# Block Cyberbullying Words Using Short Text Classification In Online Social Networks

# GOHILARANI .K ,KARTHIKA.K,SARANYA V.G

Department of Information Technology, A.V.C. College of Engineering, Mannampandal, Mayiladuthurai.

## Abstract:

In recent years Social network sites like Facebook, Instagram and Twitter has acquired extensive popularity and importance. Social network is one of the largest communication platforms where people express their opinions, feelings, views and real-time events such as live comments etc. Social network allows the users to register and then read and send messages which are known as comments. Rumour is one of the major challenges faced in Sentiment Analysis. Social network also enables the users to express their ideas and opinions with each other which enable the companies to know the public opinion on their products or services so that they can provide the real- time customer assistance. Designing efficient and robust algorithms for detection of rumours on Social network is the exciting challenge in opinion mining field. Rumour means the person speaks the contradictory of what the individual means, expressing gloomy feelings applying positive words. It helps the retailers to know the opinions of the customers. Sarcasm is widely used in many social networking and micro-blogging websites where people invade others which makes problematic for the individuals to say what it means. In the existing systems, machine learning technique is used to detect these sarcastic comments, it has a drawback as it cannot predict for continuous variables. In the proposed methodology Sentiment Analysis, Short text classification is used to detect rumours, positive and negative words on social network. By using short text classification algorithm, the comments are categorized into positive, negative words. Sentiment Analysis is used to mine the opinions of customers to identify and extract information from the text. By using filtered rules and block list to filter the unwanted friends in real time framework. 

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# **1.1 objective of the project**

# I. INTRODUCTION:

A social networking service also social networking site, SNS or social media is an online platform that is used by people to build social networks or social relations with other people who share similar personal or career interests, activities, backgrounds or real-life connections. The variety of stand-alone and built-in social networking services currently available in the online space introduces challenges of definition; however, there are some common features: (1) social networking services are Web 2.0 internet-based applications (2) usergenerated content (UGC) is the lifeblood of SNS organisms, (3) users create service-specific profiles for the site or app that are designed and maintained by the SNS organization, and (4) social networking services facilitate the development of online social networks by connecting a user's profile with those of other individuals and/or groups. Most social network services are web-based and provide means for users to interact over the Internet, such as by e-mail and instant messaging and online forums. Social networking sites are varied and they incorporate a range of new information and communication tools such as availability on desktop and laptops, mobile devices such as tablet computers and smartphones, digital photo/video/sharing and web logging diary entries online (blogging). Online community services are sometimes considered a social network service, though in a broader sense, social network service usually means an individual-centered service whereas online community services are group-centered. Social networking sites allow users to share ideas, digital photos and videos, posts, and inform others about online or real world activities and events with people in their network. While in-person social networking, such as gathering in a village market to talk about events has existed since the earliest developments of towns, the Web enables people to connect with others who live in different locations, ranging from across a city to across the world. Depending on the social media platform, members may be able to contact any other member. In other cases, members can contact anyone they have a connection to, and subsequently anyone that contact has a connection to, and so on. LinkedIn, a career social networking service, generally requires that a member personally know another member in real life before they contact them online. Some services require members to have a preexisting connection to contact other members.

The main types of social networking services are those that contain category places such as former school year or classmates, means to connect with friends usually with self-description pages and a

recommendation system linked to trust. Social network services can be split into three types: socializing social network services are primarily for socializing with existing friends e.g., Facebook networking social network services are primarily for non-social interpersonal communication e.g., LinkedIn, a career and employment-oriented site and social navigation social network services are primarily for helping users to find specific information or resources. There have been attempts to standardize these services to avoid the need to duplicate entries of friends and interests.

## **1.2 scope of the project**

A social network is a <u>social structure</u> made up of a set of <u>social</u> actors such as individuals or organizations sets of <u>dyadic</u> ties, and other <u>social interactions</u> between actors. The social network perspective provides a set of methods for analyzing the structure of whole social entities as well as a variety of theories explaining the patterns observed in these structures. The study of these structures uses <u>social network analysis</u> to identify local and global patterns, locate influential entities, and examine network dynamics.

Social networks and the analysis of them is an inherently <u>interdisciplinary</u> academic field which emerged from <u>social psychology</u>, <u>sociology</u>, <u>statistics</u>, and <u>graph theory</u>. <u>Georg simmel</u> authored early structural theories in sociology emphasizing the dynamics of triads and "web of group affiliations". <u>Jacob Moreno</u> is credited with developing the first <u>sociograms</u> in the 1930s to study interpersonal relationships. These approaches were mathematically formalized in the 1950s and theories and methods of social networks became pervasive in the social and behavioral sciences by the 1980s. <u>Social network analysis</u> is now one of the major paradigms in contemporary sociology, and is also employed in a number of other social and formal sciences. Together with other <u>complex networks</u>, it forms part of the nascent field of <u>network science</u>. The main objective is to classify the comments and web sites and also block the unwanted data from user page.

## **1.3 outline of the project**

Web-based social networking services make it possible to connect people who share interests and activities across political, economic, and geographic borders. Through e-mail and instant messaging, <u>online communities</u> are created where a <u>gift economy</u> and <u>reciprocal altruism</u> are encouraged through <u>cooperation</u>. Information is suited to a <u>gift economy</u>, as information is a <u>nonrival good</u> and can be gifted at practically no cost. Scholars have noted that the term "social" cannot account for technological features of the social network platforms alone. Hence, the level of network sociability should determine by the actual performances of its users. According to the communication theory of uses and gratifications, an increasing number of individuals are looking to the Internet and social media to fulfill cognitive, affective, personal integrative, social integrative, and tension free needs. With Internet technology as a supplement to fulfill needs, it is in turn affecting everyday life, including relationships, school, church, entertainment, and family. Companies are using social media as a way to learn about potential employees' personalities and behavior. In numerous situations a candidate who might otherwise have been hired has been rejected due to offensive or otherwise unseemly photos or comments posted to social networks or appearing on a newsfeed.

#### 1.4 domain explanation

Data mining is the computing process of discovering patterns in large data sets involving methods at the intersection of machine learning, statistics, and database systems. It is an interdisciplinary subfield of computer science. The overall goal of the data mining process is to extract information from a data set and transform it into an understandable structure for further use. Data mining is the analysis step of the knowledge discovery in databases process, or KDD. Data mining (the analysis step of the Knowledge Discovery in Databases process, or KDD), a field at the intersection of computer science and statistics, is the process that attempts to discover patterns in large data sets. It utilizes methods at the intersection of artificial intelligence, machine learning, statistics, and systems. The overall goal of the data mining process is to extract information from a data set and transform it into an understandable structure for further use Aside from the raw analysis step, it involves database and data management aspects, data pre-processing, model and inference considerations, interestingness metrics, complexity considerations, post-processing of discovered structures, visualization, and online updating.

The actual data mining task is the semi-automatic or automatic analysis of large quantities of data to extract previously unknown, interesting patterns such as groups of data records cluster analysis, unusual records anomaly detection, and dependencies association rule mining, sequential pattern mining. This usually involves using database techniques such as spatial indices. These patterns can then be seen as a kind of summary of the input data, and may be used in further analysis or, for example, in machine learning and predictive analytics. For example, the data mining step might identify multiple groups in the data, which can then be used to obtain more accurate prediction results by a decision support system. Neither the data collection, data preparation, nor result interpretation and reporting is part of the data mining step, but do belong to the overall KDD process as additional steps.

Data Mining is the process of posing queries to large amounts of data sources and extracting patterns and trends using statistical and machine learning techniques. It integrates various technologies including database management, statistics and machine learning. Data mining has applications in numerous disciplines including medical, financial, defence and intelligence. Data mining tasks include classification, clustering, making associations and anomaly detection. For example, data mining can extract various associations between people, places or words. During recent years there have been many developments in data mining. The process of digging through data to discover hidden connections and predict future trends has a long history. Sometimes referred to as knowledge discovery in databases, the term data mining wasn't coined until the 1990s. But its foundation comprises three intertwined scientific disciplines: statistics the numeric study of data relationships, artificial intelligence human-like intelligence displayed by software and machines and machine learning algorithms that can learn from data to make predictions. What was old is new again, as data mining technology keeps evolving to keep pace with the limitless potential of big data and affordable computing power. Various data mining techniques have been developed. These include techniques for extracting associations, neural networks, inductive logic programming, decision trees, fuzzy logic and rough sets. Furthermore, data mining has gone beyond mining relational databases to mining text and multimedia data. Also, data mining is being applied to areas such as information security and intrusion detection. While there have been many practical developments, we still have major challenges.

# **II. LITERATURE SURVEY:**

# **2.1 DRIMUX:** dynamic rumor influence minimization with user experience in social networks **AUTHOR:** biaowang

In this paper, we investigate the problem of dynamic rumor influence minimization with user experience. First, based on existing works on information diffusion in social networks, we incorporate the rumor popularity dynamics in the diffusion model. We analyze existing investigations on topic propagation dynamics and bursty topic patterns. Then we choose Chi-squared distribution to approximate the global rumor popularity Inspired by the novel energy model proposed by Han et al., we then analyze the individual tendency towards the rumor and present the probability of successful rumor propagation between a pair of nodes. Finally, inspired by the concept of Ising model, we derive the cooperative succeeding probability of rumor propagation that integrates the global rumor popularity with individual tendency. After that, we introduce the concept of user experience utility function and analyze the impact of blocking time of nodes to the rumor propagation process. We then adopt the survival theory to explain the likelihood of nodes getting activated, and propose both greedy and dynamic algorithms based on maximum likelihood principle. We propose a rumor propagation model taking into account the following three elements: First, the global popularity of the rumor over the entire social network, i.e., the general topic dynamics. Second, the attraction dynamics of the rumor to a potential spreader, i.e., the individual tendency to forward the rumor to its neighbors. Third, the acceptance probability of the rumor recipients. In our model, inspired by the using model, we combine all three factors together to propose a cooperative rumor propagation probability. In our rumor blocking strategies, we consider the influence of blocking time to user experience in realworld social networks. Thus we propose a blocking time constraint into the traditional rumor influence minimization objective function. In that case, our method optimizes the rumor blocking strategy without sacrificing the online user experience. We use survival theory to analyze the likelihood of nodes becoming activated or infected by the rumor before a time threshold which is determined by the user experience constraint. Then we propose both greedy and dynamic blocking algorithms using the maximum likelihood principle.

# **2.2TITLE:**maximizingacceptance probability for active friending in on-line social networks **AUTHOR: de-nian yang**

In this paper, we are making a grand suggestion for the social networking service providers to support active friending. To support active friending, the key issue is on the design of the algorithms that select the recommendation candidates. A simple scheme is to provide recommendations by unveiling the shortest path between the initiator and the target in the social network, i.e., recommending one candidate at each step along the path. As such, the initiator can gradually approach the target by acquainting the individuals on the path. However, this shortest-path recommendation approach may fail as soon as a middle-person does not accept the friending invitation since only one candidate is included in the recommendation list for each step. To address this issue, it is desirable to recommend multiple candidates at each step since the initiator is more likely to share more common friends with the target and thereby more likely to get accepted by the target. Especially, by broadcasting the friending invitations to all neighbors of the initiator's friends, the probability to reach the friending target and get accepted can be effectively maximized as enormous number of paths is flooded with invitations to approach the target. Nevertheless, friending invitations are abused here because the above unidirectional broadcast is aimless and prone to involve many unnecessary neighbors. Moreover, the initiator may not want to handle a large number of tedious invitations. In this paper, we study a new optimization problem, called Acceptance Probability Maximization (APM), for active friending in on-line social networks. The service providers, who eager to explore new monetary tools for revenue increase, may consider charging the users from active friending service.

# **2.3 TITLE:** topic and role discovery in social networks **AUTHOR:** andrew mccallum

The paper presents the Author-Recipient-Topic (ART) model, a directed graphical model of words in a message generated given their author and a set of recipients. The model is similar to the Author-Topic (AT) model, but with the crucial enhancement that it conditions the per-message topic distribution jointly on both the author and individual recipients, rather than on individual authors. Thus the discovery of topics in the ART model is influenced by the social structure in which messages are sent and received. Each topic consists of a multinomial distribution over words. Each author-recipient pair has a distribution over topics. We can also easily calculate marginal distributions over topics conditioned solely on an author, or solely on a recipient, in order to find the topics on which each person is most likely to send or receive. Most importantly, we can also effectively use these person conditioned topic distributions to measure similarity between people, and thus discover people's roles by clustering using this similarity. For example, people who receive messages containing requests for photocopying, travel bookings, and meeting room arrangements can all be said to have the role administrative assistant, and can be discovered as such because in the ART model they will all have these topics with high probability in their receiving distribution. Note that we can discover that two people have similar roles even if in the graph they are connected to very different sets of people. Thus, we propose an Author-Recipient-Topic (ART) model for message data. The ART model captures topics and the directed social network of senders and recipients by conditioning the multinomial distribution over topics distinctly on both the author and one recipient of a message. Unlike the AT, the ART model takes into consideration both author and recipients distinctly, in addition to modeling the email content as a mixture of topics. The ART model is a Bayesian network that simultaneously models message content, as well as the directed social network in which the messages are sent.

# **2.4 TITLE:** capacity of wireless networks with social characteristics **AUTHOR: luoyi fu**

In this paper, we bridge the theoretical analysis of fundamental scaling laws of wireless networks with the insights already gained through practical protocol development. By doing so, we provide a theoretical foundation to the design of intelligent scheduling and routing schemes that exploit social relations, analytically demonstrating the benefits of such schemes in terms of throughput capacity. In particular, to address the aforementioned two major features of such large scale networks, we deploy the rank based model, where the probability of befriending a particular node is inversely proportional to the  $\alpha$  th power of the number of closer nodes. We choose the rank-based model over the distance-based one since the latter one underestimates the friendship probability of the distant nodes in the low-density region, when the geographical distribution of users is inhomogeneous in common occurrence. In contrast, the rank-based model states that the friendship probability depends on both the geographic distance and node density. It is worth noting that both the rankbased model and the power law node degrees are heavy-tailed distributions. Heavy-tailed distributions are useful modeling tools in realistic settings, but are often difficult for analysis because they imply a great degree of variations in the system, i.e., some of the source-destination pairs are close neighbors while some may be very far away. In addition, some nodes have extremely large number of followers (such as celebrities) while some others may only have a few. However, our results show that despite the great heterogeneities in the network, a uniform optimal performance can be guaranteed. Comparing with classic unicast networks, the traffic pattern in our model is significantly different because the destinations are selected according to the rank-based model, which will result in a certain degree of traffic locality. Intuitively, as parameter  $\alpha$  increases, sources will be more likely to befriend a node located in closer proximity, and therefore less distance or hops are needed to be covered in the packet delivery process. This amount to a smaller interference per traffic flow, and in terms implies a larger degree of transmission concurrency can be achieved. As a result, the unicast capacity is increased. However, the non-uniformity of the traffic pattern will cause significant difficulty in analysis.

# 2.5 TITLE: the spread of innovations in social networks

#### AUTHOR: andrea montanari

We represent the social network by a graph in which each node represents an agent in the system. Each agent or player has to make a choice between two alternatives. The payoff of each of the two choices for the agent increases with the number of neighbors who are adopting the same choice. The above model captures situations in which there is an incentive for individuals to make the same choices as their immediate friends or neighbors. This may happen when making a decision between two alternative operating systems e.g., Windows versus Linux, choosing cell phone providers AT&T versus Verizon, or even political parties Republican versus

Democratic. We use a very simple dynamics for the evolution of play. Agents revise their strategies asynchronously. Each time they choose, with probability close to 1, the strategy with the best payoff, given the current behavior of their neighbors. Such noisy best-response dynamics have been studied extensively as a simple model for the emergence of technologies and social norms. The main result in this line of work can be summarized as follows: The combination of random experimentation noise and the myopic attempts of players to increase their utility best response drives the system toward a particular equilibrium in which all players take the same action. The analysis also offers a simple condition known as risk dominance that determines whether an innovation introduced in the network will eventually become widespread. The present paper characterizes the rate of convergence for such dynamics in terms of explicit graph-theoretic quantities. Suppose a superior risk-dominant technology is introduced as a new alternative. Our characterization is expressed in terms of quantities that we name tilted cut width and tilted cut of the graph. We refer the reader to the following sections for exact definition of these quantities. Roughly speaking, the two quantities are duals of each other: The former characterization is derived by calculating the most likely path to the equilibrium and implies an upper bound on the convergence time; the latter corresponds to a bottleneck in the space of configurations and provides a lower bound.

# **2.6 TITLE:** diffusion of innovations revisited: from social network to innovation network **AUTHOR:** xin rong

In this paper, we take a formal quantitative approach to account for how the inter-innovation relationships explain the variance of user adoptions. In many real-life situations, we have access to text content that describes, documents, reviews, and compares the innovations. Innovations most often appear as noun phrases or entities in such textual documents, which allows us to use text mining methods to discover and analyze the relationships among the entities under different statistical association or similarity measures Compared to other methods that establish similarity measurement among entities, such as collaborative filtering, extracting relationships from textual content allows the separation of innovation-specific information from userinvolved information. This separation is especially important in predicting the diffusion pattern at the early stage of diffusion, when few adoption records are available. Given these motivations, we choose to establish a network of computer algorithms and statistical models i.e., the network of innovations for our study. We build this network by mining a large collection of journal articles and conference papers in computer science. Within the network, a link exists between two innovations if their similarity or association is above a threshold. In our analysis, we also include a citation network of authors, which helps us distinguish and compare the factors related to the social network and factors related to the innovation network in predicting users' adoption behavior and innovation diffusion patterns. The two types of relationships, competition and collaboration, define two different types of links, and thus two different innovation networks. The subsequent analysis will show that these two networks effectively recover the underlying commonalities and interactions among entities, and contribute to the prediction of the adoption of innovations. In practice, to extract competitors, we extract the contextual words i.e., neighboring words of each occurrence for each entity of interest and break them into multiple shingles of 4 to 6 words long. Then we aggregate the shingles for each entity, constituting a context vector bag of shingles and compute the cosine similarity between the context vectors of each pair of entities, and identify those pairs with cosine similarity above a threshold as competitors. This is related to the distributional similarity in the literature of natural language processing, but is defined on bag of shingles instead of bag of words.

# **2.7 TITLE:** limiting the spread of misinformation in social networks **AUTHOR:** ceren budak

In this work, we study the problem of minimizing the number of people that adopt the misinformation and prove that even though the general problem does not exhibit the sub-modular property, certain restricted versions of it are in fact sub-modular. We exploit this property to provide efficient solutions with approximation bounds. We also evaluate the performance of our algorithm on a number of close-knit regional networks obtained from the Facebook social network comparing its performance with some well-known heuristics including degree centrality. We show that in many cases, heuristics have performance comparable to the more computationally intense greedy method. Since in the real world, decisions about how to deploy a limiting campaign need to be made with incomplete data, we also consider the case where the states of only a fraction of the nodes in network can be observed. We show that, although the naive solution to the optimization problem in this setting is intractable, using matrix tree theorem and the fact that the specific problem is supermodular, a polynomial time solution can be used where polynomial time is defined in terms of calls to an oracle function. However, this solution is still expensive for large scale social networks, so we propose a prediction method that is based on generating random spanning trees on a set of likely to have been infected nodes to predict the missing information. We show that in most cases, this method has good performance, i.e. decisions made as to who to first influence by the limiting campaign under uncertain data still result in effective inoculation. Although the greedy algorithm is a polynomial time algorithm, it is still too costly for large scale social networks. Therefore, we also experimentally studied the performance of the greedy algorithm, comparing it with 3 different heuristics one of which is degree centrality. We showed that in many cases the performance of heuristics, even the simple degree centrality heuristic, is comparable to the greedy algorithm. We explored different aspects of the problem such as the effect of starting the limiting campaign early/late, or the properties of the adversary and how prone the population is to accepting either one of the campaigns.

# **2.8 TITLE:** viral misinformation: the role of homophily and polarization

# AUTHOR: alessandro bessi

Nowadays, everyone can produce and access a variety of information by actively participating in the diffusion and reinforcement of narratives. The spreading of unsubstantiated rumors, whether intentional or unintentional, could have serious consequences; the World Economic Forum has listed massive digital misinformation as one of the main risks for the modern society. An interesting example is the popular case of Senator Cirenga's law, proposing to fund policy makers with 134 million of euros 10% of the Italian GDP in case of defeat in the political competition. This was an intentional joke-he text of the post was explicitly mentioning its provocative nature-which became popular within online political activists. In this work we focus on two distinct types of news-science and conspiracy-diering in the possibility of verifying their content. Science news aim at diffusing scientific knowledge and scientific thinking, whereas conspiracy news provide alternative arguments that are difficult to be verified. Conspiracists tend to reduce the complexity of reality by explaining significant social or political events as secret plots conceived by powerful individuals or organizations. Misinformation can be particularly difficult to correct. Recently it has been shown that conspiracist and mainstream information reverberate in a similar way on social media and that users generally exposed to conspiracy stories are more prone to like and share satirical information. In summary, we find that Facebook users at least in the Italian dataset tend to be very polarized with respect to science or conspiracy subjects, by forming two distinct groups. Such groups are very similar: they present a strong homophily their users tend to interact with users with a similar polarization and consume information with similar patterns. Moreover, the internal social network structure is statistically similar. Therefore, homophily and polarization could be the key metrics to identify the communities of a social network where false or misleading rumors are more likely to spread.

# **2.9 TITLE**: least cost rumor blocking in social networks

# AUTHOR: lidan fan

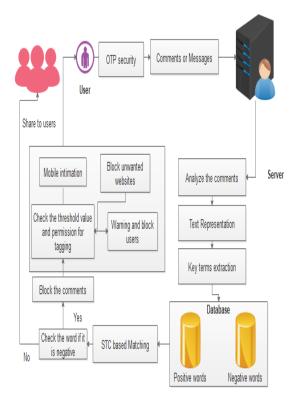
With the increasing popularity of online social networks, such as twitter, facebook, renren and so forth, rumors can spread farther, quicker, and even with more terrible effect. In real-world situations, rumors exist in almost every domain of society. It is known that social networks possess a common phenomenon: the property of containing community structure, that is, they divide into groups of vertices with dense connections within each group while sparse connections crossing groups, where the vertices and connections stand for network users and their social relations, respectively. In general, people join a same community with sharing common interests or other attributes, which means they tend to interact more frequently with other members in the same community than with people outside. In other words, edges crossing between communities are of usually few, thus a node from a community often has little chance to spread out rumor to a node in a different community. Taking into account of this advantage of community structure, to efficiently decontaminate the wide spread of rumors in a network by least number of protectors, we pay attention to the members in the R-neighbor communities, i.e., confine the rumor diffusion to its own community. To realize it, intuitively, it is reasonable connections across different communities are sparse to protect the bridge ends, which have relations with the members in rumor community, and can be reached earlier than other members in their own communities. Furthermore, one could also study the LCRB problem under other influence diffusion models, especially models without submodularity property. Another direction is looking into the problem of locating rumor originators since in many real world situations, it is hard to quickly detect rumors in the first place

# **2.10 TITLE:** scalable influence maximization for independent cascade model in large-scale social networks **AUTHOR:** chi wang

The increasing popularity of many online social network sites, such as Facebook, Myspace andTwitter, presents newopportunities for enabling large-scale and prevalent viral marketing online. Consider the following hypothetical scenario as a motivating example. A small company develops an online application and wants to market it through an online social network. It has a limited budget such that it can only select a small number of initial users in the network to use it by giving them gifts or payments. The company wishes that these initial users would love the application and start influencing their friends on the social network to use it, and their friends would influence their friends' friends and so on, and thus through the word-of-mouth effect a large population in the social network would adopt the application. The problem is whom to select as the initial users

so that they eventually influence the largest number of people in the network. Influence maximization is the problem of finding a small set of seed nodes in a social network that maximizes the spread of influence under certain influence cascade models. The scalability of influence maximization is a key factor for enabling prevalent viral marketing in large-scale online social networks. Prior solutions, such as the greedy algorithm and its improvements are slow and not scalable, while other heuristic algorithms do not provide consistently good performance on influence spreads. In this article, we design a new heuristic algorithm that is easily scalable to millions of nodes and edges in our experiments. Our algorithm has a simple tunable parameter for users to control the balance between the running time and the influence spread of the algorithm. Our results from extensive simulations on several real-world and synthetic networks demonstrate that our algorithm is currently the best scalable solution to the influence maximization problem: (a) our algorithm scales beyond million-sized graphs where the greedy algorithm becomes infeasible, and (b) in all size ranges, our algorithm performs consistently well in influence spread-it is always among the best algorithms, and in most cases it significantly outperforms all other scalable heuristics to as much as 100–260% increase in influence spread.

# III. PROPOSED ARCHITECTURE WITH MODULE EXPLANATIONS:



# **MODULES DESCRIPTION:**

#### Framework construction

A social networking service also social networking site, SNS or social media is an online platform that people use to build <u>social networks</u> or <u>social relations</u> with other people who share similar personal or career interests, activities, backgrounds or real-life connections. The variety and evolving range of stand-alone and built-in social networking services in the online space introduces a challenge of definition.

Social network refers to interaction among people in which they create, share, and exchange information and ideas in virtual communities and networks. Design the GUI which is the type of user interface that allows users to interact with users through graphical icons and visual indicators. In this module we can create the interface for admin and user. User can login to the system and view the friend request. The user can share the images to friends.

#### **Otp Security**

In this module, user authentication can be checked using OTP security. A one-time password (OTP) is an automatically generated numeric or alphanumeric string of characters that authenticates the user for a single transaction or session. An OTP is more secure than a static password, especially a user-created password, which is typically weak. OTPs may replace authentication login information or may be used in addition to it, to add another layer of security. OTP tokens are usually pocket-size fobs with a small screen that displays a number. The number changes every 30 or 60 seconds, depending on how the token is configured. For two-factor

<u>authentication</u>, the user enters his user ID, PIN and the OTP to access the system. After users provide user name and password, automatically admin generate the OTP and send to their mobile number. The OTP verification can be done and forward to next modules.

## **Read comments**

Social media is becoming an integral part of life online as social websites and applications proliferate. Most traditional online media include social components, such as comment fields for users. In business, social media is used to market products, promote brands, and connect to current customers and foster new business. In this module, we can comment in online social network. Comment in the form of text. The text may be uni-gram, bi-gram and multi grams. This module is used to get the input from social *users*. Comments may be various forms such as links or texts or short texts. Comments are read and send to server page.

#### Classification

In this module, we design an automated system, called Filtered Wall (FW), able to filter unwanted messages from OSN user walls. The architecture in support of OSN services is a three-tier structure. The first layer commonly aims to provide the basic OSN functionalities i.e., profile and relationship management. Additionally, some OSNs provide an additional layer allowing the support of external Social Network Applications (SNA). Finally, the supported SNA may require an additional layer for their needed graphical user interfaces (GUIs). The major efforts in building a robust short text classifier (STC) are concentrated in the extraction and selection of a set of characterizing and discriminant features. In order to specify and enforce these constraints, we make use of the text classification. From STC 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.

## **Rules Implementation**

The filtering rules should allow users to state constraints on message creators. Thus, creators on which a filtering rule applies should be selected on the basis of several different criteria; one of the most relevant is by imposing conditions on user profile's attributes. In such a way it is, for instance, possible to define rules applying only to young creators, to creators with a given religious/ political view, or to creators that we believe are not expert in a given field e.g. by posing constraints on the work attribute of user profile. This means filtering rules identifying messages according to constraints on their contents. And block the users who are post the negative comments more than five times and also send mobile intimation to users at the time offline.

## ALERT SYSTEM

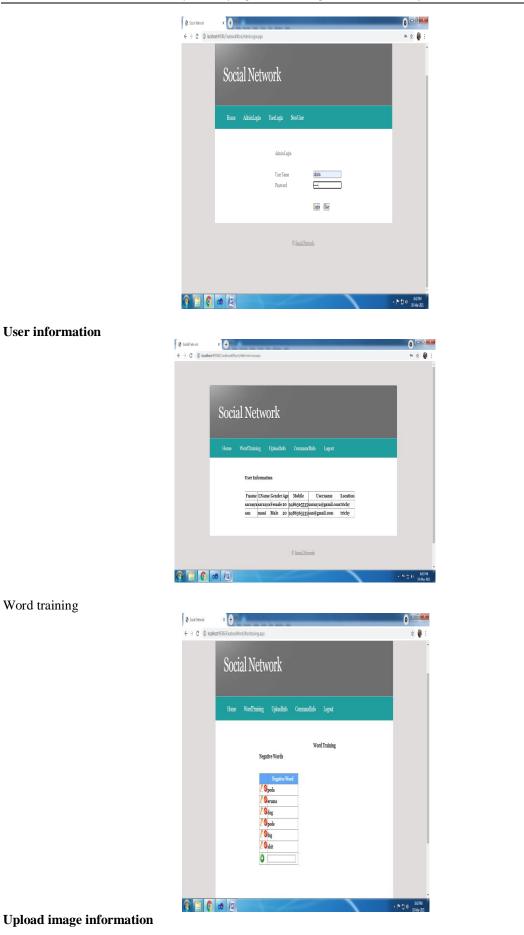
BL'S are directly managed by the system, which should be able to determine who the users are inserted in the BL and decide when the user retention in the BL is finished. To improve flexibility, this information is in the system by a set of rules; the rules on BL. Rules are generated by server for setting threshold values. Based on threshold values, we can block friends who are providing negative comments. Finally provide mobile intimation to users

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## Home page

#### Admin login

# **IV. EXPERIMENTAL RESULTS:**



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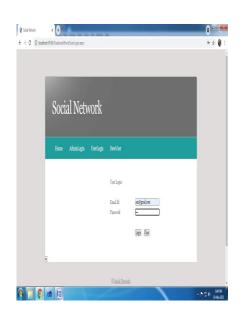
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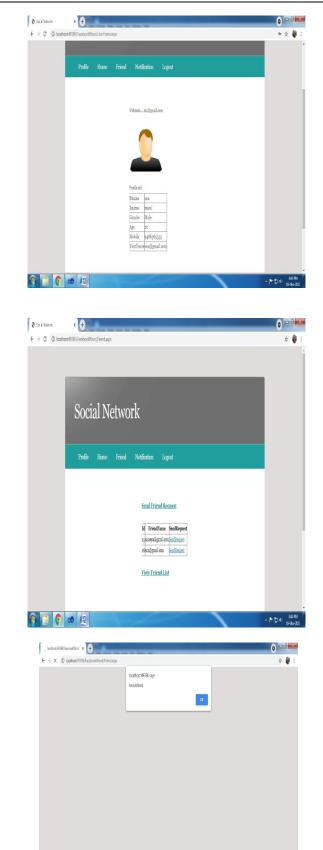
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# **Command information**

New user login



# profile



# **Friend request**

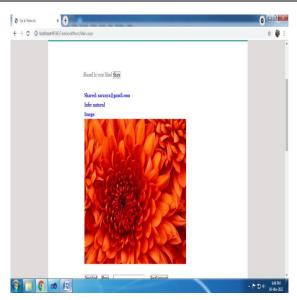
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# V. CONCLUSION:

In this project, we have presented a system to filter undesired messages from OSN walls. The system exploits a ML soft classifier to enforce customizable content dependent FRS. The major efforts in building a robust short text classifier are concentrated in the extraction and selection of a set of characterizing and discriminant features. Moreover, the flexibility of the system in terms of filtering options is enhanced through the management of BLs. This work is the first step of a wider project. The early encouraging results we have obtained on the classification procedure prompt us to continue with other work that will aim to improve the quality of classification. In this system uses the ML soft classifier to remove the unwanted messages. BL is used

to enhance the flexibility of system for filtering. We will be design the system which will more sophisticated approach to decide when a user should be inserted into the BL. Besides classification facilities, the system provides a powerful rule layer exploiting a flexible language to specify Filtering Rules (FRs), by which users can state what contents should not be displayed on their walls. FRs can support a variety of different filtering criteria that can be combined and customized according to the user needs. More precisely, FRs exploit user profiles, user relationships as well as the output of the ML categorization process to state the filtering criteria to be enforced. In addition, the system provides the support for user-defined BlackLists (BLs), that is, lists of users that are temporarily prevented to post any kind of messages on a user wall.

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