Special issue: Trust management

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This special issue includes two high quality papers on the recent advances in trust management. These papers are extended versions of selected papers accepted at the 11th IFIP WG 11.11 International Conference on Trust Management, held in Gothenburg, Sweden, on June 12–16, 2017.

Trust management has found increasing relevance given the current context of uncertainty in the quality of software downloads, the unreliability of online product recommendations, and biased reporting. Trust and reputation, based on past transactions and behavior, can provide very significant insight and help addressing these challenges. The papers included in this volume further illustrate the relevance and usefulness of the notion of trust in a wide variety of application domains, namely software management and recommender systems.

Primeiro and Bender present an original application of trust in the context of software management. More specifically, they focus on the use of negative trust (as a signifier of incompatibility) to handle the removal of software packages, which is a challenging task as it can lead to broken installations. To achieve their goal, they provide an extensive formal model, illustrated with a running example, and which they further support using the Coq theorem prover.

Richthammer et al. provide an extensive and systematic survey of reputation-enhanced recommender systems. They show in particular that there are many different ways in which reputation and recommendation scores can be combined, and they highlight the fact that there is much left to be done, especially in terms of comparing the various existing approaches to one another.

The guest editors wish to thank all reviewers for their effort in helping improve the manuscripts.