Personalization of OLAP queries

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Keynote Abstract

Personalizing e-services by allowing users to express preferences is becoming more and more common. When querying, expressing preferences is seen as a natural way to avoid empty results or information flooding as well as a solution reducing the user effort in carrying out complex searches.

This is particularly beneficial in the OLAP context, since multidimensional databases store huge amounts of data. Besides, OLAP queries have a complex structure: they do not only formulate selections and projections on attributes and measures, they also specify on what hierarchical attributes data are to be aggregated. Finally, during an OLAP session, the user often does not exactly know what she is looking for. The reasons behind a specific phenomenon or trend may be hidden, and finding those reasons by manually applying different combinations of OLAP operators may be very frustrating.

Though a lot of research has been carried out during the last few years on database preferences, the problem of developing a complete theory of preferences for multidimensional databases has been mostly neglected so far.

The presentation discusses how personalization can be applied to the OLAP context and proposes some practical examples.