Special Issue Call for Papers

Ranking in Databases

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In recent years, there has been a great deal of interest in developing effective techniques for ad-hoc search and retrieval in relational databases, document and multimedia databases, scientific information systems, and many other domains. In particular, a large number of emerging applications require exploratory querying on such databases. Examples include users wishing to search databases and catalogues of products such as homes, cars, cameras, restaurants, and photographs. To address the limitations of the traditional Boolean retrieval model in these emerging ad-hoc search and retrieval applications, Top-k queries and ranking query results are gaining increasing importance. In fact, in many of these applications, ranking is an integral part of the semantics, e.g., keyword search, similarity search in multimedia, as well as document databases. The increasing importance of ranking is directly derived from the explosion in the volume of data handled by current applications. The sheer amount of data makes it almost impossible to process queries in the traditional compute-then-sort approach. Hence, ranking comes as a great tool for soliciting user preferences and data exploration.

We encourage original contributions to this special issue in the following areas:

- Ranking relational data
- Rank-aware query processing and optimization
- New fundamental developments in top-k algorithms
- Cost-models for top-k algorithms and operators
- User preference specification and query languages
- Ranking in Web and XML databases
- Learning user preferences and ranking functions
- Ranking in distributed and peer-to-peer databases
- Ranking as a data exploration tool
- Ranking queries in data streams and continuous monitoring systems
- Applications of ranking and top-k retrieval from databases
- Ranking multimedia data
- Domain-specific ranking, e.g., in bibliographic, biological, clinical, and scientific data