AN ADVANCE APPROACH TO AVOID UNWANTED MESSAGES AND BLOCKING OF PERSON FROM OSN USERS WALL

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Abstract - *Social networking sites are very famous. It is included in routine activity of the person to check messages on their wall. It is the best entertainment medium for youngsters. On-line social network helps you to connect with your family, friends and society to share your views on any topic. As social networking sites are open for all, anyone can post message on their own wall or others wall. Sometime people posts inappropriate messages on others wall which annoys people by seeing them. Considering this problem System work is related to filtration of unwanted wall messages before* ***they reach to the user's wall and determine trust*** *related to people on OSN.As OSN messages are short in nature so that Short text classifier and Machine learning text categorization techniques are used and for blocking of person trust value calculation is used. This system provides OSN user, A filtered wall architecture for filtration of unwanted message with blocking of person which depends upon trust value analysis.*

Key Words: On-line Social Network, Text classification, Message, filtering, user's wall, RBFN, Trust value analysis.

1. INTRODUCTION

From last few years Online Social network (OSN) have become popular interactive medium of communication, disseminate and share considerable amount of human life information. OSN provides powerful means of finding and organizing useful information. Communication involves exchange of several types of content such as text, video, audio and images. Therefore in Online Social Network there are chances of posting unwanted contents on private or public areas, in general it is called as walls [1]. Today OSN provide little support to prevent unwanted messages [4] [6]. For example on social networking site they allows users to state who is allowed to write message on their wall (i.e. Family members, friends, friends of friends, particular community or group).No content based performances are supported and therefore it is not possible to prevent unwanted messages such as vulgar or political, no matter who posts them. The aim of proposed this to provide user ability to automatically control the message written on their walls by filtering out unwanted messages. We can call the system as filtered wall (FW) .Here exploit Machine Learning (ML) text categorization [8] techniques(RBFN algorithm) to automatically assigns with each short text message, a set of categories based on its content. This can be the key OSN service that has not provided yet. System using neural learning which is today's recognized as one of the most efficient solutions in text classification. As a text on which we want to perform operation is short, for that Radial Basis Function Network (RBFN algorithm) as short text classification strategy [3], in managing noisy data and vague classes. As well as provide blocking of person who sends bad messages on user's wall with the help of trust value analysis.

2. LITERATURE SURVEY

As a web browsing growing continuously, it becomes difficult to search for relevant information using traditional search engines. Topic related search provides you an alternate way to support efficient information retrieval on web by providing customized and more precise search in various domains. However developers of topic specific search engines need to address two issues
1. How to find URLs on the web
2. How to filter out irrelevant document from a set of documents gathered from the web
Second issue in this paper reports my research. Proposed System using using machine learning approach that combines web structure and content analysis [8]. We can use various web Text filtering approaches
1. Benchmark approach M. Chau in his paper talks about two benchmark approaches [9] [5]
Lexicon based approach- Lexicon based approach.
It has the advantage of being fast and has been used in various information retrieval applications. Threshold divides these documents into two classes related and irrelevant. This threshold was then used for testing.
Keyword base approach - Keyword based SVM approach: This approach tells that, in the processing stage every single document was first tokenized into single words, because system will not bear a significant semantic means

a, an, the get fixed base on the predefined stop-word list. This is done to reduce number of not required words. In this case unrequited words means which are not useful for analysis. In this approach author filters Prefix and suffix stripping to the world, using porter's stemmer. After this pre-processing each filtered document as a key word vector, was used as the input to the SVM for training and Content base filtering approach [2]

3. PROBLEM STATEMENT

To Design and Implement a system for, Unwanted message filtration from On-line Social Network user's wall and Blocking of person using trust value who sends bad messages.

4. SYSTEM DESIGN

1.1 Existing System

Existing OSN provides Filtered wall architecture but very little support for blocking of person. In existing system you can block the person by some filtering rule for some time or permanently. Somehow like, Face book allows users to state who is allowed to insert messages on their wall (i.e. Family members, friends, group of friends and friends of friends).So the disadvantage of existing system is that if any person has any good message or information for at that time he cannot post it to you. So to overcome this disadvantage new system is proposed.

1) Disadvantages of Existing System:

1. In existing system filter bad word and display message by dropping bad words but that message is meaningless.
2. In other existing system they filter message and display bad words in ***** format [7].Again the message is meaningless [9]. So the propose system will overcome this disadvantages and provide another way of person blocking using trust value.

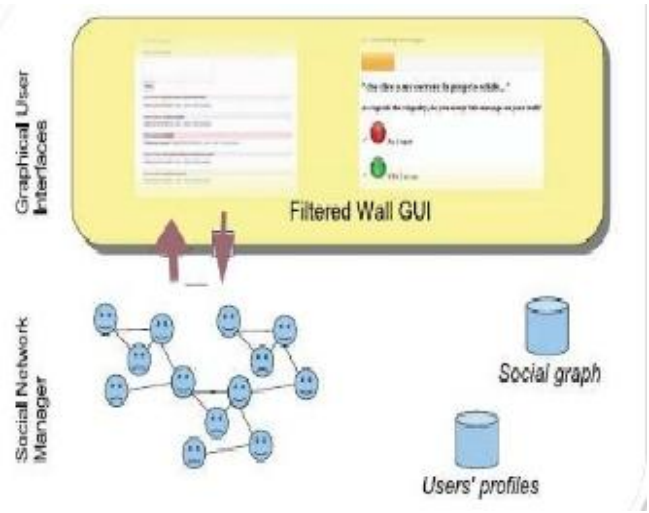

Fig. 1. Existing OSN System

5. PROPOSED SYSTEM ARCHITECTURE

To overcome the disadvantages of existing system. This three-tier architecture of OSN services is proposed.

First layer is called as Social Network Manager (SNM), it's aim to provide the basic OSN functionality such as Profile and relationship management.

Second layer provides Social Network Application (SNA).

Third layer is Graphical User Interface (GUI).

According to this structure Propose system is placed in second and third layer.

1.2 Modules for Proposed System

1. System provides Filtered wall to OSN users by filtering Unwanted messages.
2. Here with message filtration system provides blacklisting mechanism which blocks sender who sends bad messages Depend on trust value.
3. User have to decide threshold trust value (i.e. cut of value) to blacklist person. Threshold value is depending upon the user what threshold value he wants to declare.
4. User has to assign trust value to the people which are present in his friend list.
5. When Sender sends bad messages to receiver, filtered wall get that messages, then classify that message, then apply machine learning to categories that message as neutral or non-neutral (i.e. Good or Bad)For that system using Radial Base Function Networks (RBFN).
6. If the word is neutral system will represent it by 0 and if the word is non-neutral system will represent it as 1 it is called as Text Representation.
7. If message is neutral system will display that message.
8. If message having non-neutral words then system will not display that message simultaneously reduce trust value of the person from which receiver gets that bad message.
9. System will display the good messages of person until he meets threshold value to blacklist that person.

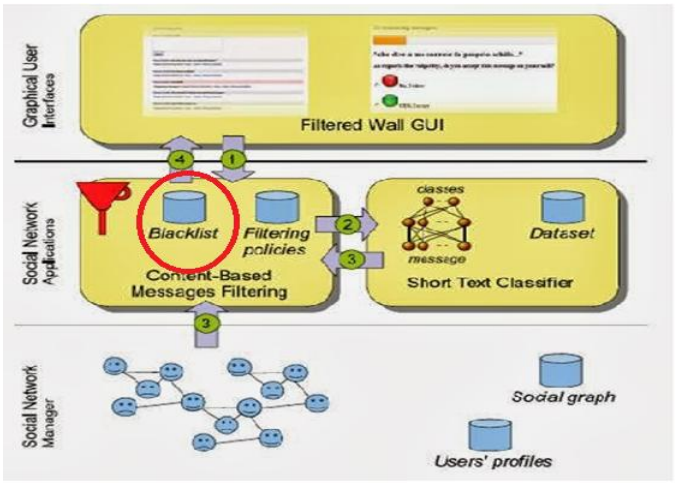

Fig. 2. Proposed OSN System

6. MATHEMATICAL MODULE

S = System
S = I, O, TVA, FR, FM, RGM, FB, TvC, A

Input:
I = SM
SM = Send message.
TVA = Trust Value Allocation
FR = Trustier, SOUs, Rule, TuV, SM,

Output:
O = RM, GM, BM, C(PC,PWC,NC,NWC),TvC,R
RM = Receive Message
GM = Good Messages
BM = Bad Messages
FM = Filter Message
TvC = Trust Value Calculation
R = Analysis Result

Functions:
RGM(SM)->RM
Achieve Message collection.
FM (GM, BM) GM,BM -> RBFN
Achieve Only Message filtration.
TVA (FB) -> TvC
Achieve Message filtration with Calculation of trust value
A (RBFN, TVA) RBFN,TVA -> R
Achieve Analysis Result from two performance measures.

1.3 How to process Data

1. The first step in analyzing the text data is to remove all the punctuation and symbols. This Once the message has been cleansed of punctuation marks and symbols.
2. The message can be parsed into words.
3. Then remove articles A, An, The, is was etc. This parsing occurs by the purpose of the analysis to identify words that are present in the message which may be of further use to machine.
4. An association Analysis which analyses the identifying spaces and using these spaces as the indication of one word ending and another word beginning. Words present in the information which are further use to compare with "Bag of words". If message contain symbolic signs such as smiles then we have to remove it. Bag of words-System using text files containing abuse, ugly words related to politics, sex , etc.
5. When words in messages are separated, are compare with words present in bag of words. If word match with, then that message will not display and trust value calculation starts for blocking of person.

Table -1: Example of input messages

Sr.No.	Good messages	Bad messages		
		political	vulgar	Hate
1	Hi...	dog		
2	How r u?	political		
3	M fine	Sexy		
4	Good	psychosocial		
5	Coming	Abandoned		
6	See u	rusty		

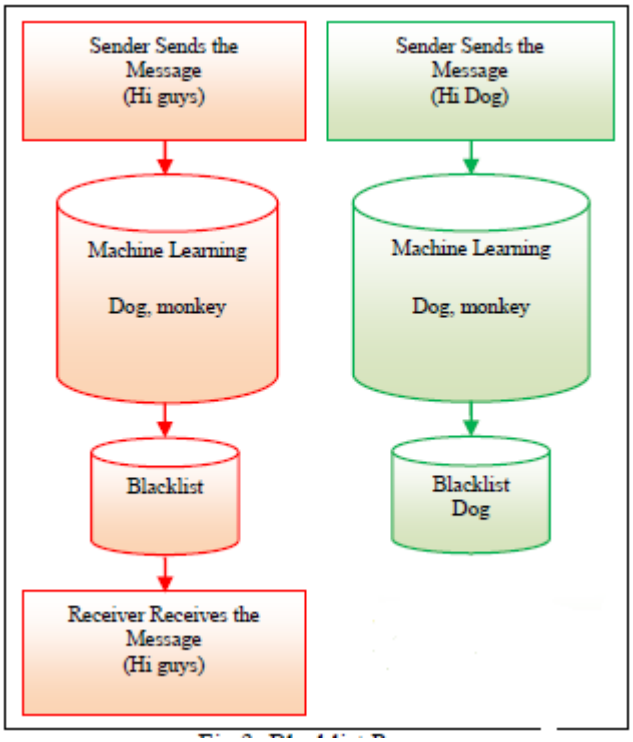

Fig -3: Blacklist Process

7. TRUST VALUE CALCULATIONS

The trust value of any user in OSN is dependent on the Feedback they gain by the user to whom they sent a message.
Feedback from the user must also be trust worthy. That's why the FB can be categorized into following.
1. Positive with content (PC) - Good FB, message is acceptable with objectionable content.
2. Positive without content (PWC) - Good FB, message is Acceptable as this message does not contain objectionable content.
3. Negative with content (NC) - Bad FB, such messages must not be sent again, which are against the Rule.

4. Negative without content (NWC) - Bad FB, message does not contain any objectionable content but the Trustier is giving negative FB.
Such type of FB from Trustier will affect the TuV of its own.
So, based on above categories the TuV will be FB as 3
TuV= TuV-[1+ (NC+NWC) / (PC+PWC)] for [(NC+NWC) / (PC+PWC)] less than 1

8. RESULT

When sender sends good messages he can send it But if he sends bad messages then it get filtered. Trust value get calculated and Sender get block when he reached to the threshold limit. Bellow the analysis results.

9. RESULT ANALYSIS CHARTS

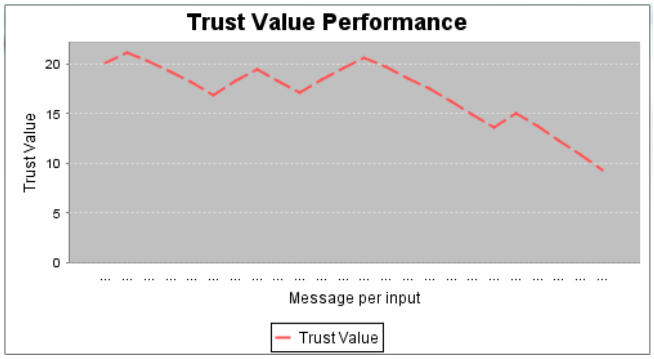

Chart -1: Good and Bad messages

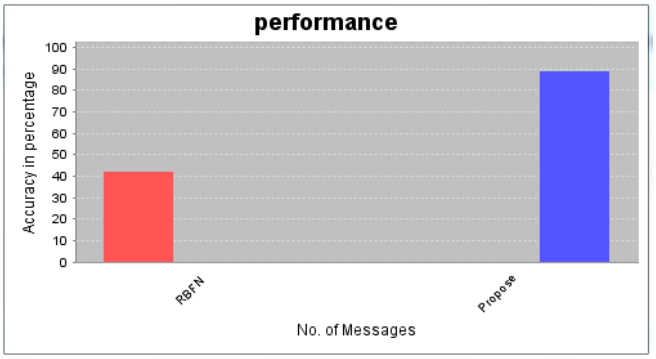

Chart -2: Accuracy and precision

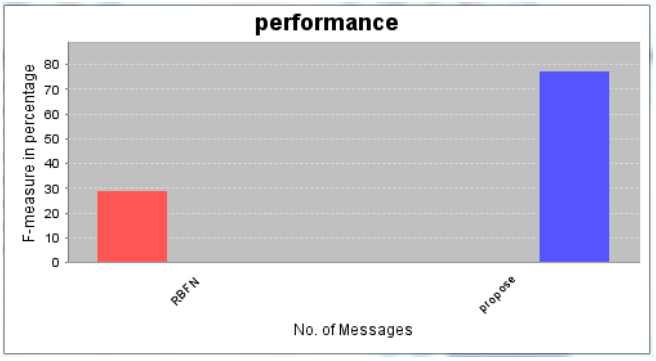

Chart -3: F-Measure

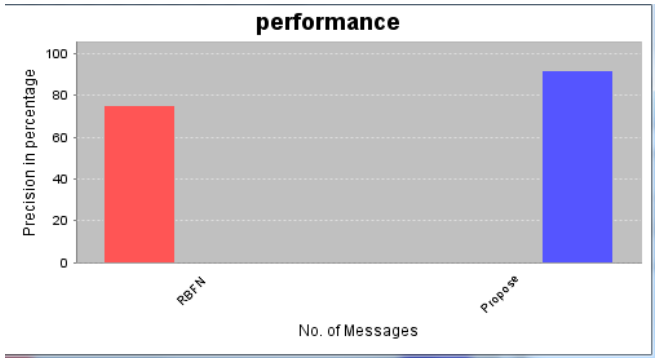

Chart -4: Precision Percentage

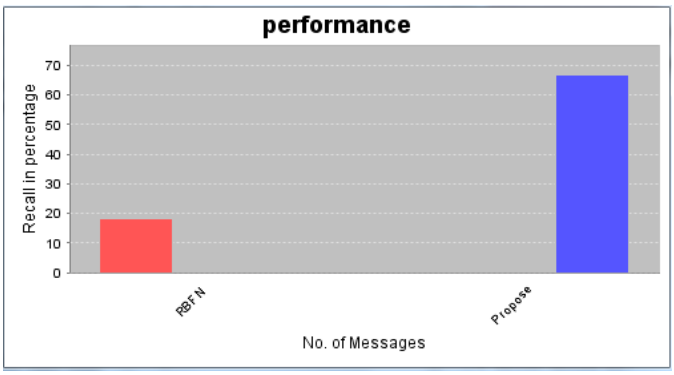

Chart -5: Recall in percentage

10. CONCLUSIONS

This system is deployed at the OSN service provider side. Which provide user a facility to get message only which they want on their wall by inspecting every message. Here we are achieving Filtered wall architecture with the help of RBFN algorithm and Trust value analysis block user by calculating trust towards the person.

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BIOGRAPHIES

Completed BE in CSE in 2010.Have 3 years of experience in teaching as well as industry. Now focus is to completion of Masters Degree.

Prof.Pankaj Agarkar was born on March 3,1974. He has completed ME in Computer Engineering from COEP Pune. He has published 12National and 5 International Papers.

