Reliable Decision Making of Accepting Friend Request on Online Social Networks

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ABSTRACT

Online social network (OSN) is a platform, where users are able to share information among them easily and instantly. The sensitive information of an user can be misused by his/her friends or friends of friends due to the lack of reliable friend request acceptance (FRA), which is one of the key issues in OSNs. The existing FRA techniques are functioning based on either blind (i.e., without knowing information of a user, who sends the friend request to become a new friend, referred to as friend-to-be) or manual search method. Although, in the second method, the OSN user accepts a new friend based on his/her profile, however, it is not guaranteed that the profile is not fake. A approach is to bring down the misused information by filtering FRA using a reliable method to find out more information about the friend-to-be. This paper has proposed such a method for reliable decision making (RDM) of accepting friend request on OSNs in order to identify the attributes of a friend-to-be. RDM is a function with several parameters, such as security, flexibility, effectiveness, and satisfaction. To prove the reliability of the proposed method, an extensive quantitative study was carried out, which results indicated user's preferences for proposed method compared with the existing FRA methods.

KEYWORDS: Friend request acceptance; online social networks (OSNs); reliable decision making