

Where is Business Intelligence taking today's Database Systems?

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1. Introduction

The invention of technology made Business Intelligence (BI) possible over relational engines, but now the experiences of putting them into production has unearthed a new set of problems in need of further invention.

Over a period of few past years, academia has provided very performant and storage efficient technologies for fundamental BI objects: cubes (Dwarf, Quotient Cube), instigated research in stream technologies resulting in renewed interest in continuous and temporal queries, supplied further data mining and data exploration algorithms and research query optimizations for complex queries with variety of histograms.

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Database industry either incorporated into their SQL engines some of these algorithms (like data mining algorithms, OLAP engines), or tried to integrate better stand alone BI engines like OLAP, or provided their own unique solutions for BI (Spreadsheet in SQL, statistical and window functions in SQL, new join methods for data densification, etc.).

2. The Challenge

Applying these lessons has provided successful solutions to the BI user community over the years. In fact it was the innovation in BI technologies within the database offerings which made business community apply relational engines to their problems. This application provided valuable feedback on performance, functionality, manageability and integration of BI features in RDBMs. Consequently it gave a raise to new trends in BI technologies.

As a result, these new trends and issues are quickly emerging as they are being driven by the continued acceptance of the intranet for business infrastructures. Database core technology needs to adapt, as well as enhance its language bindings.

3. Discussion

This panel will discuss a few of these emerging issues and trends. The intent is not to overview individual products and or solutions, nor to provide a background on BI solutions. But, it is to point out select trends and issues, as well as old issues that are still very real. The panelists will also describe why these issues are important for the research community.

The initial questions posed to the panelists will be twofold. First, is where should the BI community go on extending the SQL Language bindings (such as for data mining, reporting, and data analysis), as well as associated DBMS implications to support new and existing BI extensions. And, Second, what does XML mean to BI, as well as associated DBMS implications.

