

Editor's Notes

It is with my pleasure to present you the September issue. This issue starts with the Chair message from the SIGMOD Chair – Prof. Dr. Tamer Ozsu, and follows by the contributions from eight regular columns: Articles, Distinguished Database Profiles, Influential Papers, Surveys, System Prototypes, Standards, Book Reviews, and Workshop Reports.

The *Articles* section contains six articles. The first article contributed by Arvind Arasu and Jennifer Widom, describing a denotational semantics for continuous queries over streams and relations. The second article by Alan Fekete, Elizabeth O'Neil, and Patrick O'Neil, describes an observation via an example that a Snapshot Isolation history is non-serializable while the sub-history containing all update transactions is serializable. The third article contributed by Mazzoleni, Bertino, Ferrari, and Valtolina on a scalable system called CiVeDi, aiming at providing a flexible and customizable virtual environment for displaying multimedia contents. The fourth article by Dogac and her colleagues reports on how they deploy semantically enriched travel Web services through service registries and peer-to-peer technologies. The fifth paper presents an evaluation of XML indexes for structural join, including B+ tree, XB-tree, and XR-tree, by Hanyu Li and his colleagues. They conclude that while XB-tree outperforms the rest for highly recursive XML data, all three indexes yield comparable performances for non-recursive XML data. The last paper in the Articles section is on optimization of data stream processing, contributed by Getta and Vossough. They introduced a model of data stream processing and discussed several related optimization techniques and implementation considerations.

The *Distinguished DB Profiles* column, edited by Marianne Winslett, presents us an interesting interview with Phil Bernstein. Phil speaks out on trends at industrial research labs, the role of metadata management in commercial products, peculiarities of the tenure system, and the current problems with the database conferences, his ideas on how to fix them, and so on.

The *Surveys* column editor Jose Blakeley presents us with two very interesting survey articles. The first article contributed by Hernandez and Kambhampati surveys the area of biological and genomic sources, focusing on current integration systems, exemplified by SRS, BioKleisli, TAMBIS, and DiscoveryLink, and challenges ahead. They identify the pros and cons of the current integration approaches and discuss what an integration system for biologists ought to be. The second article surveys the deep web of searchable databases through measurements and analysis on their observations. The authors report their experiments on how large the deep web is, and how much of it is covered by the current directory services, how hidden the deep web is, how complex the search forms are, can and how search engines cover the deep web data.

The *Systems and Prototypes* column editor Jignesh Patel presents an article featuring an interesting class of applications in which stream sessions may contain sub-sessions. The article is contributed by Chatziantoniou and Anagnostopoulos. They discuss a simple session-based conceptual model and then describes an algorithm and potential optimizations for controlling how stream data flow down session hierarchies. Experimental results with the NESTREAM prototype implementation were presented to show the effectiveness of the proposed approach to querying nested streams.

The *Standard* column editors Andrew Eisenberg and Jim Melton present us with another interesting article on SQL/XML. They describe the evolution of SQL/XML into an international standard, and summarize the new features being added to the SQL/XML.

The *Book Reviews* editor Karl Aberer summarizes the 20 book reviews that have been published since 2001 and calls for book reviews for a list of books. The Book Reviews section also welcomes any unsolicited reviews from the community at large.

The *Reports* section contains three workshop reports. The first one reports the 9th ACM Symposium on Access Control Models and Technologies (SACMAT04), hosted by IBM T.J.Watson, co-located with the IEEE International Workshop on Policies for Distributed Systems and Networks (POLICY 2004). The issues discussed at the workshop range from the next generation access control models to security analysis, role administration, policy specification and implementation, and access control for distributed environments. The second article summarizes the workshop on Web Dynamics held at the World Wide Web 2004, focusing on issues related to new techniques for locating and retrieving information, which can better adapt and scale to changes and the continued growth of the Web. The third workshop report is on metadata management in Grid and Peer-to-Peer Systems, held in London on December 16, 2003. The goal of the workshop is to identify recent technological achievements and open issues regarding metadata management in novel applications demanding distributed P2P or Grid settings.

Finally, as the editor of this issue I would like to thank all contributing associate editors, and all authors for their excellent work and their contributions to this high quality issue. I hope you enjoy reading this issue as much as I am.

Ling Liu

Atlanta, August 2004