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DISCOVERY OF RANKING FRAUD FOR MOBILE APPS

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ABSTRACT:

Basically ranking apps in mobile apps is nothing but a deceptive activity which bumps up the apps in a popularity list. App developers frequently used this one to commit ranking fraud. So ranking plays major role to recognize the importance of understanding. To overcome all these problems a new system is proposed in this paper that is ranking fraud detection system. It is mainly used in mobile apps to detect the fraud ranking. Here to survey the active periods in detection system we propose to locate the ranking fraud accurately in mobile apps. Here app ranking is detected in local way instead of ranking in global way. Here we explore the proof in three ways they are 1. Ranking based evidences, 2. Rating based evidences and 3. Review based evidences. All these proofs are designe5in apps fro the purpose of ranking, rating and statistical hypothesis test. Now to integrate all these proofs we proposed an optimization which depends on the aggregate method in fraud detection system. At last we can conclude that the proposed system is evaluated with real world app. Where this apps collect the data from ios app store for long time periods. This proposed system is more effective than the existed system and in ranking fraud activities it shows the scalability with detection algorithm.

I.INTRODUCTION

In this present generation the ranking of mobile apps has increased a lot compared to past. Recently in April 2013 more than 1.6 million apps are introduced by Apples app store and Google play store. To pretend the increment of mobile apps, app leader board is launched by app stores. If the rank of the leader board is high then it indicates that there is huge number of downloads and million dollars of revenue. The app developers use many ways to have their apps ranked like advertising the campaign to promote their apps. Coming to the recent generation, they use the shady app developers. These shady app developers boost the apps by using fraudulent process. From this it produce chart ranking on app store. Now all these are implemented on the bottom farms to amplify the app downloads, ratings and revenues. Generally ranking frauds are obtained in mobile app industry and apple store has warned that who commit ranking fraud in Apples App Store. In mobile apps there are web ranking spam detection, online review spam detection and mobile app recommendations. All these detection systems are explored by ranking fraud in system. To overcome this some challenges are provided by the system. Coming to the first challenge, it detects the time when fraud happen. This type of challenge is detected locally instead of detecting globally in mobile apps. Coming to the second challenge, here if there is large number of mobile apps then it become difficult to rank the fraud for each app. So an automatically detected ranking system is used. The third challenge is to identify and confirm the proofs which are linked to ranking fraud. In leaderboard, the mobile apps are not always ranked high. But the leading events happened in different form that is leading

sessions. The main intent of this ranking fraud detection system is to detect ranking fraud in leading sessions of mobile apps. To identify this leading session an effective algorithm is proposed in each App. Here each app depends upon the historical ranking records. From the analysis of ranking we use to find the fraudulent apps which having different ranking patterns with leading sessions as compared to the normal apps.

The fraudulent app will develop three functions and extract the ranking from fraud evidences. All these are get affected by the App developer's. Here exacting of Apps is not so effective to detect the system but also we need two another ways to fraud ranking they are rating and ranking in historical way. Now all these are integrated by an unsupervised evidence aggregation method. The detection system integrates in three ways of evidences which is shown in below figure (1).

From figure (1) we can observe that all the evidence's are extracted by designing of apps by ranking, rating and review behavior. Other domain evidences are also used in fraud detection system. Atlas we can conclude that the proposed system is with real world app. In this the data is collected from the apples app store for long period results which is more than 2 years. From the experimental results we can say that a detection algorithm is used in proposed system fro scalability.
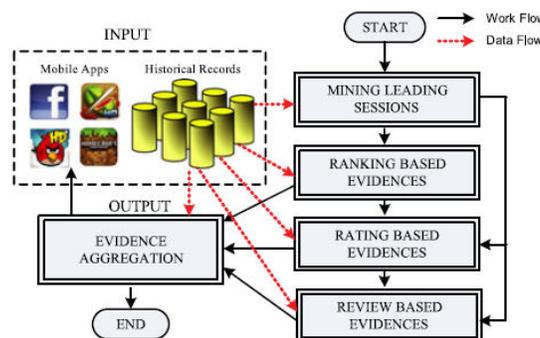
FIG. 1. THE FRAMEWORK OF OUR RANKING FRAUD DETECTION SYSTEM FOR MOBILE APPS

II. EXISTED SYSTEM

Basically existed system involves three categories mainly. Let us discuss each category in detailed manner. Here the first category tells about the web ranking spam detection. The main intent of web ranking is to select the web pages. For example Ntoulas et . al have studied the aspects of spam detection on the web and presented the number of heuristic approach to detect the content based spam. The spam detection system is different from ranking fraud detection in mobile apps. Coming to the second category, it mainly focused on detecting online reviews. Fro example Limetal has identified various behaviour of review spammer and to detect this spammer the behaviour is designed. Next third category is used to develop a mobile app which is recommended by the system. For example yen and chin developed a mobile app which is depending on user's app usage records. But it is not so efficient; to get efficient detection process a system is proposed which is discussed in below section.

III. PROPOSED SYSTEM

As studied earlier that existed system works under three categories which are explained in above section. Here the existed system does not provide perfect security for information and ranking detection. A new system is proposed that is ranking fraud detection system. Here in proposed system the information is downloaded and used as bot farms. Thee main intent of bot farms is to amplify the app downloads and rating in very short time. But here the download information is not available very easily and quickly in each mobile app. In the same way the both Apple and Google play stores will not provide accurate download information from any app. Here the app developers will not release the original information to download. In this paper we are going to focus mainly on extracting the evidences from apps which depends on historical ranking, rating and review records.

Now by integrating the evidences we can get the scalability of fault ranking detection system from the app downloads. Next process is to detect the ranking fraud which is occurred in apps historical leading sessions. To detect the ranking fraud from apps we should know the current ranking observation. We can detect this fraud ranking detection process is two cases. One is if ra now>k_. Here k is ranking threshold and it is not a leading event. Second case is ra now <k_. Here a is a new leading event. So by using proposed approach we can detect the real time ranking frauds.

We use three modules in the proposed fraud ranking detection system. They are leading sessions, leading events and identifying the

leading sessions for mobile apps. Here first leading events are used for the purpose of efficient ranking leadings sessions are used and then it is identified.

FIG. 2. RESULT

IV. CONCLUSION

Here we prop5an ranking fraud detection system for mobile apps security. As studied earlier 5ranking fraud is happened first in leading sessions and later they provided a method for amplifying leading sessions from historical ranking record. Basically they are three evidences which are used in proposed approach. They are identified ranking based evidence, rating bases evidence and review based evidence. The main purpose of these evidences is to detect the ranking frauds. Now in proposed system an aggregation method is optimized to integrate all the evidence's. All these get evaluated in leading sessions of mobile apps. Evidences which are integrated are designed by using historical ranking fraud. At last from the proposed system we can say that it is widely used in real world app which collects 'the data from Apple app store.

Compared to existed system this proposed system gives effective way of detection.

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