M.Sc.-Thesis: PageRank and Trust Models

Telecooperation Lab

TECHNISCHE UNIVERSITÄT DARMSTADT

Motivation

PageRank is the core engine of Google search.

On one hand, computational trust and reputation models are very important elements for decisions. On the other hand, PageRank is a very important algorithm to rank the relevance of relations.

The comparison between the two strategies helps the development of new models and clarify the advantage and disadvantage of each model.

Goals

PageRank is an algorithm widely used in many applications for Internet and has been applied to trust models.
The goal of this thesis is to conduct in-depth comparison between PageRank and existing trust models, identifying security and privacy issues in such algorithms and models.

Type

Analysis	■■■■■
Empiricism	■■■□□
Implementation	■■□□□
Literature Research	■■■■□

Abstract

Currently, different trust models are now being considered in the academy.

Some of them develop a complete model, when others used famous algorithms in their foundations. PageRank is one of the most famous algorithm to measure and to sort the relations.

Vision

Overview and classify different computational trust and reputation models and compare them with PageRank are necessary to understand the limitations of the current models and improve them.

This work will make a fundamental contribution to computational trust models pointing out their benefits and drawbacks.

Fábio Borges / Sheikh M. Habib | Telekooperation | Raum: S2|02 A 121 | Tel: (6151)16 - 2259| {fabio.borges, sheikh.habib}@cased.de

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