysis → decision → alert → reporting for real-time cyberbullying prevention.

The proposed AI-powered cyberbullying detection system is organized into a set of functional modules, each responsible for a specific stage in the overall workflow. These modules collectively handle tasks such as data acquisition, text analysis, decision-making, alert generation, and complaint management. By dividing the system into modular components, the design ensures better scalability, maintainability, and efficient processing of real-time user-generated content. Each module performs a dedicated function while seamlessly interacting with other modules to achieve accurate detection and effective response to cyberbullying incidents.

1. User Interaction & Extension Module
2. Verification & AI Detection Module
3. Popup & Claim Registration Module
4. Email Alert, Verification & Dashboard Module

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1. User Interaction & Extension Module

This module serves as the entry point of the system and is responsible for capturing user-generated content from web platforms. It is implemented using a browser extension that integrates directly with the user interface of social media platforms, chat applications, and web-based communication systems. The extension allows users to select or input text such as comments, messages, or posts, which are then captured in real time without interrupting the user's normal browsing experience.

Once the text is captured, it is transmitted securely to the backend server through an API. The module ensures efficient communication by handling request-response cycles, validating input format, and preventing incomplete or duplicate data transmission. This real-time data acquisition mechanism enables continuous monitoring of user interactions and forms the foundation for further analysis in the system.

2. Verification & AI Detection Module

This module acts as the core intelligence layer of the system, responsible for processing, analyzing, and classifying the captured text. Initially, the input text undergoes preprocessing steps such as tokenization, stop-word removal, normalization, and lemmatization. These steps eliminate noise, reduce redundancy, and convert the text into a standardized format suitable for machine learning models.

Following preprocessing, feature extraction is performed using the TF-IDF technique, which transforms textual data into numerical vectors based on word importance. These features are then passed to classification models such as Logistic Regression and transformer-based models like BERT for accurate prediction. The classification probability is computed using:

$$P(y) = 1 / (1 + e^{-(wx + b)})$$

Whereas,

- **P(y)** → Probability of the output
- **e** → Euler's number (≈ 2.718)
- **w** → Weight (learned coefficient that controls influence of input)
- **x** → Input feature (independent variable)
- **b** → Bias term (offset/intercept that shifts the function)

The performance of this module is evaluated using standard metrics such as accuracy, precision, recall, and F1-score.

Table1. Performance Metrics

Metric	**Value**
Accuracy	86.14%
Precision	87.75%
Recall	82.64%
F1-Score	88.80%
FAR(False Accept Rate)	1.5%
FRR(False Reject Rate)	2.1%

3. Popup & Claim Registration Module

This module is responsible for handling system responses based on the classification results generated by the AI detection module. The system evaluates the confidence score and compares it with a predefined threshold (e.g., 70%) to determine the severity of the detected content. If the confidence level exceeds the threshold, the content is classified as high-risk, and a popup alert is displayed to notify the user.

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The popup alert serves as an immediate intervention mechanism, warning users about potentially harmful content. It also provides an option to proceed with complaint registration. If the user chooses to take action, a structured form is presented to collect relevant details such as user information, offender details, and the nature of the incident. This ensures that the system not only detects cyberbullying but also facilitates user-driven reporting.
For low-risk content, the system avoids unnecessary interruptions by not triggering alerts, thereby maintaining a smooth user experience. This module effectively balances detection sensitivity and usability, ensuring that only significant threats are escalated while reducing alert fatigue among users.

4. Email Alert, Verification & Dashboard Module
This module handles the final stage of the system, including complaint processing, notification, and monitoring. Once a complaint is submitted, the system verifies the provided details to ensure data validity and completeness. Valid complaints are stored in a centralized database, enabling efficient data management and retrieval for further analysis.

The system then generates automated email notifications to confirm successful complaint registration or to inform users about invalid or incomplete submissions. This communication mechanism enhances transparency and keeps users informed about the status of their reports.

In addition, the module provides a dashboard interface for both administrators and users. The admin dashboard allows monitoring of reported cases, generation of analytical reports, and updating of complaint status. The user dashboard enables individuals to track the progress of their complaints in real time. This module ensures effective case management, accountability, and continuous monitoring of cyberbullying incidents within the system.

VI. RESULTS

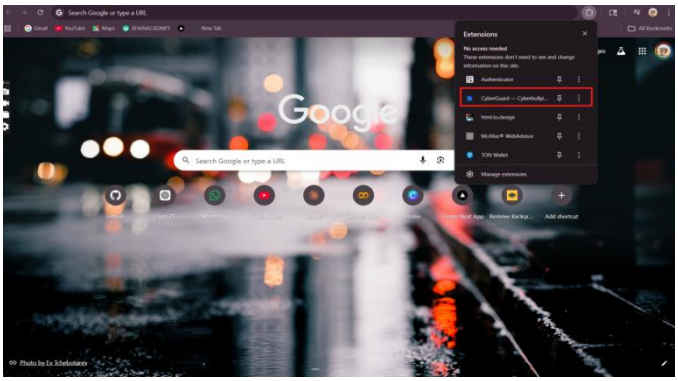

Fig.2. Cyberguard Extension

The CyberGuard Extension captures user text in real time and sends it for cyberbullying detection.

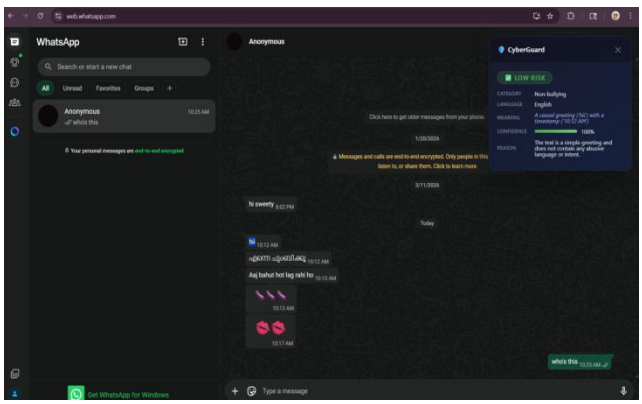

Fig.3. Select Text(Right Click)-Safe Text

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Right-click and select text to analyze, where safe content is identified and displayed without alerts

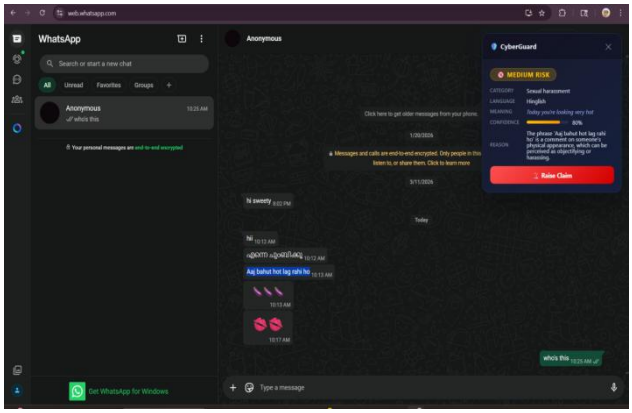

Fig.4. Open & Select Text(Right Click)-High-risk Text

Select text to analyze, where High-risk content is identified and displayed with alerts.

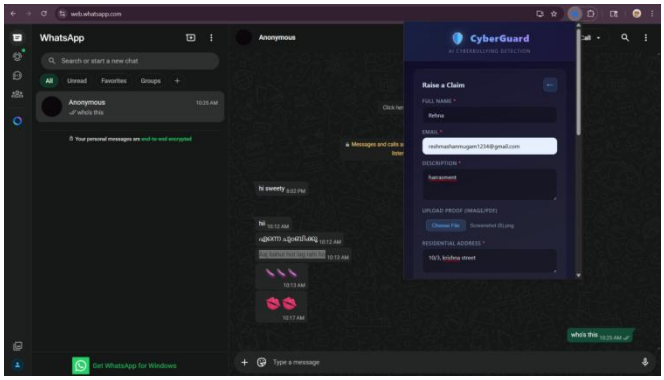

Fig.5. Enter User Details

Users provide required information to register a complaint for detected cyberbullying content.

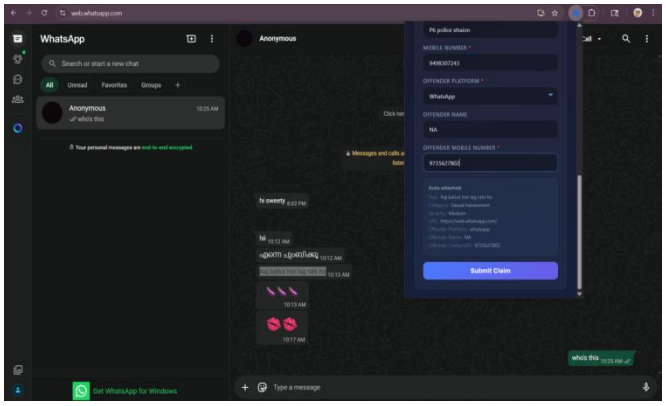

Fig.6. Enter Offender Details

Users input the offender's information to support complaint registration and further action.

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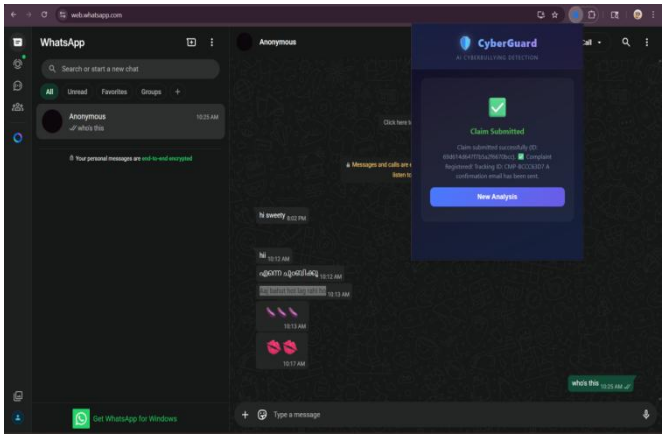

Fig.7. Submit Details

Users submit the entered information to register the cyberbullying complaint in the system.

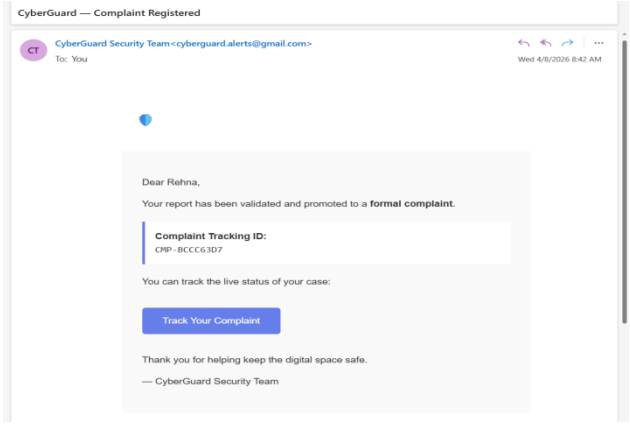

Fig.8. Email Notification

An automated email is sent to confirm successful complaint registration and status update.

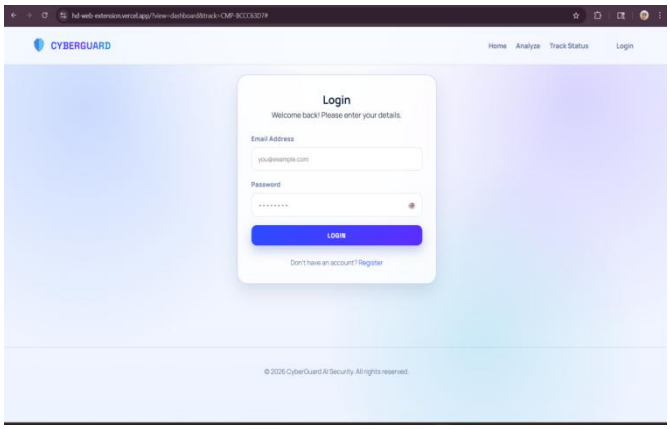

Fig.9. Dashboard - User Login

Users log in to access the dashboard and track their complaint status.

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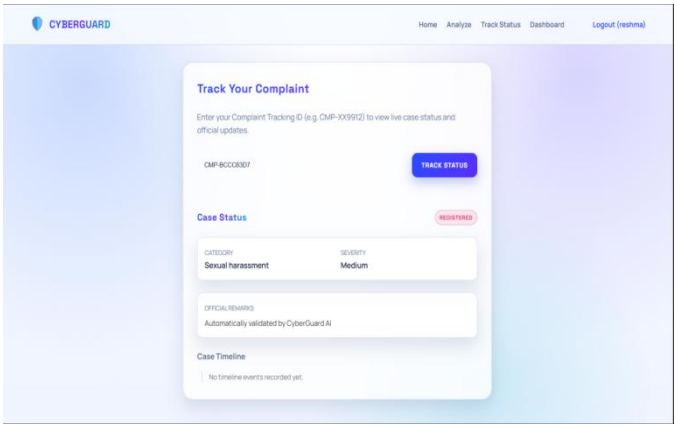

Fig.10. Track Status

Users can view and monitor the real-time status of their submitted complaints through the dashboard.

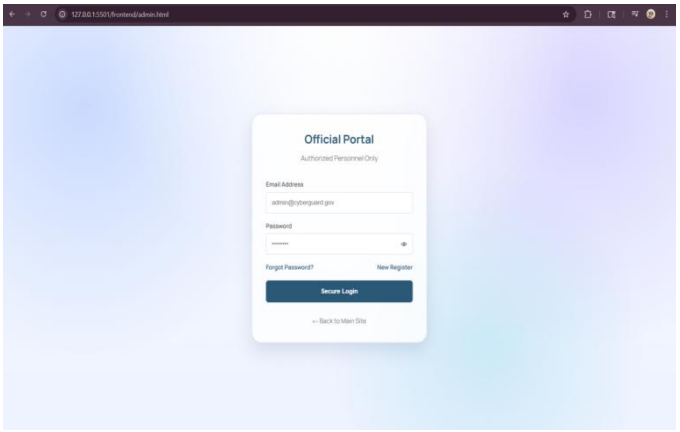

Fig.11. Admin Login

Administrators log in to access the dashboard for managing and reviewing reported cases.

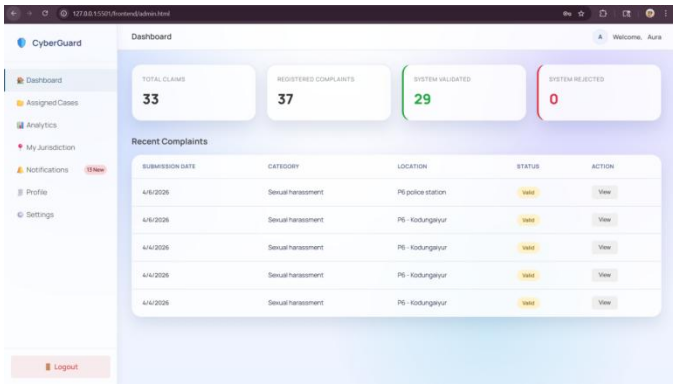

Fig.12. Dashboard - Admin

The admin dashboard provides an overview of reported cases and tools to manage and update complaint status.

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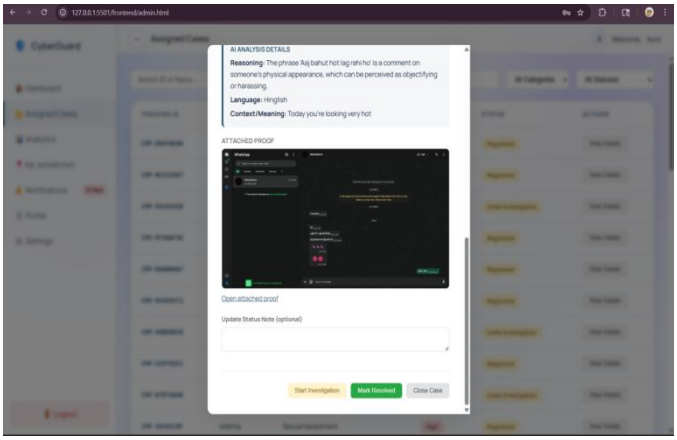
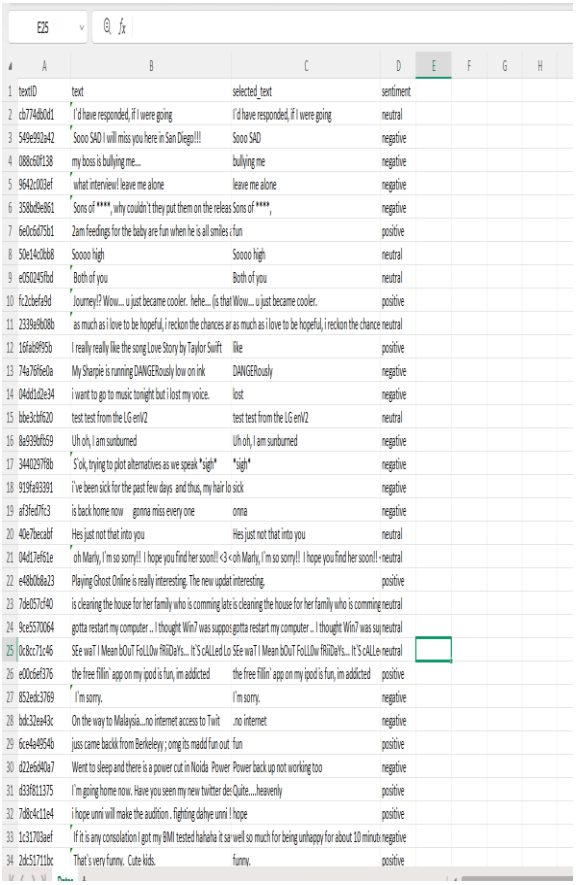


Fig.13 Update Investigation Status

Administrators update the status of reported cases to reflect investigation progress and actions taken

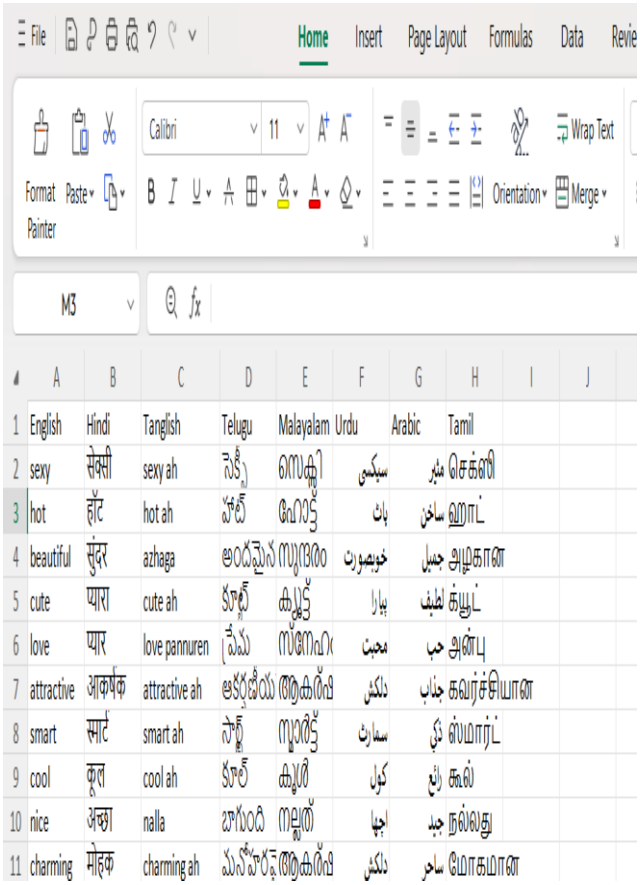
Dataset

The dataset plays a crucial role in training and evaluating the cyberbullying detection model. It consists of labeled textual data, including both bullying and non-bullying content across multiple languages. The quality and diversity of the dataset directly impact the model's accuracy, precision, and overall performance. A well-structured dataset enables the system to effectively learn patterns and identify harmful content in real-time scenarios.



	textID	text	selected_text	sentiment
1	cb774db0d1	I'd have responded, if I were going	I'd have responded, if I were going	neutral
2	549e992a42	Sooo SAD I will miss you here in San Diego!!!	Sooo SAD	negative
3	088c60f138	my boss is bullying me...	bullying me	negative
4	9642c003ef	what interview! leave me alone	leave me alone	negative
5	358bd9e861	Sons of ****, why couldn't they put them on the releas	Sons of ****,	negative
6	6e0c6d75b1	2am feedings for the baby are fun when he is all smiles	fun	positive
7	50e14c0bb8	Soooo high	Soooo high	neutral
8	e05024f7bd	Both of you	Both of you	neutral
9	fc2cbefa9d	Journey!? Wow... u just became cooler. hehe... (is that	Wow... u just became cooler.	positive
10	2339e9b08b	as much as i love to be hopeful, i reckon the chances ar	as much as i love to be hopeful, i reckon the chance	neutral
11	16fab9f95b	I really really like the song Love Story by Taylor Swift	like	positive
12	74a76f6e0a	My Sharpie is running DANGERously low on ink	DANGERously	negative
13	04dd1a2e34	i want to go to music tonight but i lost my voice.	lost	negative
14	bbe3cbf620	test test from the LG enV2	test test from the LG enV2	neutral
15	8e939bfb59	Uh oh, I am sunburned	Uh oh, I am sunburned	negative
16	3440297f8b	S`ok, trying to plot alternatives as we speak *sigh*	*sigh*	negative
17	919fa93391	i`ve been sick for the past few days and thus, my hair lo	sick	negative
18	af3fed7fc3	is back home now gonna miss every one	onna	negative
19	40e7beeabf	Hes just not that into you	Hes just not that into you	neutral
20	04d17efb1e	oh Marly, I`m so sorry!! I hope you find her soon!! <3	oh Marly, I`m so sorry!! I hope you find her soon!! <	neutral
21	e48b0b8a23	Playing Ghost Online is really interesting. The new updat	interesting.	positive
22	7ded57cf40	is cleaning the house for her family who is comming late	is cleaning the house for her family who is comming	neutral
23	9ce5570064	gotta restart my computer .. I thought Win7 was suppos	gotta restart my computer .. I thought Win7 was su	neutral
24	0c8cc71c46	SEe waT I Mean bOuT FoLLOw fRiDaYs... It`S cALLed Lo	SEe waT I Mean bOuT FoLLOw fRiDaYs... It`S cALLe	neutral
25	e00c6ef376	the free fillin` app on my ipod is fun, im addicted	the free fillin` app on my ipod is fun, im addicted	positive
26	852edc3769	I`m sorry.	I`m sorry.	negative
27	bdc32ea43c	On the way to Malaysia...no internet access to Twit	..no internet	negative
28	6ce4e8954b	juss came backk from Berkeley ; omg its madd fun out	fun	positive
29	d22e6d40a7	Went to sleep and there is a power cut in Noida. Power	Power back up not working too	negative
30	d33f811375	I`m going home now. Have you seen my new twitter der	Quite....heavenly	positive
31	7d8c4c1e4	i hope unni will make the audition . fighting dahye unni !	hope	positive
32	1c3170aaef	If it is any consolation I got my BMI tested hahaha it sa	well so much for being unhappy for about 10 minute	negative
33	2dc51711bc	That`s very funny. Cute kids.	funny.	positive

Fig.14. Dataset 1



	English	Hindi	Tanglish	Telugu	Malayalam	Urdu	Arabic	Tamil
1								
2	sexy	सेक्सी	sexy ah	సెక్సీ	സെക്സി	سیکسی	مثیر	செக்ஸி
3	hot	हॉट	hot ah	హాట్	ഹോട്ട്	ہاٹ	ساخن	ஹாட்
4	beautiful	सुंदर	azhaga	అందమైన	സുന്ദരം	خوبصورت	جسیل	அழகான
5	cute	प्यारा	cute ah	క్యూట్	ക്യൂട്ട്	پیارا	لطیف	க்யூட்
6	love	प्यार	love pannuren	ప్రేమ	സ്നേഹം	محبت	حب	அன்பு
7	attractive	आकर्षक	attractive ah	ఆకర్షణీయ	ആകർഷ	دلکش	جذاب	கவர்ச்சியான
8	smart	स्मार्ट	smart ah	స్మార్ట్	സ്മാർട്ട്	سمارٹ	ذکی	ஸ்மார்ட்
9	cool	कूल	cool ah	కూల్	കൂൾ	کول	رائع	கூல்
10	nice	अच्छा	nalla	బాగుంది	നല്ലത്	اچھا	جید	நல்லது
11	charming	मोहक	charming ah	మనోహరమైన	ആകർഷ	دلکش	ساحر	மோகமான

Fig.15. Dataset-Revised

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VII. CONCLUSION & FUTURE ENHANCEMENT

The proposed AI-Powered Cyberbullying Detection & Automated Cyber-Crime Alert System offers an effective and scalable solution for identifying and managing online harassment. It integrates Natural Language Processing (NLP) and machine learning techniques to analyze user-generated text in real time. Through preprocessing steps like tokenization, normalization, stop-word removal, and lemmatization, along with TF-IDF feature extraction, the system ensures accurate text representation. Supervised learning models, including Logistic Regression and transformer-based approaches, enable reliable classification of cyberbullying content, achieving an accuracy of around 86.14% with balanced precision, recall, and F1-score. A confidence-based mechanism further improves reliability by triggering alerts only for high-risk content.

The system also provides a complete end-to-end workflow, starting from real-time text capture via a browser extension to automated alerts, complaint registration, email notifications, and dashboard monitoring. User and admin dashboards enhance transparency and efficient tracking of reported cases. Overall, the system not only detects harmful content but also ensures proper response and management, making it a practical and impactful solution for improving online safety and reducing cyberbullying incidents.

The proposed system can be further improved by enhancing its capability to handle diverse and complex real-world data. One of the major areas of improvement is the integration of a larger and more diverse multilingual dataset, which includes regional languages, slang, and mixed-language text commonly used in social media platforms. This will significantly improve the model's accuracy and robustness in detecting cyberbullying across different linguistic and cultural contexts. Additionally, incorporating advanced deep learning techniques and transformer-based models can enhance contextual understanding, enabling the system to detect subtle forms of abuse such as sarcasm, implicit threats, and context-dependent harassment.

Another important direction for enhancement is the expansion of the system beyond text-based analysis. Cyberbullying often occurs through images, videos, memes, and audio content, which are not currently handled by the system. By integrating computer vision and audio processing techniques, the system can evolve into a comprehensive multimedia cyberbullying detection platform. Furthermore, deploying the system as a mobile application and integrating it with cloud-based infrastructure will improve accessibility, scalability, and real-time processing capabilities, making it suitable for large-scale real-world applications.

- Integration of a **larger multilingual dataset** including slang and regional languages
- Use of **advanced AI models and LLMs** for better contextual understanding
- Support for **multimedia data** (images, videos, memes, audio)
- Development of a **mobile-based application** for wider accessibility
- Implementation of **cloud-based storage and scalable systems**
- Addition of **predictive analytics and behavioral pattern detection**

REFERENCES

1. Syed Sihab-Us-Sakib , Md. Rashadur Rahman , Md. Shafiul Alam Forhad, Md. Atiq Aziz, "Cyberbullying detection of resource constrained language from social media using transformer-based approach" ,Natural Language Processing, Elsevier, ISSN: 2949-7191,vol. 9, Sep. 2024.
2. Fawzya Ramadan Sayed, Eman Hassan Elnashar & Fatma A. Omara, "Cyberbullying detection in social media using natural language processing" , Scientific African,Elsevier, ISSN: 2468-2276, vol. 28, 2025.
3. Muhammad Ahmad et al., "UA-HSD-2025: Multi-Lingual Hate Speech Detection from Tweets Using Pre-Trained Transformers" , MDPI, ISSN: 2076-3417, June 2025.
4. Omkar Horate,Paras Mohite , Ashish Padhy , Kalpesh Sonar , Anas Dange,"Cyber Bullying and Harassment Detection using Machine Learning" , International Journal for Research in Applied Science & Engineering Technology (IJRASET), ISSN: 2321-9653, Volume 13, Issue IV, Apr 2025.
5. D V Divakar Rao, Shravya Shri Sahu, Kilaparthi Durga Mallesh, Vedulla Naga Venkata Nitin, Bandaru Avinash, "Automated Cyber Harassment Surveillance: Enhancing Social Media Safety" , IJRASET – International Journal for Research in Applied Science & Engineering Technology, ISSN: 2321-9653, Volume 13 Issue III, Mar 2025.
6. Mr.R.Loganathan,Cheemaladinne Lakshmivardhan,Hema Dinesh V, Kaliraj M,Kodavali Devid Raj,"AI-Powered Multi-Lingual Cyberbullying Detection and Prevention for Safer Digital Learning Environments ",IJSDR, ISSN:2455-2631,Volume 10 Issue 11,November 2025

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||Volume 9, Issue 3, May-June 2026||

DOI:10.15662/IJRPETM.2026.0903005

7. Lulwah M. Al-Harigy, Hana A. Al-Nuaim,Naghmeh Moradpoor & Zhiyuan Tan, "Towards a Cyberbullying Detection Approach",International Journal of Data Science and Analytics,ISSN: 2364-4168,Volume 19,17 July 2024.
8. Atika Gupta, Priya Matta & Bhasker Pant, "Cross-Platform Cyberbullying Detection Framework",Discover Computing,ISSN: 2731-4110,Volume 28, October 2025.
9. Mengran Liu,"Network bullying detection based on deep learning", Journal of Computational Methods in Sciences and Engineering, ISSN: 1472-7978,Volume 24, Issue 1, March 2024.
10. Jinan Redha Mutar,"Cyberbullying Messages Detection Using Machine Learning and Deep Learning", International Journal of Advances in Scientific Research and Engineering,ISSN: 2454-8006, Volume 10,March 2024.
11. Andrea Perera, Pumudu Fernando,"Cyberbullying Detection System on Social Media Using Supervised Machine Learning",International Journal of Advances in Scientific Research and Engineering,ISSN: 2454-8006, Volume 239,July 2024.
12. [Muhammad Mubeen, Aliza Muskan, Arslan Akram, Javed Rashid, Tagrid Abdullah N. Alshalali & Nadeem Sarwar, "Cyberbullying-Related Automated Hate Speech Detection on Social Media Platforms Using Stack Ensemble Classification Method",International Journal of Computational Intelligence Systems, ISSN: 1875-6891, Volume 18,July 2025.
13. Hooayda Allwaibed, Mohammed Anbar ,Selvakumar Manickam,Annisa Bintang, "Cyberbullying detection approaches for Arabic texts: a systematic literature review" , Frontiers in Artificial Intelligence, ISSN: 2624-8212, Volume 8, October 2025.
14. Sachin,Dr Shivkumar Kagi,"Cyberbullying Detection using Machine Learning",Procedia Computer Science,JSRT,ISSN: 1877-0509, Volume-3 ,Issue-11,November 2025.
15. Ashwin Sharmam, Deepak Kejriwal, Anshul Goel, "AI-Enhanced Cyberbullying Detection in Encrypted Social Media: A Privacy-Preserving Federated Learning Approach", International Journal of Science and Advanced Technology, ISSN: 2229-7677,June 2024.
16. Seedha Devi, V., Nivedha, S., Harisha, V., Mol, D. R., & Janaranjini, J. R. (2026). Enhanced prediction of PCOS and PCOD using deep learning for early diagnosis and clinical risk stratification. International Journal of Advanced Research in Computer Science & Technology (IJARCST), 9(3), 783–793.
17. Seedha Devi, V., Kumar, M. D., & Kumar, C. A. (2026). Flutter-based SOS alert and location tracking application with volunteer assist and rescue. International Journal of Research and Applied Innovations (IJRAI), 9(3), 521–530. https://doi.org/10.15662/IJRAI.2026.0903003
18. Seedha Devi, V., Selvi, D., Uma Maheshwari, K., & Yuvashree, G. (2026). Food linker: A smart system for global waste reduction. International Journal of Engineering & Extended Technologies Research (IJEETR), 8(3), 5012–5021. https://doi.org/10.15662/IJEETR.2026.0803002
19. Seedha Devi, V., Namitha, B., Divya Dharshini, J., & Livetha, K. (2026). A hybrid biometric and geo-fencing based smart attendance system. International Journal of Advanced Research in Computer Science and Technology (IJARCST), 9(3), 794–802. https://doi.org/10.15662/IJARCST.2026.0903002
20. Alangaram, S., Praveen, S., Rajesh, V., & Sanjai, A. (2026). Sales guard AI-driven decision intelligence platform for business optimization. International Journal of Engineering & Extended Technologies Research (IJEETR), 8(3), 5022–5031. https://doi.org/10.15662/IJEETR.2026.0803003
21. Seedha Devi, V., Harshini, R., Dhana Lakshmi, E., Gayathri, N., & Nithesha, P. (2026). Low-code mobile application builder with AI-assisted features using Flutter & Firebase. International Journal of Research Publications in Engineering, Technology and Management (IJRPETM), 9(3), 1001–1010.
22. Seedha Devi, V., Harshini, R., Dhana Lakshmi, E., Gayathri, N., & Nithesha, P. (2026). Low-code mobile application builder with AI-assisted features using Flutter & Firebase. International Journal of Research Publications in Engineering, Technology and Management (IJRPETM), 9(3), 1001–1010. https://doi.org/10.15662/IJRPETM.2026.0903001
23. Seedha Devi, V., Divya Narasimman, S., Jayaprakash, S., & Mohamed Suhel, H. N. (2026). Smart IoT-based pedestrian power generator using DC motor. International Journal of Computer Technology and Electronics Communication (IJCTEC), 9(3), 990–999. https://doi.org/10.15680/IJCTECE.2026.0903002
24. Seedha Devi, V., Mahalakshimi, P. V., & Anitha, A. (2026). Automated skin disease analysis and detection using AI-powered mobile application. International Journal of Research and Applied Innovations (IJRAI), 9(3), 531–539. https://doi.org/10.15662/IJRAI.2026.0903004
25. Alangaram, S., Udaykiran, M., Rajkumar, K., & Yogeeswaran, T. (2026). Enhancing customer churn prediction and retention for e-commerce. International Journal of Advanced Research in Computer Science & Technology (IJARCST), 9(3), 803–813. https://doi.org/10.15662/IJARCST.2026.0903003

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||Volume 9, Issue 3, May-June 2026||

DOI:10.15662/IJRPETM.2026.0903005

26. Alangaram, S., Kiswar, M., Ajay, B., & Ezhilkumaran, P. (2026). Socialflow AI: Voice to social media scheduler. International Journal of Research and Applied Innovations (IJRAI), 9(3), 540–547. https://doi.org/10.15662/IJRAI.2026.0903005
27. Raghul, K., Rajasolan, P., Rohinth, S., & Tharun, P. (2026). AI knowledge sharing web portal. International Journal of Advanced Research in Computer Science & Technology (IJARCST), 9(3), 814–823. https://doi.org/10.15662/IJARCST.2026.0903004
28. Sangeetha, D., Dharan, K. D., Krishna, A. C., & Karthikeyan, C. (2026). Speech and text conversion system for sign language using ML. International Journal of Computer Technology and Electronics Communication (IJCTEC), 9(3), 1000–1007. https://doi.org/10.15680/IJCTECE.2026.0903003
29. Seedha Devi, V., Kaavya, S., Deepika, B., Jayashree, D., & Nithikaa, L. (2026). AI-driven voter authentication and fraud detection system. International Journal of Computer Technology and Electronics Communication (IJCTEC), 9(3), 1008–1017. https://doi.org/10.15680/IJCTECE.2026.0903004
30. Alangaram, S., Yuvaraj, G., Srivatsan, M. J., & Sathish, R. (2026). An IoT-based smart helmet for real-time rider safety monitoring and emergency response system. International Journal of Research in Production Engineering, Technology and Management (IJRPETM), 9(3), 1021–1030. https://doi.org/10.15662/IJRPETM.2026.0903003
31. Raghul, K., Thamaraikannan, R., Sunil Kumar, S., & Siva, B. (2026). Plastitrack: A community-driven plastic waste collection and redemption platform. International Journal of Research and Applied Innovations (IJRAI), 9(3), 548–557. https://doi.org/10.15662/IJRAI.2026.0903006
32. Dr. V. Seedha Devi, M. Parvinraj, J. Dinesh, M. Venkatramana, & P. Suryaprakash Raj. (2026). Darkshield: Mobile intrusion detection using post-authentication failure analysis and Android security APIs. International Journal of Advanced Research in Computer Science & Technology (IJARCST), 9(3), 824–833. https://doi.org/10.15662/IJARCST.2026.0903005
33. S. Alangaram, K. Mugunthan, R. Elango, & J. J. Harish. (2026). AI powered secure payment with eye recognition in wallet platform. International Journal of Computer Technology and Electronics Communication (IJCTEC), 9(3), 1018–1025. https://doi.org/10.15680/IJCTECE.2026.0903005
34. Dr. V. Seedha Devi, Priyadharshini R., Vaishnavi P. S., & Shalini M. (2026). Cybersecurity enhancement in electric vehicle systems using principal component analysis (PCA). International Journal of Research and Applied Innovations (IJRAI), 9(3), 558–568. https://doi.org/10.15662/IJRAI.2026.0903007
35. Dr. V. Seedha Devi, D. Yogeshwari, B. Reshma, & B. Sowmiya. (2026). Ayursutra Panchakarma patient management and therapy scheduling software – AI powered chatbot assistance. International Journal of Engineering & Extended Technologies Research (IJEETR), 8(3), 5032–5041. https://doi.org/10.15662/IJEETR.2026.0803004
36. Mrs. D. Sangeetha, R. Swathi, S. Pavithra Sree, & K. Sinduja. (2026). Automated bug detection and auto fix generation by using ML model. International Journal of Research and Applied Innovations (IJRAI), 9(3), 569–577. https://doi.org/10.15662/IJRAI.2026.0903008
37. Mr. Bursu Madhu, Rishi Goutham, Dhanush D., & Saravanan N. (2026). AI-driven medical report summarization and intelligent abnormality detection system. International Journal of Computer Technology and Electronics Communication (IJCTEC), 9(3), 1026–1034. https://doi.org/10.15680/IJCTECE.2026.0903006
38. Dr. V. Seedha Devi, Abishek Rathnam C. R., Chezhian Nanmaran A., & Kishore Kumar S. (2026). IoT based smart bike accident detection system. International Journal of Engineering & Extended Technologies Research (IJEETR), 8(3), 5042–5049. https://doi.org/10.15662/IJEETR.2026.0803005