

An Effective Model for Indirect Trust Computation in Pervasive Computing Environment

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Abstract The performance of indirect trust computation models (based on recommendations) can be easily compromised due to the subjective and social-based prejudice of the provided recommendations. Eradicating the influence of such recommendation remains an important and challenging issue in indirect trust computation models. An effective model for indirect trust computation is proposed which is capable of identifying dishonest recommendations. Dishonest recommendations are identified by using deviation based detecting technique. The concept of measuring the credibility of recommendation (rather than credibility of recommender) using fuzzy inference engine is also proposed to determine the influence of each honest recommendation. The proposed model has been compared with other existing evolutionary recommendation models in this field, and it is shown that the model is more accurate in measuring the trustworthiness of unknown entity.

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