Abstract

The Sybil attack is one where an user creates multiple Duplicate or fake identities to compromise the running of the system. Online social networks(OSN) suffers from the creation of fake accounts that introduce fake product reviews, malware and spam, existing defenses focus on using the social graph structure to isolate fakes. This paper presents VoteTrust- a salable defense system that further leverages user level activities. VoteTrust models the friend invitation interactions among users as a directed, signed graph, and it uses a Sybil detection algorithm to find Sybil users, who have more chances of rejecting friend request than normal users. Facebook operates a leading real-name social networking internet platform, which enables users to connect and communicate with each other, share information, and to enjoy a wide range of other features and services. Through evaluating Facebook social network, it can be shown that VoteTrust will able to prevent Sybil users from generating many unsolicited friend requests.

References
1. Why social media is important.
7. Daniel Nations. n.d. "what is social media? what are social media sites?".
13. Zhi Yang, Christo Wilson, Xiao Wang, Tingting Gao, Ben Y Zhao, and Yafei Dai. Uncovering social network sybils in the wild. ACM Transactions on Knowledge Discovery from Data (TKDD), 8(1):2, 2014.

Index Terms

Computer Science

Networks
Keywords

Online social networks(OSN), Security, Sybil attack, Sybil detection, Unsolicited friend requests