

Gathering Real OLAP Analysis Sessions: A Feedback

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Abstract. The use of OLAP sessions, conducted by professional analysts, seems to be the best way to assess the relevance of OLAP solutions based on former queries (in particular with user-centric approaches, like recommendation or personalization of queries). However, for scholar research teams, obtaining such logs is often difficult. Moreover, the complexity of the queries produced in these logs can lead to an important treatment of them, denaturing the performed analysis. In this paper, we propose a feedback from real OLAP sessions performed by graduate students in Business Intelligence. This feedback reports the design of questionnaires and the use of an original user interface to easily conduct real OLAP sessions.

1 Introduction

In the context of relational databases ((Chaudhuri et al., 2003), (Golfarelli, 2003), (Khoussainova et al., 2011), (Akbarnejad et al., 2010)) or multidimensional databases ((Aligon et al., 2011), (Aligon et al., 2013b)), the use of logs is essential for assessing the relevance of solutions based on former queries. It is obvious that real logs (and more generally real data) are most relevant to assess the user-centric approaches, like recommendation or personalization of queries. Unfortunately, it is often difficult for scholar research teams to obtain real logs from professional analysts, in particular by the fact they can contain sensitive data. Even when the case exists, the complexity of the queries can lead to an important treatment of them. Indeed, the user-centric approaches are generally based on more basic query definition than those implemented in the tools used by professional analysts. Consequently, the number of queries can be strongly reduced, or too simplified. Finally the analysis performed in these types of logs can be denatured.

In the context of multidimensional databases, we propose in this paper a feedback reporting the gathering of real logs, according to a pre-defined query model. Precisely, this feedback is based on tests conducted with graduate students in Business Intelligence. Indeed, it has been assumed in (Runeson, 2003) that graduate students could perform analysis sessions as good as professional analysts. In order to control the type of queries we have to generate, we propose a new user interface for designing OLAP sessions. Note that the aim of this paper is not to propose a benchmark of OLAP sessions, but is a first approach for this long-term perspective by describing a feedback from sessions designed by students.

The paper is organized as follows. A related work is given Section 2. Section 3 describes the database as the OLAP cube model used during the tests with the students. Section 4 refers