Einladung zum Gastvortrag – Invited Talk

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im Raum MT 226/1 (Mechatronik Gebäude, Science Park)
einen Gastvortrag zum Thema

Log-driven user-centric OLAP

Abstract:

Supporting exploration of large databases attracts lots of attention these days, with many approaches flourishing in the literature (e.g., query recommendation, query reuse, query personalization, to name a few). Exploratory OLAP (On-Line Analytical Processing) over data warehouses can be seen as an ideal use case, in the sense that it aims at supporting the navigation and analysis of the most interesting data using the best possible perspectives. However, while OLAP is now a mature, efficient technology, very little attention has been paid to the effectiveness of the analysis and the user-friendliness of a technology often considered tedious of use.

This work summarizes various contributions to developing user-centric OLAP, focusing on the use of former queries to enhance subsequent analyses. We first introduce a logical model to describe and manipulate queries and logs, including a language parametrized by binary relations over analytical sessions. In particular, these relations can be specialization relations or based on similarity measures tailored for OLAP queries and sessions. We then describe how logs can be mined for knowledge representing the user behavior. This knowledge includes simple preferences, navigational habits and discoveries made during former explorations. We show how it can be used in various query personalization or query recommendation approaches, that vary in terms of formulation effort, proactiveness, prescriptiveness and expressive power. We present Falseto (Former AnalyticaL Sessions for lEss Tedious Olap), a research prototype that embodies this work. Finally, we conclude by outlining the development of a benchmark for assessing user-centric OLAP explorations.
About the Author:

Patrick Marcel received his PhD from INSA Lyon in 1998 and his French Habilitation à Diriger les Recherches from UFRT in 2012. He is currently associate professor at the Computer Science Dept. of UFRT and a member of the LI laboratory of UFRT. His research interests include OLAP, data mining, query personalisation and recommendation in databases. He is the author of numerous publications in international conferences and journals on these subjects, including DKE, KAIS, IJDWM and DSS. He has served as PC member in conferences in the area, including DOLAP, DaWaK, Big Data Service, ER, VLDB, and chaired the national EDA conference on Data Warehouse and OLAP in 2007 and 2013. He is a member of the editorial board of Elsevier's DSS journal.