



# Recognize Unfriendly Face book Approach in Online Social Network

Yadla Anusha<sup>#1</sup>, S. Jalaiah<sup>\*2</sup>

<sup>#</sup> M. Tech student in CSE, Dr. Samuel George Institute of Engineering & Technology, Darimadugu, Markapuram, Andhrapradesh, India

<sup>\*</sup> Assistant Professor, Dept. of CSE

Dr. Samuel George Institute of Engineering & Technology, Darimadugu, Markapuram, Andhrapradesh, India

**Abstract:** In today number of apps is increasing every day to compare the past few years. The owners also resort and fraudulent models to increase the ranking of the apps in the popularity list. There is limited understanding in the locations though the prevention of fraud has been widely is finding .With daily installs and use of third party apps is important reasons for the popularity and addictiveness of facebook. We developed Firefox users to the number of installed applications on their Facebook profiles. We present the temporal analysis of the Facebook applications' installation and removal dataset collected user requirements. Online social networks (OSNs) one of the new vectors for cybercrime, and hackers is finding new ways. We present MyPageKeeper, a Facebook application is developed to protect Facebook users. We present results from the perspective of over 12K users who have installed MyPageKeeper and their roughly 2.4 million friends. Our purpose is creating a Facebook application and our goal is to develop a FRAppE Facebook's Rigorous Application Evaluator which will help in detecting malicious applications on Facebook. Online Social Networks (OSN) takes third party apps to modify the user experience on the platforms. Such modifications are interesting communicating number of online friends and different models such as playing games. We take example facebook provides to developers an API that facilities app integration into Facebook user experience. Recently hackers are started taking advantage of the recognition of this third-party apps platform and deploying malicious applications. Malicious apps will give a profitable business for hackers given the recognition of OSNs. It is safe and secure information will not be added in our wall. Thus the Offensive words and posts are blocked with the help of dictionary using filters and it is not publicly posted to user wall.

**Index Terms:** Profiling Apps, Online Social Networks, - Measurement, Security, Verification, Facebook, evidence aggregation, ranking fraud, secret key.

## I. INTRODUCTION

One of the most popular applications which comes with its own advantages and disadvantages is

Facebook. Such enhancement consist of interesting and enjoyable ways of communicating among online friends and it also include interesting games and listening to music .Now a days we can see that there are 500k apps are available on Facebook ,within that 40M apps [2] are installed everyday by the Facebook users. In addition many apps get acquired and maintain a sizable user Currently, Facebooklications (Facebooks) to boost the person experience with most of these programs. Such enhancements consist of interesting or even enjoyable waysassociated with communicating among online good friends, in addition to different things to do like since getting referrals or even enjoying tunes. One example is, Myspace supplies developers the API [3] in which facilitates software integration in to the Myspace user-experience. In [4], the fraud detection system for mobile apps has been studied and it is provided a holistic view. The three types of evidences namely the ranking, rating and the review were analysed and aggregated to discover the fraud measures. The leading sessions and the leading events of the app were studied using the mining leading sessions algorithm. But, this model failed to explain the relationship between the three evidences and it also failed to provide a secure means of downloading and using the app. In [5], it proposed Facebook's Rigorous Application Evaluator (FRAppE). It failed to recommend to the website the hackers. Online social networks (OSN) enable third party apps to enhance the user experience on the platforms. Such enhancement includes interesting or entertaining ways of communicating among online friends and different activities such as playing games or listening songs. If we take example, facebook provides developers an API that facilities app integration into Facebook user-experience. Recently, hackers have started taking advantage of the recognition of this third-party apps platform and deploying malicious applications. Malicious apps will give a profitable business for hackers, given the recognition of OSNs, with Facebook leading the method with 900M active users. In our previous study [6], we presented preliminary statistics on this dataset. We analyzed this dataset and discovered that users who used the SPP add-on for application removal, removed more

than 50% of all their installed applications one day after its installation. These results indicate that in many cases the installed applications are unwanted or unneeded applications. In this study, we perform a temporal analysis of the installed application data that was collected for a longer period of time red than in our previous study. We discovered that within the first week after the add-on's initial use, the user's number of applications decreased by 12.1% on average. the application removal rate continued to grow up to 27.7% by an average of 63 days after the initial use. According to the results presented in this study, we can conclude that using our add-on made many users become more aware of the existence of unnecessary applications on their Facebook profiles. In contrast, our socware classifier relies solely on the social context associated with each post (e.g., the number of walls and news feeds in which posts with the same embedded URL are observed, and the similarity of text descriptions across these posts). Note that this approach means that we do not even resolve shortened URLs (e.g., using services like bit.ly) into the full URLs that they represent. This approach maximizes the rate at which we can classify posts, thus reducing the cost of resources required to support a given population of users.

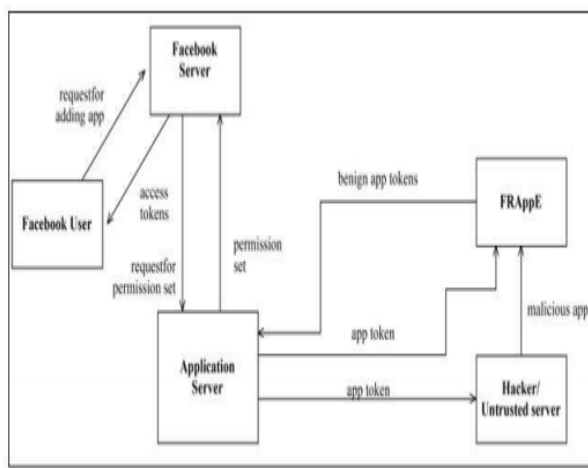


Fig 1 MySpace Supplies Developers Model

## II. RELATED WORK

Detecting and characterizing social spam campaigns. Gao. [7] analyzed posts on the walls of 3.5 million Facebook users and showed that 10% of links posted on Facebook walls are spam. They also presented techniques to identify compromised accounts and spam campaigns. Towards online spam filtering in social networks Rahman. [8] develop efficient techniques for online spam filtering on Social networking applications such as Facebook, Twitter, and Instagram. In other work, Towards online spam

filtering in social networks. Gao [8] and Efficient and Scalable Socware Detection in Online Social Networks. Rahman [9] develop efficient techniques for online spam filtering on Online Social Networking sites such as Facebook Detection is the most standard way to deal with security and privacy problems. There are many works on this topic and many different ways to detect malware. a Facebook application that protects Facebook users from socware. MyPageKeeper is based on a Support Vector Machine (SVM) classifier that uses a main feature specific keyword occurrence in a post made by an application. MyPageKeeper was able to identify socware posts and alert the user with 97% accuracy, but was unable to detect malicious applications. Websense Defensio [10] is a Facebook application from Websense that monitors posts in a user's profile and determines whether they are legitimate, spam, or malicious. Defensio also uses SVM to detect malicious posts and in addition they could delete them. Abu-Nimeh et al. [10] used Defensio as a platform to study malicious links. They found that about 9% of the studied posts were spam or malicious. In 2012, Rahman,. [11] improved his previously mentioned work. Rahman, et al. developed the FRAppE: A tool that can identify malicious applications by using the application information as features. Some examples include the number of permissions required, the domain reputation of redirect URI, and others. FRAppE can detect malicious applications with 99.5% accuracy and a low false negative rate 4.1%. Popular websites area unit under fire all the time from phishes, fraudsters, and spammers the aim to steal user data and expose users to unwanted spam. The attackers have Brobdingnagian resources at their disposal. They're well-funded, with full-time practiced labor, control over compromised and infected accounts, and access to global bonnets. Protective our users may be a difficult adversarial learning drawback with extreme scale and cargo needs. Over the past many years we've engineered and deployed a coherent, scalable, and protrusive real-time system to shield our users and the social graph.

## III. PROPOSED SOLUTION

These problems are overcomes in the proposed system. In the proposed system using the FRAppE tool, we detect and block the malicious applications in the Face book. When user is trying to post the offensive words or posts to the user's Face book wall, those words or posts are detected using the dictionary and it gets filtered. When we found any installation of the malicious app, user wall gives a warning notification that the app found is malicious, whether

to install it or not. Offensive words or posts which are not related are detected and blocked using the FRAppE tool. These words or posts will not display in the public wall. Instead of that such post will be migrated to the blocked post list. User can view those things secretly and also a warning mail is send to the user. It is safe and secure. Unnecessary information will not be added in our wall. FRAppE, a tool stands for Face book's Rigorous Application Evaluator which is helpful in monitoring the entire system. In Authentication and Authorization module, the user will register the data and login into the pages to view their profile to see all the contacts, the user will do all the works here

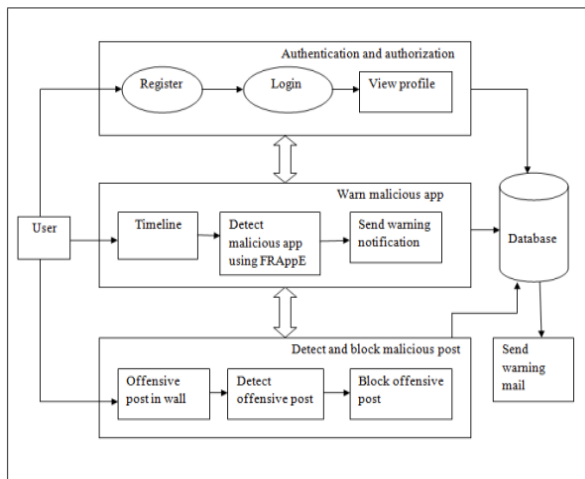


Fig 2 System Architecture for Proposed System

### A. Detecting Spam on OSNs

We analyzed posts on the walls of million Social networking app users and showed that 10% of links posted on Social networking app walls are spam. They also presented techniques to identify compromised accounts and spam campaigns. In other work, we develop efficient techniques for online spam filtering on OSNs such as Social networking app. While rely on having the whole social graph as input, and so, is usable only by the OSN provider, develop a third-party application for spam detection on Social networking app. Others present mechanisms for detection of spam URLs on Social networking app. In contrast to all of these efforts, rather than classifying individual URLs or posts as spam, we focus on identifying malicious applications that are the main source of spam on Social networking app.

## IV. MYPAGEKEEPER

We provide some details on MyPageKeeper's implementation.

### A. Facebook application

First, we implement the MyPageKeeper Facebook application using FBML [12]. We implement our application server using Apache (web server), Django (web framework), and Postgres (database). Once a user installs the MyPageKeeper app in her profile, Facebook generates a secret access token and forwards the token to our application server, which we then save in a database. This token is used by the crawler to crawl the walls and news feeds of subscribed users using the Facebook open-graph API

### B. Crawler instances and frequency

We run a set of crawlers in Amazon EC2 instances to periodically crawl the walls and news feeds of MyPageKeeper's users. The set of users are partitioned across the crawlers. In our current instantiation, we run one crawler process for every 1,000 users. Thus, as more users subscribe to MyPageKeeper, we can easily scale the task of crawling their walls and news feeds by instantiating more EC2 instances for the task. Our Python-based crawlers use the opengraph API, incorporating users' secret access tokens, to crawl posts from Facebook. Once the data is received in JSON format, the crawlers parse the data and save it in a local Postgres database.

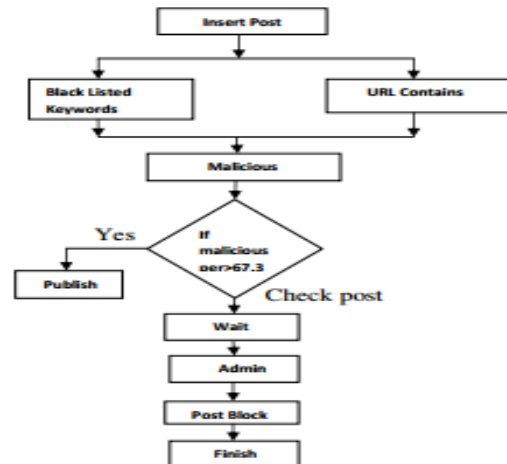


Fig 3: Proposed Methodology

### C. Checker instances

Checker modules are used to classify every post as socware or benign. Every two hours, the central scheduler forks an appropriate number of checker modules determined by the number of new URLs crawled since the last round of checking. Thus, the identification of socware is also scalable since each checker module runs on a subset of the pool of URLs. Each checker evaluates the URLs it receives as input—using a combination of whitelists, blacklists, and a classifier— and saves the results in a database

## V. SOCIAL MALWARE ECOSYSTEM

We discover the harmful apps , after that we check the several ways how the social malware support each other. From our observation we find the interesting thing that malicious apps do not operate in segregation they share the same name and their work must collaboratively in encouraging each other

- The emergent’s of AppNets We observed that more than 6,330 malicious apps in our dataset that emerge in collaborative promotion. In that 2.5% are promoters,58.8% are promotes, and the remaining 16.2%play both roles.

- Piggybacking The app piggybacking is a approach in which hackers are using this. The facebook’s API and there post are harmful post by using popular apps. There are several ways that hackers are benefited by this. The hackers make the user to share the harmful post by offering rewards. They crawl the API from Facebook by hacking the users account; they again post the harmful app in the user’s wall. By the app in the request to post the harmful post. The Facebook could not recognize this because the app ID is already included in the appID.

### 5.1. Session Tracking Algorithm

This session tracking concept [13] is used in the proposed system to identify the users that are trying to misuse the particular App. There are three typical solutions to this problem: cookies, URL rewriting, and hidden form fields. You can use cookies to store an ID for a downloading session; with each subsequent connection, you can look up the current session ID and then use that ID to extract information about that session from a lookup table on the server machine. URL rewriting is a moderately good solution for session tracking and even has the advantage that it works when browsers don’t support cookies or when the user has disabled them. The users that are using the App and downloading it are provided with a session each and they are continuously been tracked by the admin with the help of a session tracking algorithm. A cookie is assigned to each user as a session starts and it is been tracked as the user is continuously using the App. When a number of users are using the system by downloading and uploading the Apps, even when a particular user is found to be misusing the Apps among all other users, he is blocked with the help of a session tracking algorithm and all the user details are sent to the Admin immediately and the user is blocked from accessing the apps. The user is notified of the block and is permitted to access other apps. The number of times or the hits a particular user is using the App is being recorded with which the overall misusing of the App is calculated.

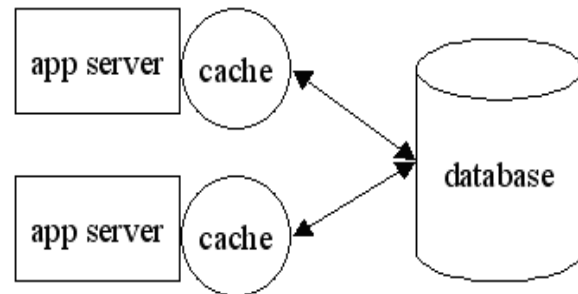


Fig4. Session Tracking Flow

## VI. EXPECTED RESULTS

The study presented in this paper is a work in progress with many available future directions. By gathering additional information about what kind of applications users tend to restrict, we can develop an algorithm for application removal recommendations. Moreover, when the same applications are restricted by many users, we can conclude with high likelihood that these applications are fake applications and recommend to Facebook and our users to remove these applications from the social network and their accounts.

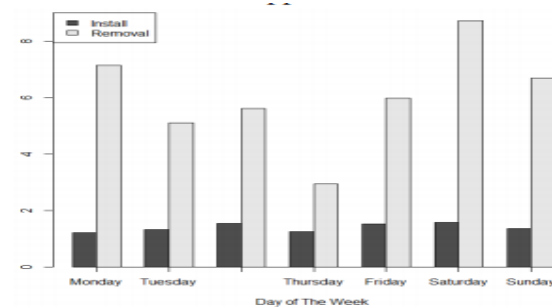


Fig. 5: Average application install and removal per day of the week

Another possible future direction is discovering the point in time when the Add-on Users’ application numbers start increasing again, and at that point, to give the user a special warning regarding his or her number of applications.

1. FacebookNets form large and densely connected groups
2. Posting direct links to other Facebooks
3. Indirect Facebook promotion.
4. Facebooks with the same name often are part of the same FacebookNet.
5. Amazon hosts a third of these indirection websites.
6. Robustness of features.
7. Recommendations to Facebook.
8. Detecting spam accounts.
9. Facebook permission exploitation.
10. Facebook rating efforts.

## VII. CONCLUSIONS

In this study, we presented our initial methods and results in studying online social network applications with an aim of improving users safety and awareness. According to our results, it is possible to predict the number of applications a casual user has with high accuracy. we presented the design and implementation of MyPageKeeper a Facebook application that can accurately and efficiently identify socware at scale. Using data from over 12K Facebook users, we found that the reach of socware is widespread and that a significant fraction of socware is hosted on Facebook itself. Applications present a convenient means for hackers to spread malicious content on Social networks. However, little is understood about the characteristics of malicious apps and how they operate. And finally we explore the ecosystem of malicious Facebook apps and identify mechanism that these apps use to propagate. We will continue to investigate on hackers platform dig deep into their ecosystem to reduce the malicious app on Facebook.

### VIII. FUTURE ENHANCEMENT

We undergone the concept is all about posting and detecting applications on the Wall and the project has been designed keeping in mind the future scopes. A lot of tools can be used to shape many things in the future, thus this project will give rise to many future modifications focusing in all the directions. The near future scope of this project is to block the images with offensive form of text and messages from the user wall Leveraging our observations, we developed FRAppE, an accurate classifier for detecting malicious Face-book applications. Most interestingly, we highlighted the emergence of AppNets large groups of tightly connected applications that promote each other. The application which are malicious their review, ranking and reporting will be done.

### 9. REFERENCES

- [1] C. Pring, "100 social media statistics for 2012," 2012
- [2] Facebook, Palo Alto, CA, USA, —Facebook Opengraph API, | [Online]. Available: <http://developers.facebook.com/docs/reference/api/>
- [3]. K. Lee, J. Caverlee, and S. Webb. Uncovering social spammers: social honeypots + machine learning. In SIGIR, 2010
- [4]. Z Hengshu, X Hui, et al. Discovery of ranking fraud for mobile apps. IEEE Transactions on knowledge and data engineering, 2014.
- [5] . Rahman, S Huang, HV.Faloutsos. Detecting malicious Facebook applications. IEEE transactions on networking volume, 2015.
- [6] M. Fire, D. Kagan, A. Elyashar, and Y. Elovici. Friend or foe? fake profile identification in online

social networks. arXiv preprint arXiv:1303.3751, 2013.

- [7] H. Gao, C. Wilson, Z. Li, Y. Chen, and B. Y. Zhao, "Detecting and characterizing social spam campaigns," In IMC, 2010.
- [8] J. Ma, L. K. Saul, S. Savage, and G. M. Volker, "Beyond blacklists: learning to detect malicious web sites from suspicious urls," In KDD, 2009.
- [9] H. Gao, Y. Chen, K. Lee, D. Palsetia, and A. Choudhary, "Towards online spam filtering in social networks," In NDSS, 2012.
- [10] S. Abu-Nimeh, T. Chen, and O. Alzubi. Malicious and spam posts in online social networks. Computer, 44(9):23–28, 2011.
- [11] M. S. Rahman, T.-K. Huang, H. V. Madhyastha, and M. Faloutsos. Efficient and scalable socware detection in online social networks. In Proceedings of the 21st USENIX conference on Security symposium, Security'12, pages 32–32, Berkeley, CA, USA, 2012. USENIX Association
- [12] FBML- Facebook Markup Language, <https://developers.facebook.com/docs/reference/fbml/>
- [13] H Zhu.H.xiong, et al. Ranking fraud detection for mobile Apps: A holistic view," in Proc. 22nd ACM Int. Conf. Inform. Knowl. Manage. 2013; 619-628

Yadla Anusha received B. Tech in CSE from Buchepalli Venkayamma Subba Reddy Engineering College, Chimakurthy, Prakasam dist. AP, JNTU Kakinada. Presently she is pursuing M. Tech in CSE from Dr. Samuel George Institute of Engineering & Technology, Markapur, Prakasam Dist. Andhrapradesh, India. Here research interested areas are cloud computing, Networking and image processing.



S. Jalaiah received B. Tech (CSE) Degree from JNT University, Hyderabad in 2008 and M. Tech (CSE) Degree from JNTUK Kakinada in 2011. He has 6 years of teaching experience. He joined as Assistant Professor in Dr. Samuel George Institute of Engineering & Technology, Markapur, Prakasam dist, AP. Presently he is working as Assistant Professor in CSE department. He published international journal on Robustly Detecting and Eliminating the Conflicts in Firewall Policies. He attended Various National and International Workshops and Conferences on Computer networks.