

Editor's Notes

Welcome to the September 2012 issue of the ACM SIGMOD Record!

The issue opens with the Database Principles column, where Karvounarakis and Green survey the recent literature on querying semiring-annotated data. Annotated data models have been proposed for various applications, including provenance, probabilistic and incomplete information. An earlier work (PODS 2007) by Karvounarakis, Green and Tannen had proposed the general framework of K -relations, which captures the querying of such annotated relations, where K is a commutative semiring. The present paper surveys the literature on querying semiring-annotated data and presents new development of the ideas, based on semiring of polynomials, applying in particular to provenance representations and to XQuery views over annotated, unordered XML.

The survey by Manica, Dorneles and Galante focuses on the support for the time dimension within Web search engines. Users may either issue search queries with explicit time constraints, or query data related to the “recent past” (what is the latest version of this information?) or forecast data (what are the predictions for tomorrow’s weather?) Successive generations of Web search engines have tackled the time dimension from different angles, from providing the freshest results first, to allowing the user to specify a time window for their results, and finally to extract and manipulate the temporal information comprised in Web pages. The authors end with a set of currently open problems and perspectives on further features, and more efficiency, that could be achieved when answering search queries with a temporal dimension.

Ryan Johnson is the recipient of the SIGMOD 2012 Doctoral Dissertation award (advised by Anastasia Ailamaki). In the Distinguished Database Profiles column, he talks about the importance of understanding experimental results, of the secrets and research avenues that lie hidden just behind an unexpected shape of a curve, and of the benefits of crossing out of one’s immediate thematic community to learn from others and possibly understand how their results affect our problems. One could moreover congratulate Ryan for a very relaxed, yet probably very wise, approach for his first job hunt; read the column to find out!

In the Research Centers column, Palpanas and Velegrakis describe their successful database group in Trento (dbTrento). The group is currently 17-strong, and is working on topics at the intersection of database and semantics: semantic-based keyword search, approximate query answering, entity resolution, schema and data mapping, benchmarking and updates within Information Integration systems. Importantly, this Trento group will host next year’s VLDB conference – an extra good reason to get to know more about the group through this issue’s column.

The Industrial Perspective column features an article by Kulkarni and Michels on the temporal features in the new SQL:2011 standard. The fundamental feature introduced in the language is the association of a period definition attached as metadata to tables. To correctly handle multiple temporal versions of an information item, information about the application-time period must also be included in declared primary keys. The paper further discusses referential integrity constraints and querying for tables with application-time periods and for system-versioned tables, and briefly compares the standard to previous temporal models. The mapping is not straightforward, thus this short paper is very welcome for those familiar with temporal databases concepts and seeking to use the new ISO standard.

Two event reports appear in this issue. First, Kissinger, Schlegel, Boehm, Habisch and Lehner provide insights into their winning solution of the ACM SIGMOD Programming Contest 2011. The challenge was to build a high-throughput in-memory index, durable on Flash-based storage. Their approach combined high-throughput for this order-preserving in-memory structure with an optimized logging mechanism to

support the hard durability requirements of the contest. I commend this short report for the very clear writing style, detailed at just the right level, rich with examples and a compelling motivation for the problem being targeted. Second, Mazón, Garrigós, Daniel and Castellanos report on the BEWEB (Business Intelligence and the Web) workshop held next to EDBT 2011. The workshop considered technical aspects of today's BI, including handling (highly) heterogeneous data, running BI analysis over Web data, and engineering Web-based BI applications.

The issue closes with the general call for contributions to the ACM SIGMOD 2013 conference, the more specific call for Research Papers submission to SIGMOD 2013, introducing a journal-style two-cycle review process, and the PODS 2013 call for papers. Check out the details and prepare for New York!

Changes to the editorial board The Record has continued the renewal of its editorial board. After several years of outstanding service editing our columns, four editors have stepped out, after passing over the tricks of the trade to new recruits replacing them:

- Magdalena Balazinska leaves the Systems and Prototypes column to Marco Brambilla, assistant professor at Politecnico di Milano, Italy.
- Ugur Cetintemel trusts Alkis Simitsis to handle the Research Centers column all by himself now, the trust is well placed given the impeccable job Alkis did on this issue's column!
- Brian Cooper has passed his skills for handling Event Report submissions to Anish Das Sarma.
- Cesar Galindo-Legaria has handed the Survey column responsibility to Nesime alone.

Last but not least, to help us process regular research articles, Yanif Ahmad, assistant professor at Johns Hopkins University in Baltimore, USA, also joined the editorial board.

Many thanks go to the three outgoing editors for their contributions to the Record, and best wishes for a long and satisfying tenure to the new editors!

Your contributions to the Record are welcome via the RECESS submission site (<http://db.cs.pitt.edu/recess>). Prior to submitting, be sure to peruse the Editorial Policy on the SIGMOD Record's Web site (<http://www.sigmod.org/publications/sigmod-record/sigmod-record-editorial-policy>).

Ioana Manolescu
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