

FILTERING UNWANTED MESSAGES

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Abstract - The main aim of this web application is to provide control on the messages posted on their own private wall and to block the abused content is not to be displayed. We propose a system allowing social network users to have a direct control on the messages posted on their walls. This is achieved through a flexible rule-based system, that allows users to customize the filtering criteria to be applied to their walls, and a Machine Learning based soft classifier automatically labeling messages in support of content-based filtering.

1. INTRODUCTION

This paper primarily aims at encouraging students to focus on developing applications that not only they can use but also can help the society in general. This way, students will be able to fulfill their responsibility to developing expertise in their preferred subject.

The filtering unwanted messages developed to take the user details instantly. User must be register once and they can send friend request. User can check his/her wall when he/she login. User can accept or reject friend request by login. The user can post messages on his/her friend's wall. This application has a direct control on the messages posted on walls.

1.1 Overview of Filtering Unwanted Messages

The Filtering Unwanted Messages application is web application. The filtering Unwanted Messages is implemented in this module is focused on filtering of abuse words and instead of that words the system shows special characters like ***** or @@@@ or etc.

1.2 Technologies Used

Java Server Pages (JSP) is a server-side programming technology that enables the creation of dynamic web pages for building Web-based applications. JSP have access to the entire of Java APIs, including the JDBC API to access enterprise databases.

Advantages of JSP:

- In a JSP page visual content and logic are separated.
- The dynamic part of JSP is written in Java, so it is more powerful and easier to use. Secondly, JSP is platform independent.

- There is an automatic deployment of a JSP, recompilation is done automatically when changes are made to JSP pages.
- Usually with JSP, Java Beans and custom tags web application is simplified.
- By using JSP the system can connect with number of databases including MySQL, PostgreSQL, Oracle, Sybase, Informix, and Microsoft SQL Server.
- JSP needs no compilation, CLASSPATH setting and packaging.
- JSP is better because it lets you use servlets instead of a separate program to generate that dynamic part.

2. System/Application Architecture

The Filtering Unwanted Messages developed to take the user details instantly. User must be register once and they can send friend request. User can check his/her wall when he/she login. User accepted or rejected friend request by login. The user can post messages on his/her friend's wall. This application has a direct control on the messages posted on wall.

The architecture in support of social network services is a three-tier structure (Figure 1). The first layer, called Social Network Manager (SNM), commonly aims to provide the basic social network functionalities (i.e., profile and relationship management), whereas the second layer provides the support for external Social Network Applications (SNAs). The supported SNAs may in turn require an additional layer for their needed Graphical User Interfaces (GUIs). According to this reference architecture, the proposed system is placed in the second and third layers. In particular, users interact with the system by means of a GUI to set up and manage their FRs/BLs. Moreover, the GUI provides users with a Filtering Wall, that is, a wall where only messages that are authorized according to their FRs/BLs are published. The core components of the proposed system are the Content-Based Messages Filtering (CBMF) and the Short Text Classifier (STC) modules. The latter component aims to classify messages according to a set of categories. The strategy underlying this module is described in Section 2.1.

In contrast, the first component exploits the message categorization provided by the STC module to enforce the FRs specified by the user. BLs can also be used to enhance the filtering process. As graphically depicted in

Figure 1, the path followed by a message, from its writing to the possible final publication can be summarized as follows:

- 1) After entering the private wall of one of his/her Contacts, the user tries to post a message.
- 2) A Machine Language-based text classifier extracts metadata from the content of the message.
- 3) Filtering Wall uses metadata provided by the classifier, together with data extracted from the social graph and users' profiles, to enforce the filtering and BL rules.
- 4) Depending on the result of the previous step, the message will be published or filtered by Filtering Wall. In what follows, we explain in more details some of the above-mentioned steps.

2.1 Short Text Classifier

Established techniques used for text classification work well on datasets with large documents such as newswires corpora, but suffer when the documents in the corpus are short. In this context, critical aspects are the definition of a set of characterizing and discriminate features allowing the representation of underlying concepts and the collection of a complete and consistent set of supervised examples. Our study is aimed at designing and evaluating various representation techniques in combination with a neural learning strategy to semantically categorize short texts. From a ML point of view, we approach the task by defining a hierarchical two level strategy assuming that it is better to identify and eliminate "neutral" sentences, then classify "non neutral" sentences by the class of interest instead of doing everything in one step. This choice is motivated by related work showing advantages in classifying text and/or short texts using a hierarchical strategy. The first level task is conceived as a hard classification in which Short texts are labelled with crisp Neutral and Non-Neutral labels. The second level soft classifier acts on the crisp set of non-neutral short texts and, for each of them, it "simply" produces estimated appropriateness or "gradual membership" for each of the conceived classes, without taking any "hard" decision on any of them. Such a list of grades is then used by the subsequent phases of the filtering process.

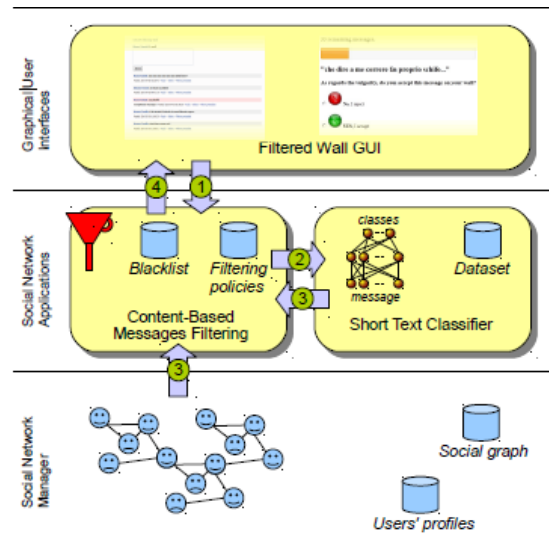


Fig -1

Few screenshots related to the Filtering Unwanted Messages and how to be using application with user and admin as follows:

3. User Interface Screens



Fig1.1 Home page

This page have login and signup for registration user.

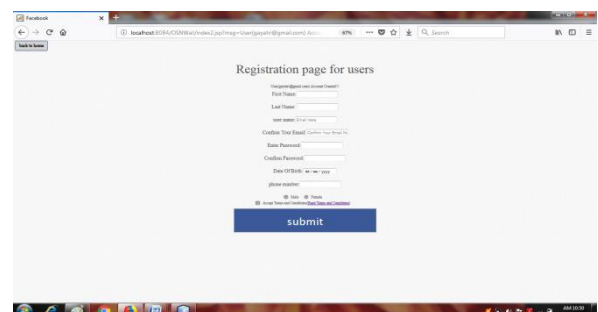


Fig1.2 Registration page

In this page the user entering all the details and by clicking submit button the data stored in database and then user account created. Here back to home button which redirect to home page.

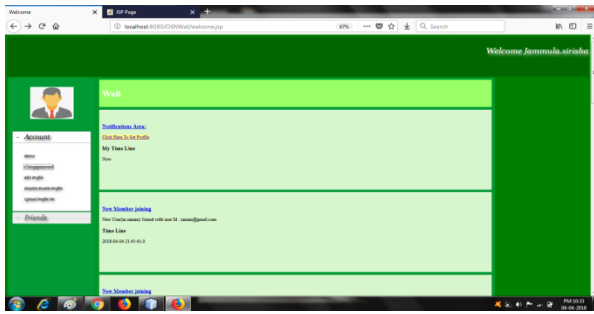


Fig1.3 Welcome page for user

After successfully login user navigate welcome page. In this page two select boxes are available Account and Friends.

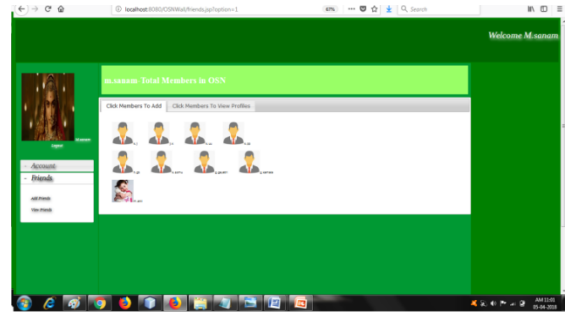


Fig1.7 Friends page

In this wall user can send friend request to the user by clicking her profile picture.

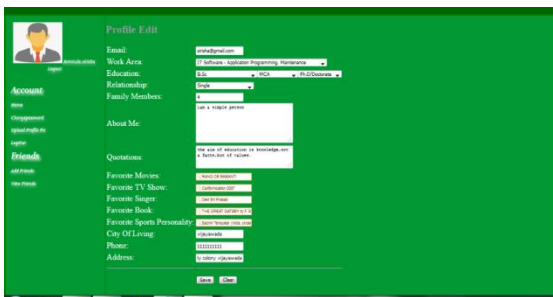


Fig1.4 Profile page

Here user can create profile details by entering all details.

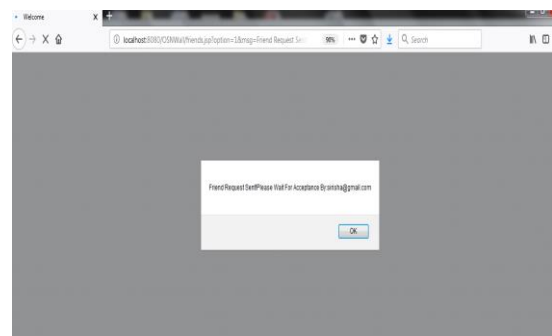


Fig1.8 The friend request send to the user that shows in alert message box.

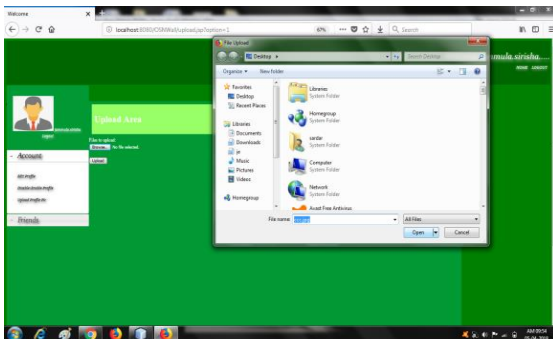


Fig1.5 Upload picture

Here user can upload a profile picture by browsing the image file.

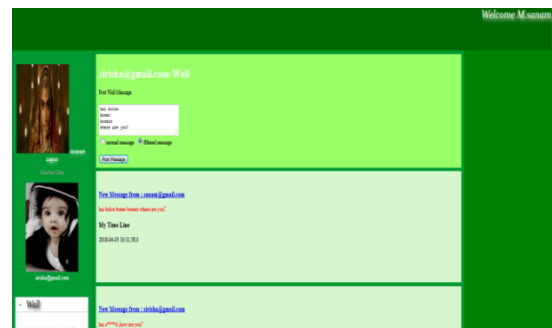


Fig1.9 Message post page

Here user can post a message to the friend in their wall. This page contain the text area box to enter message and Radio buttons for checking purpose ,by clicking post button the message will be filtered.

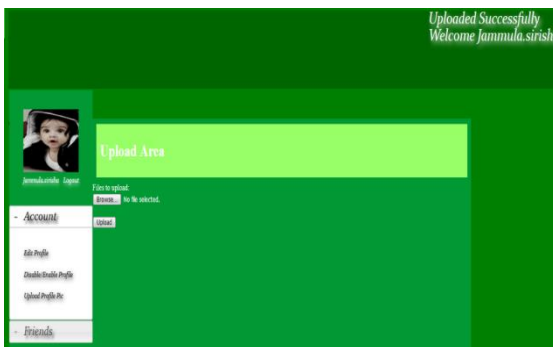


Fig1.6 Profile picture uploaded successfully.

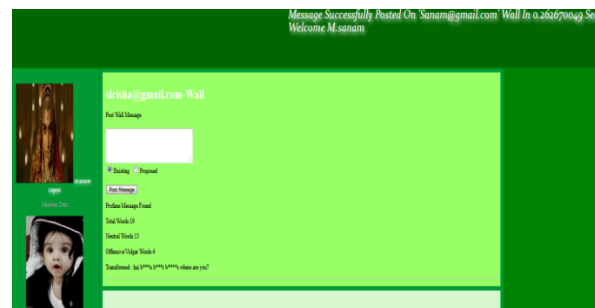


Fig 1.10 After posting a message the action performed by clicking the post button.

The profane or abused words are transformed into ***. This page provides count of profane and normal words, total number of words.



Fig1.11 Admin Home Page

Here admin also have a login. After successfully login then admin welcomes page display. This page has Home and Profane user list and user details, logout buttons.

Welcome To Administrator												
Home Profane User Details View User Details Logout												
USERS DETAILS												
ID	EMAIL ID	PASSWORD	FIRST NAME	LAST NAME	DATE OF BIRTH	GENDER	PHONE	DATE OF JOIN	PROFILE PIC	USER TYPE	LANG SIZE	SHOW PROFILE
501	j@gmail.com	567890	k	j	2018-03-25 00:00:00.0	mail	900900000	2018-03-27 15:58:36.0	images/users/501.jpg	1	1	1
502	k@gmail.com	567890	j	k	2018-03-25 00:00:00.0	mail	900900000	2018-03-27 16:03:07.0	images/users/502.jpg	1	1	1
503	uu@gmail.com	567890	k	uu	2018-03-28 00:00:00.0	mail	7861961006	2018-03-29 09:01:10.0	images/users/503.jpg	1	1	1
505	pp@gmail.com	567890	k	pp	2018-03-28 00:00:00.0	mail	900900000	2018-03-29 19:49:30.0	images/users/505.jpg	1	1	1
506	gh@gmail.com	567890	k	gh	2018-04-03 00:00:00.0	mail	606666666	2018-03-29 20:10:00.0	images/users/506.jpg	1	1	1
507	uuuu@gmail.com	111111	k	uuuu	2018-05-04 00:00:00.0	mail	922222222	2018-04-03 10:38:38.0	images/users/507.jpg	1	1	1

Fig1.12 Total user details page

This page about all users who are registered in this application.

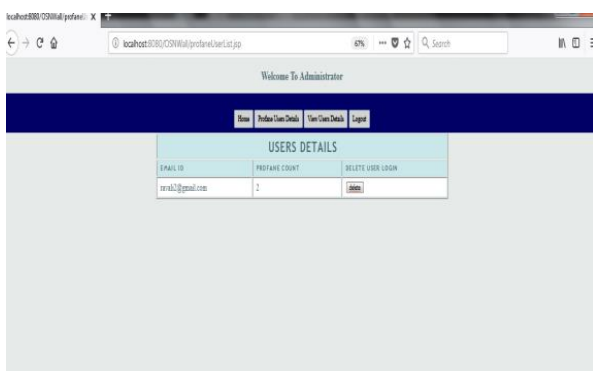


Fig1.13 Profane user details

Here in this page admin have a privilege to delete user account that is using profane words.

3. CONCLUSION

The main aim of this web application i in this paper, we have presented a system to filter undesired messages from user walls. We have shown that average social network users have difficulties in understanding also the simple privacy settings provided by today social network. To overcome this problem, a promising trend is to exploit data mining techniques to infer the best privacy preferences to suggest to social network users, on the basis of the available social network data.

4. REFERENCES

[1] www.javatpoint.com/jsp-tutorial.

[2]www.javatpoint.com/servlet-tutorial.

[3]Online you tube classes.

[4]A. Adomavicius, G.and Tuzhilin, "Toward the next generation of recommender systems: A survey of the state-of-the-art and possible extensions," IEEE Transaction on Knowledge and Data Engineering,vol. 17, no. 6, pp. 734–749, 2005.

[5] M. Chau and H. Chen, "A machine learning approach to web page filtering using content and structure analysis," Decision Support Systems, vol. 44, no. 2, pp. 482–494, 2008.

[6] R. J. Mooney and L. Roy, "Content-based book recommending using learning for text categorization," in Proceedings of the Fifth ACM Conference on Digital Libraries. New York: ACM Press, 2000, pp.195–204.

[7]F. Sebastiani, "Machine learning in automated text categorization,"ACM Computing Surveys, vol. 34, no. 1, pp. 1–47, 2002.

[8] M. Vanetti, E. Binaghi, B. Carminati, M. Carullo, and E. Ferrari, "Content-based filtering in on-line social networks," in Proceedings of ECML/PKDD Workshop on Privacy and Security issues in Data Mining and Machine Learning (PSDML 2010), 2010.

[9]N. J. Belkin and W. B. Croft,"Information filtering and information retrieval: Two sides of the same coin?" Communications of the ACM,vol. 35, no. 12, pp. 29–38, 1992.