Abstract

Trust is becoming a very important part of social network from the security point of view. In the proposed system, a framework is introduced for handling trust in social networks, which is based on reputation mechanism. The reputation mechanism captures the implicit and explicit connections between the network members, analyses the semantics and dynamics of these connections, and provides personalized user recommendations to another network members. Based on the trust semantics, the system will provide the positive recommendations i.e. list of trustworthy users and the negative recommendations i.e. list of untrustworthy users. Along with this, the proposed system provides one more interesting mode i.e. public profile matching that preserves privacy on social networks. This profile matching contributes in reputation ratings required for suggestions of friend list. The main focus is on providing negative recommendations. In order to compute the reputation of each member, we adopt several other properties of trust such as, transitivity, personalization, and context, and draw ideas from sociology axioms. Trust is not perfectly transitive in social networks, in that trust decays along the transition path, but it is generally agreed that it can be communicated between people. Along with trust generation percentile of profile matching is also considered for personal recommendation.
Privacy Preserving Profile Matching System for Trust-Aware Personalized User Recommendations in Social Networks

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Ming Li, Member, IEEE, Shucheng Yu, Member, IEEE, Ning Cao, Senior Member, IEEE, and Wenjing Lou, Senior Member, IEEE. "Privacy-Preserving Distributed Profile Matching in Proximity-based Mobile Social Networks" IEEE Trans. Wireless Communications Vol. 12 No. 5 pp. 2024–2033 Year 2013


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For System Dataset -http://www.trustlet.org/wiki/Extended_Epinions_dataset


Index Terms

Computer Science

Networks

Keywords

Social Networks; Reputation; Personalisation; Trust; Recommendation; Profile Matching.