Abstract

The objective of online social networking sites is to make it possible to connect people who share common interests and pursuits across different geographical locations. With this, the concept of trust also comes into perspective as the participants reveal a great quantity of personal information in the Web environment. This work adopts web-based Social Networks as the principle means for studying trust. Goal of this work is to find ways to utilize the structure of social graph and the trust relationships between them to accurately deduce how much two individuals that are not directly connected might trust one another. This paper presents an algorithm for inferring trust propagation between indirectly connected individuals in the network by the use of weighted trust ratings along the shortest and the most trusted path. The accuracy of this algorithm in predicting propagated trust is calculated and compared with that of simple average strategy and the multiplicative strategy algorithm [17]. This algorithm is tested with five real-world trust datasets and tried to discover that there exists a significant strong positive correlation between direct trusts and the corresponding propagated trusts obtained through this approach.
References

1. http://Advogato.org

Index Terms

Computer Science  Algorithms
Keywords

Social network, local trust, global trust, propagation, trusted path, trustworthy.