ACM Transactions on Internet Technology

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Deadlines

Submissions: August 1, 2016
First decisions: October 15, 2016
Revisions: December 1, 2016
Final decisions: February 1, 2017
Final manuscripts: March 1, 2017
Publication date: August 1, 2017

Submission

To submit a paper, please follow the instructions on:
http://toit.acm.org/submission.html

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Across many domains, there is a need to trace how data has been created, manipulated and disseminated. This has led to strong recent interest in technology for modelling and reasoning about provenance. Access to provenance information underlies our ability to interpret and to judge the reliability of data, whether on the web, in databases, or within and between applications.

Despite much recent progress in research and standardisation, it is still uncommon for people or software to have access to the provenance of online data. The formal requirements for provenance, including issues such as correctness, completeness, and security of provenance, are not yet fully understood. The question of what is semantically useful provenance and how to capture it is still open, as are benchmarks that could be used to measure the performance of proposed systems. Moreover, as the patterns of use on the internet change, with greater prevalence of crowdsourcing of information and services, virtualisation of applications in clouds, location-aware streaming, and so on, both the technological and social requirements on provenance are shifting.

This special issue will focus on ideas to meet these challenges. Specifically, we seek original and high quality submissions related to, but not limited to, the following topics. Substantially extended versions of appropriate workshop or conference papers are very welcome.

Access to online data provenance	Provenance of streamed data
Provenance interoperability	Scalability issues in provenance
Distributed provenance queries	Provenance of cloud-based data
Provenance middleware	Provenance on social media
Provenance of communication	Provenance of online search
Methods, extensions of W3C PROV	Crowdsourcing provenance

Privacy-aware provenance	Provenance-informed trust
Provenance and online databases	Provenance-aware services
Provenance in health informatics	Reasoning over provenance
Provenance and Internet of Things	Uncertainty and provenance
Compliance through provenance	Provenance in social computing
Personalization of provenance	