



## An Efficient Way of Communication without Posting Undesired Messages in Online Social Network

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**Abstract-** To filter out violant, vulgar messages and unpleasant images on users own personal wall page by providing ability to control the messages and images. To evaluate a flexible system is called Filtered Wall, which has ability to filter undesired messages. With the use of Machine learning text categorization techniques to automatically assign each short text message based on its content. In order to filter unpleasant images the system uses similarity measures in content based image retrieval techniques. The proposed system uses hybrid method that is machine learning along with content based image classification mechanism to filter un desired images and messages posted on user own private wall.

**Keywords:** Content based image techniques, Filter wall, Machine learning, short text classifier, Similarity measures.

### I. INTRODUCTION

An automated system, called Filtered Wall (FW), able to filter unwanted messages. Machine Learning (ML) text categorization techniques automatically assign with each short text message based on its content. Inherit the learning model and the elicitation procedure for generating pre-classified data. It supports both message content and message creator relationships and characteristics.

### II. RELATED WORK

#### A. Short Text Classification:

Growing use of digital devices and the fast growth of the number of pages on the World Wide Web, text categorization is a key component in managing information. Automated categorization of text documents plays a crucial role in the ability of many applications to classify and provide the proper documents in a timely and correct manner. [1] **Proposed short text classification method.** He used machine learning to classify text and Web documents has been intensively studied during the past decade. Many learning methods, such as k nearest neighbors (k-NN), Naive Bayes, maximum entropy, and support vector machines (SVMs), have been applied to a lot of classification problems with different benchmark collections and achieved satisfactory results. However, traditional classification method was not good at short text classification, because of the character and difficulty of short text. Therefore, how to reasonably represent and choose features items, effectively reduce the spatial dimension and noises, and increase classification accuracy become the problem of short text classification.

Semantic analysis pays more attention to the concept, inner structure semantic level, and the correlation of texts to obtain the logic structure, which is more expressive and objectivity. In the existing researches, classification based on the Latent Semantic Analysis occupies an important position. Using the statistic method, latent semantic analysis extracts potential semantic structure, eliminates the synonymous influence, and reduces feature dimension and noises. Thus, many algorithms based on semantic analysis are proposed to deal with short text classification.

#### B. Pleasant/Unpleasant Filtering for Affective Image Retrieval Based on Cross-Correlation of EEG Features:

People often make decisions based on sensitivity rather than rationality. In the field of biological information processing, methods are available for analyzing biological information directly based on electroencephalogram: EEG to determine the pleasant/unpleasant reactions of users. In this study, [2] proposed a sensitivity filtering technique for discriminating preferences (pleasant/unpleasant) for images using a sensitivity image filtering system based on EEG. Using a set of images retrieved by similarity retrieval, he performed the sensitivity-based pleasant/unpleasant classification of images based on the affective features extracted from images with the maximum entropy method: MEM. In the present study, the affective features comprised cross-correlation features obtained from EEGs produced when an individual observed an image. However, it is difficult to measure the EEG when a subject visualizes an unknown image. Thus, he proposed a solution where a linear regression method based on canonical correlation is used to estimate the cross-correlation features from image features. Experiments were conducted to evaluate the validity of sensitivity filtering compared with image similarity retrieval methods based on image features. We found that sensitivity filtering using color correlograms was suitable for the classification of preferred images, while sensitivity filtering using local binary patterns was suitable for the classification of unpleasant images. Moreover, sensitivity filtering using local binary

patterns for unpleasant images had a 90% success rate. Thus, he concluded that this method is efficient for filtering unpleasant images.

**C. Image semantic Relationship Concept:**

[3] Proposed Learning Visual Semantic Relationships for Efficient Visual Retrieval. In this paper uses the concept of Content based preferences that is by using similarity measures compute, identity similarity between two images. The relationship between images can be categorized by five types such as complete similarity type similarity hypernym hyponym ,parallel relationship and unknown relationship. Using the above concepts ,the proposed system will eliminate the user who are having unpleasant images on their profile picture. That means, If the images is matched with my image stored in my data base, then filter that using filter rules from posting messages on user wall.

**III. IMPLEMENTATION**

User 1 sends a request to user 2. In that there have been some proposal models as Filtering rule number one and rule number two. In this model Machine learning method along with sensitivity image filtering are used to filter terrible profile picture, time lines and cover page that is unpleasant one. Filter rule2 uses short text classification to filter undesired messages contents which include violent, vulgar, sexual explicit messages. User sends a request to the server. The request has preprocessed with certain rules taken input as images posted on profile, timelines and cover page based on content based preferences and machine learning technique are used in rule number one.

Machine learning is a subfield of computer science that evolved from the study of pattern recognition and computational learning theory in artificial intelligence. In 1959, Arthur Samuel defined machine learning as a "Field of study that gives computers the ability to learn without being explicitly program. If any unformal or vulgar pictures or images has viewed by check list them it has been filtered/ blocked. Where if it is desired one then it goes to next filtering process. The short text classifiers is if anyone tries to post a message in his/her friend’s private wall, the message should be first intercepted. Then it extracts the metadata of the incoming message and based on that, it classifies the message under particular category(i.e. neutral and non neutral messages)

**IV. ARCHITECTURE**

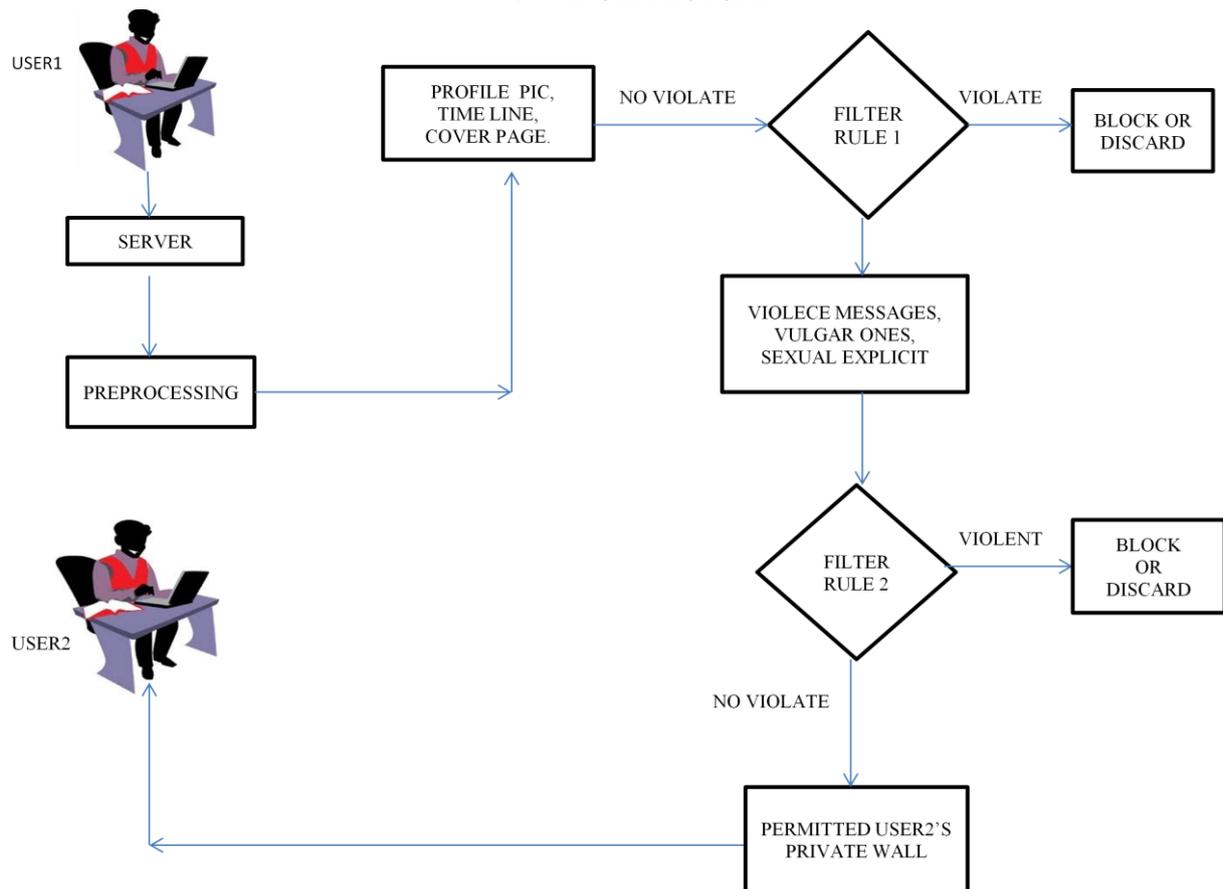


Fig. 1. Architecture of proposed system.

**V. MODULES**

- Server preprocessing module
- Short text classification module
- Private wall module

**MODULE 1:** Server preprocessing module

1-Complete similarity(CS)-In this module the two hypothesis have similar implications. That is if lily and lotus are differ from each other, but the similarly they are differ from the leaves. In lily the leaves sit flat on the water where as the leaves of lotus rise above the water.

2-Type Similarity(TS)- Type similarity is the tie that tag two views bear up on to reside commodities of two perceptions that reside to the same phenomenon.i.e,Halicaker and Jessy are both specific type of cow.

3-Hypernym Hyponym(HH)- Hypernym Hyponym is divine submissive relation i.e.,halicaker and jessy are one kind of cow.

4-Parallel Relationship(PR)- Parallel relationship refers to the tie that two perception distributes the similar devine mean class and frequently in thesame appearance such as cat and tiger.

5-Unknown Relationship(UR)- Unknown relationship is used to finish the notion affiliation that are not notify above.

**MODULE 2:** Short text classification module

Designing and evaluating various representation techniques in combination with a neural learning strategy to semantically categorize short texts.A hierarchical two-level strategy assuming that it is better to identify and eliminate “neutral” sentences, and non neutral sentences.A hard classification in which short texts are labeled with crisp Neutral and Non neutral labels.Such a list of grades is then used by the subsequent phases of the filtering process

**MODULE 3:** Private wall module

Non neutral messages are further analyzed for the appropriateness to each of the considered category.If it break or violate the rules then it is blocked otherwise to be permitted to use the users own private wall which uses associated rule.

## VI. CONCLUSION

The goal of the system is to filter the unwanted messages and images that posted on the user’s private wall. The system contains a rule list in the user side which prevents the posting of unwanted messages on the user’s wall.

User can add unwanted friends are blocked and them message too. Based on the user’s behavior the server will block the messages automatically. This model based technique is automatically done without any help of hands. That is the process of detecting and filtering spam is transparent, regulated by standards and fairly reliable.

Flexibility and the possibility to fine-tune the settings. Rarely make mistakes in distinguishing spam from legitimate messages. Then the undesired messages from the unpleasant user cannot be displayed. Here the user has direct control on the private wall for posting messages.

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