INTRODUCTION TO THE MINITRACK ON DATA WAREHOUSES AND INFORMATION DELIVERY SYSTEMS

Hugh J. Watson
Terry College of Business
University of Georgia
Athens, Georgia 30602
hwatson@uga.cc.uga.edu

Joseph G. Walls
Aeroquip Advanced Computer Technology
2323 Green Road
Ann Arbor, Michigan 43105
jwalls@tronova.com

The building of data warehouses (and data marts) is one of the biggest developments in the information systems field, with many organizations spending millions of dollars on their efforts. The primary purpose of a data warehouse is to make appropriate data available to end users, who, in turn, access and analyze the data in support of their decision-making needs. The scope of data warehousing activities is large, including extracting and cleaning data from source systems (e.g., legacy systems, spreadsheet data), storing the data (e.g., multidimensional and relational databases), accessing and analyzing the data (e.g., EIS, DSS, queries), and mining the data for hidden relationships. Building and operating a data warehouse involves a large number of technical and managerial considerations.

Although considerable time, effort, and money are being spent on data warehousing, little research has been conducted on the topic. This minitrack is intended to serve as a focal point for researchers who are interested in studying data warehousing.

Lily Sun and Roy Newton in "On-Line Configuration of Information Requirements for Executive Information Systems" present a method that allows EIS users to ask ad hoc questions with minimal constraints. The Decision/Information Configuration (DIC) method assists users by representing business concepts in a decision space. Each dimension in a decision space encapsulates required information. Based on this decision space, an information space can be configured, within which relevant information can be retrieved from EIS databases. The DIC method is currently being implemented in a software prototype which will be tested on case studies before it is added as a component to an existing EIS.

Vesper Owei in "Natural Language Query Filtration in the Conceptual Query Language" proposes a query system, called Conceptual Query Language/Natural Language (CQL/NL) that allows users to formulate database queries in a natural language. Based on the identified search predicates, CQL/NL uses a set of pre-defined natural language templates to compose a natural language explanation of the query. The explanatory statement is returned to the user for validation. CQL/NL also supports an automatic system generation of the SQL code for the query.

Data warehousing facilitates the creation of an extended data architecture for the purposes of increased access to, and spe[illegible]

Proceedings of The Thirtieth Annual Hawwaii International Conference on System Sciences ISBN 0-8186-7862-3/97 $17.00 © 1997 IEEE