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LETTER FROM THE RESEARCH TRACK CO-CHAIR

It is my pleasure to present the 5th issue of the PVLDB Journal Volume 4 as part of the 37th International Conference on Very Large Data Bases (VLDB 2011) to take place in Seattle (WA) from Aug 29th to Sept 3rd. This issue comprises six excellent papers accepted within the ongoing review process with monthly deadlines and extremely challenging review cycles. This set of papers covers a wide range of database research topics, from Web Search Improvement to Transaction Processing on GPUs.

In more detail, the contribution "Human-Assisted Graph Search: It's Okay to Ask Questions" by Aditya Parameswaran et al. addresses application domains such as debugging workflows, image segmentation and categorization, and interactive search and filter synthesis, and proposes a method to leverage human intelligence when searching for target nodes in directed acyclic graphs. Experiments demonstrate the superiority of their approach in the realms of webpage categorization on a real taxonomy. The second paper of this PVLDB issue, "Guided Data Repair" by Mohamed Yakout et al., presents a framework to incorporate user feedback into a data cleaning process in order to enhance and accelerate existing automatic repair techniques. Active learning techniques are applied to keep the user involvement as low as possible. The next paper, "Hyper-Local, Directions-Based Ranking of Places" by Petros Venetis et al., addresses the problem of determining the importance of points of interest, or places, in local-search results. The authors propose a framework that enables a range of aspects of directions queries to be exploited for the ranking of places, including the frequency of references to certain places in directions queries. An empirical study shows that the approach is feasible for real Web search engines.

The research paper "Incrementally Maintaining Classification using an RDBMS" by M. Levent Koc et al. discusses techniques to incremental maintenance for model-based classification views in the presence of updates. The authors present a new incremental view maintenance strategy and a hybrid index structure that they show to be more efficient than existing maintenance approaches on a variety of data by an order of magnitude. The next paper called "High-Throughput Transaction Executions on Graphics Processors", written by Bingsheng He et al., tackles the problem of running OLTP workloads on GPU environments. The paper proposes a grouping of different transactions and the concurrent execution of the bulk of transactions on the GPU. Comparisons with CPU-based setups show a 4-10 times higher throughput for the proposed architecture. Finally, the last paper of this issue, "Distributed Inference and Query Processing for RFID Tracking and Monitoring" by Zhao Cao et al., proposes an architecture to combine location and containment inference with stream query processing for a scalable and distributed RFID tracking and monitoring solution. The authors' contributions include novel inference techniques to provide accurate estimates of object locations and inter-object relationships as well as distributed inference and query processing techniques that minimize the computation state transferred across local databases.

In summary, we are proud to present this collection of top-notch research results within the PVLDB series. Thanks again to the authors and to all the reviewers for their hard work making this innovative process possible. I am looking forward to seeing you all in Seattle!

Wolfgang Lehner, Dresden University of Technology, Germany
VLDB 2011 Research Track Co–Chair